BLUEPOINT WIND

## Application for:

# New Jersey Department of Environmental Protection Waterfront Development Individual Permit - In-Water Raritan Bay Geotechnical Survey Area

**Bluepoint Wind, LLC**

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# 1. Introduction

Bluepoint Wind, LLC (Bluepoint Wind) is submitting this permit application to the New Jersey Department of Environmental Protection (NJDEP), Division of Land Resource Protection (DLRP) for the authorization of a Waterfront Development (In-Water) Individual Permit (WFD IP). Bluepoint Wind is a partnership between Ocean Winds (OW), an international offshore wind energy company created by EDP Renewables and ENGIE (50:50), and New York-based Global Infrastructure Partners. Bluepoint Wind executed its lease agreement with the U.S. Bureau of Ocean Energy Management (BOEM) on May 1, 2022 for the offshore lease area OCS-A 0537 (Lease Area) in the New York Bight pursuant to 30 CFR Part 585. The Lease Area is located 53 nautical miles (nm) (107 kilometers [km]) off the coast of New Jersey. Bluepoint Wind intends to build a future state-of-the-art offshore wind power project within the Lease Area, including an offshore export cable and onshore facilities for conveying power to onshore points of interconnection. Bluepoint Wind is evaluating potential locations for offshore export cable route options in a Survey Area within the New Jersey waters of the Atlantic Ocean and the waters of the Raritan Bay, Sandy Hook Harbor, and Lower Bay near multiple municipalities (South Amboy, Sayreville, Old Bridge, Aberdeen, Keysport, Union Beach, Keansburg, and Middletown) in Middlesex and Monmouth Counties (see Figure 1 and 2 and Geotechnical Survey Plan [Appendix A]).

A maximum of fifty (50) geotechnical locations will be sampled within the Survey Area to determine the near-seafloor sediment conditions for export cable design, hazards avoidance, and to evaluate the potential for geo-archaeological resources. The collection of this data will support the safe design and installation of the potential export cable. Geotechnical Survey activities will be conducted in accordance with the BOEM Geotechnical Survey Plan (December 15, 2022) approved for the project. Additional federal regulatory requirements pertaining to the Bluepoint Wind project also apply as follows:

- BOEM Guidelines for Providing Geophysical, Geotechnical, and Geohazard Information Pursuant to 30 Code of Federal Regulations (CFR) Part 585 (BOEM 2020a) and the Guidelines for Providing Archaeological and Historic Property Information Pursuant to 30 CFR Part 585 (BOEM 2020b).

- BOEM Environmental Assessment - BOEM issued the Finding of No Significant Impact (FONSI) for the Commercial and Research Wind Lease and Grant Issuance and Site Assessment Activities on the Atlantic Outer Continental Shelf of the New York/ New Jersey (December 2021) (Appendix B). BOEM concluded that site characterization and site assessment activities occurring between the shore of New Jersey and New York to Wind Energy Areas (WEA) in the New York Bight would result in negligible to minor impacts. Under Section 307 of the Federal Coastal Zone Management Act, the NJDEP DLRP determined this is consistent with the New Jersey's Coastal Zone Management Rules, N.J.A.C. 7:7-1.1 et seq (October 18, 2021) (Appendix B).

- National Marine Fisheries Service (NMFS) Programmatic Consultation - NMFS issued a Letter of Concurrence (LOC) for programmatic consultation pursuant to Section 7 of the Endangered Species Act (ESA) site characterization (geophysical, geotechnical, and biological surveys) and site assessment/data collection activities associated with Atlantic OCS leases. (June 29, 2021). NMFS concluded that the activities assessed in the consultation will have no effect, or are not likely to adversely affect, any ESA-listed species, as project design criteria (PDCs) and best management practices (BMPs) effectively implement the requirements for the specified offshore wind activities. The project will also follow the PDCs and BMPs issued by BOEM on November 22, 2021 (NMFS and BOEM PDC/BMP documents are included in Appendix B).

The proposed geotechnical activities will be in waterfront development area below mean high water (MHW) within the jurisdictional waters of the State of New Jersey. These activities qualify for a Waterfront Development (In-Water) Individual Permit under the Coastal Zone Management (CZM) Rules at N.J.A.C. 7:7 as they are located within shellfish habitat as defined by N.J.A.C. 7:7-9.2 – Shellfish Habitat. The maximum disturbance anticipated from these activities will be 6.54 square feet (sq. ft.) (0.0002 acre). Bluepoint Wind's planned geotechnical survey activities were discussed in a meeting with NJDEP staff (Janet Stewart, Elizabeth Lange, and Lindsey Davis) and BPW (Esther Siskind, Sharon Farris, and Lauren Fletcher) on February 2, 2023. This application has been prepared in accordance with the NJDEP staff recommendations discussed during the meeting and subsequent communications regarding the WFD IP.

## 2. Project Description

Geotechnical survey activities will include the following activities:

- Mobilization of equipment and personnel on geotechnical vessel(s), or vessels of opportunity outfitted with geotechnical sampling and testing equipment
- Field operations from vessels suitable for shallow water operation (jack-up barges excluded)
    - Vibracoring of the seabed in a maximum of 50 locations within the Survey Area to acquire representative soil samples and deployment of seabed equipment to acquire in situ testing data
    - Field laboratory testing
    - Field processing of in-situ data
- Preservation and transportation of soil samples to onshore soils testing laboratories and to BPW's Qualified Marine Archaeologist (QMA)
- Interpretation and reporting of all field and laboratory data
- Demobilization

**Vessels**

Vessels to conduct the shallow geotechnical work will be of variable sizes with up to five meters draft capable of shallow water operation. Jack up barges will not be used for work in state waters. Vessels will be equipped with primary Differential Global Navigation Satellite System (DGNSS) for positioning with a second independent DGNSS as back-up. Equipment deployed to the seabed shall be positioned using a subsea USBL system.

**Methods and Equipment**

Geotechnical samples will be collected within the Survey Area via a combination of vibracores (VCs), in-situ Piezocone Penetration Tests (PCPTs) with possible Thermal Resistivity Test (TRT)/VCs. The intervals for sampling will be approximately 3,281 ft (1,000 m) within the Survey Area boundary which is located approximately 1,600 feet (0.49 km) from the shoreline. Geotechnical samples of a range from 3 inch (in) (75 [cm] centimeter) to 4 in (100 cm) diameter will be collected, at water depths greater than 6 m within state waters. Seabed penetration is specified at 20 ft (6 m), but this might be limited by soil type at some locations. Geotechnical sample locations and numbers may be altered slightly within the Survey Area based on the variability of environmental conditions identified during the survey but will not exceed 50 sample locations. A maximum of three coring attempts shall be made at each specified location to achieve either the minimum core recovery and / or acceptable core quality. BPW will ensure that vibracore operations are undertaken to efficiently perform the sampling at a location and avoid excessive vibratory coring times. Some samples will be vibracores while the others will be PCPT's. The determination will be made in-field based on the interpretation of geophysical data and assessment results from the QMA.

**Timing**

Geotechnical survey activities in state waters will start on or after July 1, 2023 and may take place at various times in 2023 and 2024; within the five-year authorization period of the WFD IP. The schedule is planned around time-of-year restrictions (TOYs) as follows:

- NJDEP TOY for anadromous fish from April 1st to June 30th
- United States Army Corps of Engineers TOY for diadromous fish migration, spawning activities and Essential Fish Habitat (EFH) from March 1st to June 30th.

Work will be completed in approximately 24 hour shifts daily and some variance is expected in schedule for weather or equipment-related delays.

# 3. Compliance Statement

Geotechnical activities will be conducted in accordance with the conditions of N.J.A.C. 7:7-27.2 Conditions that apply to all coastal permits and the Coastal Zone Management Rules applicable to these activities. This section provides the compliance statement demonstrating that the proposed geotechnical survey activities will be conducted in accordance with the applicable Subchapter 9 Special Areas requirements (N.J.A.C. 7:7-9.0). Other Coastal Zone Management Rules are referenced if applicable to the resource and activity.

## 3.1 Special Areas (N.J.A.C. 7:7-9)

***7:7-9.2 Shellfish Habitat***

Shellfish habitat – Based on review of NJDEP shellfish distribution maps and shellfish lease locations (NJDEP Shellfish Maps 007, 008, 009, 010, 065, 066, 067, 068 and 069), the Geotechnical Survey Area is within waters potentially containing shellfish habitat for hard clams (*Mercenaria mercenaria*), soft clams (*Mya arenaria*), surf clam (*Spisula solidissima*), oysters (*Crassostrea virginica*), and blue mussels (*Mytilus edulis*) (NJDEP 1963). The growing area shellfish classifications within the geotechnical survey area are restricted and prohibited for the shellfish growing areas NE1 (Raritan Bay and Sandy Hook Bay) and A0N (Monmouth Beach to Sandy Hook) (NJDEP Water Monitoring and Standards 2017). There are no direct markets of shellfish harvested from the restricted area as shellfish harvested from these waters must undergo depuration before they are marketable. Shellfish cannot be harvested from areas designated as prohibited due to need to protect public health in areas where wastewater outfalls are located (NJDEP Water Monitoring and Standards 2017). However, restricted and prohibited areas are considered important for recruitment of stock and are addressed here in accordance with N.J.A.C. 7:7-9.3 and the Marine Fish and Fisheries rule (N.J.A.C. 7:7-16.2).

The proposed geotechnical survey activities will not result in adverse impacts to the natural functioning or reproduction of shellfish habitat or stocks. The geotechnical samples being collected are small diameter samples (3 in {75 cm] to 4 in [100 cm]; a conservative estimate of the total maximum disturbance to the seabed is 6.54 square feet (0.0002 acre) for all samples combined within the geotechnical survey area. This amount of disturbance will not result in adverse impacts to shellfish habitat or stocks such as changes to water quality or existing bathymetric contours.

***7:7-9.3 Surf Clam Areas***

Based on review of NJDEP shellfish distribution maps and shellfish lease locations (NJDEP Shellfish Map 068 and 069), the Geotechnical Survey Area is within waters potentially containing surf clam habitat (NJDEP 1963). The growing area shellfish classifications within the geotechnical survey area are restricted and prohibited for the shellfish growing areas NE1 (Raritan Bay and Sandy Hook Bay) and A0N (Monmouth Beach to Sandy Hook) (NJDEP Water Monitoring and Standards 2017). There are no direct markets of shellfish harvested from the restricted area as shellfish harvested from these waters must undergo depuration before they are marketable. Shellfish cannot be harvested from areas designated as prohibited due to need to protect public health in areas where wastewater outfalls are located (NJDEP Water Monitoring and Standards 2017). However, restricted and prohibited areas are considered important for recruitment of stock and are addressed here in accordance with N.J.A.C. 7:7-9.3 and the Marine Fish and Fisheries rule (N.J.A.C. 7:7-16.2).

The proposed geotechnical survey activities will not result in adverse impacts to the natural functioning or reproduction of surf clam habitat or stocks. The geotechnical samples being collected are small diameter samples (3 in {75 cm] to 4 in [100 cm]; a conservative estimate of the total maximum disturbance to the seabed is 6.54 square feet (0.0002 acre) for all samples combined within the geotechnical survey area. This amount of disturbance will not result in adverse impacts to surf clam habitat or stocks such as changes to water quality or existing bathymetric contours.

***7:7-9.4 Prime Fishing Areas***

Prime fishing areas are present within the Geotechnical Survey Area (Appendix A, Geotechnical Survey Plan). However, the planned geotechnical activities occur in small areas and are temporary in nature. Bathymetric contours will not be changed.

***7:7-9.5 Finfish Migratory Pathways***
As the geotechnical survey activities are temporary and will be scheduled in accordance with NJDEP and USACE TOYs, they will not result in obstructions to fish passage, lowering dissolved oxygen levels, releasing toxic chemicals, raising ambient water temperature, impinging or suffocating fish, entrainment of fish eggs, larvae or juveniles, siltation, or raising turbidity levels during migration periods.

***7:7-9.6 Submerged vegetation habitat***
Submerged Aquatic Vegetation (SAV) habitat – Geotechnical samples will be located within the Atlantic Ocean, Raritan Bay, Sandy Hook Bay, and Lower Bay; well within the Geotechnical Survey Area boundary which is located approximately 1,600 ft. (0.49 m) from the shoreline. Based on review of NJDEP SAV maps (NJDEP SAV Maps 046 and 045), these locations are not within the inland waters containing SAV habitats mapped by NJDEP (NJDEP 1979).

***7:7-9.12 Submerged Infrastructure Routes***
Existing submarine cables are present within the Geotechnical Survey Area (Appendix A, Geotechnical Survey Permit Plan). The locations of existing and decommissioned submarine cables are mapped and geotechnical samples will not be collected in these locations. Therefore, hazards to submerged infrastructure are not anticipated.

***7:7-9.13 Shipwreck and Artificial Reef Habitats***
Artificial reef habitats are not located within the Geotechnical Survey Area. Shipwrecks are documented to occur within the Geotechnical Survey Area (Appendix A, Geotechnical Survey Permit Plan) and will be avoided if known from existing mapping or if identified based on geophysical survey campaign data collected prior to the start of the geotechnical survey.

***7:7-9.7 Navigation Channels***
Geotechnical activities have been designed to avoid navigation channels to the maximum extent practicable. There is potential for one or two sample locations to be situated within navigational channels. Samples will be collected as expeditiously as possible if located within navigational channels to minimize time spent in a stationary position. Local Notices to Mariners (LNM) will also be issued in the U.S. Coast Guard District to notify other mariners of Bluepoint Wind's geotechnical activities.

As permanent impacts to navigational channels are not anticipated and the proposed geotechnical activities are temporary activities of short-duration, potential impacts to navigability are not anticipated.

***7:7-9.34 Historic and Archaeological Resources***
Geophysical survey campaign data will be reviewed, and additional information acquired, if necessary, for site clearance pertaining to cultural/archaeological sites of interest before any bottom disturbing activities commence.

**7:7-9.36 Endangered or threatened wildlife or plant species habitats**
Endangered or threatened wildlife or plant species – A New Jersey Natural Heritage Program (NHP) data request was submitted to obtain a list of federal and state-listed threatened and endangered species potentially present in the vicinity of the Geotechnical Survey Area on April 20, 2023 (Appendix C). Review of NJ Landscape Project (Version 3.3) layers (New Jersey Division of Fish and Wildlife 2017) was also completed in the interim to obtain similar data as will be received from NHP. NHP's response to the data request will be provided to NJDEP upon receipt. A Threatened and Endangered Species Assessment Table is provided in Appendix C to summarize information concerning the potential for impacts to species identified by review of the NJ Landscape Project layers.

As per the findings of the NMFS LOC, geotechnical activities as assessed in the consultation will have no effect, or are not likely to adversely affect, any ESA-listed species, if PDCs and BMPs are implemented. BPW's geotechnical survey activities will be conducted in accordance with the PDCs and BMPs which include protections for North Atlantic right whale (*Eubalaena glacialis*), humpback whale (*Megaptera novaeangliae*), fin whale (*Balaenoptera physalus*), and Atlantic loggerhead sea turtle (*Caretta caretta*). Avian species documented by NHP and Landscape Project data within the Geotechnical Survey Area are primarily foraging occurrences of state-listed species. Roseate tern, federally and state-listed as endangered, is documented for foraging occurrence only. Potential impacts to foraging avian species are not anticipated due to the temporary nature of activities which will not restrict avian species foraging movements. Osprey (*Pandion haliaetus*), state-listed as threatened, are documented as having nest occurrences within the Geotechnical Survey Area. As the area is entirely within the open waters of the

Atlantic Ocean and connected open water bays, these nests are located in range lights and navigational structures in areas frequented by vessels. Potential impacts to foraging and nesting Ospreys are not anticipated due to the temporary nature of activities which will not obstruct foraging and nesting activities. Furthermore, the proposed activities are similar to the vessel-based activities already occurring, and as such, are activities that nesting Ospreys in the area would be habituated to through frequent exposure.

**7:7-9.48 Lands and waters subject to public trust rights**

The planned geotechnical survey activities are temporary in nature and will not result in more than minor inconvenience to other vessel traffic. Therefore, these activities are compliant with public trust rights including public access to use lands and waters for activities such as navigation, fishing, and recreational activities as described in N.J.A.C. 7:7-9.48 (Lands and Waters Subject to Public Trust Rights) and N.J.A.C. 7:7-16.9 (Public Access).

## 4. References


BOEM (2020a), "Guidelines for Providing Geophysical, Geotechnical, and Geohazard Information Pursuant to 30 CFR Part 585", 32p. Available at: https://www.boem.gov/G_G_Guidelines_Providing_Geophysical_Geotechnical_Geohazard_Information_Pursuant_to_30_CFR_Part_585/

BOEM (2020b), "*Guidelines for Providing Archaeological and Historic Property Information Pursuant to 30 CFR Part 585*", 23p. Available at: https://www.boem.gov/Guidelines_for_Providing_Archaeological_and_Historic_Property_Information_Pursuant_to_30CFR585/.

New Jersey Department of Environmental Protection (NJDEP) (1963). Shellfish Maps. Manasquan Inlet to Little Egg Harbor Map 002 available at: https://www.nj.gov/dep/landuse/shellfish.html

NJDEP (1979). Submerged Aquatic Vegetation Maps. Asbury Park Map 029 and Point Pleasant Map 045 available at: https://www.nj.gov/dep/landuse/sav.html

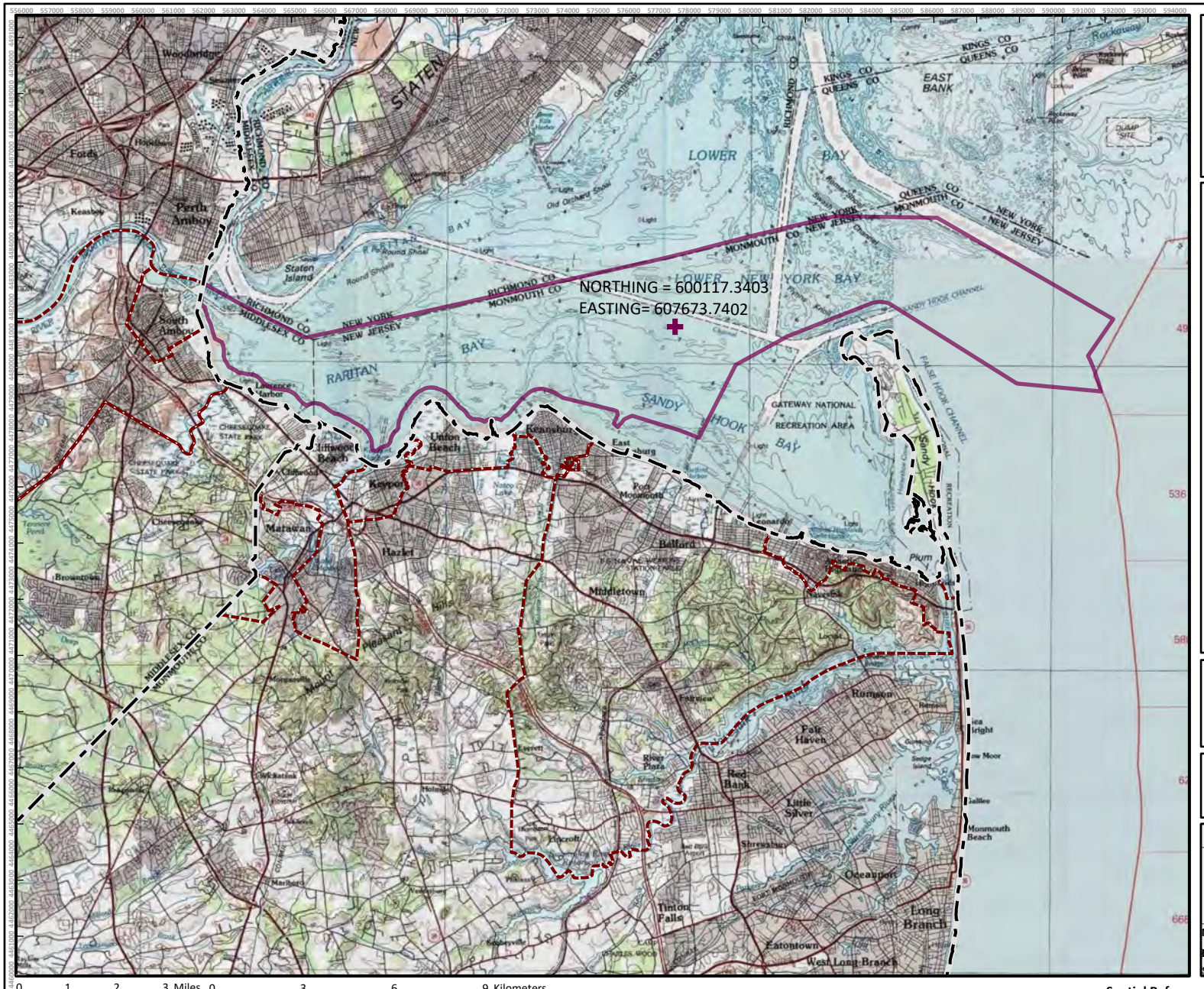
NJDEP. Water Monitoring and Standards. 2017. Reappraisal Report of Shellfish Growing Area NE1 (Raritan Bay – Sandy Hook Bay). Report prepared by Scott Chernoff.

New Jersey Division of Fish and Wildlife (2017). New Jersey Landscape Project, Version 3.3. New Jersey Department of Environmental Protection, Division of Fish and Wildlife, Endangered and Nongame Species Program. GIS layers available at: https://njdep.maps.arcgis.com/apps/webappviewer/index.html?id=02251e521d97454aabadfd8cf168e44d

## Figures

Figure 1 Site Location Map

Figure 2 County Road Map




# FIGURE 1 USGS SITE LOCATION MAP
# WATERFRONT DEVELOPMENT
# INDIVIDUAL PERMIT APPLICATION
# BLUEPOINT WIND, LLC

BLUEPOINT WIND

TETRA TECH

- Geotechnical Survey Area Centerpoint
- Geotechnical Survey Area
- NJ County Boundaries
- NJ Municipal Boundaries

***Data Sources:***
*USGS; ESRI USGS Topo Basemap*
*(USGS 24k Topo Quads - Coney Island, Keyport, Sandy Hook East, Sandy Hook West, South Amboy, The Narrows)*

**Prepared For:** Bluepoint Wind, LLC
**Prepared By:** Tetra Tech, Inc.
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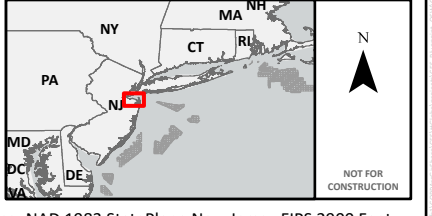


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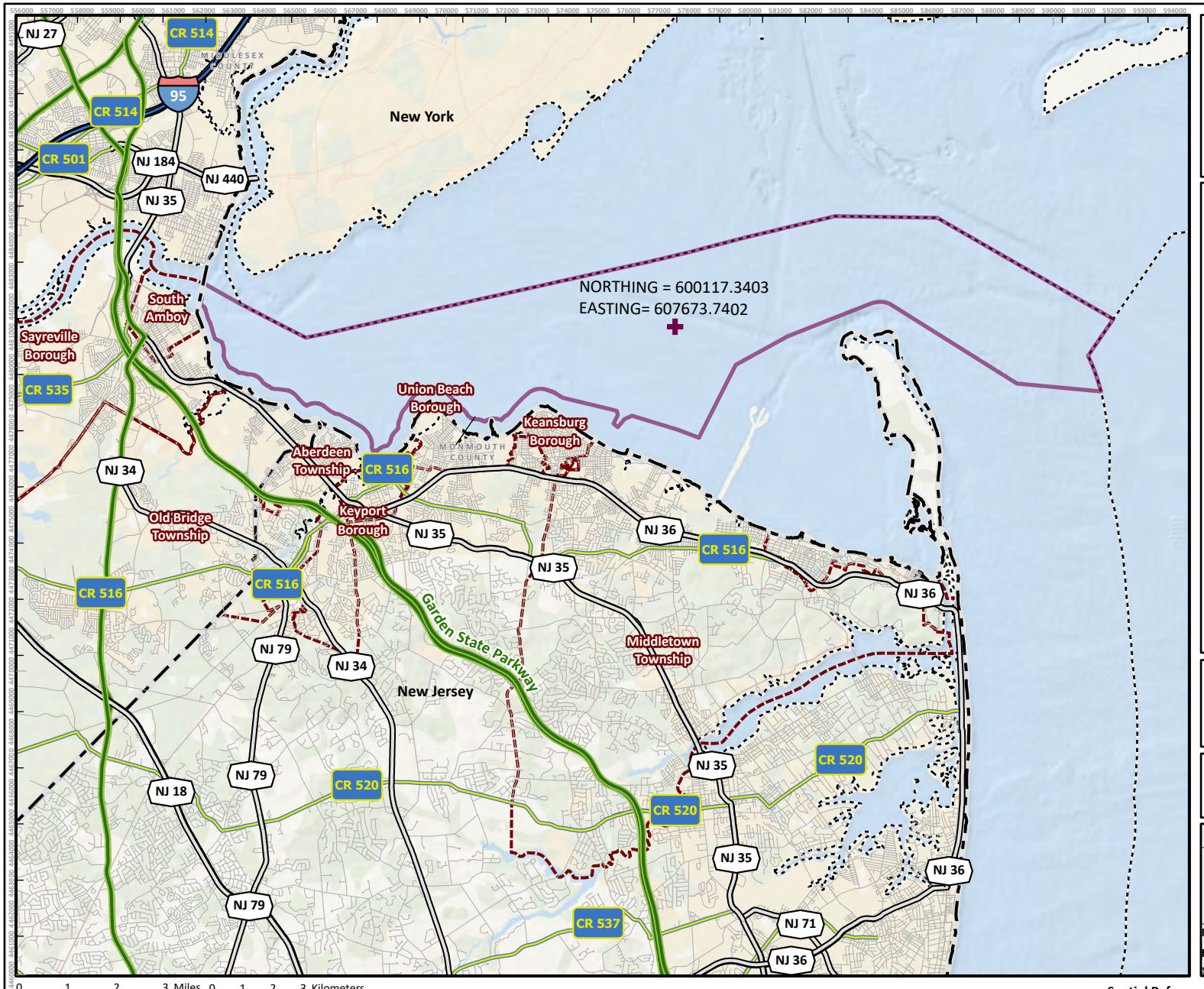
**Spatial Reference**: NAD 1983 StatePlane New Jersey FIPS 2900 Feet




# FIGURE 2 COUNTY ROAD MAP WATERFRONT DEVELOPMENT INDIVIDUAL PERMIT APPLICATION BLUEPOINT WIND, LLC

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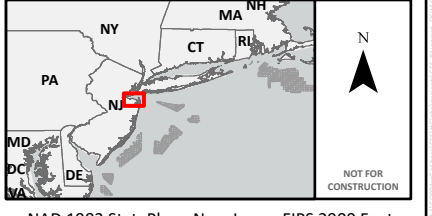
TETRA TECH

- Geotechnical Survey Area Centerpoint
- Interstate
- Parkway
- State Route
- County Road
- Local Road
- BOEM Submerged Lands Act Boundary
- Geotechnical Survey Area
- NJ County Boundary
- NJ Municipal Boundary

***Data Sources:***
*NJ Geoweb; BOEM; NJ DOT; USGS; ESRI Basemap*

**Prepared For:** Bluepoint Wind, LLC
**Prepared By:** Tetra Tech, Inc.
**Export Date:** 5/5/2023 6:05 PM




0 1 2 3 Miles 0 1 2 3 Kilometers

**Spatial Reference**: NAD 1983 StatePlane New Jersey FIPS 2900 Feet