Appendix N. Finding of Adverse Effect for the Ocean Wind 1 Construction and Operations Plan

BOEM has made a Finding of Adverse Effect under Section 106 of the NHPA pursuant to 36 CFR 800.5 for the Ocean Wind 1 Project. BOEM finds that the undertaking would 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 Project would introduce visual and add cumulative effects from WTG visibility to 17 historic properties where ocean views are character-defining features that contribute to their NRHP eligibility. Thirteen of the 16 identified ancient submerged landforms within the Lease Area (Targets 21–26, 28–31, 33–35) cannot be avoided and would be affected by the Proposed Action, as WTGs, inter-array cables, export cables, and associated work zones are proposed for locations within the defined areas of these resources. As a result, the Project is considered to have the potential to have adverse effects on these marine cultural resources, which are historic properties potentially eligible for listing in the NRHP. For compliance with NHPA Section 110(f) at 36 CFR 800.10, which applies specifically to NHL properties, BOEM has identified two NHLs in the visual APE and determined they will both be visually adversely affected by the undertaking.

The Project would avoid the defined spatial extent of 3 of the 16 identified ancient submerged landforms (Targets 20, 27, and 32), which includes a buffer area. The Project would not encroach on the 50-meter buffer for any of the 19 potential submerged archaeological resources in the Wind Farm Area (Targets 01–03, 06–08, 10–11, and 16–19), BL England Export Cable Route Corridor (Targets 12–14) or Oyster Creek Export Cable Route Corridor (Targets 04, 05, 09, and 15).

BOEM elected to use the NEPA substitution process for Section 106 purposes, as described in 36 CFR 800.8(c), during its review. The regulations at 36 CFR 800.8(c) provide for use of the NEPA substitution process to fulfill a federal agency's NHPA Section 106 review obligations in lieu of the procedures set forth in 36 CFR 800.3 through 800.6. The NEPA substitution process is described at http://www.achp.gov/integrating_nepa_106. Both processes allow participation of consulting parties. Consistent with use of the NEPA substitution process to fulfill Section 106 requirements, BOEM has decided to codify the resolution of adverse effects through a Memorandum of Agreement pursuant to 36 CFR 800.8(c)(4)(i)(B). See Attachment A.

N.1. Project Overview

On August 15, 2019, BOEM received a COP from Ocean Wind 1 proposing an offshore wind energy project within Lease Area OCS-A 0498 offshore New Jersey. In addition, Ocean Wind submitted updates to the COP on March 13, 2020, September 24, 2020, March 24, 2021, November 16, 2021/December 10, 2021, October 14, 2022, and April 24, 2023. In its COP, Ocean Wind is proposing the construction, operation, and eventual decommissioning of a minimum 1,100-MW wind energy project consisting of offshore WTGs and their foundations, OSS and their foundations, scour protection for foundations, inter-array cables linking the individual turbines to the OSS, substation interconnector cables linking the substations to each other, offshore export cables and an onshore export cable system, onshore substations, and connections to the existing electrical grid in New Jersey (see Figure N-1). At their nearest points, WTG and OSS components of the Project would be approximately 13 nm (15 statute miles) southeast of Atlantic City, New Jersey. Offshore Project elements would be on the OCS, with the exception of a portion of the offshore export cables within state waters. Ocean Wind is utilizing a PDE in its COP, which represents a reasonable range of design parameters that may be used for the Project. In reviewing the PDE, BOEM is analyzing the maximum-case scenario that could occur from any combination of the contemplated parameters. This includes alternatives that may require phased identification of historic properties (see Section N.5). BOEM's analysis and review of the PDE may result in the approval of a project that is constructed within that range or a subset of design parameters within the proposed range.

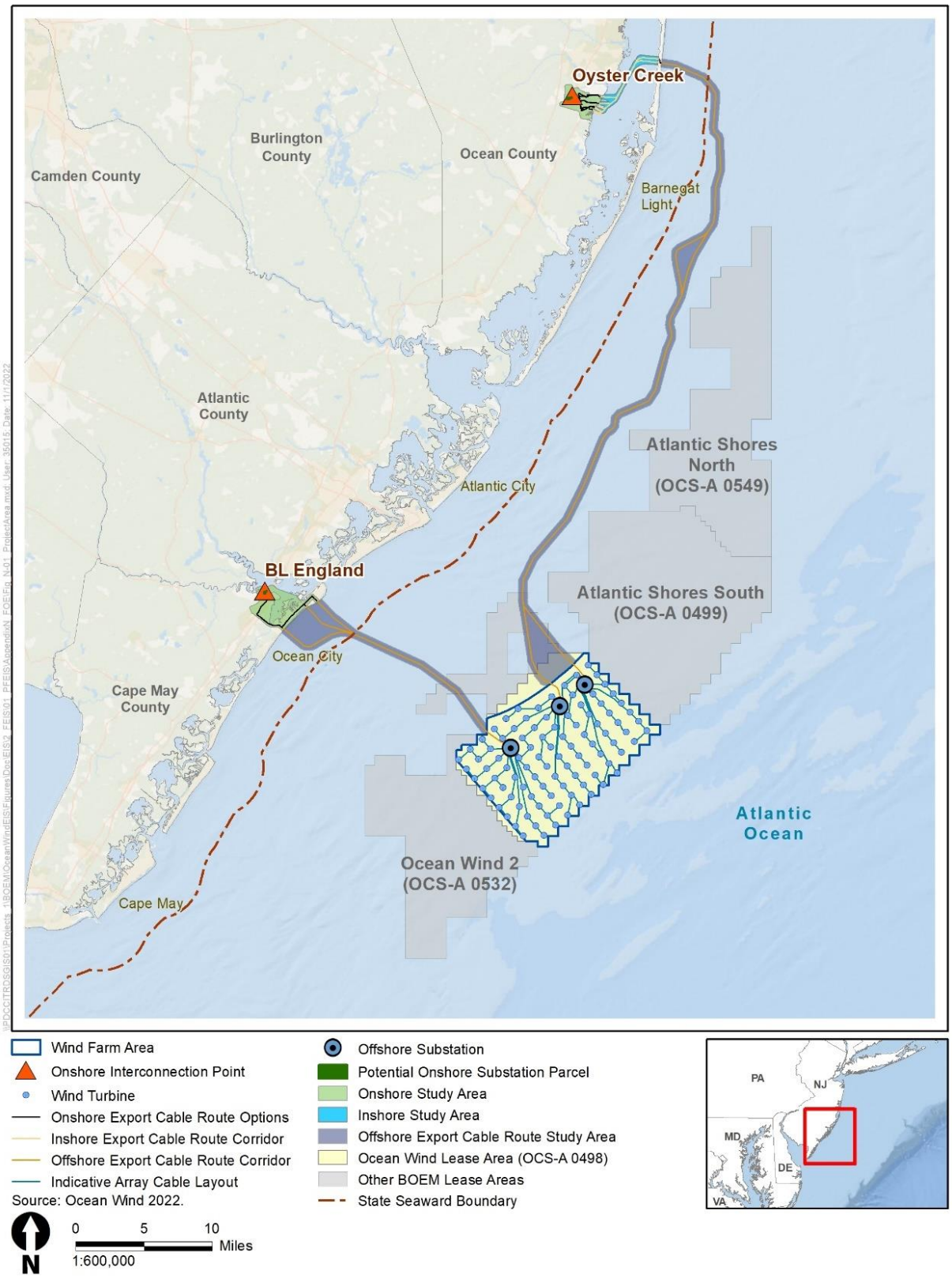

Figure N-1 Ocean Wind 1 COP Proposed Project Elements

If approved by BOEM and other agencies with authority to approve Project components outside BOEM's jurisdiction, Ocean Wind 1 would be allowed to construct and operate WTGs, export cables to shore, and associated facilities, including those outside BOEM's jurisdiction, for a specified term. BOEM is now conducting its environmental and technical reviews of the COP and, on June 24, 2022, published a Draft EIS under NEPA for its decision regarding approval of the plan (BOEM 2022). A detailed description of the proposed Project can be found in Chapter 2, Section 2.1.2, of the Final EIS. This Final EIS considers reasonably foreseeable impacts of the Project, including impacts on cultural resources, including historic properties.

N.1.1 Background

The Project is within a commercial lease area that has received previous Section 106 review by BOEM regarding the issuance of the commercial lease and approval of site assessment activities and is subject to two prior Programmatic Agreements. In 2012, BOEM executed a Programmatic Agreement among the SHPOs of Delaware, Maryland, New Jersey, and Virginia, the ACHP, the Narragansett Indian Tribe, and the Shinnecock Indian Nation (see https://www.boem.gov/sites/default/files/renewable-energy-program/State-Activities/HP/MidAtlantic-PA_Executed.pdf). Additionally, in 2016, BOEM executed a Programmatic Agreement among the SHPOs of New York and New Jersey, the Shinnecock Indian Nation, and ACHP to consider renewable energy activities offshore New York and New Jersey (see https://www.boem.gov/sites/default/files/renewable-energy-program/State-Activities/HP/NY-NJ-Programmatic-Agreement-Executed.pdf).

BOEM prepared an environmental assessment to analyze the environmental impacts associated with issuing commercial wind leases and approving site assessment activities within the New Jersey WEA and approved the SAP for Lease Area OCS-A 0498 on May 17, 2018. On December 8, 2020, Ocean Wind submitted an application to BOEM to assign a portion of Lease Area OCS-A 0532. BOEM approved this lease on March 26, 2021.

The Ocean Wind 1 COP proposed installing a maximum of 98 WTGs extending up to 906 feet (276 meters) above MLLW. Ocean Wind would mount the WTGs on monopile foundations. The proposed facility includes up to three OSS, which would be built on either monopile or pile jacket foundations. Where required, scour protection would be placed around foundations to stabilize the seabed near the foundations as well as the foundations themselves. The scour protection would be a maximum of 8.2 feet (2.5 meters) in height, would extend away from the foundation as far as 73 feet (22.3 meters), and would have a maximum seabed penetration of 164 feet (50 meters). Array cables would transfer electrical energy generated by the WTGs to the OSS. OSS would include step-up transformers and other electrical equipment needed to connect the inter-array cables to the offshore export cables. Substations would be connected to one another via substation interconnector cables. Up to two interconnector cables would be buried beneath the seabed floor.

Up to three offshore export cables would be buried under the seabed floor within the two offshore export cable route corridors to connect the proposed wind energy facility to the onshore electrical grid. Up to two offshore export cables would make landfall and deliver electrical power to the Oyster Creek substation. The offshore export cable route corridor to Oyster Creek would begin within the Wind Farm Area and proceed northwest to the Atlantic Ocean side of Island Beach State Park. The inshore export cable route corridor to Oyster Creek would exit the bay side of the Island Beach State Park and cross Barnegat Bay southwest to make landfall near Oyster Creek in either Lacey or Ocean Township. One offshore export cable would make landfall and deliver electrical power to the BL England substation. The BL England offshore export cable route corridor would begin within the Wind Farm Area and proceed west to make landfall in Ocean City, New Jersey.

Landfall locations in Lacey or Ocean Township and Ocean City would include TJBs to connect the offshore export cable to the onshore export cable. Transition of the export cables from offshore to onshore would be accomplished by using open-cut trenching or trenchless methods. Onshore export cables would be buried and housed within a single duct bank buried along the onshore export cable route with a target burial of 4 feet. Installation of onshore export cables would require up to a 50-foot-wide construction corridor. The onshore export cable routes would terminate at the Oyster Creek substation and BL England substation sites.

Dredging may be required in shallow areas in Barnegat Bay to facilitate vessel access for export cable installation west of Island Beach State Park and near the landfall at Lacey or Ocean Township and may occupy a Federal Civil Works Project. Ocean Wind proposes to dredge Barnegat Inlet and the Oyster Creek Channel; operated and maintained by USACE under the Barnegat Inlet Navigation Project. Cable installation may also alter or occupy Federal Civil Works Projects through cable installation beneath the Ocean City beach and dunes/Great Egg Harbor Inlet to Townsend Inlet Project, and cable installation beneath the channel at the Roosevelt Boulevard Bridge and a second location prior to making landfall in Lacey Township/New Jersey Intracoastal Waterway Federal Navigational Project.

The proposed Project has a designed life span of approximately 35 years; some installations and components may remain fit for continued service after this time. Ocean Wind would rehabilitate an existing retired marine terminal to serve as an onshore O&M facility in Atlantic City, New Jersey. The City of Atlantic City intends to secure authorization for marina upgrades; that project is being separately reviewed and authorized by USACE and state and local agencies. The improvements to the O&M facility are not dependent on the proposed Project analyzed in the EIS.

O&M activities would include inspections, preventative maintenance, and, as needed, corrective maintenance for onshore substations, onshore export cables, and grid connections. Ocean Wind would conduct inspections of foundations, bathymetry, scour (and associated scour protection, if deployed), and cable burial. Multi-beam echosounder surveys would be conducted during years 1, 4, and 5 post-commissioning, after which an optimal survey frequency would be determined based on initial findings. Sonar, remotely operated vehicles, drones, and divers may be required. Ocean Wind would conduct annual maintenance of WTGs, including safety surveys, blade maintenance, and painting as needed. OSS would be routinely maintained for preventative maintenance up to 12 times per year. Although the offshore export cables, inter-array cables, and OSS interconnector cables typically have no maintenance requirements unless a failure occurs, cable failures may result from anchors and fishing gear. During these low-probability events, cables would be located, unburied, and lifted above sea level for repair or replacement aboard the cable-handling vessel. Upon completion of the repair, the cable would be lowered onto the seabed, assessed to determine its proximity to the original location, and reburied using a jetting tool. Portions of the cables are anticipated to become exposed due to natural sediment transport processes and would require scour protection replenishment or reburial. Ocean Wind would conduct multi-beam echo sounder bathymetry survey along the cable routes immediately following installation and at 1 year, 2–3 years, and 5–8 years post-commissioning, after which survey frequency would depend on prior survey findings. Additional surveys may be conducted after major storm events as otherwise needed. Ocean Wind would need to use vessels, vehicles, and aircraft during O&M activities described above.

Although the proposed Project is anticipated to have an operation life of 35 years, it is possible that some installations and components may remain fit for continued service after this time. Ocean Wind would have to apply for and be granted an extension if it wanted to operate the proposed Project for more than the 25-year operations term stated in its lease. The process of decommission would remove all facilities, projects, cables, pipelines, and obstructions and clear the seafloor of all obstructions created by the proposed Project. All facilities would need to be removed 15 feet (4.6 meters) below the mudline (30 CFR 285.910(a)). Absent permission from BOEM, Ocean Wind would have to achieve complete

decommissioning within 2 years of termination of the lease and either reuse, recycle, or responsibly dispose of all materials removed. Section 106 review will be conducted at the decommissioning stage.

N.1.2 Undertaking

BOEM has determined that the Project constitutes an undertaking subject to Section 106 of the NHPA as amended (54 USC 306108) and its implementing regulations (36 CFR 800), and that the Project activities proposed under the COP have the potential to affect historic properties. Confidential appendices to the COP referenced in this document were sent electronically or by mail depending on expressed preference to all consulting parties on March 21, 2022, and April 1, 2022. The COP, as well as its public and confidential appendices, is hereby incorporated by reference.

The undertaking for this Section 106 review is the Proposed Action. As described in Section 2.1.2 of the Final EIS, the Proposed Action would include the construction, O&M, and eventual decommissioning of an 1,100-MW wind energy facility on the OCS offshore New Jersey, occurring within the range of design parameters outlined in the Ocean Wind 1 COP (Ocean Wind 2023), subject to applicable mitigation measures.

N.1.3 Area of Potential Effects

In general, BOEM defines the APE for such an undertaking to include the following geographic areas:

- The depth and breadth of the seabed potentially affected by any bottom-disturbing activities, constituting the marine archaeological resources portion of the APE;
- The depth and breadth of terrestrial areas potentially affected by any ground-disturbing activities, constituting the terrestrial archaeological resources portion of the APE;
- The viewshed from which renewable energy structures, whether offshore or onshore, would be visible, constituting the viewshed portion of the APE; and
- Any temporary or permanent construction or staging areas, both onshore and offshore, which may fall into any of the above portions of the APE.

These are described below in greater detail with respect to the proposed activities, consistent with BOEM's *Guidelines for Providing Archaeological and Historic Property Information Pursuant to 30 CFR Part 585* (BOEM 2020).

N.1.3.1. Marine Archaeological Resources APE

The marine archaeological resources portion of the APE (hereafter marine APE) for the Project is the depth and breadth of the seabed potentially affected by any bottom-disturbing activities and temporary or permanent offshore construction or staging areas. It includes a conservative PDE that can accommodate a number of potential designs, whether monopile or jacketed foundations are used, installed by up to two jack-up vessels, as well as necessary support vessels and barges. The marine APE encompasses activities within the Lease Area (Attachment B, Figure 1), activities within the Oyster Creek export cable route corridor (Attachment B, Figure 2), and activities within the BL England export cable route (Attachment B, Figure 3).

The Lease Area encompasses 75,525 acres (30,564 hectares) with water depths ranging from 52 to 125 feet (16 to 38 meters). Within the Lease Area, the wind farm development would occur in a smaller footprint of 35,353 acres (14,307 hectares). Ocean Wind proposes up to 98 WTGs and up to three OSS within the extent of the PDE. Construction activities would occur within an 850-foot (259-meter) work zone around WTG locations (WTG work zones around Targets 20, 27, and 32 are reduced to 200 meters).

The marine APE includes all offshore areas where seafloor-disturbing activities from inter-array cable trenching and installation, boulder relocation, and vessel anchoring may occur. The maximum vertical extent of seafloor impact would be approximately 164 feet (50 meters) below the seafloor for WTGs and approximately 230 feet (70 meters) for OSS. The array and substation interconnector cables have a target burial depth of 4 to 6 feet (1.2 to 1.8 meters) below the stable seabed. Seafloor disturbance for anchoring of construction vessels would be approximately 26 feet (8 meters). Each main vessel would have up to eight anchors spaced 984 to 1,640 feet (300 to 500 meters) from the vessel.

The marine APE also includes offshore export cable corridors extending from the Lease Area to the sea-to-shore transition at landfall locations in Lacey or Ocean Township and Ocean City, which is inclusive of the landfall on Island Beach State Park in Berkeley Township. The export cable corridors would vary in width between 869 and 3,117 feet (265 and 950 meters). The BL England export cable route would be approximately 32 miles (51 kilometers) and approximately 3,406 acres (1,378 hectares). The Oyster Creek export cable route would be approximately 71 miles (114 kilometers) and approximately 10,775 acres (4,360 hectares). Offshore export cables would typically be buried below the seabed similarly to the array cables. The maximum vertical seafloor disturbance from export cable burial is approximately 6 feet (1.8 meters) and 26 feet (8 meters) for associated anchoring/spudding of construction vehicles.

N.1.3.2. Terrestrial Archaeological Resources APE

The terrestrial archaeological resources portion of the APE (hereafter terrestrial APE) includes areas of potential ground disturbance associated with the onshore construction and operation of the Project. The APE is presented as a conservative PDE and includes the landfall sites, underground cable routes, substation sites, and equipment laydown areas. The depth and breadth of potential ground-disturbing activities are described below for each location. Attachment A, Figure 4, depicts the terrestrial APE for onshore cable and landfall site alternatives for BL England in detail. Attachment B, Figure 5, depicts the terrestrial archaeological resources for onshore cable and landfall site alternatives for Oyster Creek.

The terrestrial APE includes the sea-to-shore transition landfall sites. Transition of the export cables from offshore to onshore would be accomplished by using open-cut trenching or trenchless methods. Ground-disturbing activities from installation of the TJB and associated excavation would occur at the BL England landfall sites options illustrated in Attachment A, Figure 4, and Oyster Creek landfall site options illustrated in Attachment B, Figure 5.

From the TJB at the landfall sites, Ocean Wind would install the onshore export cable underground. Burial of the export cable in a single duct bank would require up to a 50-foot-wide (15-meter-wide) construction corridor and up to a 30-foot-wide (9-meter-wide) permanent easement for Oyster Creek and BL England cable corridors excluding landfall locations and cable splice locations. The northern Oyster Creek onshore cable route option that crosses Route 9 and Oyster Creek on a southwest diagonal would be installed using trenchless technology to avoid opening Route 9 in an area that has had recent utility work.

The onshore cable would connect to the proposed onshore substation parcels. Ground-disturbing activities associated with construction of the Oyster Creek substation would occur on a previously disturbed 31.5-acre (127,476-m^2) parcel at the former Oyster Creek nuclear plant in Lacey Township. Ground-disturbing activities associated with construction of the BL England substation would occur within a previously disturbed 13-acre (52,609-m^2) parcel at the former coal, oil, and diesel plant in Upper Township.

N.1.3.3. Visual APE

The APE for visual effects analysis (hereafter visual APE) includes the viewshed from which renewable energy structures—whether offshore or onshore—would be visible. Offshore, the visual APE includes a boundary of 40 miles radial distance from the Wind Farm Area, which is the approximate maximum theoretical distance—a distance that does not factor in certain environmental factors such as weather or environmental conditions—at which the WTGs could be visible (COP Volume III, Appendix F-3, page 23; Ocean Wind 2023). However, subsequent desktop analysis, visualizations, and field verification determined that the actual visibility of Wind Farm Area infrastructure beyond 25 miles is unlikely (COP Volume III, Appendix F-3, page 23; Ocean Wind 2023). See Attachment B, Figure 6, Sheets 1–16.

Geographic information system analysis and subsequent field investigation delineated the visual APE methodically through a series of steps, beginning with the maximum theoretical distance WTGs could be visible. This was determined by first considering the visibility of a WTG from the water level to the tip of an upright rotor blade at a height of 906 feet. The analysis then accounted for how distance and EC impede visibility as the distance increases between the viewer and WTGs (i.e., by a 40-mile distance, even blade tips would be below the sea level horizon line). The mapping effort then removed all areas with obstructed views toward WTGs, such as those views impeded by intervening topography, vegetation, and structures. Areas with unobstructed views of offshore Project elements then constituted the APE. Attachment B, Figure 6 Map Index, also depicts reasonably foreseeable future project areas for consideration of cumulative effects within the APE.

Onshore, the visual APE includes a 0.25-mile boundary around the BL England substation location (see Attachment B, Figure 7) and a minimum 0.25-mile boundary around the Oyster Creek substation location (see Attachment B, Figure 8). Any overhead lines would fall within these boundaries (COP Volume III, Appendix F-3, page 19; Ocean Wind 2023). All other elements would be underground and would not be visible.

N.2. Steps Taken to Identify Historic Properties

N.2.1 Technical Reports

To support the identification of historic properties within the APE, Ocean Wind provided survey reports detailing the results of cultural resource investigations within the terrestrial, marine, and visual portions of the APE. Table N-1 provides a summary of these efforts to identify historic properties, including results and key findings of each investigation.

Collectively, BOEM finds that these reports represent a good-faith effort to identify historic properties within the Project APE. The documents summarized in Table N-1 have been shared with consulting parties and are hereby incorporated by reference.

BOEM has reviewed the reports summarized in Table N-1, found them sufficient, and reached the following conclusions:

- The marine archaeological investigations include surveys of most areas of potential seafloor disturbance following BOEM's *Guidelines for Providing Archaeological and Historic Property Information Pursuant to 30 CFR Part 585*. BOEM has reviewed the data currently available in the marine archaeological survey report and, for portions of the APE that have been surveyed, has determined that the data are sufficient for identifying historic properties within the marine APE.
- BOEM has reviewed the terrestrial archaeological reports submitted to date and has determined that the investigations summarized in the reports are sufficient for identifying historic properties within

the terrestrial APE.

- BOEM has reviewed the VIA with visual simulations and the assessment of visual effects on historic properties for the entire PDE and determined the studies and reports are sufficient for identifying and assessing effects on historic properties within the visual APE. BOEM finds that the APE for potential visual effects analyzed is appropriate for the scale and scope of the undertaking. BOEM further finds that the inventory of historic properties is sufficient to consult on the undertaking, and represents a good-faith effort to identify historic properties within the visual APE potentially affected by the undertaking, as defined at 36 CFR 800.4.

In addition to the conclusions summarized above, BOEM has found that the assessment of effects on historic properties within the marine, terrestrial, and visual APEs contained within these reports is sufficient to apply the criteria of adverse effects and to continue consultations with consulting parties for resolving adverse effects on historic properties. *Assessment of Effects on Historic Properties in the Visual APE* (Section N.3.1.3) considers recommendations from the assessment of visual effects on historic properties technical report and comments provided by consulting parties during the consultation process described in Section N.2.2. Therefore, BOEM's findings herein deviate from the technical report recommendations, as BOEM has determined seven additional historic properties to be adversely affected by the Project.

Consequent to the reports prepared for the COP submittal, ICF prepared for BOEM a technical report to support BOEM's cumulative effects analysis, the *Cumulative Historic Resources Visual Effects Analysis – Ocean Wind 1 Farm Project* (BOEM 2022). The Cumulative Historic Resources Visual Effects Analysis presents the analysis of cumulative visual effects where BOEM has determined, in review of the Historic Resources Visual Effects Assessment (COP Volume III, Appendix F-3; Ocean Wind 2023), that historic properties would be adversely affected by the Project. The effects of other reasonably foreseeable wind energy development activities are additive to those adverse effects from the Project itself, resulting in cumulative effects. Seventeen historic properties within the viewshed of WTGs for the Project and other reasonably foreseeable offshore wind energy development activities would be adversely affected by cumulative visual effects. These 17 historic properties are the Brigantine Hotel in Brigantine City; Absecon Lighthouse, Atlantic City Boardwalk, Atlantic City Convention Hall, Ritz-Carlton Hotel, and Riviera Apartments in Atlantic City; Vassar Square Condominiums and the house at 114 South Harvard Avenue in Ventnor City; Lucy the Margate Elephant in Margate City; Great Egg Coast Guard Station in Longport Borough; Ocean City Boardwalk, Ocean City Music Pier, and the Flanders Hotel in Ocean City; Hereford Inlet Lighthouse and North Wildwood Lifesaving Station in North Wildwood; U.S. Lifesaving Station #35 in Stone Harbor Borough; and Little Egg Harbor U.S. Lifesaving Station #23 in Little Egg Harbor Township. Two of these adversely affected properties—Atlantic City Convention Hall and Lucy the Margate Elephant—are NHLs.

Table N-1 Summary of Cultural Resources Investigations Performed by Ocean Wind in the Terrestrial, Marine, and Visual APE

Portion of APE	Report	Description	Key Findings / Recommendation
Onshore	Phase I Archaeological Investigation, Ocean Wind Offshore Wind Farm (Lease Area CS-A0498), Oyster Creek and BL England, Terrestrial Archaeological Resource Assessment, Cape May and Ocean Counties, New Jersey (COP Volume III, Appendix F-2; Ocean Wind 2023).	A desktop study of known archaeological sites within 0.33 mile (0.53 kilometer) of the landfall locations and cable routes; an analysis of potential historic structures within the preliminary APE that may have archaeological components; a shovel probe survey of substation locations and cable routes. The terrestrial preliminary APE includes the footprint of the proposed onshore facilities associated with construction, operations, and maintenance, including the onshore substation and onshore export cable route corridors, as well as temporary work areas including staging and laydown areas.	This report identified or revisited six archaeological resources within 250 meters of the terrestrial preliminary APE; five of these resources are within the terrestrial preliminary APE, and one immediately adjacent. These archaeological resources date to pre-contact and post-contact periods. A total of 1,312 shovel test and seven 1- by 1-meter units were excavated throughout the terrestrial preliminary APE. Of the six sites intersecting or abutting the preliminary APE, two (28-CM-032 and 28-OC-249) have been recommended or determined to be eligible for listing on the NRHP. The remaining four sites have undetermined NRHP eligibility. All six sites are anticipated to be avoided by Project-related impacts, and one site (28-OC-249) also has recommendations for specific avoidance measures including temporary fencing and archaeological monitoring during construction. Avoidance measures and monitoring will be detailed in stipulations in the Memorandum of Agreement. A recommendation of “No Adverse Effect” is made for all six archaeological sites.
Offshore	Marine Archaeological Resources Assessment for the Ocean Wind Offshore Wind Farm for Lease Area OCS-A 0498 Construction and Operations Plan (COP Volume III, Appendix F-1; Ocean Wind 2023).	A marine archaeological resource assessment of HRG survey data collected by both intrusive and non-intrusive surveying methods. The marine preliminary APE for submerged cultural resources consists of areas affected by ground-disturbing activities associated with construction and O&M, including the seafloor footprint of the Wind Farm Area and export cable route corridors, extending to maximum of 50 meters (164 feet) beneath the seafloor and 70 meters (230 feet) for OSS. Survey was conducted using a suite of marine vessel-based remote-sensing instruments to locate submerged cultural resources including	This report identified 19 potential submerged archaeological resources within the marine preliminary APE—12 within the Wind Farm Area, three along the BL England corridor, and four along the Oyster Creek corridor. The majority of these are either known shipwrecks or potential shipwrecks. Avoidance buffers are recommended for each potential submerged archaeological resource. The report concluded that Ocean Wind would be able to follow the recommended 50-meter avoidance buffer for all of the 19 resources. Further archaeological investigation is recommended if avoidance is infeasible. The report also identified 16 ancient submerged landforms within the marine preliminary APE: 13 of these are within the Wind Farm Area, one is in the BL

Portion of APE	Report	Description	Key Findings / Recommendation
		side-scan sonars, multibeam echosounders, sub-bottom profilers, and marine magnetometers. Marine survey was conducted by Alpine Ocean Seismic Survey, Inc., Earth Sciences & Surveying International, Fugro USA Marine, Inc., and Gardline Limited over five separate survey periods between July 2018 and March 2020. A 2023 update to the report provided supplemental survey data to Table 13 and Figure 30, and revision to the Marine Post-Review Discovery Plan, but did not result in any revision to the findings or recommendations.	England export cable route corridor, and two are in the Oyster Creek export cable route corridor. Coring of these features, along with laboratory analysis, suggested they are similar to features previously determined to be TCPs. It has therefore been presumed that they are eligible for listing in the NRHP, and they may also contain archaeological components. Archaeological mitigation was recommended if avoidance of ancient submerged landforms is infeasible, and the report outlines a proposed approach to mitigation for impacts on geomorphic features of archaeological interest.
Offshore	Ocean Wind Offshore Wind Farm, Cape May and Ocean Counties, New Jersey Memorandum of March 2023 Fieldwork HAA 5614-22; NJ SHPO #18-1184; HPO-E2022-239 (April 2023)	A terrestrial archaeological resource assessment for the Ocean Wind Terrestrial Archaeological Resource Assessment: eight discrete previously unsurveyed areas now included in the Project's APE resulting from minor changes in the Project alternative, including site visits and systematic archaeological shovel testing.	Terrestrial archaeology survey of eight discrete locations in response to changes to Project alternatives in the terrestrial APE: six in the Oyster Creek segment and two in the BL England segment. Two historic artifacts were recovered, but both were recommended not significant. Archaeological monitoring was recommended for the Crook Horn Creek portion of BL England Terrestrial APE.
Visual	Ocean Wind Visual Effects on Historic Properties (COP Volume III, Appendix F-3; Ocean Wind 2023)	A study evaluating visual impacts on historic properties. The preliminary APE for visual effects from the Project generally extends from Wildwood in Cape May County in the south to Beach Haven in Ocean County to the north for the Project's offshore components. Onshore, the visual preliminary APE includes a 0.25-mile boundary around the BL England substation location and a minimum 0.25-mile boundary around the Oyster Creek substation location. The offshore visual preliminary APE was initially	This report identified nine historic districts and 40 individual buildings or structures within the Offshore Infrastructure preliminary APE. A "No Adverse Effect" recommendation was made for 39 properties, and a potential for adverse effect was recommended for 10 properties. These 10 properties included the Brigantine Hotel in Brigantine City; Atlantic City Boardwalk, Atlantic City Convention Hall, Ritz-Carlton Hotel, and Riviera Apartments in Atlantic City; Vassar Square Condominiums and the house at 114 South Harvard Avenue in Ventnor City; Lucy the Margate Elephant in Margate City; and Ocean City Boardwalk and Ocean City Music Pier in Ocean City. The visual effects

Portion of APE	Report	Description	Key Findings / Recommendation
		established based on the theoretical limits of visibility of Project components. These limits were then refined based on computer-based viewshed analysis that incorporated topography and the presence of intervening vegetation, buildings, and structures in the landscape to determine the extent of visibility of offshore components. The preliminary APE was further refined through desktop analysis and field verification to confirm previous analyses and establish the maximum visibility threshold of 25 miles from select locations with direct views of the Project. The onshore visual preliminary APE was established as parcels adjacent to or intersected by the proposed underground onshore export cable routes and properties within a buffer around the proposed substation sites and associated overhead grid connections representing the maximum extent of visual and atmospheric effects based on the density of intervening development and vegetation.	analysis included two designated NHL properties in the offshore infrastructure preliminary APE. A Potential for Adverse Effect was recommended for both properties: Atlantic City Convention Hall and Lucy the Margate Elephant. This report also analyzed visual effects on historic properties within the onshore infrastructure preliminary APE. Three properties were analyzed, and a recommendation of No Adverse Effect was made for all of them. Mitigation options to resolve adverse effects from visual impacts were recommended for BOEM's consideration.

Portion of APE	Report	Description	Key Findings / Recommendation
Visual	Architectural Intensive Level Survey, Ocean Wind Offshore Windfarm, New Jersey (SEARCH, Inc. 2021)	An architectural survey of aboveground resources supporting the analysis presented in the Historic Resources Visual Effects Assessment. The preliminary APE for visual effects from the Project generally extends from Wildwood in Cape May County in the south to Beach Haven in Ocean County to the north for the Project's offshore components. Onshore, the visual preliminary APE includes a 0.25-mile boundary around the BL England substation location and a minimum 0.25-mile boundary around the Oyster Creek substation location. The offshore visual preliminary APE was initially established based on the theoretical limits of visibility of Project components. These limits were then refined based on computer-based viewshed analysis that incorporated topography and the presence of intervening vegetation, buildings, and structures in the landscape to determine the extent of visibility of offshore components. The preliminary APE was further refined through desktop analysis and field verification to confirm previous analyses and establish the maximum visibility threshold of 25 miles from select locations with direct views of the Project. Two additional criteria were evaluated to determine if properties merited intensive survey in addition to views of Project components: a property's specific orientation toward the ocean and architectural features indicative of a design that was responsive to a property's beachfront location. The onshore visual preliminary APE was established as parcels adjacent to or intersected by the proposed underground onshore export cable routes and properties within a buffer around the proposed substation sites and	This report delineated the preliminary APE for visual effects for onshore architectural properties, identified historic properties within the preliminary APE, and provided eligibility recommendations for those historic properties identified in the preliminary APE. The preliminary APE includes portions of Atlantic, Cape May, and Ocean Counties with views of Project components. An intensive-level survey was completed for 304 historic properties within the offshore preliminary APE, 21 of which are NRHP-listed or -eligible properties. An intensive-level survey of the 32 historic properties identified in the onshore preliminary APE determined that three properties were NRHP-listed or -eligible. Effect evaluations were not addressed in this report and are included in the separate *Ocean Wind Visual Effects on Historic Properties* report (COP Volume III, Appendix F-3; Ocean Wind 2023).

Portion of APE	Report	Description	Key Findings / Recommendation
		associated overhead grid connections representing the maximum extent of visual and atmospheric effects based on the density of intervening development and vegetation.	
Visual	March 2023 Survey of Eight Additional Built Resources in Atlantic County (March 2023)	A study evaluating visual effects on eight historic properties in Atlantic County not previously included in the *Ocean Wind Visual Effects on Historic Properties Report* (February 2023) or *Architectural Intensive Level Survey* (October 2022), including research, completed NJ SHPO Inventory Forms, and NRHP eligibility recommendations for each resource.	All eight historic properties were recommended not eligible for listing in the NRHP, including Holiday Inn, 2201 Boardwalk, Atlantic City, New Jersey; Malibu Motel, 108 S. Montpelier Avenue, Atlantic City, New Jersey; The Plaza, 101 S. Plaza Place, Atlantic City, New Jersey; 5000 Boardwalk, Ventnor City, New Jersey; Regency Towers, 5200 Boardwalk, New Jersey; The Oxford, 112 S. Oxford Avenue; 111 S. Cambridge Avenue, Ventnor City, New Jersey

Sources: COP Volume III, Appendix F-1, F-2, F-3; Ocean Wind 2023; Hartgen Archeological Associates, Inc. 2021; SEARCH, Inc. 2021.

N.2.2 Consultation and Coordination with the Parties and Public

N.2.2.1. Early Coordination

Since 2009, BOEM has coordinated OCS renewable energy activities offshore New Jersey with its federal, state, local, and tribal government partners through its Intergovernmental Renewable Energy Task Force. BOEM has met regularly with federally recognized tribes that may be affected by renewable energy activities in the area since 2011, specifically during planning for the issuance of leases and review of site assessment activities. BOEM also hosts public information meetings to help keep interested stakeholders updated on major renewable energy milestones. Information pertaining to BOEM's Intergovernmental Renewable Energy Task Force meetings is available at https://www.boem.gov/renewable-energy/state-activities/renewable-energy-task-force-meetings-1 and information pertaining to BOEM's stakeholder engagement efforts is at https://www.boem.gov/renewable-energy/state-activities/new-jersey-public-information-meetings.

N.2.2.2. NEPA Scoping and Public Hearings

On March 30, 2021, BOEM announced its Notice of Intent to prepare an EIS for the Ocean Wind 1 COP. This purpose of the Notice of Intent was to solicit input on issues and potential alternatives for consideration in the EIS. Throughout the scoping process, federal agencies; state, tribal, and local governments; and the general public had the opportunity to help BOEM determine significant resources and issues, IPFs, reasonable alternatives, and potential mitigation measures to be analyzed in the EIS, as well as provide additional information. BOEM also used the NEPA commenting process to allow for public involvement in the NHPA Section 106 consultation process, as permitted by 36 CFR 800.2(d)(3). Through this notice, BOEM announced its intention to inform its NHPA Section 106 consultation using the NEPA commenting process and invited public comment and input regarding the identification of historic properties or potential effects on historic properties from activities associated with approval of the Ocean Wind 1 COP.

Additionally, BOEM held virtual public scoping meetings, which included specific opportunities for engaging on issues relative to NHPA Section 106 for the undertaking, on April 13, 15, and 20, 2021. Virtual public scoping meeting materials and records are available at https://www.boem.gov/Ocean-Wind-Scoping-Virtual-Meetings.

Through this NEPA scoping process, BOEM received comments related to cultural, historic, archaeological, or tribal resources. These are presented in BOEM's EIS Scoping Report (BOEM 2021) and are summarized as follows:

- Several commenters stated that BOEM should comply with Section 106 of the NHPA including adequate consultation with SHPOs and other stakeholders.
- Several commenters stated that BOEM should recognize tribal sovereignty and provide adequate government-to-government consultation with tribal governments.
- Several commenters opined that the foundations of historic structures (including those in the Ocean City Historic District) are likely to be damaged by excavation for the installation of cables.
- Some commenters expressed concern that the Project might cause physical disturbance to archaeological resources, historic architectural resources, or historic properties.
- One commenter stated that the EIS should consider offshore shipwrecks that are not currently listed in the NRHP but have the potential to be listed.

- One commenter expressed the opinion that information about Project noise in the COP was inadequate and expressed concern about operational and construction noise in the historic district could affect its setting.
- One commenter asked what impact the Project would have on historic structures that rely on a microclimate of cooler air created by the barrier island.

On June 24, 2022, BOEM published a Notice of Availability for the Draft EIS. As part of this process, BOEM announced three virtual public hearings on July 14, 20, and 26, 2022. The public comment period was extended by 15 days and closed on August 23, 2022. The input received via this process has been used to inform preparation of the Final EIS.

N.2.2.3. NHPA Section 106 Consultations

On March 9, 2021, BOEM contacted ACHP and New Jersey SHPO to provide Project information and notify of BOEM's intention to use the NEPA process to fulfill Section 106 obligations in lieu of the procedures set forth in 36 CFR 800.3 through 800.6.

On March 17, 2021, BOEM mailed letters to Absentee-Shawnee Tribe of Indians of Oklahoma, the Delaware Nation, Delaware Tribe of Indians, Eastern Shawnee Tribe of Oklahoma, the Rappahannock Tribe, the Narragansett Indian Tribe, Shawnee Tribe, Stockbridge-Munsee Community Band of Mohican Indians, and the Shinnecock Indian Nation to provide information about the Project, an invitation to be a consulting party to the NHPA Section 106 review of the COP, and the Notice of Intent to prepare an EIS. BOEM also used this correspondence to notify of its intention to use the NEPA substitution process for Section 106 purposes, as described in 36 CFR 800.8(c), during its review. BOEM identified these tribes for outreach based on associations with geographic areas known to be ancestral homelands and thus potentially containing historic properties of religious and cultural significance to them. On March 19, 2021, BOEM contacted Absentee-Shawnee Tribe of Indians of Oklahoma, the Delaware Nation, Delaware Tribe of Indians, Eastern Shawnee Tribe of Oklahoma, the Rappahannock Tribe, the Narragansett Indian Tribe, Shawnee Tribe, Stockbridge-Munsee Community Band of Mohican Indians, and the Shinnecock Indian Nation by email. This correspondence included electronic versions of documents mailed on March 17, 2021. BOEM also notified the tribal governments that the agency found it necessary to delay the formal issuance of the NOI and provided corrections to information in the previously mailed letters, including clarification that the Project website (https://www.boem.gov/ocean-wind at the time of the NOI)[1] would not be active until the day of NOI issuance, and notification that comment deadline would be extended based on the date of NOI issuance and, therefore, would no longer be April 23, 2021.

On March 30, 2021, BOEM corresponded with 205 points of contact from local, state, and federal government agencies and agencies and organizations due to the nature of their legal or economic relation to the undertaking or affected properties, or their concern with the undertaking's effects on historic properties by mail and email, including information about the project, an invitation to be a consulting party to the NHPA Section 106 review of the COP, and the Notice of Intent to prepare an EIS. BOEM also used this correspondence to notify of its intention to use the NEPA substitution process for Section 106 purposes, as described in 36 CFR 800.8(c), during its review. To aid those consulting parties not familiar with the NEPA substitution process, BOEM developed a *National Environmental Policy Act (NEPA) Substitution for Section 106 Consulting Party Guide* (available at https://www.boem.gov/sites/default/files/documents/renewable-energy/state-activities/NEPA-Substitution-Consulting-Party-

[1] The Project website has since been updated to https://www.boem.gov/renewable-energy/state-activities/ocean-wind-1.

Guide.pdf), which it attached to this correspondence. This correspondence also included outreach to previously contacted tribes to provide updated information about the Notice of Intent, which had changed subsequent to the March 19, 2021, correspondence. In addition, this correspondence to tribes included an invitation to participate as NEPA cooperating agencies and provided an associated Memorandum of Understanding.

During the period of April 13–16, 2021, outreach was conducted by phone to confirm receipt of correspondence among the governments and organizations that had not responded to the invitation to consult. The list of the governments and organizations contacted is included in Attachment C. Entities that responded to BOEM's invitation or were subsequently made known to BOEM and added as consulting parties are listed in Attachment D.

On May 5, 2021, BOEM invited Absentee-Shawnee Tribe of Indians of Oklahoma, the Delaware Nation, Delaware Tribe of Indians, Eastern Shawnee Tribe of Oklahoma, the Narragansett Indian Tribe, Shawnee Tribe, Stockbridge-Munsee Community Band of Mohican Indians, and the Shinnecock Indian Nation to participate in a government-to-government consultation meeting. The email outreach also notified the tribes that public scoping meeting recordings and materials could be accessed via the virtual meeting website.

On May 17, 2021, BOEM corresponded with tribes who responded to the government-to-government consultation meeting invitation—the Delaware Nation and Delaware Tribe of Indians—to schedule the meeting during a day and time of mutual availability. BOEM followed up the request for scheduling on May 27 and June 1, 2021.

On June 8, 2021, BOEM invited the Delaware Nation and Delaware Tribe of Indians to participate in a government-to-government consultation meeting on Thursday, June 17, 2021, from 10:00 a.m. to 12:30 p.m. Eastern time.

BOEM hosted a government-to-government consultation meeting with the Delaware Nation and Delaware Tribe of Indians on June 17, 2021. During the meeting, BOEM presented information about the Project and solicited input regarding reasonable alternatives for consideration in the EIS; the identification of historic properties or potential effects on historic properties from activities associated with the proposed Project; and potential measures to avoid, minimize, or mitigate impacts on environmental and cultural resources to be analyzed in the EIS.

On July 2, 2021, BOEM distributed a draft meeting summary of the June 17, 2021, government-to-government consultation meeting and requested representatives from the Delaware Nation and Delaware Tribe of Indians provide comment. BOEM provided maps showing the Project, adjacent projects, and excerpts from the COP showing the preliminary APE. BOEM also provided additional information about terrestrial and marine archaeological surveys performed prior to COP submission, and provided BOEM's *Guidelines for Providing Archaeological and Historic Property Information Pursuant to 30 CFR Part 585* (BOEM 2020), which provides recommendations to lessees to ensure their cultural resources investigations contain sufficient technical information for BOEM COP reviews. BOEM also offered to facilitate a call among the Delaware Nation and Delaware Tribe of Indians with the New Jersey SHPO to discuss the issue of pre-investigation consultation activities within New Jersey.

On August 5, 2021, BOEM conduced outreach by phone to Absentee-Shawnee Tribe of Indians of Oklahoma, Eastern Shawnee Tribe of Oklahoma, the Narragansett Indian Tribe, Shawnee Tribe, and the Shinnecock Indian Nation.

On August 17, 2021, and September 3, 2021, BOEM reached out via email to Absentee-Shawnee Tribe of Indians of Oklahoma, the Eastern Shawnee Tribe of Oklahoma, the Narragansett Indian Tribe, Shawnee Tribe, and the Shinnecock Indian Nation to remind them of the March 30, 2021, invitations to participate as Section 106 consulting parties or NEPA cooperating agencies and requested their feedback.

In response to a request for Section 106 consulting party status and participation as a sovereign tribal nation in the NEPA cooperating agency review process by the Mashantucket Pequot Indian Tribal Nation, BOEM distributed materials on November 19, 2021, which included presentations provided at the virtual public scoping meetings; the NEPA Substitution for Section 106 Consulting Party Guide; the June 17, 2021, government-to-government consultation meeting agenda and PowerPoint presentation; the Ocean Wind 1 COP Scoping Report; and Ocean Wind 1 Cooperating Agency interagency meeting records. However, in a letter dated November 22, 2021, the Mashantucket Pequot Tribal Nation indicated that they no longer wanted to consult on the Project.

On January 24, 2022, BOEM conducted outreach to New Jersey SHPO to request input regarding options for scheduling the Ocean Wind 1 Section 106 Consultation Meeting #1. Katherine J. Marcopol responded on January 25, 2022, with date and time preferences. The meeting invitation with a meeting agenda was distributed to consulting parties on January 30, 2022.

At the request of consulting parties, BOEM elected to reschedule Ocean Wind 1 Section 106 Consultation Meeting #1. On February 14, 2022, BOEM distributed a Doodle Poll to request input on preferences for the rescheduled meeting date by February 18, 2022. A meeting invitation with virtual meeting participation details was distributed to consulting parties on February 23, 2022.

BOEM distributed correspondence to remind consulting parties of the upcoming consulting parties meeting and share materials including meeting agenda, presentation slides, Section 106 consultation Milestones Schedule and Approximate Dates summary, and Notification of Updates to the Ocean Wind 1 Offshore Wind Farm Project letter on March 3, 2022.

On March 8, 2022, BOEM held virtual NHPA Section 106 Consultation Meeting #1. The presentation included a brief Project overview, review of NEPA Substitution for NHPA Section 106 Process, overview of Section 106 consultation opportunities for the Project, NHPA Section 110(f) compliance requirements, and question and answer session with discussion. On March 31, 2022, BOEM shared with consulting parties a summary of the NHPA Section 106 Consultation Meeting #1 and materials presented at that meeting.

On March 21, 2022, BOEM shared with consulting parties the complete terrestrial archaeological resources report, complete marine archaeological resources report, complete Historic Resources Visual Effects Assessment, and complete Cumulative Historic Resources Visual Effects Analysis. At that time, BOEM also shared with consulting parties a technical memorandum detailing the delineation of the APE for the Project.

On April 1, 2022, BOEM shared with consulting parties a supplemental architectural intensive-level survey report.

On March 28, 2022, and April 4 and 14, 2023, BOEM conducted outreach to consulting parties to request input regarding options for scheduling the Ocean Wind 1 Section 106 Consultation Meeting #2. The meeting invitation with a meeting agenda was distributed to consulting parties on April 26, 2022.

BOEM held virtual NHPA Section 106 Consultation Meeting #2 on May 4, 2022. The presentation included a discussion of the documents distributed for consulting party review, and included a question and answer session with discussion.

BOEM distributed a Notice of Availability to notify the consulting parties that the Draft EIS was available for public review and comment for the period of June 24 to August 8, 2022. BOEM subsequently distributed a notice that the Draft EIS comment period was extended by 15 days to conclude on August 23, 2022.

On October 17, 2022, USACE, Philadelphia District formally accepted BOEM's invitation to be a NEPA Cooperating Agency and acknowledged BOEM as the lead federal agency for Section 106 in writing. USACE was added as a participating Section 106 Consulting Party.

On November 2, 2022, BOEM held a government-to-government consultation meeting with The Shinnecock Indian Nation and the Delaware Tribe of Indians. The Shinnecock Indian Nation was added as a participating Section 106 Consulting Party.

On November 11, 2022, BOEM shared with consulting parties the revised terrestrial archaeological resources report, revised marine archaeological resources report, revised Historic Resources Visual Effects Assessment, revised architectural intensive-level survey report, revised Cumulative Historic Resources Visual Effects Analysis, and revised Appendix N, *Finding of Adverse Effect for the Ocean Wind 1 Construction and Operations Plan*, with attachments including the draft Memorandum of Agreement. BOEM also distributed a consulting parties comments response matrix, which itemizes consultation comments received from consulting parties on documents distributed by BOEM on March 21 and April 1, 2022, and provides BOEM's responses to those comments.

On November 18, 2022, BOEM distributed additional consultation invitations to property owners associated with adversely affected properties who had not previously accepted consulting party status including Legacy Vacation Resorts (Brigantine Hotel), New Jersey Casino Reinvestment Development Authority (Atlantic City Convention Hall), Ritz Condominium Association (Ritz-Carlton Hotel), Max Gurwicz Enterprises (Riviera Apartments), Vassar Square Condominium Association (Vassar Square Condominiums), private homeowners of 114 South Harvard Avenue, and The Save Lucy Committee, Inc. (Lucy the Margate Elephant).

On November 7, 2022, BOEM conducted outreach to consulting parties to request input regarding options for scheduling the Ocean Wind 1 Section 106 Consultation Meeting #3 by November 11, 2022. The meeting invitation with a meeting agenda was distributed to consulting parties on November 16, 2022.

BOEM held virtual NHPA Section 106 Consultation Meeting #3 on November 30, 2022. The presentation included a discussion of revised technical reports for historic properties identification and effects assessment, including the marine archaeological resources assessment, terrestrial archaeological resources assessment, Historic Resources Visual Effects Assessment, and Cumulative Historic Resources Visual Effects Analysis. The meeting also included review of the revised finding of effect, review of the draft Memorandum of Agreement, and included a question-and-answer session with discussion.

On February 2, 2023, BOEM distributed additional consultation invitations to property owners associated with adversely affected properties who had not previously accepted consulting party status including The Inlet Public/Private Association (Absecon Lighthouse), Long Port Historical Society (Great Egg Coast Guard Station), Flanders Condominium Association (Flanders Hotel), North Wildwood (Hereford Inlet Lighthouse), New Jersey Division of Law & Public Safety, Marine Service Bureau (North Wildwood Lifesaving Station), Stone Harbor Museum (U.S. Lifesaving Station #35), and Rutgers University, School of Environmental and Biological Sciences (Little Egg Harbor U.S. Lifesaving Station #23).

On February 3, 2023, BOEM shared with consulting parties the revised marine archaeological resources assessment, Historic Resources Visual Effects Assessment, Cumulative Historic Resources Visual Effects

Analysis, finding of effect, draft Memorandum of Agreement, and updated Ocean Wind 1 COP Volume I, Volume II, Volume III Appendix L, and Volume III Appendix AD. BOEM also distributed a consulting parties comments response matrix, which itemizes consultation comments received from consulting parties on documents distributed by BOEM.

On February 15, 2023, BOEM distributed additional consultation invitations to New Jersey Office of Historic Sites and Parks as property owners associated with adversely affected Absecon Lighthouse.

On January 19, 2023, BOEM conducted outreach to consulting parties to request input regarding options for scheduling the Ocean Wind 1 Section 106 Consultation Meeting #4. That meeting was originally scheduled for February 10, 2022.

At the request of consulting parties, BOEM elected to reschedule Ocean Wind 1 Section 106 Consultation Meeting #4. On February 7, 2023, BOEM distributed a Doodle Poll to request input on preferences for the rescheduled meeting date by February 10, 2023. A meeting invitation with virtual meeting participation details and meeting materials was distributed to consulting parties on February 15, 2023.

BOEM held virtual NHPA Section 106 Consultation Meeting #4 on February 22, 2023. The presentation included a review of the Section 106 consultation schedule; discussion of BOEM's response to consulting party comments; review of the revised marine archaeological resources assessment, revised Cumulative Historic Resources Visual Effects Analysis, finding of effect, and draft Memorandum of Agreement; and included a question and answer session with discussion.

Given New Jersey SHPO was unable to participate in NHPA Section 106 Consultation Meeting #4, BOEM held a virtual meeting with New Jersey SHPO on February 24, 2023, to brief them and receive input on topics discussed during the consultation meeting on February 22, 2023.

Given Delaware Tribe of Indians was unable to participate in NHPA Section 106 Consultation Meeting #4, BOEM held virtual meetings with Delaware Tribe of Indians on March 20, 2023, and April 3, 2023, to brief them and receive input on topics discussed during the consultation meeting on February 22, 2023. The Stockbridge-Munsee Community Band of Mohican Indians also joined the April 3, 2023, meeting.

On March 20, 2023, BOEM held a virtual meeting with Rutala Associates, LLC, representative for the City of Margate and the Save Lucy Committee, Inc., the respective owner and manager of the Lucy the Margate Elephant property, to brief them on the Project and receive input on BOEM's determination of adverse effect on Lucy the Margate Elephant and BOEM's proposed mitigation for the property.

On March 28, 2023, BOEM distributed additional consultation invitations to property owners associated with adversely affected properties who had not previously accepted consulting party status including Legacy Vacation Resorts (Brigantine Hotel); New NJDEP, Office of Historic Sites & Parks (Absecon Lighthouse); Atlantic City (Atlantic City Boardwalk); New Jersey Casino Reinvestment Development Authority (Atlantic City Convention Hall); Max Gurwicz Enterprises (Riviera Apartments); Donald & June Feith (House at 114 South Harvard Avenue); Longport Historical Society (Great Egg Harbor Lighthouse); Flanders Condominium Association (Flanders Hotel); New Jersey Department of Law & Public Safety, Marine Service Bureau (North Wildwood Lifesaving Station); and Stone Harbor Museum (U.S. Lifesaving Station #35). In addition to consultation invitations, BOEM requested individual meetings with these property owners to discuss BOEM's proposed mitigation for their respective property.

On March 28, 2023, BOEM also distributed meeting requests to property owners associated with adversely affected properties who are participating in consultation to discuss Ocean Wind's proposed mitigation for their respective property including Ritz Condominium Association (Ritz-Carlton Hotel);

Vassar Square Condominium Association (Vassar Square Condominiums); Rutala Associates, LLC (Lucy the Margate Elephant); USCG (Great Egg Harbor Lighthouse and Hereford Inlet Lighthouse); Ocean City (Ocean City Boardwalk and Ocean City Music Pier); Flanders Condominium Association (Flanders Hotel); Michael J. Donohue, Blaney Donohue & Weinberg, P.C., representing City of North Wildwood (Hereford Inlet Lighthouse); and University of Rutgers, Department of Marine and Coastal Sciences, School of Environmental and Biological Sciences (Little Egg Harbor U.S. Lifesaving Station #23).

On March 30, 2023, New Jersey SHPO concurred with BOEM's Finding of Effect for the Project, including for the 17 historic properties in the visual APE and 13 ancient submerged landforms in the marine APE.

On April 10, 2023, BOEM held a virtual meeting with the Flanders Condominium Association to brief them on the Project and receive input on BOEM's determination of adverse effect on the Flanders Condominium t and BOEM's proposed mitigation for the property.

On April 17, 2023, BOEM held a virtual meeting with the property owner for 114 South Harvard Avenue to brief them on the Project and receive input on BOEM's determination of adverse effect on their property and BOEM's proposed mitigation for the property.

BOEM held virtual NHPA Section 106 Consultation Meeting #5 on April 24, 2023. The presentation included a review of the Section 106 consultation schedule, discussion of BOEM's response to consulting party comments, and review of March 2023 historic property and terrestrial archaeological resources surveys and draft Memorandum of Agreement; and included a question-and-answer session with discussion.

Additional consultation meetings may be scheduled prior to issuance of the ROD if further consultation is needed to resolve adverse effects via a Memorandum of Agreement. Additional consultation will occur if alternatives that required phased identification (see Section N.5) are selected.

N.3. Application of the Criteria of Adverse Effect

The Criteria of Adverse Effect under NHPA Section 106 (36 CFR 800.5(a)(1)) states that an undertaking has an adverse effect on a historic property

> when an undertaking may alter, directly or indirectly, any of the characteristics of a historic property that qualify the property for inclusion in the NRHP in a manner that would diminish the integrity of the property's location, design, setting, materials, workmanship, feeling, or association…Adverse Effects may include reasonably foreseeable effects caused by the undertaking that may occur later in time, be farther removed in distance or be cumulative.

According to the Section 106 regulations, adverse effects on historic properties include, but are not limited to (36 CFR 800.5(a)(2)):

i. Physical destruction of or damage to all or part of the property;

ii. Alteration of a property, including restoration, rehabilitation, repair, maintenance, stabilization, hazardous material remediation, and provision of handicapped access, that is not consistent with the Secretary of the Interior's standards for the treatment of historic properties (36 CFR part 68) and applicable guidelines;

iii. Removal of the property from its historic location;

iv. Change of the character of the property's use or of physical features within the property's setting that contribute to its historic significance;

v. Introduction of visual, atmospheric or audible elements that diminish the integrity of the property's significant historic features;

vi. Neglect of a property, which causes its deterioration, except where such neglect and deterioration are recognized qualities of a property of religious and cultural significance to an Indian tribe or Native Hawaiian organization; and

vii. Transfer, lease, or sale of property out of federal ownership or control without adequate and legally enforceable restrictions or conditions to ensure long-term preservation of the property's historic significance.

N.3.1 Assessment of Effects on Historic Properties

This section documents assessment of effects for the affected historic properties in the marine APE, terrestrial APE, and visual APE.

N.3.1.1. Assessment of Effects on Historic Properties in the Marine APE

This section assesses effects on shipwrecks, potential shipwrecks, and ancient submerged landforms in the marine APE. Based on the information presented below, BOEM finds the Project would result in no adverse effects on the 19 known submerged archaeological resources and adverse effects on 13 of the 16 ancient submerged landforms. More substantial impacts could occur if the final Project design cannot avoid known resources or if previously undiscovered resources are discovered during construction.

N.3.1.1.1 Shipwrecks and Potential Shipwrecks

Marine remote-sensing studies within the marine APE identified a total of 19 submerged cultural resources, the majority of which are either known shipwrecks (Targets 1, 9, 12–14, 17, 18) or potential shipwrecks (Targets 2–8, 10, 11, 15, 16, 19) from the Historic period (COP Volume III, Appendix F-1, pages 168–169; Ocean Wind 2023). All 19 submerged cultural resources would be avoided, with 50-meter avoidance buffers, by all Project activities that are part of the undertaking. As a result, the Project is not anticipated to result in adverse effects on these 19 resources.

N.3.1.1.2 Ancient Submerged Landforms

Marine geophysical remote-sensing studies performed in the marine APE identified 16 ancient submerged landforms with the potential to contain Native American archaeological resources within the Lease Area and two export cable route corridors. Remnant submerged landscape features are considered by Native American tribes in the region to be culturally significant resources as the lands where their ancestors lived and as locations where events described in tribal histories occurred prior to inundation. In addition, BOEM recognizes these ancient submerged landforms are similar to features previously determined to be TCPs and presumed to be eligible for listing in the NRHP under Criterion A.

Ancient submerged landforms in the marine APE are considered archaeologically sensitive. Although the marine geophysical remote-sensing studies performed to identify historic properties did not find direct evidence of pre-contact Native American cultural materials, they do represent a good-faith effort to identify submerged historic properties within the APE potentially affected by the undertaking, as defined at 36 CFR 800.4. If undiscovered archaeological resources are present within the identified ancient

submerged landforms and they retain sufficient integrity, these resources could be eligible for listing on the NRHP under Criterion D (COP Volume III, Appendix F-1; Ocean Wind 2023).

Due to the size of the offshore remote-sensing survey areas in the marine APE, the full extent or size of individual ancient submerged landforms cannot be defined. Thirteen ancient submerged landforms (Targets 21–26, 28–31, and 33–35) within the Lease Area cannot be avoided by the Project, as WTGs and associated work zones are proposed for locations within the defined areas of these resources. The Project commits to avoiding impacts on three ancient submerged landforms (Targets 20, 27, and 32), all within the Lease Area. As such, the undertaking would result in adverse effects on 13 ancient submerged landforms due to potential permanent, physical destruction of or damage to areas within the defined location of the resources.

N.3.1.2. Assessment of Effects on Historic Properties in the Terrestrial APE

Archaeological survey performed within the terrestrial APE identified six archaeological sites. Two are expansions of previously reported sites, one is an adjacent previously reported site for which additional data are lacking, and three are newly reported. All six archaeological sites would be avoided by all Project activities that are part of the undertaking. Therefore, BOEM finds no adverse effect on historic properties in the terrestrial APE (COP Volume III, Appendix F-2; page 221; Ocean Wind 2023).

Furthermore, an Terrestrial Archaeological Monitoring Plan has been developed (see Attachment A, *Memorandum of Agreement*, Attachment 5, *Terrestrial Archaeological Monitoring Plan*). The plan outlines terrestrial archaeological monitoring protocols, goals for construction crew training, expectations for documentation, requirements for archaeological and tribal monitors, temporary avoidance measures, process for determining if monitoring construction activity is necessary, reporting requirements, post-review discoveries, notifications contact list, and attachments including maps to identify areas where monitoring is required and areas for avoidance.

N.3.1.3. Assessment of Effects on Historic Properties in the Visual APE

Review of the offshore visual area identified 9 historic districts and 40 individual historic properties, and review of the onshore visual area identified three historic properties. Of these, 17 historic properties would be adversely affected by visual impacts from the proposed Project (COP Volume III, Appendix F-3; Ocean Wind 2023). The 17 adversely affected historic properties within the visual APE are those that retain maritime setting, and where maritime setting contributes to the properties' NRHP eligibility. Each property continues to offer significant seaward views that support the integrity of its maritime setting. Those seaward views include vantage points with the potential for an open view from each property toward the offshore Project elements. BOEM's analysis considers potential for visual adverse effects from the ADLS-controlled obstruction lighting system at night. Based on historical air traffic data obtained from FAA, the total duration that an ADLS-controlled lighting system for the Project would have been activated is 1 hour 19 minutes and 17 seconds over a 1-year period (COP Volume III, Appendix AD; Ocean Wind 2023). Given the ADLS is triggered so infrequently, this source of nighttime lighting is not contributing to visual adverse effects on historic properties. However, other temporary nighttime lighting from construction would contribute to visual adverse effects for the 17 properties.

Where BOEM found adverse visual effects on these historic properties, BOEM also determined that the undertaking would cause cumulative visual effects (BOEM 2022). Cumulative effects are additive effects; where BOEM has determined adverse effects would occur from Project actions on historic properties, BOEM then assessed if those effects would add to the potential adverse effects of other reasonably foreseeable actions and thereby result in cumulative effects.

N.3.1.3.1 Brigantine Hotel, Brigantine City, New Jersey

This property is at 1400 Ocean Avenue in Brigantine City and is approximately 16.0 miles from the Wind Farm Area. It consists of an 11-story Art-Deco-inspired hotel constructed in 1926–1927. It was surveyed for the Project in January 2021 and recommended eligible for individual listing in the NRHP under Criterion A for Ethnic Heritage: Black, due to its associations with prominent African American figures and its role in integrating the Jersey Shore. While it may have held significance under Criterion C as an example of an Art Deco low-rise hotel, it is no longer able to convey that potential significance due to diminished integrity of design, materials, and workmanship (COP Volume III, Appendix F-3, page 50; Ocean Wind 2023).

This property is directly on the beach, ocean views were an important consideration in the building's design and siting, and the property retains clear views of the ocean into the present. Although the Project would not affect the building's integrity of location, design, materials, and workmanship, both ground-level and above-ground-level views may be affected by the presence of the Project on the horizon. Because seascape views are considered a character-defining feature of the property because it represents a recreational property type associated with tourist activity in New Jersey, which heightens the importance of its setting, in particular those of sea views within the setting, the Project "may affect significant character-defining features of the property or may diminish one or more aspects of integrity," and a Potential for Adverse Effect finding is therefore recommended (COP Volume III, Appendix F-3, page 50; Ocean Wind 2023).

As described in the *Cumulative Historic Resources Visual Effects Analysis – Ocean Wind 1 Offshore Wind Farm Project*, the Brigantine Hotel is 16.3 miles from the nearest WTG associated with the Project and 9.2 miles from the nearest potential WTG location for other wind energy development activities. The total number of potentially visible turbines from the Brigantine Hotel is 561 WTGs. Of these, 98 theoretically visible WTGs (18 percent) would be from the proposed Project. As such, BOEM determined the Project would incrementally add to the cumulative visual effects on the Brigantine Hotel when combined with the effects of other past, present, or reasonably foreseeable future actions (BOEM 2022).

N.3.1.3.2 Absecon Lighthouse, Atlantic City, Atlantic County

This property is at the intersection of Pacific Avenue and Rhode Island Avenue in Atlantic City and is approximately 15.3 miles from the Wind Farm Area. Constructed in 1856, the lighthouse originally marked the inlet between Absecon and Brigantine Islands, although that channel has since shifted northward. The Absecon Lighthouse consists of a 171-foot-tall iron and brick tower that tapers from a diameter of 27 feet at its base to 13 feet, 7.5 inches at the lantern. A catwalk at a storage level just below the lens provided lightkeepers with views of the Absecon Inlet. Original secondary structures included a keeper's house, assistant keeper's house, and oil house, now all demolished. The building was surveyed in January 2021 and was individually listed in the NRHP in 1970. Absecon Lighthouse is significant for navigational history (Criterion A) and architecture (Criterion C) but does not include additional information regarding historic integrity (COP Volume III, Appendix F-3, page 51; Ocean Wind 2023).

While sea views are not listed as a character-defining feature of the property, the resource type and height were identified as characteristics of the historic property and, due to the property type, sea views may be character-defining features. The Project would not be visible at ground level, as the ocean is completely screened by intervening development. However, the Project would be partially visible from the lighthouse's lantern, with the southern half of the Wind Farm Area screened by Ocean Resort and Casino tower (built circa 2010) and the northern half of the Wind Farm Area visible. A finding of No Adverse Effect was recommended for the Absecon Lighthouse, as its integrity has been diminished by the loss of its secondary structures and the property's complete surrounding by modern development, and given

views of the Project are limited only to partial views from the lantern. However, through consultation BOEM determined that the Project would result in an Adverse Effect on Absecon Lighthouse (COP Volume III, Appendix F-3, pages 53–54; Ocean Wind 2023).

As described in the *Cumulative Historic Resources Visual Effects Analysis – Ocean Wind 1 Offshore Wind Farm Project*, the Absecon Lighthouse is 15.6 miles from the nearest WTG associated with the Project and 9.0 miles from the nearest potential WTG location for other wind energy development activities. The total number of potentially visible turbines from Absecon Lighthouse is 618 WTGs. Of these, 98 theoretically visible WTGs (16 percent) would be from the proposed Project. As such, BOEM determined the Project would incrementally add to the cumulative visual effects on the Absecon Lighthouse when combined with the effects of other past, present, or reasonably foreseeable future actions (BOEM 2022).

N.3.1.3.3 Atlantic City Boardwalk, Atlantic City, New Jersey

This property is along the oceanfront between South New Jersey and South Georgia Avenue in Atlantic City and is approximately 15.3 miles from the Wind Farm Area. The first iteration of the Atlantic City Boardwalk was constructed in 1870, with a seasonal structure built between South Massachusetts Avenue and what is now Columbia Place (between South Mississippi and Missouri Avenues). A widened but still seasonal boardwalk was constructed in 1880. A permanent structure was constructed in 1884 with electric lighting, which was replaced in 1890 due to hurricane damage and replaced again by a steel-braced boardwalk in 1898. Several piers were added in the 1890s, including Playground Pier, Central Pier, and Steel Pier. The Atlantic City Boardwalk was identified as a potential historic property in 1978, with New Jersey SHPO data indicating a boundary extending from the Atlantic City Convention Hall (South Georgia Avenue) to just northeast of South New Jersey Avenue. New Jersey SHPO data indicate the property's potential significance is associated with the commercial and recreation-related growth of Atlantic City (Criterion A) (COP Volume III, Appendix F-3, page 55; Ocean Wind 2023).

This property is directly on the oceanfront, ocean views were an important consideration in the structure's design and siting and influenced in the construction of commercial and recreational properties along the seashore. The property retains clear views of the ocean into the present. Although the Project would not affect the building's integrity of location, design, materials, and workmanship, ground-level views may be affected by the presence of the Project on the horizon. Because seascape views are considered a character-defining feature of the property, the Project "may affect significant character-defining features of the property or may diminish one or more aspects of integrity," and a Potential for Adverse Effect finding is therefore recommended (COP Volume III, Appendix F-3, page 56; Ocean Wind 2023).

As described in the *Cumulative Historic Resources Visual Effects Analysis – Ocean Wind 1 Offshore Wind Farm Project*, the Atlantic City Boardwalk is 15.2 miles from the nearest WTG associated with the Project and 8.8 miles from the nearest potential WTG location for other wind energy development activities. The total number of potentially visible turbines from Atlantic City Boardwalk is 561 WTGs. Of these, 98 theoretically visible WTGs (18 percent) would be from the proposed Project. As such, BOEM determined the Project would incrementally add to the cumulative visual effects on the Atlantic City Boardwalk when combined with the effects of other past, present, or reasonably foreseeable future actions (BOEM 2022).

N.3.1.3.4 Atlantic City Convention Hall, Atlantic City, New Jersey

This property is at 2301 Boardwalk in Atlantic City and is approximately 15.5 miles from the Wind Farm Area. Constructed in 1929, the building consists of a massive barrel-roofed auditorium behind the two-story entrance loggia and a one-story curved limestone exedra (arcade) along the Boardwalk. It was

surveyed for the Project in January 2021 and was individually listed in the NRHP in 1987 and designated an NHL in 1987. The property is listed in the NRHP under Criterion A as a recreational venue that hosted concerts, pageants, and sporting and political events. The property is also an NHL-designated property (COP Volume III, Appendix F-3, pages 63–64; Ocean Wind 2023).

This property is directly on the Atlantic City Boardwalk, ocean views were an important consideration in the building's design and siting, and the property retains ocean views from its interior at its ground floor entrances, screened partially by the exedra, and from the second-floor ballroom. Although the Project would not affect the building's integrity of location, design, materials, and workmanship, both ground-level and above-ground-level views may be affected by the presence of the Project on the horizon. Because seascape views are considered a character-defining feature of the property, the Project "may affect significant character-defining features of the property or may diminish one or more aspects of integrity," and a Potential for Adverse Effect finding is therefore recommended (COP Volume III, Appendix F-3, page 63; Ocean Wind 2023).

As described in the *Cumulative Historic Resources Visual Effects Analysis – Ocean Wind Offshore Wind Farm Project*, the Atlantic City Convention Hall is 15.5 miles from the nearest WTG associated with the Project and 9.2 miles from the nearest potential WTG location for other wind energy development activities. The total number of potentially visible turbines from Atlantic City Convention Hall is 561 WTGs. Of these, 98 theoretically visible WTGs (18 percent) would be from the proposed Project. As such, BOEM determined the Project would incrementally add to the cumulative visual effects on the Atlantic City Convention Hall when combined with the effects of other past, present, or reasonably foreseeable future actions (BOEM 2022).

N.3.1.3.5 Ritz-Carlton Hotel, Atlantic City, New Jersey

This property is at 2715 Boardwalk in Atlantic City and is approximately 15.3 miles from the Wind Farm Area. It consists of a five-story hotel, designed by Philadelphia's Horace Trumbauer in association with New York-based Warren and Wetmore and constructed in 1921, that has been converted to a condominium building. It was surveyed for the Project in January 2021 and recommended eligible for individual listing in the NRHP under Criterion A for Commerce as an urban hotel on the seashore and Criterion C for Architecture for Trumbauer's design, which maximized rooms with northeast and southwest sea views (COP Volume III, Appendix F-3, page 66; Ocean Wind 2023).

This property is directly on the Atlantic City Boardwalk, ocean views were an important consideration in the building's design and siting, and the property retains clear views of the ocean into the present, although architectural elements oriented toward the Wind Farm Area have been subject to modification, most notably at the mezzanine level on the exterior, where a redesign with replacement materials creates a solid screen in front of double-height arched windows. Although the Project would not affect the building's integrity of location, design, materials, and workmanship, both ground-level and above-ground-level views may be affected by the presence of the Project on the horizon. Because seascape views are considered a character-defining feature of the property, the Project "may affect significant character-defining features of the property or may diminish one or more aspects of integrity," and a Potential for Adverse Effect finding is therefore recommended (COP Volume III, Appendix F-3, pages 66–67; Ocean Wind 2023).

As described in the *Cumulative Historic Resources Visual Effects Analysis – Ocean Wind 1 Offshore Wind Farm Project*, the Ritz-Carlton Hotel is 15.5 miles from the nearest WTG associated with the Project and 9.3 miles from the nearest potential WTG location for other wind energy development activities. The total number of potentially visible turbines from the Ritz-Carlton Hotel is 561 WTGs. Of these, 98 theoretically visible WTGs (18 percent) would be from the proposed Project. As such, BOEM

determined the Project would incrementally add to the cumulative visual effects on the Ritz-Carlton Hotel when combined with the effects of other past, present, or reasonably foreseeable future actions (BOEM 2022).

N.3.1.3.6 Riviera Apartments, Atlantic City, New Jersey

This property is at 116 South Raleigh Avenue in Atlantic City and is approximately 15.6 miles from the Wind Farm Area. It consists of a nine-story apartment building constructed in 1930. It was surveyed for the Project in January 2021 and recommended eligible for individual listing in the NRHP under Criterion C for its Spanish-influenced Art Deco architectural style (COP Volume III, Appendix F-3, page 68; Ocean Wind 2023).

This property is directly on the Atlantic City Boardwalk, ocean views were an important consideration in the building's design and siting, and the property retains clear views of the ocean into the present. Although the Project would not affect the building's integrity of location, design, materials, and workmanship, both ground-level and above-ground-level views may be affected by the presence of the Project on the horizon. Because seascape views are considered a character-defining feature of the property, the Project "may affect significant character-defining features of the property or may diminish one or more aspects of integrity," and a Potential for Adverse Effect finding is therefore recommended (COP Volume III, Appendix F-3, page 69; Ocean Wind 2023).

As described in the *Cumulative Historic Resources Visual Effects Analysis – Ocean Wind 1 Offshore Wind Farm Project*, the Riviera Apartments are 15.6 miles from the nearest WTG associated with the Project and 8.8 miles from the nearest potential WTG location for other wind energy development activities. The total number of potentially visible turbines from Riviera Apartments is 561 WTGs. Of these, 98 theoretically visible WTGs (18 percent) would be from the proposed Project. As such, BOEM determined the Project would incrementally add to the cumulative visual effects on the Riviera Apartments when combined with the effects of other past, present, or reasonably foreseeable future actions (BOEM 2022).

N.3.1.3.7 Vassar Square Condominiums, Ventnor City, New Jersey

This property is at 116 South Vassar Square in Ventnor City and is approximately 16 miles from the Wind Farm Area. It consists of a 21-story building constructed in 1969. The building was surveyed in January 2021 and recommended individually eligible for the NRHP under Criterion C as a good example of mid-century high-rise design that embodies the New Formalist architectural style (COP Volume III, Appendix F-3, page 72; Ocean Wind 2023).

The Vassar Square Condominiums building is directly on the Atlantic City Boardwalk, the building was designed to maximize ocean view for residents, and the property continues to have clear open views of the seascape. Although the Project would not affect the building's integrity of location, design, materials, and workmanship, ground-level and above-ground-level views may be affected by the presence of the Project on the horizon. Because seascape views were an important consideration in the building's design, the Project "may alter a characteristic of the property that qualifies it for NRHP-eligibility," and a Potential for Adverse Effect finding is therefore recommended (COP Volume III, Appendix F-3, page 74; Ocean Wind 2023).

As described in the *Cumulative Historic Resources Visual Effects Analysis – Ocean Wind 1 Offshore Wind Farm Project*, the Vassar Square Condominiums are 15.6 miles from the nearest WTG associated with the Project and 9.7 miles from the nearest potential WTG location for other wind energy development activities. The total number of potentially visible turbines from Vassar Square

Condominiums is 561 WTGs. Of these, 98 theoretically visible WTGs (18 percent) would be from the proposed Project. As such, BOEM determined the Project would incrementally add to the cumulative visual effects on the Vassar Square Condominiums when combined with the effects of other past, present, or reasonably foreseeable future actions (BOEM 2022).

N.3.1.3.8 House at 114 South Harvard Avenue, Ventnor City, New Jersey

This property is approximately 15.7 miles from the Wind Farm Area. It consists of a 2.5-story French Eclectic style residence constructed in 1925. The building was surveyed in January 2021 and recommended eligible for individual listing in the NRHP under Criterion C as a good example of early 20th century beachfront housing (COP Volume III, Appendix F-3, page 81; Ocean Wind 2023).

The viewshed of this property features views of the seascape with limited visual obstructions. As a result, the Project is anticipated to be visible on the horizon. Although the building does not face the water, ocean views seem to have been an important consideration to its design. The Project would not affect the building's integrity of location, design, materials, and workmanship; however, integrity of setting, feeling, and association may be affected by the Project. Because seascape views were an important consideration in the building's design, the Project "may alter a characteristic of the property that qualifies it for NRHP-eligibility," and a Potential for Adverse Effect finding was therefore recommended (COP Volume III, Appendix F-3, page 82; Ocean Wind 2023).

As described in the *Cumulative Historic Resources Visual Effects Analysis – Ocean Wind 1 Offshore Wind Farm Project*, the house at 114 South Harvard Avenue is 15.7 miles from the nearest WTG associated with the Project and 9.9 miles from the nearest potential WTG location for other wind energy development activities. The total number of potentially visible turbines from the house at 114 Harvard Avenue is 561 WTGs. Of these, 98 theoretically visible WTGs (18 percent) would be from the proposed Project. As such, BOEM determined the Project would incrementally add to the cumulative visual effects on the house at 114 South Harvard Avenue when combined with the effects of other past, present, or reasonably foreseeable future actions (BOEM 2022).

N.3.1.3.9 Lucy the Margate Elephant, Margate City, New Jersey

This property is at 9200 Atlantic Avenue in Margate City and is approximately 15.3 miles from the Wind Farm Area. Lucy the Margate Elephant, originally known as Elephant Bazaar, was built in 1881 to promote real estate development in what is now Margate City. It consists of a six-story, elephant-shaped building. Alterations to the property include the partitioning of the domed interior space in 1902 and replacement of the original howdah (canopied seat) after it was destroyed in a storm in 1928. In 1970, the building was moved a few blocks from its original location to its current location. The building was surveyed in January 2021 and was individually listed in the NRHP in 1971 and designated an NHL in 1976. Lucy's significance as an architectural folly and sculpture, while not specified in its NRHP nomination, likely falls under Criteria A and C (COP Volume III, Appendix F-3; pages 83–84; Ocean Wind 2023).

This property is situated between Atlantic Avenue and the oceanfront and continues to have open views of the ocean from its upper levels, including the Project area; ground-level ocean views from the property have been partially screened by infill. Views of the seascape and beachfront were important considerations of the building's design and purpose as a tourist attraction that represents the vision of a late nineteenth-century entrepreneur for seaside development that continued through the 20th century, a vision reflected in Margate's growth all around the building. Although the Project would not affect the building's integrity of location, design, materials, and workmanship, it could affect its integrity of setting,

feeling, and association. Therefore, a Potential for Adverse Effect finding was recommended (COP Volume III, Appendix F-3, pages 84–85; Ocean Wind 2023).

As described in the *Cumulative Historic Resources Visual Effects Analysis – Ocean Wind 1 Offshore Wind Farm Project*, Lucy the Margate Elephant is 16.0 miles from the nearest WTG associated with the Project and 10.8 miles from the nearest potential WTG location for other wind energy development activities. The total number of potentially visible turbines from Lucy the Margate Elephant is 561 WTGs. Of these, 98 theoretically visible WTGs (18 percent) would be from the proposed Project. As such, BOEM determined the Project would incrementally add to the cumulative visual effects on Lucy the Margate Elephant when combined with the effects of other past, present, or reasonably foreseeable future actions (BOEM 2022).

N.3.1.3.10 Great Egg Coast Guard Station, Longport Borough, Atlantic County

This property is at 2301 Atlantic Avenue in Longport Borough and is approximately 15.2 miles from the Wind Farm Area. Constructed in 1938 to replace an 1888 lifesaving station at the same site, the Great Egg Coast Guard Station is an example of the 1934 Roosevelt Design for Coast Guard stations. The main massing of building is two and a half stories with a central three-story tower, with a stylistic overlay of Colonial Revival features such as a symmetrical fenestration, dormers, and front porch with Doric columns topped with a balustrade. The building was surveyed in January 2021 and was individually listed in the NRHP in 2005. Great Egg Coast Guard Station is listed under Criterion C as an example of the 1934 Roosevelt Design for Coast Guard stations (COP Volume III, Appendix F-3, pages 86–87; Ocean Wind 2023).

This property is one and a half blocks (approximately 0.14 mile) from the ocean front, with intervening development ranging from one to three stories. Due its location and intervening development, the Wind Farm Area would not be visible at ground level. However, the Wind Farm Area would be partially visible from the station's tower, although it is approximately the same height as other two and a half- to three-story buildings between the property and the ocean. The U.S. Government Lifesaving Stations, Houses of Refuge, and pre-1950 U.S. Coast Guard Lifeboat Stations Multiple-Property Documentation Form advises that a station's relationship to the shoreline and ocean views may be important for evaluating a lifesaving station's setting. A finding of No Adverse Effect was recommended for the Great Egg Coast Guard Station because its integrity will not be affected, as views of the Wind Farm Area are limited and therefore do not qualify as a substantial alteration of the property's setting. However, through consultation BOEM determined that the Project would result in an Adverse Effect on Absecon Lighthouse (COP Volume III, Appendix F-3, pages 53–54; Ocean Wind 2023).

As described in the *Cumulative Historic Resources Visual Effects Analysis – Ocean Wind 1 Offshore Wind Farm Project*, the Great Egg Coast Guard Station is 16.1 miles from the nearest WTG associated with the Project and 10.9 miles from the nearest potential WTG location for other wind energy development activities. The total number of potentially visible turbines from Great Egg Coast Guard Station is 592 WTGs. Of these, 98 theoretically visible WTGs (17 percent) would be from the proposed Project. As such, BOEM determined the Project would incrementally add to the cumulative visual effects on the Great Egg Coast Guard Station when combined with the effects of other past, present, or reasonably foreseeable future actions (BOEM 2022).

N.3.1.3.11 Ocean City Boardwalk, Ocean City, New Jersey

This property is along the oceanfront between East 6th Street and East 14th Street in Ocean City and is approximately 15.0 miles from the Wind Farm Area. The first iteration of the Ocean City Boardwalk was constructed in 1880, with a seasonal structure built between 2nd Street to 4th Street and West Avenue. The

Boardwalk was expanded to in 1885, extending to a amusement pavilion at 11th Street. The Boardwalk was reconstructed in 1928 following a fire that destroyed the original structure the year before. The 1928 boardwalk was built on a concrete foundation, with some portions of the structure reconstructed after the Ash Wednesday Storm in 1962 and other portions of the structure's 1928 concrete foundation reconstructed with wood in the 2000s. Due to local ordinance restrictions on oceanfront construction east of the Boardwalk, only the Ocean City Music Pier stands on the ocean side of the structure. For the purposes of the Project's Section 106 compliance, the Ocean City Boardwalk was treated as eligible for the NRHP under Criterion A as a result of the survey undertaken for the Project, with a boundary extending from East 6th Street to East 14th Street, reflecting the concentration of commercial development along its length (COP Volume III, Appendix F-3, pages 98–99; Ocean Wind 2023).

This property is directly on the beach, and ocean views were an important consideration in the structure's design and siting and influenced the construction of commercial and recreational properties along the seashore. The property retains clear views of the ocean into the present. Although the Project would not affect the building's integrity of location, design, materials, and workmanship, ground-level views may be affected by the presence of the Project on the horizon. Because seascape views are considered a character-defining feature of the property, the Project "may affect significant character-defining features of the property or may diminish one or more aspects of integrity," and a Potential for Adverse Effect finding is therefore recommended (COP Volume III, Appendix F-3, page 56; Ocean Wind 2023).

As described in the *Cumulative Historic Resources Visual Effects Analysis – Ocean Wind 1 Offshore Wind Farm Project*, the Ocean City Boardwalk is 15.6 miles from the nearest WTG associated with the Project and 10.9 miles from the nearest potential WTG location for other wind energy development activities. The total number of potentially visible turbines from Ocean City Boardwalk is 581 WTGs. Of these, 98 theoretically visible WTGs (17 percent) would be from the proposed Project. As such, BOEM determined the Project would incrementally add to the cumulative visual effects on the Ocean City Boardwalk when combined with the effects of other past, present, or reasonably foreseeable future actions (BOEM 2022).

N.3.1.3.12 Ocean City Music Pier, Ocean City, New Jersey

This property is at 811 Boardwalk in Ocean City and is approximately 15.0 miles from the Wind Farm Area. The property consists of a multi-story Mediterranean Revival-style building constructed in 1928. According to New Jersey SHPO records, the building was determined to be eligible for individual listing in the NRHP under Criteria A and C in 1990. Although these records do not explain under which significance criteria the property is eligible, a subsequent review determined that it was likely eligible under Criterion A for its prominent role as an entertainment venue on the Ocean City Boardwalk and under Criterion C for being a good example of the Mediterranean Revival style (COP Volume III, Appendix F-3, page 102; Ocean Wind 2023).

This property is on the Ocean City Boardwalk, is situated between the boardwalk and the oceanfront, and continues to have open views of the ocean, including the Project area. Views of the seascape and beachfront were important considerations of the building's design. Although the Project would not affect the building's integrity of location, design, materials, and workmanship, it could affect its integrity of setting, feeling, and association. Therefore, a Potential for Adverse Effect finding was recommended (COP Volume III, Appendix F-3, page 103; Ocean Wind 2023).

As described in the *Cumulative Historic Resources Visual Effects Analysis – Ocean Wind 1 Offshore Wind Farm Project*, the Ocean City Music Pier is 15.6 miles from the nearest WTG associated with the Project and 11.0 miles from the nearest potential WTG location for other wind energy development activities. The total number of potentially visible turbines from Ocean City Music Pier is 581 WTGs. Of

these, 98 theoretically visible WTGs (17 percent) would be from the proposed Project. As such, BOEM determined the Project would incrementally add to the cumulative visual effects on the Ocean City Music Pier when combined with the effects of other past, present, or reasonably foreseeable future actions (BOEM 2022).

N.3.1.3.13 The Flanders Hotel, Ocean City, Cape May County

This property is at 719 East 11th Street in Ocean City and is approximately 15.0 miles from the Wind Farm Area. The Flanders Hotel, built in 1923, consists of a nine-story U-shaped Spanish-Colonial Revival style hotel, a two-story commercial and solarium annex, a pool, and a parking lot. The hotel's eighth-story terrace on the north wing was enclosed in 1960 and the original three saltwater pools adjacent to the solarium on the building's east side were removed in 1978. A two-story addition was constructed on the hotel's south wing in the 1990s. The Flanders Hotel was surveyed in January 2021 and was individually listed in the NRHP in 2005. The property is listed under Criterion A in the areas of Entertainment and Recreation and Community Planning and Development for its historical development as a seaside resort and under Criterion C for its Spanish-Colonial Revival style design (COP Volume III, Appendix F-3, pages 104–106; Ocean Wind 2023).

This property is a half-block removed from the Ocean City Boardwalk. The property continues to have open views of the ocean from the guest rooms on the upper floors of the building. However, alterations and additions have limited or blocked views of the ocean from original spaces such as the eighth-story terrace, tower at the southeast corner of the building, and guest rooms on lower-level floors of the south wing. Furthermore, the adjacent development of the amusement park Playland's Castaway Cove partially screens ocean views from the property on its north and east sides. As the historic spaces designed to provide expansive ocean views have been altered themselves, or have had these views limited by new construction at and in the vicinity of the property, a Finding of No Adverse Effect was recommended for the Flanders Hotel. However, through consultation BOEM determined that the Project would result in an Adverse Effect on the Flanders Hotel (COP Volume III, Appendix F-3, pages 104–107; Ocean Wind 2023).

As described in the *Cumulative Historic Resources Visual Effects Analysis – Ocean Wind 1 Offshore Wind Farm Project*, the Flanders Hotel is 15.8 miles from the nearest WTG associated with the Project and 11.3 miles from the nearest potential WTG location for other wind energy development activities. The total number of potentially visible turbines from the Flanders Hotel is 662 WTGs. Of these, 98 theoretically visible WTGs (15 percent) would be from the proposed Project. As such, BOEM determined the Project would incrementally add to the cumulative visual effects on the Flanders Hotel when combined with the effects of other past, present, or reasonably foreseeable future actions (BOEM 2022).

N.3.1.3.14 Hereford Inlet Lighthouse, North Wildwood, Cape May County

This property is at 113 North Central Avenue in North Wildwood and is approximately 23.4 miles from the Wind Farm Area. Constructed in 1874 and relocated in the early twentieth century, the Hereford Inlet Lighthouse originally marked the Hereford Inlet between North Wildwood and Stone Harbor, 150 feet to the west of the building's present site. The building consists of one- and two-story masses surrounding a central four-story tower. USCG automated the lighthouse in 1964 and has since converted it to a museum. The Hereford Inlet Lighthouse was listed in the NRHP in 1977. The property is listed under Criterion A in the area of Commerce for its role as a navigational aid of the Hereford Inlet, an important waterway for local commerce, and under Criterion A for its design (COP Volume III, Appendix F-3, page 119; Ocean Wind 2023).

The property is situated near the ocean front, with a tidal flat between the property and the ocean. The Project would not be visible at ground level, as the southern half of the Wind Farm Area would be obscured by intervening development. However, the Wind Farm Area would be visible from the lighthouse's lantern. A finding of No Adverse Effect was recommended for the Hereford Inlet Lighthouse, as its integrity has been diminished by its relocation and the introduction of modern development in the vicinity of the property. However, through consultation BOEM determined that the Project would result in an Adverse Effect on Hereford Inlet Lighthouse (COP Volume III, Appendix F-3, pages 53–54; Ocean Wind 2023).

As described in the *Cumulative Historic Resources Visual Effects Analysis – Ocean Wind 1 Offshore Wind Farm Project*, the Hereford Inlet Lighthouse is 23.6 miles from the nearest WTG associated with the Project and 15.9 miles from the nearest potential WTG location for other wind energy development activities. The total number of potentially visible turbines from Hereford Inlet Lighthouse is 549 WTGs. Of these, 98 theoretically visible WTGs (18 percent) would be from the proposed Project. As such, BOEM determined the Project would incrementally add to the cumulative visual effects on the Hereford Inlet Lighthouse when combined with the effects of other past, present, or reasonably foreseeable future actions (BOEM 2022).

N.3.1.3.15 North Wildwood Lifesaving Station, North Wildwood, Cape May County

This property is at 113 North Central Avenue in North Wildwood and is approximately 23.4 miles from the Wind Farm Area. Constructed in 1938 to replace an 1888 lifesaving station at the same site, the North Wildwood Lifesaving Station is an example of the 1934 Roosevelt Design for Coast Guard stations. The main massing of building is two and a half stories with a central three-story tower, with a stylistic overlay of Colonial Revival features such as a symmetrical fenestration, dormers, and front porch with Doric columns topped with a balustrade. While New Jersey SHPO records do not include information on the building's significance, it is likely significant under Criterion A for Maritime History and under Criterion C as an example of the 1934 Roosevelt Design for Coast Guard stations. The building was surveyed in January 2021 and for the purposes of the Project's Section 106 compliance, and was treated as eligible for the NRHP under Criteria A and C (COP Volume III, Appendix F-3, page 116; Ocean Wind 2023).

The property is situated near the ocean front, with a tidal flat between the property and the ocean. The Project would be minimally visible at ground level, as the southern half of the Wind Farm Area would be partially obscured by intervening development. However, this half of the Wind Farm Area would be visible from the lifesaving station's tower. A finding of No Adverse Effect was recommended for the North Wildwood Lifesaving Station because its tower was a consequence of its architectural design, rather than its historic function as before and immediately after World War II manned lookouts were replaced automated technologies and administrative nature of stations replaced lookout functions. Furthermore, its integrity would not be affected, as views of the Wind Farm Area would be limited and therefore do not qualify as a substantial alteration of the property's setting. However, through consultation BOEM determined that the Project would result in an Adverse Effect on North Wildwood Lifesaving Station (COP Volume III, Appendix F-3, pages 53–54; Ocean Wind 2023).

As described in the *Cumulative Historic Resources Visual Effects Analysis – Ocean Wind 1 Offshore Wind Farm Project*, the North Wildwood Lifesaving Station is 23.6 miles from the nearest WTG associated with the Project and 15.9 miles from the nearest potential WTG location for other wind energy development activities. The total number of potentially visible turbines from North Wildwood Lifesaving Station is 528 WTGs. Of these, 98 theoretically visible WTGs (19 percent) would be from the proposed Project. As such, BOEM determined the Project would incrementally add to the cumulative visual effects on the North Wildwood Lifesaving Station when combined with the effects of other past, present, or reasonably foreseeable future actions (BOEM 2022).

N.3.1.3.16 U.S. Lifesaving Station #35, Stone Harbor Borough, Cape May County

This property is at 11617 2nd Avenue in Stone Harbor and is approximately 21.9 miles from the Wind Farm Area. Constructed in 1895, U.S. Lifesaving Station #35 (now the Steven C. Ludlum American Legion Post 331) is an example of the 1893 Duluth Design by George R. Tolman. The station consists of three sections: the southern primary lifesaving station building, a central four-story tower, and northern boat room. U.S. Lifesaving Station #35 was surveyed in January 2021 and was individually listed in the NRHP in 2008. The property is listed under Criterion A in the areas of Transportation and Maritime History for its role as a historic lifesaving station and under Criterion C as an example of the Tolman's 1893 Duluth Design for lifesaving stations (COP Volume III, Appendix F-3, page 113; Ocean Wind 2023).

Although originally on the ocean front, the property is now one block from the ocean front due to the dense residential infill and sand deposits to the east along the shoreline. The Project would be minimally visible at ground level, as the Wind Farm Area would be partially obscured by intervening development and planted trees within the center median of 2nd Avenue. The building's tower projects slightly above the infill buildings to the east and would have views of the of Wind Farm Area from its upper section. A finding of No Adverse Effect was recommended for U.S. Lifesaving Station #35, as its integrity of setting and association have already been diminished since its construction and later decommissioning in 1948 and views of the Project from the property would be limited to only the upper sections of the tower. However, through consultation BOEM determined that the Project would result in an Adverse Effect on U.S. Lifesaving Station #35 (COP Volume III, Appendix F-3, pages 113–114; Ocean Wind 2023).

As described in the *Cumulative Historic Resources Visual Effects Analysis – Ocean Wind 1 Offshore Wind Farm Project*, the U.S. Lifesaving Station #35 is 21.9 miles from the nearest WTG associated with the Project and 14.5 miles from the nearest potential WTG location for other wind energy development activities. The total number of potentially visible turbines from U.S. Lifesaving Station #35 is 561 WTGs. Of these, 98 theoretically visible WTGs (18 percent) would be from the proposed Project. As such, BOEM determined the Project would incrementally add to the cumulative visual effects on U.S. Lifesaving Station #35 when combined with the effects of other past, present, or reasonably foreseeable future actions (BOEM 2022).

N.3.1.3.17 Little Egg Harbor U.S. Lifesaving Station #23, Little Egg Harbor Township, Ocean County

This property is at 800 Great Bay Boulevard in Little Egg Harbor Township and is approximately 21.3 miles from the Wind Farm Area. The Little Egg Harbor U.S. Lifesaving Station #23 was built in 1937 to replace the original station in this area, which was first constructed on Tucker Island in 1869 and moved several times due to beach erosion. The building is an example of the 1934 Roosevelt Design for Coast Guard stations. The station consists of a two-story rectangular building with a central cupola and features Colonial Revival elements. The building and its associated boathouses are constructed on elevated piers to accommodate the tides and are accessed by a long pedestrian boardwalk from Great Bay Boulevard. It remained a USCG station until the 1960s and was then purchased by Rutgers University in 1972 for use as a marine field station. The property was surveyed in January 2021 and determined individually eligible for listing in the NRHP by New Jersey SHPO in 2014. While New Jersey SHPO records do not include information on the building's significance, it is likely significant under Criterion A for Maritime History and under Criterion C as an example of the 1934 Roosevelt Design for Coast Guard stations (COP Volume III, Appendix F-3, page 44; Ocean Wind 2023).

The property is situated on southern point of Little Egg Harbor's salt marsh peninsula within the Great Bay Boulevard Wildlife Management Area, in the vicinity of the Little Egg Inlet. The Wind Farm Area

would be partially visible from the property, with the northern reach visible across Little Egg Inlet and the southern three quarters obscured by Dog Island. A finding of No Adverse Effect was recommended for Little Egg Harbor U.S. Lifesaving Station #23 because its sea view to open ocean beyond Little Egg Inlet is a consequence of its location and not related to its historical function, which was primarily concerned with views and expeditious access to the channels within the bay and Little Egg Inlet. Furthermore, its integrity would not be affected, as views of the Wind Farm Area would be limited and therefore do not qualify as a substantial alteration of the property's setting. However, through consultation BOEM determined that the Project would result in an Adverse Effect on Little Egg Harbor U.S. Lifesaving Station #23. (COP Volume III, Appendix F-3, pages 44 and 46; Ocean Wind 2023).

As described in the *Cumulative Historic Resources Visual Effects Analysis – Ocean Wind 1 Offshore Wind Farm Project*, the Little Egg Harbor U.S. Lifesaving Station #23 is 21.9 miles from the nearest WTG associated with the Project and 11.6 miles from the nearest potential WTG location for other wind energy development activities. The total number of potentially visible turbines from Little Egg Harbor U.S. Lifesaving Station #23 is 575 WTGs. Of these, 98 theoretically visible WTGs (17 percent) would be from the proposed Project. As such, BOEM determined the Project would incrementally add to the cumulative visual effects on the Little Egg Harbor U.S. Lifesaving Station #23 when combined with the effects of other past, present, or reasonably foreseeable future actions (BOEM 2022).

N.3.2 Summary of Adversely Affected Historic Properties

N.3.2.1. Adverse Effects on Historic Properties in the Marine APE

Ocean Wind 1 will avoid effects on all 19 submerged archaeological resources and their associated avoidance buffers. Ocean Wind 1 also commits to avoiding the defined spatial extent of 3 of 16 ancient submerged landforms. Thirteen of the 16 ancient submerged landforms within the Lease Area cannot be avoided by the Project, as WTGs, OSS, cables, and associated work zones are proposed for locations within the defined areas of these resources. Therefore, BOEM has determined the undertaking would have adverse effects on historic properties within the marine APE.

N.3.2.2. Adverse Effects on Historic Properties in the Terrestrial APE

The Project has been sited to avoid adverse effects on terrestrial archaeological resources by siting onshore facilities within previously disturbed areas and existing road right-of-way to the extent practicable. Archaeological survey of these areas revealed six archaeological sites within the terrestrial APE, including previously disturbed areas. Two are expansions of previously reported sites, one is an adjacent previously reported site for which additional data are lacking, and three are newly reported. All six archaeological sites would be avoided by all Project activities that are part of the undertaking. Therefore, BOEM finds no adverse effect on these historic properties.

N.3.2.3. Adverse Effects on Historic Properties within the Visual APE

Based on the information BOEM has available from the studies conducted to identify historic properties within the visual APE of the Project and the assessment of effects upon those properties determined in consultation with the consulting parties, BOEM has determined that the Project would have adverse visual effects on the following historic properties:

- Brigantine Hotel, Brigantine City
- Absecon Lighthouse, Atlantic City
- Atlantic City Boardwalk, Atlantic City
- Atlantic City Convention Hall, Atlantic City

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

The undertaking would affect the character of the properties' settings that contributes to their historic significance by introducing visual elements that are out of character with the historic setting of the properties. BOEM did, however, determine that, due to the distance and open viewshed, the integrity of the properties would not be so diminished as to disqualify any of them for NRHP eligibility.

The adverse effects on the viewshed of the above-ground historic properties would occupy the space for approximately 35 years, but they are unavoidable for reasons discussed in Section N.3.1.3. This application of the criteria of adverse effect and determination that the effects are direct are based on pertinent NRHP bulletins, subsequent clarification and guidance by the National Park Service and ACHP, and other documentation, including professionally prepared viewshed assessments and computer-simulated photographs.

While the historic resources visual affects assessment distributed to consulting parties on March 21, 2022, recommended a finding of adverse effect on the six historic properties, the historic resources visual affects assessment was revised in November 2022 to incorporate consulting party input and new data. Two of the properties (Villa Maria by the Sea in Stone Harbor, New Jersey, and Charles Fischer House at 115 S. Princeton Avenue, Ventnor City, New Jersey) were demolished and six properties were newly recommended as being adversely affected (COP Volume III, Appendix F-3; Ocean Wind 2023). The finding of adverse effect has been further revised in February 2023 to incorporate consulting party input. BOEM finds seven additional properties are adversely affected.

N.4. Actions to Avoid, Minimize, or Mitigate Adverse Effects

BOEM will stipulate measures to avoid, minimize, and mitigate adverse effects for certain historic properties identified in the APE as adversely affected by the Project, as well as cumulative adverse visual effects caused by the Project. Specifically, BOEM will stipulate measures to avoid known terrestrial archaeological resources and submerged archaeological and ancient submerged landforms, minimize visual effects on historic properties, and stipulate implementation of an terrestrial archaeological monitoring plan. BOEM will also stipulate mitigation measures to resolve adverse effects for 13 adversely effected ancient submerged landforms that cannot be avoided, or in cases where there is post-

review discovery of previously unknown terrestrial or marine archaeology that are not currently found to be subject to adverse effects from the Project. BOEM, with the assistance of Ocean Wind, will develop and implement two Historic Property Treatment Plans in consultation with consulting parties who have demonstrated interest in specific historic properties and property owners. This will include a treatment plan to address impacts on ancient submerged landforms and a treatment plan that will provide details and specifications for actions consisting of mitigation measures to resolve adverse visual effects and cumulative adverse visual effects. The terrestrial archaeological monitoring plan and two treatment plans are included as attachments to the Memorandum of Agreement (Attachment A).

As part of the NRHP Section 106 process, Ocean Wind has committed to APMs as conditions for approval of issuance of BOEM's permit (COP Volume III, Appendix F-4), including:

1. Ocean Wind would apply a paint color to the WTGs no lighter than RAL 9010 pure white and no darker than RAL 7035 light gray to help reduce potential visibility of the turbines against the horizon during daylight hours.
2. Ocean Wind would implement an ADLS to automatically activate lights when aircraft approach. The WTGs and OSS would be lit and marked in accordance with FAA and USCG lighting standards and consistent with BOEM best practices.
3. Implementation of the terrestrial archaeological monitoring plan, terrestrial post-review discovery plan, and marine post-review discovery plan would reduce potential impacts on any previously undiscovered archaeological resources (if present) encountered during construction and operation. Archaeological monitoring and the implementation of a post-review discoveries plan would reduce potential impacts on undiscovered archaeological resources to a negligible level by preventing further physical impacts on the archaeological resources encountered during construction.
4. Ocean Wind cannot avoid 13 of the 16 ancient submerged landforms (Targets 21–26, 28–31, and 33–35) and will complete the mitigation measures as outlined in COP Volume III, Appendix F-4 for the purposes of resolving adverse effects per 36 CFR 800.6, including:
    a. Geoarchaeological analysis consisting of archaeological core processing and artifact screening, tribal participation in lab processing of core samples, data analysis, update to paleolandscape reconstruction model, and public or professional presentations summarizing the results of the investigations, developed with the consent of the consulting tribes/tribal nations
    b. Tribal outreach and preparation of educational materials developed with participating tribes in the form of open-source geographic information system and story maps or equivalent digital/media presentations that address traditional past land uses associated with the submerged landforms
    c. In consultation with BOEM, ancient submerged landform post-construction seafloor impact inspection, including development of a 3D model throughout ancient submerged landforms designated for review; development of the remotely operated vehicle investigation methodology to conduct seafloor inspections along affected portions of the selected ancient submerged landforms; review of candidate datasets and attributes for inclusion in the geographic information system; delivery of data interpretive technical report draft; and delivery of final technical report
    d. Conducting an ethnographic study consisting of funding an ethnographic researcher and researcher travel; funding for Delaware Tribe of Indians, Delaware Nation, and Stockbridge Munsee technology upgrades associated with analysis of geographic information system data; funding for Delaware Tribe of Indians historic preservation oversight and indirect costs; funding for Stockbridge-Munsee Community Band of Mohican Indians Tribal Historic Preservation Officer collaboration; providing relevant ancient submerged landform geographic information system data layers to Delaware Tribe of Indians for use in this study as well as providing a

tutorial on the data; progress calls and report development; and funding for a presentation to highlight the results of the study to be coordinated and executed by Delaware Tribe of Indians

5. Ocean Wind would fund documentation preparation and public education material development, as outlined in COP Volume III, Appendix F-4, for properties adversely affected by visual impacts to resolve adverse effects per 36 CFR 800.6 including:
    I. National Historic Landmarks Mitigation
        A. Lucy the Margate Elephant
            1. Funding for Visitor Experience and Public Access for Lucy the Margate Elephant
    II. Multi-property and Multi-county Mitigation
        A. Historic Context addressing early 20th century New Jersey Shore Hotels
        B. Historic Context addressing mid-century High-rise residential buildings at the New Jersey Shore
        C. Historic Context addressing Boardwalks of the New Jersey Shore, with Surveys and Evaluations of Atlantic City Boardwalk, Ocean City Boardwalk, and Wildwood Boardwalk
    III. Atlantic County Historic Properties Mitigation
        A. Absecon Lighthouse, Atlantic City, Atlantic County
            1. Funding for Visitor Experience and Public Access for Absecon Lighthouse
        B. Atlantic City Boardwalk, Atlantic City, Atlantic County
            1. Funding for Visitor Experience and Public Access for Atlantic City Boardwalk
6. Ocean Wind will contribute funding to a Mitigation Fund, as outlined in the Memorandum of Agreement (Attachment A), for properties adversely affected by visual impacts to resolve adverse effects per 36 CFR 800.6 including:
        A. Funding to resolve adverse effects on 14 historic properties: Brigantine Hotel, Brigantine City; Atlantic City Convention Hall, Atlantic City; Ritz-Carlton Hotel, Atlantic City; Riviera Apartments, Atlantic City; Vassar Square Condominiums, Ventnor City; House at 114 South Harvard Avenue, Ventnor City; Great Egg Coast Guard Station, Longport Borough; Ocean City Boardwalk, Ocean City; Ocean City Music Pier, Ocean City; Hereford Lighthouse, North Wildwood; North Wildwood Life Saving Station, North Wildwood; U.S. Lifesaving Station #35, Stone Harbor Borough; Flanders Hotel, Ocean City; and Little Egg Harbor U.S. Life Saving Station #23 (U.S. Coast Guard Station #119), Little Egg Harbor Township.
        B. Mitigation measures to be developed in consultation with consulting parties but could include activities such as HABS documentation and HABS-like documentation, Historic Structure Reports, and funding for visitor experience, public access, and climate resiliency.

Ocean Wind has not identified the 5th Street cable route option for BL England interconnection as the preferred cable route. However, in the event that the 5th Street cable route option is selected by Ocean Wind, BOEM will require Ocean Wind to use construction approaches to avoid or minimize vibration impacts on foundations of historic properties adjacent to right-of-way construction areas, to prepare and implement a vibration monitoring plan, and to avoid instances of slate sidewalk remnants if feasible, or remove and replace them prior to and following construction activities.

The NHPA Section 106 consultation process is ongoing for the Project, and will culminate in a Memorandum of Agreement detailing avoidance, minimization, and mitigation measures to resolve adverse effects on historic properties, including cumulative adverse visual effects caused by the Project. See Attachment A. BOEM will continue to consult in good faith with the New Jersey SHPO and other consulting parties to resolve adverse effects.

N.5. Phased Identification

Information pertaining to identification of historic properties within certain portions of the marine APE related to Alternatives B-1, B-2, C-1, C-2, and D will not be available until after the ROD is issued and the COP is approved. If Alternative B-1, B-2, C-1, C-2, or D is selected, BOEM will use the Memorandum of Agreement to establish commitments for phased identification and evaluation of historic properties within the marine APE in accordance with BOEM's existing *Guidelines for Providing Archaeological and Historic Property Information Pursuant to Title 30 Code of Federal Regulations Part 585*, ensuring potential historic properties are identified, effects assessed, and adverse effects resolved prior to construction (Memorandum of Agreement Stipulation IV). If Alternative C-1 is selected, previously unsurveyed areas associated with one WTG and potentially the inter-array cable routing will need to be surveyed for marine archaeology. If Alternative C-2 is selected, previously unsurveyed areas associated with 22 WTG positions and potentially the inter-array cable routing will need to be surveyed for marine archaeology. If Alternative B-1, B-2, or D is selected, previously unsurveyed areas associated with the inter-array cable may need to be surveyed for marine archaeology.

The Memorandum of Agreement will specify the Section 106 consultation process in the event one of these alternatives is selected (Alternative B-1, B-2, C-1, C-2, or D). If one of these alternatives is selected, Ocean Wind will be required to complete underwater archaeology surveys for portions of the marine APE that have not been surveyed in accordance with BOEM's existing *Guidelines for Providing Archaeological and Historic Property Information Pursuant to Title 30 Code of Federal Regulations Part 585*. BOEM will review the results of these surveys and, after its final agreement that these surveys and survey results are sufficient, BOEM will making a finding of effect if any historic properties could potentially be affected by one of these selected alternatives. If BOEM identifies no additional historic properties or determines that no historic properties are adversely affected due to the selection of one of these alternatives, BOEM, with the assistance of Ocean Wind, will notify and consult with the signatories, invited signatories, and consulting parties by providing a written summary of the surveyed area including any maps, a summary of any additional surveys and research conducted to identify historic properties and assess effects, and copies of the surveys. BOEM and Ocean Wind will allow the signatories, invited signatories, and consulting parties 30 calendar days to review and comment on the proposed change, BOEM's determination, and the documents. After the 30-calendar-day review period has concluded and no comments require additional consultation, Ocean Wind will notify the signatories and consulting parties that BOEM has received concurrence from the New Jersey SHPO regarding the finding of effect and, if i received any comments, provide a summary of the comments and BOEM's responses. BOEM, with the assistance of Ocean Wind, will conduct any consultation meetings if requested by the signatories or consulting parties.

If BOEM determines new adverse effects on historic properties will occur due to the selection of one of these alternatives and based on the results of the underwater archaeology surveys, BOEM with the assistance of Ocean Wind, will notify and consult with the signatories, invited signatories, and consulting parties regarding BOEM's finding and the proposed measures to resolve the adverse effect(s) including the development of a new treatment plan(s) following the consultation process set forth in the Memorandum of Agreement. Ocean Wind will notify all signatories, invited signatories, and consulting parties about the selection of one of these alternatives, the results of the surveys and copies of the survey

reports, BOEM's determination, and the proposed resolution measures for the adverse effect(s). The signatories, invited signatories, and consulting parties will have 30 calendar days to review and comment on the survey reports, the results of the survey reports, the adverse effect finding, and the proposed resolution of adverse effect(s), including a draft treatment plan(s). BOEM, with the assistance of Ocean Wind, will conduct additional consultation meetings, if necessary, during consultation on the adverse effect finding and during drafting and finalization of the treatment plan(s). BOEM, with the assistance of Ocean Wind, will respond to the comments and make necessary edits to the documents. Ocean Wind will send the revised draft final documents to the other signatories, invited signatories, and consulting parties for review and comment during a 30-calendar-day review and comment period. With this same submittal of draft final documents, Ocean Wind will provide a summary of all the comments received on the documents and BOEM's responses. BOEM, with the assistance of Ocean Wind, will respond to the comments on the draft final documents and make necessary edits to the documents. Ocean Wind will notify all the signatories, invited signatories, and consulting parties and will provide the final document(s) including the final treatment plan(s) and a summary of comments and BOEM's responses to comments, if it receives any on the draft final documents, after BOEM has received concurrence from the New Jersey SHPO on the finding of new adverse effect(s), and BOEM has accepted the final treatment plan(s).

N.6. National Historic Landmarks and the NHPA Section 106 Process

The National Park Service, which administers the NHL program for the Secretary of the Interior, describes NHLs and requirements for NHLs as follows:

> National Historic Landmarks (NHL) are designated by the Secretary under the authority of the Historic Sites Act of 1935, which authorizes the Secretary to identify historic and archaeological sites, buildings, and objects which "possess exceptional value as commemorating or illustrating the history of the United States" Section 110(f) of the NHPA requires that Federal agencies exercise a higher standard of care when considering undertakings that may directly and adversely affect NHLs. The law requires that agencies, "to the maximum extent possible, undertake such planning and actions as may be necessary to minimize harm to such landmark." In those cases when an agency's undertaking directly and adversely affects an NHL, or when Federal permits, licenses, grants, and other programs and projects under its jurisdiction or carried out by a state or local government pursuant to a Federal delegation or approval so affect an NHL, the agency should consider all prudent and feasible alternatives to avoid an adverse effect on the NHL.

NHPA Section 110(f) applies specifically to NHLs. BOEM is implementing the special set of requirements for protecting NHLs and for compliance with NHPA Section 110(f) at 36 CFR 800.10, which, in summary:

- requires the agency official, to the maximum extent possible, to undertake such planning and actions as may be necessary to minimize harm to any NHL that may be directly and adversely affected by an undertaking;
- requires the agency official to request the participation of ACHP in any consultation conducted under 36 CFR 800.6 to resolve adverse effects on NHLs; and
- further directs the agency to notify the Secretary of the Interior of any consultation involving an NHL and to invite the Secretary of the Interior to participate in consultation where there may be an adverse effect.

The Historic Resources Visual Effects Assessment identified two NHLs in the visual APE for the Project: the Atlantic City Convention Hall and Lucy the Margate Elephant.

Atlantic City Convention Hall (Jim Whelan Boardwalk Hall), built in 1929, was a focal point of the Atlantic City Boardwalk in the early 20th century. The building features a massive barrel-roofed auditorium behind the two-story entrance loggia and a one-story curved limestone exedra (arcade) along the Boardwalk. The convention hall was used as a recreational venue, hosting concerts, sporting and political events, and pageants in its large auditorium. A smaller auditorium above the building's Boardwalk entrance was historically used as a ballroom and now serves as a multi-function space for gatherings and small events. The Atlantic City Convention Hall was listed in the NRHP and designated as an NHL in 1987; it was listed in the New Jersey Register of Historic Places in 1993. The convention hall is listed under Criterion A, in the area of recreation and culture, as a recreational venue associated with social and civic events in Atlantic City in the early and mid-20th century. The building is listed under Criterion C, in the area of engineering, for the design of the main auditorium's massive barrel roof, entrance loggia, and Boardwalk exedra. In a 2021 review of the property, it was noted that:

> The Project will have a visual effect on the Atlantic City Convention Hall, largely borne by the exedra walkway, a contributing structure of the site, located across the Boardwalk from the Convention Hall. While the Project would not alter any characteristics or physical features within the Convention Hall that contribute to its historic significance, BOEM determined that the Project would diminish its integrity of setting, an aspect of its historic integrity that relates to its significance. The Atlantic City Convention Hall is significant under Criterion A for Recreation and Criterion C for Engineering. The building's location on Atlantic City's Boardwalk is paramount to its history and associated significance…To the extent that the [Wind Farm Area] would be visible along the horizon approximately 15.5 mi from the historic property, BOEM has determined that the impact to setting rises to the level of adverse effect. (COP Volume III, Appendix F, page 64; Ocean Wind 2023).

Lucy the Margate Elephant was built in 1881 to promote real estate development in what is now Margate City. In 1970, the building was moved a few blocks from its original location to its current location at 9200 Atlantic Avenue. The building's original location was two blocks northeast, near the intersection of present-day Atlantic Avenue and South Cedar Grove Avenue. The building was listed in the NRHP in 1971 and designated an NHL in 1976 under Criteria A and C. Modifications to Lucy include the partitioning of the domed interior space in 1902 and replacement of the original howdah (canopied seat) after it was destroyed in a storm in 1928. Both alterations occurred prior to the building being listed in the NRHP. In a 2021 review of the property, it was noted that:

> At a distance of 15.3 mi, characterized in the VIA as apparent, the [Wind Farm Area] will be visible on the horizon, altering the property's setting and potentially, the experience of visitors to the site. Lucy's significance as an architectural folly and sculpture, while not specified in its NRHP nomination, likely falls under Criteria A and C. Sea views are a key component of the building's property type and contribute to its significance. Therefore, a finding of Adverse Effect is recommended for Lucy the Margate Elephant. (COP Volume III, Appendix F-3, page 85; Ocean Wind 2023).

BOEM has determined these two properties would be adversely affected by the Project, as both properties have seaside locations and these ocean views that are considered a character-defining feature of their significance (COP Volume III, Appendix F-3, pages 64 and 85; Ocean Wind 2023).

N.7. References Cited

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Hartgen Archeological Associates, Inc. 2021. *Phase I Archaeological Investigation, Ocean Wind Offshore Wind Farm (Lease Area OCS-A 0498), Oyster Creek, Addendum - Terrestrial Archaeological Resources Assessment*. Prepared for HDR Engineering Inc. October.

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ATTACHMENT A
MEMORANDUM OF AGREEMENT

Version dated April 19, 2023

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DRAFT MEMORANDUM OF AGREEMENT
AMONG THE BUREAU OF OCEAN ENERGY MANAGEMENT,
THE NEW JERSEY STATE HISTORIC PRESERVATION OFFICER,
AND THE ADVISORY COUNCIL ON HISTORIC PRESERVATION
REGARDING THE OCEAN WIND 1 OFFSHORE WIND FARM PROJECT

WHEREAS, the Bureau of Ocean Energy Management (BOEM) plans to authorize construction and operation of the Ocean Wind 1 Offshore Wind Farm Project (Project) pursuant to Section 8(p)(1)(C) of the Outer Continental Shelf (OCS) Lands Act (43 U.S.C. 1337(p)(1)(C)), as amended by the Energy Policy Act of 2005 (Public Law No. 109-58) and in accordance with Renewable Energy Regulations at 30 Code of Federal Regulations (CFR) Part 585; and

WHEREAS, BOEM determined that the Project constitutes an undertaking subject to Section 106 of the National Historic Preservation Act (NHPA), as amended (54 USC 306108), and its implementing regulations (36 CFR 800), and consistent with the Programmatic Agreement (NJ-NY PA) regarding the review of OCS renewable energy activities offshore New Jersey and New York (*Programmatic Agreement Among The U.S. Department of the Interior, Bureau of Ocean Energy Management, The State Historic Preservation Officers of New Jersey and New York, The Shinnecock Indian Nation, and The Advisory Council on Historic Preservation Regarding Review of Outer Continental Shelf Renewable Energy Activities Offshore New Jersey and New York Under Section 106 of the National Historic Preservation Act*); and

WHEREAS, BOEM plans to approve with conditions the Construction and Operations Plan (COP) submitted by Ocean Wind LLC (Ocean Wind) hereafter referred to as the lessee; and

WHEREAS, BOEM determined the construction, operation, maintenance, and eventual decommissioning of the Project, planned for up to 98 offshore Wind Turbine Generators (WTGs), up to three offshore substations, two onshore substations, offshore and onshore export cables, could potentially adversely affect historic properties as defined under 36 CFR 800.16(l); and

WHEREAS, BOEM is preparing an Environmental Impact Statement (EIS) for the Project pursuant to the National Environmental Policy Act (42 USC 4321 et seq.) (NEPA) and elected to use the NEPA substitution process with its Section 106 consultation pursuant to 36 CFR 800.8(c); and

WHEREAS, BOEM notified in advance the New Jersey State Historic Preservation Officer (SHPO) and the Advisory Council on Historic Preservation (ACHP) on March 8, 2021, of their decision to use NEPA substitution and followed the standards for developing environmental documents to comply with the Section 106 consultation for this Project pursuant to 36 CFR 800.8(c), and ACHP responded with acknowledgement and guidance regarding NEPA substitution on March 23, 2021; and

WHEREAS, in accordance with 36 CFR 800.3, BOEM invited New Jersey SHPO to consult on the Project on March 30, 2021, and New Jersey SHPO accepted on April 21, 2021; and

WHEREAS, in accordance with 36 CFR 800.3, BOEM invited ACHP to consult on the Project on March 30, 2021; and

WHEREAS, the Project is within a commercial lease area that was subject to previous NHPA Section 106 review by BOEM regarding the issuance of the commercial lease and approval of site assessment activities, which underwent Section 106 review pursuant to the NJ-NY PA and concluded with No Historic Properties Affected on October 18, 2017.

WHEREAS, consistent with 36 CFR 800.16(d) and BOEM's *Guidelines for Providing Archaeological and Historic Property Information Pursuant to 30 CFR Part 585* (May 27, 2020), BOEM

defined the area of potential effects (APE) for the undertaking as the depth and breadth of the seabed potentially impacted by any bottom-disturbing activities, constituting the marine archaeological resources portion of the APE (marine APE); the depth and breadth of terrestrial areas potentially impacted by any ground disturbing activities, constituting the terrestrial archaeological resources portion of the APE (terrestrial APE); the viewshed from which offshore or onshore renewable energy structures would be visible, constituting the visual portion of the APE (visual APE); and any temporary or permanent construction or staging areas that may fall into any of the aforementioned offshore or onshore portions of the APE (see Attachment 1 APE Maps); and

WHEREAS, BOEM identified 19 submerged historic properties and 16 ancient submerged landforms features (ASLFs) in the marine APE; six historic properties, all archaeological sites, in the terrestrial APE; and nine historic districts and 40 aboveground historic properties in the offshore Project components' portion of the visual APE and three historic properties in the onshore Project components' portion of the visual APE; and

WHEREAS, BOEM identified two National Historic Landmarks (NHLs) in the offshore Project components' portion of the visual APE, Lucy the Margate Elephant and Atlantic City Convention Hall, and BOEM determined the Project could potentially visually adversely affect these two NHLs due to their seaside locations and their character-defining ocean views will be altered and diminished; and

WHEREAS, BOEM has determined that the undertaking will adversely affect 13 ASLFs (Targets 21–26, 28–31, and 33–35) from physical disturbance in the lease area and export cable construction; and will visually adversely affect aboveground historic properties: Atlantic City Convention Hall, Atlantic City; Lucy the Margate Elephant, Margate City; Absecon Lighthouse, Atlantic City; Great Egg Coast Guard Station, Longport Borough; Hereford Lighthouse, North Wildwood; U.S. Lifesaving Station #35, Stone Harbor Borough; Flanders Hotel, Ocean City, which are listed in the National Register of Historic Places (NRHP); and Brigantine Hotel, Brigantine City; Atlantic City Boardwalk, Atlantic City; Ritz-Carlton Hotel, Atlantic City; Riviera Apartments, Atlantic City; Vassar Square Condominiums, Ventnor City; House at 114 South Harvard Avenue, Ventnor City; Ocean City Boardwalk, Ocean City; and Ocean City Music Pier, Ocean City; North Wildwood Life Saving Station, North Wildwood; Little Egg Harbor U.S. Life Saving Station #23 (U.S. Coast Guard Station #119), Little Egg Harbor Township, which are eligible for listing in the NRHP; and

WHEREAS, BOEM determined that the implementation of the avoidance measures identified in this MOA will avoid adversely affecting all nineteen submerged cultural resources (Targets 01–19) and three ASLFs in the marine APE (Targets 20, 27, and 32), all six historic properties in the terrestrial APE, nine historic districts and 23 aboveground historic properties in the offshore visual APE, and three historic properties in the onshore visual APE; and

WHEREAS, BOEM determined all of the ASLFs identified in the marine APE are eligible for the National Register of Historic Places (NRHP) under Criteria A and D and determined, under each of the Project alternatives analyzed in the EIS, that the undertaking will adversely affect the following 13 ASLFs: Targets 21 through 26, 28 through 31, and 33 through 35; and

WHEREAS, under each of the Project alternatives analyzed in the EIS, BOEM determined the Project would visually adversely affect these 17 aboveground historic properties in New Jersey: 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; Hereford Lighthouse, North Wildwood, Cape May County; North Wildwood Life Saving Station, North Wildwood, Cape May County; U.S. Lifesaving Station #35, Stone Harbor Borough, Cape May County; Flanders Hotel, Ocean City, Cape May County; and Little Egg Harbor U.S. Life Saving Station #23 (U.S. Coast Guard Station #119), Little Egg Harbor Township, Ocean County; and

WHEREAS, upon receiving the Draft EIS, including Appendix N. Finding of Adverse Effects, ACHP notified BOEM that it will formally participate in this Section 106 consultation via letter sent on August 15, 2022; and

WHEREAS, New Jersey SHPO concurred with BOEM's finding of adverse effect on March 30, 2023; and

WHEREAS, throughout this document the term 'Tribe,' has the same meaning as 'Indian Tribe,' as defined at 36 CFR 800.16(m); and

WHEREAS, BOEM invited the following federally recognized Tribes to consult on this Project: Absentee-Shawnee Tribe of Indians of Oklahoma, Eastern Shawnee Tribe of Oklahoma, Shawnee Tribe, Mashantucket Pequot Tribal Nation, the Narragansett Indian Tribe, the Rappahannock Tribe, and the Shinnecock Indian Nation; the Delaware Tribe of Indians, Delaware Nation, the Stockbridge-Munsee Community Band of Mohican Indians, and the Wampanoag Tribe of Gay Head (Aquinnah); and

WHEREAS, the Delaware Tribe of Indians, Delaware Nation, the Stockbridge-Munsee Community Band of Mohican Indians, and the Wampanoag Tribe of Gay Head (Aquinnah) accepted BOEM's invitation to consult and BOEM invited these Tribes to sign this MOA as concurring parties; and

WHEREAS, in accordance with 36 CFR 800.3, BOEM invited other federal agencies, state and local governments, and consulting parties with a demonstrated interest in the undertaking to participate in this consultation, the list of those accepting participation and declining to participate by either written response or no response to direct invitations are listed in Attachment 2; and

WHEREAS, BOEM has consulted with the lessee in its capacity as applicant seeking federal approval of the COP, and, because the lessee has responsibilities under the MOA, BOEM has invited the applicant to be an invited signatory to this MOA; and

WHEREAS, construction of the Project requires a Department of the Army permit from the United States Army Corps of Engineers (USACE) for activities which result in the discharge of dredged or fill material into jurisdictional wetlands and/or other waters of the United States pursuant to Section 404 of the Clean Water Act, and activities occurring in or affecting navigable waters of the United States pursuant to Section 10 of the Rivers and Harbors Act; and

WHEREAS, BOEM invited USACE to consult since USACE has authority to issue any needed permits for this Project under Section 404 of the Clean Water Act (33 USC 1344) and Section 10 of the Rivers and Harbors Act (33 USC 403); and

WHEREAS, the USACE designated BOEM as the Lead Federal Agency pursuant to 36 CFR 800.2(a)(2) to act on its behalf for purposes of compliance with Section 106 for this Project (in a letter dated October 17, 2022), BOEM invited the USACE to sign this MOA as a concurring party; and

WHEREAS, BOEM notified and invited the Secretary of the Interior (represented by the National Park Service (NPS) to consult regarding this Project pursuant to the Section 106 regulations, including consideration of the potential effects to the NHLs as required under NHPA Section 110(f) (54 USC

306107) and 36 CFR 800.10, the NPS accepted BOEM's invitation to consult, and BOEM invited the NPS to sign this MOA as a concurring party; and

WHEREAS, BOEM has consulted with the signatories, invited signatories, and consulting parties participating in the development of this MOA regarding the definition of the undertaking, the delineation of the APEs, the identification and evaluation of historic properties, the assessment of potential effects to the historic properties, and on measures to avoid, minimize, and mitigate adverse effects to historic properties; and

WHEREAS, pursuant to 36 CFR 800.6, BOEM invited the lessee to sign as invited signatory and the consulting parties as listed in Attachment 2 to sign as concurring parties; however, the refusal of any consulting party to sign this MOA or otherwise concur does not invalidate or affect the effective date of this MOA, and consulting parties who choose not to sign this MOA will continue to receive information if requested and have an opportunity to participate in consultation as specified in this MOA; and

WHEREAS, the signatories (required signatories and invited signatories) agree, consistent with 36 CFR 800.6(b)(2), that adverse effects will be resolved in the manner set forth in this MOA; and

WHEREAS, BOEM sought and considered the views of the public regarding Section 106 for this Project through the NEPA process by holding virtual public scoping meetings when initiating the NEPA and NHPA Section 106 review on April 13, 15, and 20, 2021 and virtual public hearings related to the Draft EIS on July 14, 20, and 26, 2022; and

WHEREAS, BOEM made the first Draft MOA available to the public for review and comment from June 24, 2022, to August 23, 2022, and provided updated versions of the Draft MOA to the public using BOEM's Project website; and

NOW, THEREFORE, BOEM, the New Jersey SHPO, and the ACHP agree that the undertaking shall be implemented in accordance with the following stipulations in order to take into account the effect of the undertaking on historic properties.

STIPULATIONS

BOEM, with the assistance of the lessee, shall ensure that the following measures are carried out as conditions of its approval of the undertaking:

I. MEASURES TO AVOID ADVERSE EFFECTS TO IDENTIFIED HISTORIC PROPERTIES

A. Marine APE

1. BOEM will include the following avoidance measures for adverse effects within the marine APE as conditions of approval of the Ocean Wind 1 COP:

    i. The lessee will avoid known shipwrecks (Targets [Targets 1, 9, 12-14, 17, 18]) previously identified during marine archaeological surveys by a distance of no less than 50 meters from the known extent of the resource for placement of Project structures and when conducting seafloor-disturbing activities.

    ii. The lessee will avoid potential shipwrecks (Targets 2-8, 10, 11, 15, 16, 19) and potentially significant debris fields previously identified during marine archaeological surveys by a distance of no less than 50 meters from the known extent of the resource, unless the buffer would preclude the installation of facilities at their engineered locations,

but in no event would the buffer be less than 50 meters from the known extent of the resource.

iii. The lessee will avoid three ASLFs (Targets 20, 27, and 32). No additional avoidance buffer is required for these ASLFs given avoidance of the ASLFs is based on the defined spatial extent of each ASLF, which has been determined based on the maximum observed presence of the seismic reflector and unique buffer area designed to account for minimal positioning errors or lack of resolution.

B. Visual APE

1. BOEM will include the following avoidance measures for adverse effects within the visual APE as conditions of approval of the Ocean Wind 1 COP:

i. To maintain avoidance of adverse effects to historic properties in the visual APE where BOEM determined no adverse effects or where no effects would occur, BOEM will require the lessee to ensure Project structures are within the design envelope, sizes, scale, locations, lighting prescriptions, and distances that were used by BOEM to inform the definition of the APE for the Project and for determining effects in the Finding of Effect (see the Construction & Operations Plan: Ocean Wind 1 Offshore Wind Farm Project, October, 2022).

II. MEASURES TO MINIMIZE ADVERSE EFFECTS TO IDENTIFIED HISTORIC PROPERTIES

A. Visual APE

1. BOEM has undertaken planning and actions to minimize adverse effects to aboveground historic properties in the visual APE. BOEM will include these minimization measures for adverse effects within the visual APE as conditions of approval of the Ocean Wind 1 COP:

i. The lessee will use uniform WTG design, speed, height, and rotor diameter to reduce visual contrast and decrease visual clutter.

ii. The lessee will use uniform spacing of 1 NM (1.15 mile) by 0.8 NM (0.92 mile) to decrease visual clutter, aligning WTGs to allow for safe transit corridors.

iii. The lessee will apply a paint color to the WTGs no lighter than RAL 9010 pure white and no darker than RAL 7035 light gray to help reduce potential visibility of the turbines against the horizon during daylight hours.

iv. The lessee will implement an aircraft detection lighting system (ADLS) to automatically activate lights when aircraft approach. The WTGs and OSS would be lit and marked in accordance with FAA and USCG lighting standards and consistent with BOEM's *Guidelines for Lighting and Marking of Structures Supporting Renewable Energy Development* (April 28, 2021) to reduce light intrusion.

III. MEASURES TO MITIGATE ADVERSE EFFECTS TO IDENTIFIED HISTORIC PROPERTIES

A. Marine APE

1. The lessee cannot avoid 13 ASLFs (Targets 21–26, 28–31, and 33–35). To resolve the adverse effects to the 13 ASLFs, BOEM will include the following as conditions of approval

of the Ocean Wind 1 COP. The lessee will fund mitigation measures in accordance with Attachment 3 (Historic Property Treatment Plan for the Ocean Wind 1 Farm Ancient Submerged Landform Features, Federal Waters on the Outer Continental Shelf). See Attachment 8 for proposed budgets for each mitigation effort, reflecting good faith estimates, based on the experience of qualified consultants with similar activities and comparable historic properties. The lessee agrees to the following measures:

i. Preconstruction Geoarchaeology. The lessee will fulfill the following commitments in accordance with Attachment 3: collaborative review of existing geophysical and geotechnical data with consulting Tribes; selection of coring locations in consultation with consulting Tribes; collection of two to three vibracores within each affected ASLF that has not been previously sampled, with a sampling focus on areas that will be disturbed by Project construction activities; written verification to BOEM that the samples collected are sufficient for the planned analyses and consistent with the agreed scope of work; collaborative laboratory analyses at a laboratory located in Rhode Island or New Jersey; screening of recovered sediments for debitage or micro-debitage associated with indigenous land uses; third-party laboratory analyses, including micro- and macro-faunal analyses, micro- and macro-botanical analyses, radiocarbon dating of organic subsamples, and chemical analyses for potential indirect evidence of indigenous occupations; temporary curation of archival core sections; draft reports for review by consulting Tribes; and final reporting. Signatories will be notified of completion of this measure. The collection of vibracores must be completed prior to commencing seabed disturbing activities.

ii. Open-Source GIS and Story Maps. The lessee will fulfill the following commitments in accordance with Attachment 3: consultation with the Tribes to determine the appropriate open-source GIS platform; review of candidate datasets and attributes for inclusion in the GIS; data integration; development of custom reports or queries to assist in future research or tribal maintenance of the GIS; work Sessions with consulting Tribes to develop Story Maps content, and inclusion of stories associated with other federally recognized Tribes; training session with Tribes to review GIS functionality; review of Draft Story Maps with Tribes; delivery of GIS to Tribes; and delivery of Final Story Maps. Signatories will be notified of completion of this measure. This measure may be completed during or post-construction.

iii. ASLF Post-Construction Seafloor Impact Inspection. The lessee will fulfill the following commitments in accordance with Attachment 3: development of a 3D model throughout ASLFs designated for review; development of the remotely operated vehicle (ROV) investigation methodology, including consultation with BOEM; ROV inspection of the seafloor along impacted portions of the selected ASLFs; review of candidate datasets and attributes for inclusion in the GIS; delivery of data interpretive technical report draft; delivery of final technical report. The lessee will provide consulting Tribes and BOEM, draft and final technical reports including 3D models and resulting seafloor impact assessments. Signatories will be notified of completion of this measure. This measure must be completed as early as possible and no later than one-month post-construction. If unanticipated issues arise during the course of offshore construction that prevent this measure from being completed within one-month post-construction, the lessee must notify BOEM and propose an alternate completion timeframe for consulting Tribes and BOEM approval.

iv. Ethnographic Study. The lessee will fulfill the following commitments in accordance with Attachment 3: funding ethnographic researcher selected by DTI for 2-year period;

funding for researcher travel to New Jersey for research and site visits; funding for Delaware Tribe of Indians, Delaware Nation, and Stockbridge Munsee technology upgrades associated with analysis of GIS data; funding for Delaware Tribe of Indians historic preservation oversight and indirect costs; funding for Stockbridge-Munsee Community Band of Mohican Indians THPO collaboration; provide relevant ASLF GIS data layers to Delaware Tribe of Indians for use in this study as well as provide a tutorial on the data; hold quarterly progress update calls lasting approximately one-half hour with Delaware Tribe of Indians until the final technical reports are issued; delivery of Final deliverables consisting of one confidential report that may contain sensitive resource information and one report that could be made available to the public (both reports will be distributed by the Tribes, at their discretion); and funding for a presentation to highlight the results of the study to be coordinated and executed by Delaware Tribe of Indians. Other consulting parties will be notified of completion of this measure. This measure may be completed pre, during or post-construction.

B. Visual APE

1. BOEM will include the following as conditions of approval of the Ocean Wind 1 COP and as mitigation measures to resolve the adverse effects, including direct, indirect, and cumulative effects, to the 17 historic properties that will be visually adversely affected (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; Hereford Lighthouse, North Wildwood, Cape May County; North Wildwood Life Saving Station, North Wildwood, Cape May County; U.S. Lifesaving Station #35, Stone Harbor Borough, Cape May County; Flanders Hotel, Ocean City, Cape May County; and Little Egg Harbor U.S. Life Saving Station #23 (U.S. Coast Guard Station #119), Little Egg Harbor Township, Ocean County). See Attachment 8 for proposed budgets for each mitigation effort, reflecting good faith estimates, based on the experience of qualified consultants with similar activities and comparable historic properties. Tasks associated with the Historic Context Mitigation Measures can occur during and/or after construction. Mitigation measures under III.B.1 must be completed within four years of MOA execution, unless a different timeline is agreed upon by Participating Parties and accepted by BOEM and may be completed simultaneously, as applicable. The lessee will fund mitigation measures in accordance with Attachment 4 (Historic Properties Treatment Plan for the Ocean Wind 1 Offshore Wind Farm Project Historic Properties Subject to Adverse Effects Cape May and Atlantic Counties, New Jersey) and the following:

    i. Multi-property and Multi-county Mitigation Measures
        a. Historic Context addressing early 20th century New Jersey Shore Hotels. To resolve adverse effects to Brigantine Hotel, Atlantic County, Ritz-Carlton Hotel, Atlantic County, and Flanders Hotel, Cape May County, the lessee will coordinate with BOEM to consult with New Jersey SHPO and interested Consulting Parties and property owners to determine what properties or areas will be the subject of the historic context and appropriate information to include.

b. Historic Context addressing Mid-century High-rise residential buildings at the New Jersey shore. To resolve adverse effects on Riviera Apartments, Atlantic City, Atlantic County and Vassar Square Condominiums, Ventnor City, Atlantic County, the lessee will coordinate with BOEM to consult with New Jersey SHPO and interested Consulting Parties and property owners to determine what properties or areas will be the subject of the historic context and appropriate information to include.

c. Historic Context addressing Boardwalks of the New Jersey Shore, with Surveys and Evaluations of Atlantic City Boardwalk, Ocean City Boardwalk, and Wildwood Boardwalk. To resolve adverse effects on Atlantic City Boardwalk, and Ocean City Boardwalk, the lessee will prepare a historic context and complete surveys and evaluations of Atlantic City boardwalk, Ocean City boardwalk, and Wildwood boardwalk. The historic context will consider significance of historic boardwalks as potential cultural landscapes. the lessee, in coordination with BOEM, will consult with New Jersey SHPO and interested Consulting Parties and property owners to determine what properties or areas will be the subject of survey and evaluation, and appropriate information to include.

ii. Lucy the Margate Elephant. The lessee agrees to the following measures:

1) Funding for Visitor Experience and Public Access for Lucy the Margate Elephant. The lessee will: determine priority projects in collaboration with the representatives for the property owner; use already available plans or develop plans appropriate to the identified project, and submit plans for review by BOEM and representatives of the property owner; take necessary steps to ensure the project is carried out by qualified contractors, including staff who meet SOI Professional Qualifications for Architecture or Architectural History, who will execute plans; and take necessary steps to ensure planned work is completed. The lessee will fund these activities consistent with Attachment 8.

iii. Atlantic County Historic Properties Mitigation

a. Absecon Lighthouse, Atlantic City, Atlantic County.

1) Funding for Visitor Experience and Public Access for Absecon Lighthouse. The lessee will: determine priority projects in collaboration with the representatives for the property owner; use already available plans or develop plans appropriate to the identified project, and submit plans for review by BOEM and representatives of the property owner; take necessary steps to ensure the project is carried out by qualified contractors, including staff who meet SOI Professional Qualifications for Architecture or Architectural History, who will execute plans; and take necessary steps to ensure planned work is completed. The lessee will fund these activities consistent with Attachment 8.

b. Atlantic City Boardwalk, Atlantic City, Atlantic County.

1) Funding for Visitor Experience and Public Access for Atlantic City Boardwalk. The lessee will: determine priority projects in collaboration with the representatives for the property owner; use already available plans or develop plans appropriate to the identified project, and submit plans for review by BOEM and representatives of the property owner; take necessary steps to ensure the project is carried out by qualified contractors, including staff who meet SOI Professional Qualifications for Architecture or Architectural History, who will execute plans; and take necessary steps to ensure planned work is completed. The lessee will fund these activities consistent with Attachment 8.

C. Mitigation Fund

1. The lessee will contribute funding to the mitigation fund to resolve visual adverse effects to the following 14 historic properties: Brigantine Hotel, Brigantine 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; 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; Hereford Lighthouse, North Wildwood, Cape May County; North Wildwood Life Saving Station, North Wildwood, Cape May County; U.S. Lifesaving Station #35, Stone Harbor Borough, Cape May County; Flanders Hotel, Ocean City, Cape May County; and Little Egg Harbor U.S. Life Saving Station #23 (U.S. Coast Guard Station #119), Little Egg Harbor Township, Ocean County). See Attachment 8 for funding amounts, based on input of qualified consultants with experience fulfilling activities similar to those that can be funded through the mitigation fund and for historic properties comparable to those adversely effected by the Project.

2. In order to mitigate the undertaking's adverse visual impacts to historic properties, the lessee must provide the amount of $1,080,000 in support of historic preservation and public interpretive and commemorative activities, which is the total amount of the cost estimates in Attachment 8 of this MOA for visually adversely affected historic properties other than the historic properties mentioned in Stipulations III.B.1.ii and III.B.1.iii. The measures listed in Attachment 8 were proposed by the lessee and included in draft documents BOEM circulated to consulting parties and included in the appendix to the Ocean Wind 1 Draft EIS. These measures are appropriate to fully address the nature, scope, size, and magnitude of adverse effects including cumulative effects caused by the Project, NRHP-qualifying characteristics of each historic property that would be affected, and the heightened significance and concerns of the NHLs. In the specific context of this undertaking, including the numerous privately owned properties involved, the signatories agree that it is appropriate to provide flexibility to implement these or other specific activities for preservation, interpretation, and commemoration to mitigate adverse effects to historic properties, and the signatories agree that the level of funding identified in Attachment 8 is appropriate.

3. Within 90 days of initiating offshore construction of wind turbines the lessee must pay this amount to an escrow account. Those funds will be deposited into a fund which will be managed by a third-party administrator for the purpose of providing grants until the fund balance is expended. The lessee's deposit of such funds into this fund will satisfy the lessee's

obligations as it relates to mitigation for adverse visual impacts to the historic properties listed in Stipulation III.C.1, unless additional consultation is required in the event of unallocated funds, as described below. These grants are to support mitigation activities for the preservation, interpretation, or commemoration of historic sites, buildings, or events. Grants will be awarded for the long-term protection, preservation, and commemoration of adversely affected historical properties in the following order of preference. Grants must first be awarded to the historic properties listed in Stipulation III.C.1. If after 2 years from the date the administrator begins accepting grant applications there are funds still unapplied, then grants should be awarded for activities for any adversely affected historic property identified in Appendix N, Finding of Effect.

4. If after five years from the date the administrator begins accepting applications any funds are unallocated, then BOEM will consult with the consulting parties on appropriate use of the remaining funds to resolve adverse effects. The signatories agree that the existence of unapplied funds does not constitute a breach of this agreement.

5. BOEM and the lessee will identify an appropriate non-profit or governmental historic preservation organization, such as New Jersey Historic Trust or another similarly situated entity, to administer the fund and the funded activities, to ensure the effectiveness of these activities as mitigation for the undertaking's adverse effect to the historic properties. The 3rd party administrator shall consult with BOEM and the NJHPO prior to making any grants. The 3rd party administrator's fees and administrative costs will be paid from the fund and must not exceed 6% of the fund amount. The 3rd party administrator must ensure that all granted funds are used exclusively for the purposes described in Stipulation III.C for direct costs of preservation, interpretation, or commemoration of the historic properties adversely affected by the undertaking and the mitigation fund administrative must prohibit the use of grant funds for indirect costs, such as accountant fees, employee salary or benefits or legal fees. BOEM and the lessee will consult on the selection of this fund administrator with the consulting parties and must be acceptable to BOEM. The same consultation process would be followed in the case of replacement of a fund administrator, if needed. BOEM will consult with the third-party administrator to develop operating procedures for the mitigation fund, and BOEM will review and approve the final operating procedures. BOEM will ensure that the 3rd party administrator has procedures under which it will provide a copy of all grants made and an annual report on expenditure of funds and activities to BOEM, HPO and the lessee. Funded mitigation activities, progress, completion, and outcomes will also be provided in the annual report per Stipulation XV, with sufficient detail for BOEM to ensure that the mitigation is being implemented according to this section.

6. BOEM will ensure that the operating procedures include the following: Where Historic Architectural Building Survey documentation and HABS-like documentation mitigation is implemented, the grantee shall first consult with historic property owner to identify photographic documentation specifications. Where Historic Structure Report mitigation is implemented, the documentation shall be prepared in accordance with the Historic Structure Reports and Preservation Plans: A Preparation Guide – Second Edition, as may be amended, and the project team must include an individual meeting the Secretary of Interior's qualifications standards for Historic Architecture. Where applicable, such as funding for visitor experience, public access and climate resiliency is implemented all projects must meeting the Secretary of Interior standards for the Treatment of Historic Properties and these projects should not constitute adverse effects themselves on the historic properties.

7. Consistent with NHPA Sec. 110(f) and as described in Appendix N, Finding of Effect, BOEM has undertaking planning and actions as may be necessary to minimize harm to

NHLs. The mitigation funding for NHLs under this MOA does not replace BOEM's any other planning and actions BOEM has taken to comply with that statutory requirement.

IV. PHASED IDENTIFICATION

A. Information pertaining to identification of historic properties within certain portions of the Marine APE related to Alternatives B-1, B-2, C-1, C-2, and D will not be available until after the ROD is issued and the COP is approved. If Alternative B-1, B-2, C-1, C-2, or D is selected, BOEM will implement the following consultation steps for phased identification and evaluation of historic properties within the Marine APE in accordance with BOEM's existing *Guidelines for Providing Archaeological and Historic Property Information Pursuant to Title 30 Code of Federal Regulations Part 585*. Survey efforts shall comply with the New Jersey Historic Preservation Office Requirements for Phase I Archaeological Survey at N.J.A.C. 7:4-8.4. Reports of archaeological survey results shall conform to the Requirements for Archaeological Survey Reports - Standards for Report Sufficiency at N.J.A.C. 7:4-8.5. The final identification and evaluation of historic properties within the APE may occur after publication of the Draft EIS, but prior to the initiation of construction. In this circumstance, the Signatories agree that the following describes how BOEM will conduct phased identification and of historic properties, pursuant to 36 CFR § 800.4(b)(2).

1. If Alternative C-1 is selected, previously un-surveyed areas associated with one WTG and potentially the inter-array cable routing may need to be surveyed for marine archaeology. If Alternative C-2 is selected, previously un-surveyed areas associated with 22 WTG positions and potentially the inter-array cable routing may need to be surveyed for marine archaeology. If Alternative B-1, B-2, or D is selected, previously un-surveyed areas associated with the inter-array cable may need to be surveyed for marine archaeology.

2. For identification of historic properties within the marine archaeological, portions of the APE, supplemental technical studies will be conducted by the lessee in accordance with state guidelines and recommendations presented in BOEM's most recent *Guidelines*. The developer will coordinate with the SHPO prior to the initiation of any such identification efforts.

    i. BOEM will require that identification efforts for historic properties associated with marine archaeology be documented in a technical report that addresses the identification of historic properties and includes an evaluation of effects due to the Project.

3. BOEM will consult on the results of historic property identification surveys for any portions of the APE that were not addressed in the pre-COP approval consultations.

4. BOEM will treat all identified potential historic properties as eligible for inclusion in the NRHP unless BOEM determines, and the SHPO agrees, that a property is ineligible, pursuant to 36 CFR § 800.4I.

5. If effects on identified historic properties cannot be avoided, BOEM will evaluate the NRHP eligibility of the potentially affected properties, in accordance with 36 CFR § 800.4(c).

6. If BOEM identifies no additional historic properties or determines that no historic properties are adversely affected due to the selection of one of these alternatives, BOEM, with the assistance of the lessee, will notify and consult with the signatories, invited signatories, and consulting parties following the consultation process set forth here in this stipulation.

    a. BOEM, with the assistance of the lessee, will notify all the signatories, invited signatories, and consulting parties about the selected alternative and BOEM's determination by providing a written summary of the alternative including any maps, a summary of the surveys and/or research conducted to identify historic properties and assess effects, and copies of the surveys.

    b. BOEM, with the assistance of the lessee, will allow the signatories, invited signatories, and consulting parties 30 calendar days to review and comment on the survey reports, the results of the surveys, BOEM's determination, and the documents.

    c. After the 30-calendar review period has concluded and no comments require additional consultation, BOEM with the assistance of the lessee, will notify the signatories and consulting parties that the NJHPO has concurred with BOEM's determination, if they received any comments, provide a summary of the comments and BOEM's responses.

    d. BOEM, with the assistance of the lessee, will conduct any consultation meetings if requested by the signatories or consulting parties.

    e. This MOA will not need to be amended if no additional historic properties are identified and/or adversely affected.

7. If BOEM determines new adverse effects to historic properties will occur due to the selection of one of these alternatives, BOEM with the assistance of the lessee will notify and consult with the signatories, invited signatories, and consulting parties regarding BOEM's finding and the proposed measures to resolve the adverse effect(s) including the development of a new treatment plan(s) following the consultation process set forth here in this stipulation.

    i. BOEM, with the assistance of the lessee, will notify all signatories, invited signatories, and consulting parties about the selected alternative and BOEM's determination by providing a written summary of the alternative including any maps, a summary of the surveys and/or research conducted to identify historic properties and assess effects, copies of the surveys, BOEM's determination, and the proposed resolution measures for the adverse effect(s).

    ii. The signatories, invited signatories, and consulting parties will have 30 calendar days to review and comment on the documents including the adverse effect finding and the proposed resolution of adverse effect(s), including a draft treatment plan(s).

    iii. BOEM, with the assistance of the lessee, will conduct additional consultation meetings, if necessary, during consultation on the adverse effect finding and during drafting and finalization of the treatment plan(s).

    iv. BOEM, with the assistance of the lessee, will respond to the comments and make necessary edits to the documents.

    v. BOEM, with the assistance of the lessee, will send the revised draft final documents to the other signatories, invited signatories, and consulting parties for review and comment during a 30-calendar day review and comment period. With this same submittal of draft

final documents, the lessee will provide a summary of all the comments received on the documents and BOEM's responses.

vi. BOEM, with the assistance of the lessee, will respond to the comments on the draft final documents and make necessary edits to the documents.

vii. BOEM, with the assistance of the lessee, will notify all the signatories, invited signatories, and consulting parties and provide the final document(s) including the final treatment plan(s) and a summary of comments and BOEM's responses to comments, if they receive any on the draft final documents, after BOEM has received concurrence from the New Jersey SHPO on the finding of new adverse effect(s), and BOEM has accepted the final treatment plan(s).

viii. The MOA will not need to be amended after the treatment plan(s) is accepted by BOEM.

8. If a SHPO disagrees with BOEM's determination regarding whether an affected property is eligible for inclusion in the NRHP, or if the ACHP or the Secretary so request, the agency official will obtain a determination of eligibility from the Secretary pursuant to 36 CFR Part 63 (36 CFR § 800.4(c)(2)).

V. VIBRATION MONITORING

A. If the 5th Street cable route option for BL England interconnection is selected by the lessee as the preferred cable route, BOEM will require the lessee to:

1. Employ the expertise of a qualified vibration expert to identify construction approaches to avoid or minimize vibration impacts to foundations of historic properties adjacent to right-of-way construction areas for the 5th Street cable route option. BOEM and the lessee will offer SHPO an opportunity to review and comment on these construction approaches.

2. Avoid instances of slate sidewalk remnants in the Ocean City Historic District, or remove them prior to construction activities and replace them following completion of construction activities.

3. Prepare and implement a Vibration Monitoring Plan that will identify:

i. Construction means and methods to avoid or minimize vibration impacts and how they will be carried out in such a way as to ensure vibrations do not reach a level that causes structural or architectural damage to historic properties.

ii. Process for identification of historic properties adjacent to the 5th Street cable route option that are potentially vulnerable to vibration, as well as required qualifications for vibration expert conducting vulnerability assessment, process for describing the results of this assessment, and process for making the findings of this assessment available to consulting parties.

iii. Approach to perform a condition assessment on potentially vulnerable properties adjacent to the cable route prior to construction and again when construction of the cable route is complete.

iv. If damage is identified by the owner of a potentially vulnerable property during construction, the process for how property owners will be able to notify the lessee,

including establishment of a reasonable period within which the lessee will respond. If onshore cable route construction activities are resulting in structure or architectural damage to historic properties, the lessee will stop construction until appropriate safeguards can be put in place.

v. Process for temporary removal of slate sidewalk remnants prior to construction and replacement of slate sidewalk remnants after construction and how the process will be carried out in such a way as to ensure construction activities will not damage these features of the Ocean City Historic District.

B. If any structural or architectural damage to historic properties occurs during cable route construction, the lessee will be required to assess the cause of the damage, identify and provide for any necessary repairs, consistent with the Secretary of the Interior's Standards for the Treatment of Historic Properties. BOEM with the assistance of the lessee will notify and consult with the signatories, invited signatories, and consulting parties regarding instances of damage and repair. BOEM will offer SHPO the opportunity to review and comment on the consistency of any repairs with the Standards.

VI. REVIEW PROCESS FOR DOCUMENTS

A. The following process will be used for any document, report, or plan produced in accordance with Stipulations I–XIII of this MOA:

1. Draft Document

i. The lessee shall provide the document to BOEM for technical review and approval.

a. BOEM has 15 calendar days to complete its technical review.

b. If BOEM does not provide approval, it shall submit its comments back to the lessee, who will have 15 calendar days to address the comments.

ii. BOEM, with the assistance of the lessee, shall provide the draft document to consulting parties, except the ACHP, for review and comment.

a. Consulting parties shall have 30 calendar days to review and comment.

b. BOEM, with the assistance of the lessee, shall coordinate a meeting with consulting parties to facilitate comments on the document if requested by a consulting party.

c. BOEM shall consolidate comments received and provide them to the lessee within 15 calendar days of receiving comments from consulting parties.

d. BOEM, with the assistance of the lessee, will respond to the comments and make necessary edits to the documents.

2. Draft Final Document

i. The lessee shall provide BOEM with the draft final document for technical review and approval.

a. BOEM has 15 calendar days to complete its technical review.

b. If BOEM does not provide approval, it shall submit its comments back to the lessee, who will have 15 calendar days to address the comments.

ii. BOEM, with the assistance of the lessee, shall provide the draft final document to consulting parties, except the ACHP, for review and comment. With this same submittal of draft final documents, the lessee will provide a summary of all the comments received on the documents and BOEM's responses.

a. Consulting parties have 30 calendar days to review and comment.

b. BOEM, with the assistance of the lessee, shall coordinate a meeting with consulting parties to facilitate comments on the document if requested by a consulting party.

c. BOEM shall consolidate comments received and provide them to the lessee within 15 calendar days of receiving comments from consulting parties.

d. BOEM, with the assistance of the lessee, will respond to the comments and make necessary edits to the documents.

3. Final Document

i. The lessee shall provide BOEM with the final document for approval.

a. BOEM has 15 calendar days to complete its technical review.

b. If BOEM does not provide approval, it shall submit its comments back to the lessee, who will have 15 calendar days to address the comments.

c. BOEM, with the assistance of the lessee, shall provide the final document to consulting parties, except the ACHP, within 30 calendar days of approving the final document. With this same submittal of final documents, the lessee will provide a summary of all the comments received on the documents and BOEM's responses.

VII. SUBMISSION OF DOCUMENTS

A. New Jersey SHPO, ACHP, NPS, Tribes, and Consulting Parties

1. All submittals to the New Jersey SHPO, ACHP, NPS, Tribes, and consulting parties will be submitted electronically unless a specific request is made for the submittal be provided in paper format.

VIII. PROJECT MODIFICATIONS

A. If the lessee proposes any modifications to the Project that expands the Project beyond the Project Design Envelope included in the COP and/or occurs outside the defined APEs or the proposed modifications change BOEM's final Section 106 determinations and findings for this Project, the lessee shall notify and provide BOEM with information concerning the proposed modifications. BOEM will determine if these modifications require alteration of the conclusions reached in the Finding of Effect and, thus, will require additional consultation with the signatories, invited signatories and consulting parties. If BOEM determines additional consultation is required, the lessee will provide the signatories, invited signatories, and consulting parties with the information concerning the proposed changes, and they will have 30 calendar days from receipt of this information to comment on the proposed changes. BOEM shall take into account any comments from signatories, invited signatories, and consulting parties prior to agreeing to any proposed

changes. Using the procedure below, BOEM will, as necessary, consult with the signatories, invited signatories, and consulting parties to identify and evaluate historic properties in any newly affected areas, assess the effects of the modification, and resolve any adverse effects.

1. If the Project is modified and BOEM identifies no additional historic properties or determines that no historic properties are adversely affected due to the modification, BOEM, with the assistance of the lessee, will notify and consult with the signatories, invited signatories, and consulting parties following the consultation process set forth in this Stipulation VII.A.1.

    i. The lessee will notify all the signatories, invited signatories, and consulting parties about this proposed change and BOEM's determination by providing a written summary of the project modification including any maps, a summary of any additional surveys and/or research conducted to identify historic properties and assess effects, and copies of the surveys.

    ii. BOEM and the lessee will allow the signatories, invited signatories, and consulting parties 30 calendar days to review and comment on the proposed change, BOEM's determination, and the documents.

    iii. After the 30-calendar review period has concluded and no comments require additional consultation, the lessee will notify the signatories and consulting parties that BOEM has approved the project modification and, if they received any comments, provide a summary of the comments and BOEM's responses.

    iv. BOEM, with the assistance of the lessee, will conduct any consultation meetings if requested by the signatories or consulting parties.

    v. This MOA will not need to be amended if no additional historic properties are identified and/or adversely affected.

2. If BOEM determines new adverse effects to historic properties will occur due to a Project modification, BOEM with the assistance of the lessee will notify and consult with the signatories, invited signatories, and consulting parties regarding BOEM's finding and the proposed measures to resolve the adverse effect(s) including the development of a new treatment plan(s) following the consultation process set forth in this Stipulation VII.A.2.

    i. The lessee will notify all signatories, invited signatories, and consulting parties about this proposed modification, BOEM's determination, and the proposed resolution measures for the adverse effect(s).

    ii. The signatories, invited signatories, and consulting parties will have 30 calendar days to review and comment on the adverse effect finding and the proposed resolution of adverse effect(s), including a draft treatment plan(s).

    iii. BOEM, with the assistance of the lessee, will conduct additional consultation meetings, if necessary, during consultation on the adverse effect finding and during drafting and finalization of the treatment plan(s).

    iv. BOEM, with the assistance of the lessee, will respond to the comments and make necessary edits to the documents.

    v. The lessee will send the revised draft final documents to the other signatories, invited signatories, and consulting parties for review and comment during a 30-calendar day

review and comment period. With this same submittal of draft final documents, the lessee will provide a summary of all the comments received on the documents and BOEM's responses.

vi. BOEM, with the assistance of the lessee, will respond to the comments on the draft final documents and make necessary edits to the documents.

vii. The lessee will notify all the signatories, invited signatories, and consulting parties that BOEM has approved the project modification and will provide the final document(s) including the final treatment plan(s) and a summary of comments and BOEM's responses to comments, if they receive any on the draft final documents, after BOEM has received concurrence from the New Jersey SHPO on the finding of new adverse effect(s), BOEM has accepted the final treatment plan(s), and BOEM has approved the Project modification.

viii. The MOA will not need to be amended after the treatment plan(s) is accepted by BOEM.

3. If any of the signatories, invited signatories, or consulting parties object to determinations, findings, or resolutions made pursuant to these measures (Stipulation VII.A.1 and 2), BOEM will resolve any such objections pursuant to the dispute resolution process set forth Stipulation XIII.

IX. CURATION

A. Collections from federal lands or the OCS:
   1. Any archaeological materials removed from federal lands or the OCS as a result of the actions required by this MOA shall be curated in accordance with 36 CFR 79, "Curation of Federally Owned and Administered Archaeological Collections," ACHP's "Recommended Approach for Consultation on Recovery of Significant Information from Archaeological Sites" published in the Federal Register (64 Fed. Reg. 27085-27087 (May 18, 1999)), or other provisions agreed to by the consulting parties and following applicable State guidelines. No excavation should be initiated before acceptance and approval of a curation plan.

B. Collections from state, local government, and private lands:

   1. Archaeological materials from state or local government lands in the APE and the records and documentation associated with these materials shall be curated within the state of their origin at a repository preferred by the NJHPO, or an approved and certified repository, in accordance with the standards and guidelines required by the NJHPO. Lands as described here may include the seafloor in state waters. No excavation should be initiated before acceptance and approval of a curation plan.

   2. Collections from private lands that would remain private property: In cases where archaeological survey and testing are conducted on private land, any recovered collections remain the property of the land owner. In such instances, BOEM and the lessee, in coordination with the SHPO, and affected Tribe(s), will encourage land owners to donate the collection(s) to an appropriate public or Tribal entity. To the extent a private landowner requests that the materials be removed from the site, the lessee will seek to have the materials donated to the repository identified under Stipulation VII.B.1 through a written donation agreement developed in consultation with the consulting parties. BOEM, assisted by the lessee, will seek to have all materials from each state curated together in the same curation facility within the state of origin. In cases where the property owner wishes to transfer ownership of the collection(s) to a public or Tribal entity, BOEM and the lessee will ensure

that recovered artifacts and related documentation are curated in a suitable repository as agreed to by BOEM, NJHPO, and affected Tribe(s), and following applicable State guidelines. To the extent feasible, the materials and records resulting from the actions required by this MOA for private lands, shall be curated in accordance with 36 CFR 79. No excavation should be initiated before acceptance and approval of a curation plan.

X. PROFESSIONAL STANDARDS AND QUALIFICATIONS

A. Secretary's Standards for Archaeology and Historic Preservation. The lessee will ensure that all work carried out pursuant to this MOA will meet the SOI Standards for Archaeology and Historic Preservation, 48 FR 44716 (September 29, 1983), taking into account the suggested approaches to new construction in the SOI's Standards for Rehabilitation.

B. SOI Professional Qualifications Standards. The lessee will ensure that all work carried out pursuant to this MOA is performed by or under the direction supervision of historic preservation professionals who meet the SOI's Professional Qualifications Standards (48 FR 44738-44739). A "qualified professional" is a person who meets the relevant standards outlined in such SOI's Standards. BOEM, or its designee, will ensure that consultants retained for services pursuant to the MOA meet these standards.

C. Investigations of ASLFs. The lessee will ensure that the additional investigations of ASLFs will be conducted and reports and other materials produced by one or more qualified marine archaeologists and geological specialists who meet the SOI's Professional Qualifications Standards and has experience both in conducting High Resolution Geophysical (HRG) surveys and processing and interpreting the resulting data for archaeological potential, as well as collecting, subsampling, and analyzing cores.

D. Tribal Consultation Experience. The lessee will ensure that all work carried out pursuant to this MOA that requires consultation with Tribes is performed by professionals who have demonstrated professional experience consulting with federally recognized Tribes.

XI. DURATION

A. This MOA will expire at (1) the decommissioning of the Project in the lease area, as defined in the lessee's lease with BOEM (Lease Number OCS-A 0498) or (2) 25-years from the date of COP approval, whichever occurs first. Prior to such time, BOEM may consult with the other signatories and invited signatories to reconsider the terms of the MOA and amend it in accordance with Amendment Stipulation (Stipulation XIV).

XII. TERRESTRIAL ARCHAEOLOGICAL MONITORING

A. Implementation of Terrestrial Archaeological Monitoring Plan. The lessee will implement the archaeological monitoring plan found in Attachment 5 (Terrestrial Archaeological Monitoring Plan), which applies to areas identified for archaeological monitoring.

B. In the event of a post-review discovery during archaeological monitoring, the process identified under Stipulation XII. Post-Review Discoveries will apply.

XIII. POST-REVIEW DISCOVERIES

A. Implementation of Post-Review Discovery Plans. If properties are discovered that may be historically significant or unanticipated effects on historic properties found, BOEM with the assistance of the lessee shall implement the post-review discovery plans found in Attachment 6

(Post-Review Discovery Plan for Submerged Cultural Resources for the Ocean Wind 1 Offshore Wind Farm for Lease OCF A-0498 Construction and Operations Plan) and Attachment 7 (Post-Review Discovery Plan for Terrestrial Cultural Resources for the Ocean Wind 1 Offshore Wind Farm for Lease OCF A-0498 Construction and Operations Plan).

1. The signatories acknowledge and agree that it is possible that additional historic properties may be discovered during implementation of the Project, despite the completion of a good faith effort to identify historic properties throughout the APEs.

B. All Post-Review Discoveries. In the event of a post-review discovery of a property or unanticipated effects to a historic property prior to or during construction, operation, maintenance, or decommissioning of the Project, the lessee will implement the following actions which are consistent with the post-review discovery plan:

1. Immediately halt all ground- or seafloor-disturbing activities within the area of discovery;

2. Notify BOEM in writing via report within 72 hours of the discovery;

3. Keep the location of the discovery confidential and take no action that may adversely affect the discovered property until BOEM or its designee has made an evaluation and instructs the lessee on how to proceed; and

4. Conduct any additional investigations as directed by BOEM or its designee to determine if the resource is eligible for listing in the NRHP (30 CFR 585.702(b)). BOEM will direct the lessee to complete additional investigations, as BOEM deems appropriate, if:

   i. the site has been impacted by the lessee Project activities; or

   ii. impacts to the site from the lessee Project activities cannot be avoided.

5. If investigations indicate that the resource is eligible for the NRHP, BOEM, with the assistance of the lessee, will work with the other relevant signatories, invited signatories, and consulting parties to this MOA who have a demonstrated interest in the affected historic property and on the further avoidance, minimization or mitigation of adverse effects.

6. If there is any evidence that the discovery is from an indigenous society or appears to be a preserved burial site, the lessee will contact the Tribes as identified in the notification lists included in the post-review discovery plans within 72 hours of the discovery with details of what is known about the discovery, and consult with the Tribes pursuant to the post review discovery plan.

7. If BOEM incurs costs in addressing the discovery, under Section 110(g) of the NHPA, BOEM may charge the lessee reasonable costs for carrying out historic preservation responsibilities, pursuant to its delegated authority under the OCS Lands Act (30 CFR 585.702 (c-d)).

XIV. EMERGENCY SITUATIONS

A. In the event of an emergency or disaster that is declared by the President or the Governor of New Jersey, which represents an imminent threat to public health or safety, or creates a hazardous condition due to impacts from this Project's infrastructure damaged during the emergency and affecting historic properties in the APEs, BOEM with the assistance of the lessee will notify the consulting Tribes, SHPO, and the ACHP of the condition which has

initiated the situation and the measures taken to respond to the emergency or hazardous condition. BOEM will make this notification as soon as reasonably possible, but no later than 48 hours from when it becomes aware of the emergency or disaster. Should the consulting Tribes, SHPO, or the ACHP desire to provide technical assistance to BOEM, they shall submit comments within seven calendar days from notification if the nature of the emergency or hazardous condition allows for such coordination.

XV. MONITORING AND REPORTING

At the beginning of each calendar year by January 31, following the execution of this MOA until it expires or is terminated, the lessee will prepare and, following BOEM's review and agreement to share this summary report, provide all signatories, invited signatories, and consulting parties to this MOA a summary report detailing work undertaken pursuant to the MOA. Such report shall include a description of how the stipulations relating to avoidance and minimization measures (Stipulations I and II) were implemented; any scheduling changes proposed; any problems encountered; and any disputes and objections received in BOEM's efforts to carry out the terms of this MOA. The lessee can satisfy its reporting requirement under this stipulation by providing the relevant portions of the annual compliance certification required under 30 CFR 285.633.If requested by the signatories, BOEM will convene an annual meeting with the other signatories, invited signatory, and consulting parties to discuss the annual report, the implementation of this MOA, and other requested topics.

XVI. DISPUTE RESOLUTION

A. Should any signatory, invited signatory, or consulting party to this MOA object at any time to any actions proposed or the manner in which the terms of this MOA are implemented, they must notify BOEM in writing of their objection. BOEM shall consult with such party to resolve the objection. If BOEM determines that such objection cannot be resolved, BOEM will:

   1. Forward all documentation relevant to the dispute, including the BOEM's proposed resolution, to the ACHP. The ACHP shall provide BOEM with its advice on the resolution of the objection within 30 calendar days of receiving adequate documentation. Prior to reaching a final decision on the dispute, BOEM shall prepare a written response that takes into account any timely advice or comments regarding the dispute from the ACHP, signatories, invited signatories, and/or consulting parties, and provide them with a copy of this written response. BOEM will make a final decision and proceed accordingly.

   2. If the ACHP does not provide its advice regarding the dispute within the 30 calendar-day time period, BOEM may make a final decision on the dispute and proceed accordingly. Prior to reaching such a final decision, BOEM shall prepare a written response that takes into account any timely comments regarding the dispute from the signatories, invited signatories, or consulting parties to the MOA, and provide them and the ACHP with a copy of such written response.

B. BOEM's responsibility to carry out all other actions subject to the terms of this MOA that are not the subject of the dispute remain unchanged.

C. At any time during the implementation of the measures stipulated in this MOA, should a member of the public object in writing to the signatories regarding the manner in which the measures stipulated in this MOA are being implemented, that signatory will notify BOEM. BOEM shall review the objection and may notify the other signatories as appropriate, and respond to the objector.

XVII. AMENDMENTS

A. This MOA may be amended when such an amendment is agreed to in writing by all signatories and invited signatories. The amendment will be effective on the date a copy signed by all of the signatories and invited signatories is filed with the ACHP.

B. Revisions to any attachment may be proposed by any signatory or invited signatory by submitting a draft of the proposed revisions to all signatories and invited signatories with a notification to the consulting parties. The signatories and invited signatories will consult for no more than 30 calendar days (or another time period agreed upon by all signatories and invited signatories) to consider the proposed revisions to the attachment. If the signatories and invited signatories unanimously agree to revise the attachment, BOEM will provide a copy of the revised attachment to the other signatories, invited signatories, and consulting parties. Revisions to any attachment to this MOA will not require an amendment to the MOA.

XVIII. TERMINATION

If any signatory or invited signatory to this MOA determines that its terms will not or cannot be carried out, that party shall immediately consult with the other signatories, invited signatories, and consulting parties to attempt to develop an amendment per Stipulation XIV. If within 30 calendar days (or another time period agreed to by all signatories) an amendment cannot be reached, any signatory or invited signatory may terminate the MOA upon written notification to the other signatories.

Once the MOA is terminated, and prior to work continuing on the undertaking, BOEM must either(a) execute an MOA pursuant to 36 CFR 800.6 or (b) request, take into account, and respond to the comments of the ACHP under 36 CFR 800.7. BOEM shall notify the signatories and invited signatories as to the course of action it will pursue.

XIX. COORDINATION WITH OTHER FEDERAL AGENCIES

A. In the event that another federal agency not initially a party to or subject to this MOA receives an application for funding/license/permit for the undertaking as described in this MOA, that agency may fulfill its Section 106 responsibilities by stating in writing it concurs with the terms of this MOA and notifying the signatories and invited signatories that it intends to do so. Such federal agency may become a signatory, invited signatory, or a concurring party (collectively referred to as signing party) to the MOA as a means of complying with its responsibilities under Section 106 and based on its level of involvement in the undertaking. To become a signing party to the MOA, the agency official must provide written notice to the signatories and invited signatories that the agency agrees to the terms of the MOA, specifying the extent of the agency's intent to participate in the MOA. The participation of the agency is subject to approval by the signatories and invited signatories who must respond to the written notice within 30 calendar days or the approval will be considered implicit. Any necessary amendments to the MOA as a result will be considered in accordance with the Amendment Stipulation (Stipulation XIV).

B. Should the signatories and invited signatories approve the federal agency's request to be a signing party to this MOA, an amendment under Stipulation XIV will not be necessary if the federal agency's participation does not change the undertaking in a manner that would require any modifications to the stipulations set forth in this MOA. BOEM will document these conditions and involvement of the federal agency in a written notification to the signatories, invited signatories, and consulting parties, and include a copy of the federal agency's executed signature page, which will codify the addition of the federal agency as a signing party in lieu of an amendment.

XX. ANTI-DEFICIENCY ACT

Pursuant to 31 USC 1341(a)(1), nothing in this MOA will be construed as binding the United States to expend in any one fiscal year any sum in excess of appropriations made by Congress for this purpose, or to involve the United States in any contract or obligation for the further expenditure of money in excess of such appropriations.

Execution of this MOA by BOEM, the New Jersey SHPO, and the ACHP, and implementation of its terms evidence that BOEM has taken into account the effects of this undertaking on historic properties and afforded the ACHP an opportunity to comment.

[SIGNATURES COMMENCE ON FOLLOWING PAGE]

MEMORANDUM OF AGREEMENT
AMONG THE BUREAU OF OCEAN ENERGY MANAGEMENT,
THE NEW JERSEY STATE HISTORIC PRESERVATION OFFICER,
AND THE ADVISORY COUNCIL ON HISTORIC PRESERVATION
REGARDING THE OCEAN WIND OFFSHORE WIND FARM PROJECT

Signatory:

Bureau of Ocean Energy Management (BOEM)

_____ Date:_____

Elizabeth A. Klein
Director
Bureau of Ocean Energy Management

MEMORANDUM OF AGREEMENT
AMONG THE BUREAU OF OCEAN ENERGY MANAGEMENT,
THE NEW JERSEY STATE HISTORIC PRESERVATION OFFICER,
AND THE ADVISORY COUNCIL ON HISTORIC PRESERVATION
REGARDING THE OCEAN WIND OFFSHORE WIND FARM PROJECT

Signatory:

New Jersey State Historic Preservation Officer (SHPO)

_____ Date:_____

Katherine J. Marcopul, Ph.D., CPM
Administrator and
Deputy State Historic Preservation Officer
New Jersey Department of Environmental Protection

MEMORANDUM OF AGREEMENT
AMONG THE BUREAU OF OCEAN ENERGY MANAGEMENT,
THE NEW JERSEY STATE HISTORIC PRESERVATION OFFICER,
AND THE ADVISORY COUNCIL ON HISTORIC PRESERVATION
REGARDING THE OCEAN WIND OFFSHORE WIND FARM PROJECT

Signatory:

Advisory Council on Historic Preservation (ACHP)

_____ Date:_____

Reid J. Nelson
Executive Director
Advisory Council on Historic Preservation

MEMORANDUM OF AGREEMENT
AMONG THE BUREAU OF OCEAN ENERGY MANAGEMENT,
THE NEW JERSEY STATE HISTORIC PRESERVATION OFFICER,
AND THE ADVISORY COUNCIL ON HISTORIC PRESERVATION
REGARDING THE OCEAN WIND OFFSHORE WIND FARM PROJECT

Invited Signatory:

Ocean Wind LLC (lessee)

_____ Date:_____

Peter Allen
Head of Finance
Ocean Wind LLC

MEMORANDUM OF AGREEMENT
AMONG THE BUREAU OF OCEAN ENERGY MANAGEMENT,
THE NEW JERSEY STATE HISTORIC PRESERVATION OFFICER,
AND THE ADVISORY COUNCIL ON HISTORIC PRESERVATION
REGARDING THE OCEAN WIND OFFSHORE WIND FARM PROJECT

Concurring Party:

The Delaware Tribe of Indians

_____ Date:_____

Brad KillsCrow
Chief
The Delaware Tribe of Indians

MEMORANDUM OF AGREEMENT
AMONG THE BUREAU OF OCEAN ENERGY MANAGEMENT,
THE NEW JERSEY STATE HISTORIC PRESERVATION OFFICER,
AND THE ADVISORY COUNCIL ON HISTORIC PRESERVATION
REGARDING THE OCEAN WIND OFFSHORE WIND FARM PROJECT

Concurring Party:

The Delaware Nation

_____ Date:_____

Deborah Dotson
President of the Executive Committee
The Delaware Nation

MEMORANDUM OF AGREEMENT
AMONG THE BUREAU OF OCEAN ENERGY MANAGEMENT,
THE NEW JERSEY STATE HISTORIC PRESERVATION OFFICER,
AND THE ADVISORY COUNCIL ON HISTORIC PRESERVATION
REGARDING THE OCEAN WIND OFFSHORE WIND FARM PROJECT

Concurring Party:

The Stockbridge-Munsee Community Band of Mohican Indians

_____ Date:_____
Shannon Holsey
President
The Stockbridge-Munsee Community Band of Mohican Indians

MEMORANDUM OF AGREEMENT
AMONG THE BUREAU OF OCEAN ENERGY MANAGEMENT,
THE NEW JERSEY STATE HISTORIC PRESERVATION OFFICER,
AND THE ADVISORY COUNCIL ON HISTORIC PRESERVATION
REGARDING THE OCEAN WIND OFFSHORE WIND FARM PROJECT

Concurring Party:

Organization

_____ Date:_____

Name
Title
Organization

MEMORANDUM OF AGREEMENT
AMONG THE BUREAU OF OCEAN ENERGY MANAGEMENT,
THE NEW JERSEY STATE HISTORIC PRESERVATION OFFICER,
AND THE ADVISORY COUNCIL ON HISTORIC PRESERVATION
REGARDING THE OCEAN WIND OFFSHORE WIND FARM PROJECT

LIST OF ATTACHMENTS TO THE MOA

ATTACHMENT 1 – APE MAPS

ATTACHMENT 2 – LISTS OF INVITED AND PARTICIPATING CONSULTING PARTIES

ATTACHMENT 3 – HISTORIC PROPERTY TREATMENT PLAN FOR THE OCEAN WIND 1 FARM ANCIENT SUBMERGED LANDFORM FEATURES, FEDERAL WATERS ON THE OUTER CONTINENTAL SHELF

ATTACHMENT 4 – HISTORIC PROPERTIES TREATMENT PLAN FOR THE OCEAN WIND 1 OFFSHORE WIND FARM PROJECT, HISTORIC PROPERTIES SUBJECT TO ADVERSE VISUAL EFFECT, CAPE MAY AND ATLANTIC COUNTIES, NEW JERSEY

ATTACHMENT 5 – TERRESTRIAL ARCHAEOLOGICAL MONITORING PLAN

ATTACHMENT 6 – POST-REVIEW DISCOVERY PLAN FOR SUBMERGED CULTURAL RESOURCES FOR THE OCEAN WIND 1 OFFSHORE WIND FARM FOR LEASE OCS A-0498 CONSTRUCTION AND OPERATIONS PLAN

ATTACHMENT 7 – POST-REVIEW DISCOVERY PLAN FOR TERRESTRIAL RESOURCES FOR THE OCEAN WIND 1 OFFSHORE WIND FARM FOR LEASE AREA OCS A-0498 CONSTRUCTION AND OPERATIONS PLAN

ATTACHMENT 8 – MITIGATION FUNDING AMOUNTS PROPOSED BY SIGNATORIES

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ATTACHMENT 1 – APE MAPS

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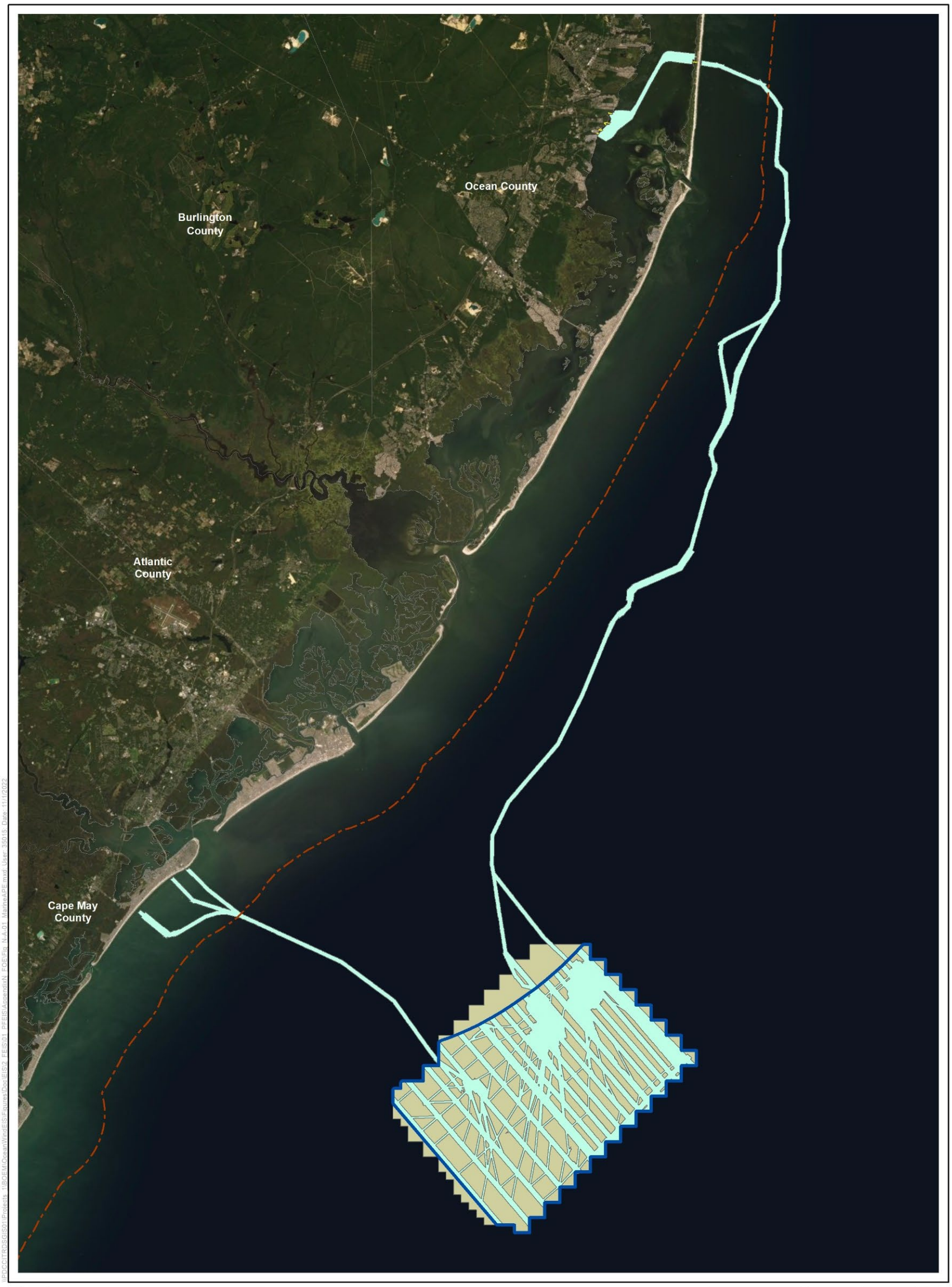

Figure 1 Marine Archaeological Resources APE for Activities within the Lease Area

Figure 2 **Marine Archaeological Resources APE for Activities within the Oyster Creek Export Cable Route Corridor**

Figure 3 Marine Archaeological Resources APE for Activities within the BL England Export Cable Route Corridor

Figure 4 **Terrestrial Archaeological Resources APE with Onshore Cable and Landfall Site Alternatives for BL England**

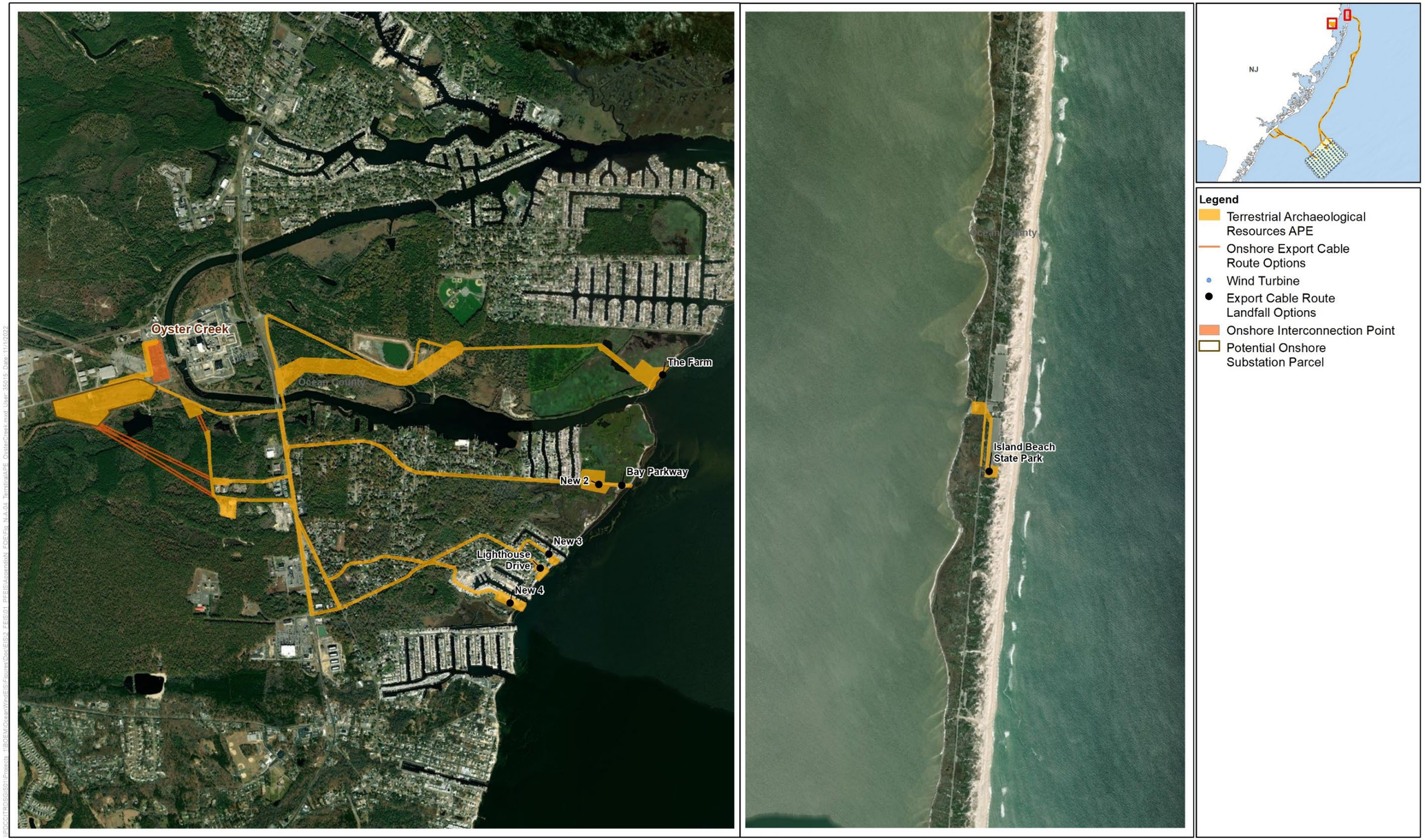

Figure 5 **Terrestrial Archaeological Resources APE with Onshore Cable and Landfall Site Alternatives for Oyster Creek**

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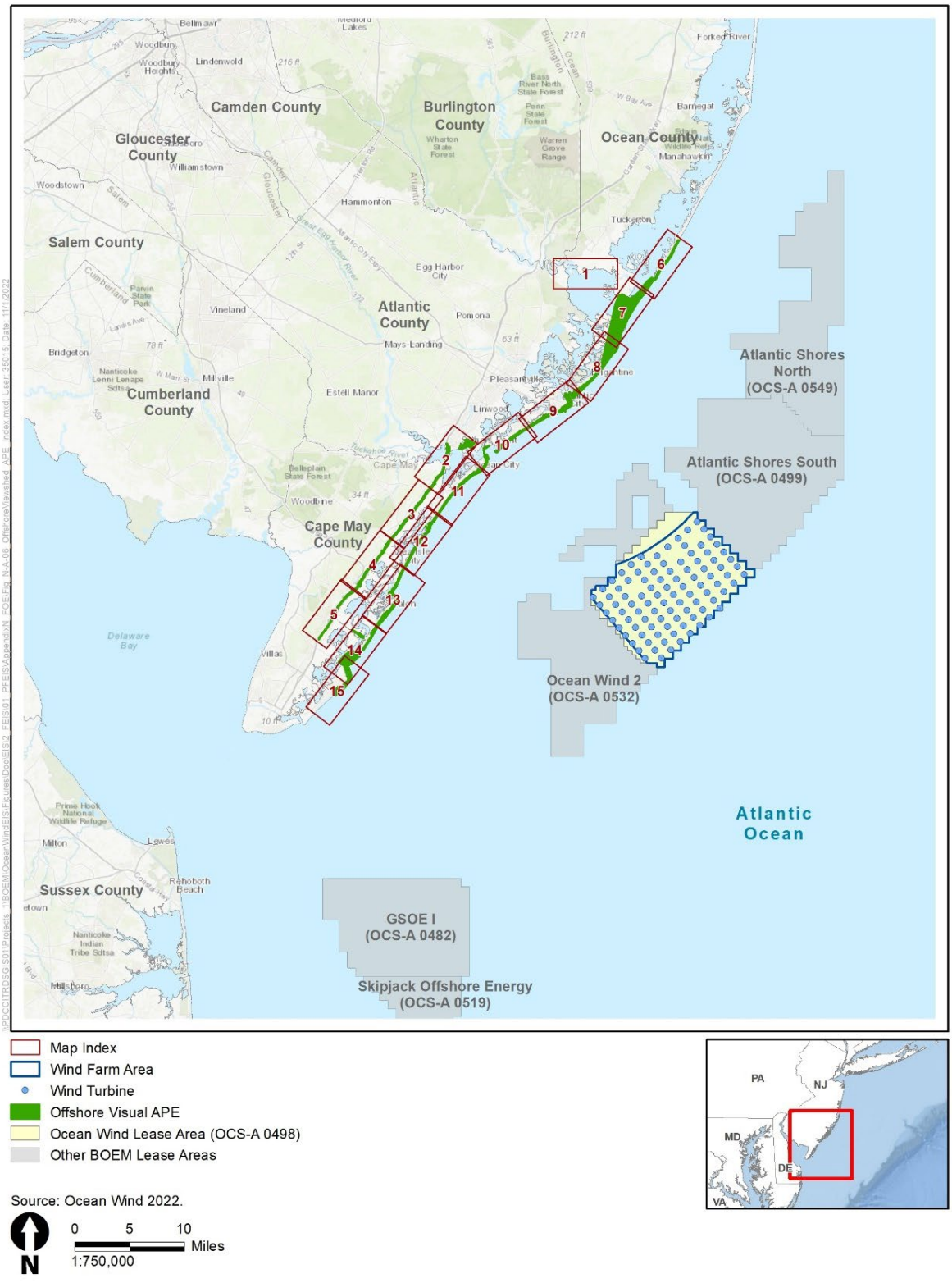

Figure 6 Offshore Visual APE with Historic Properties Adversely Affected and Foreseeable Future Project Areas—Index

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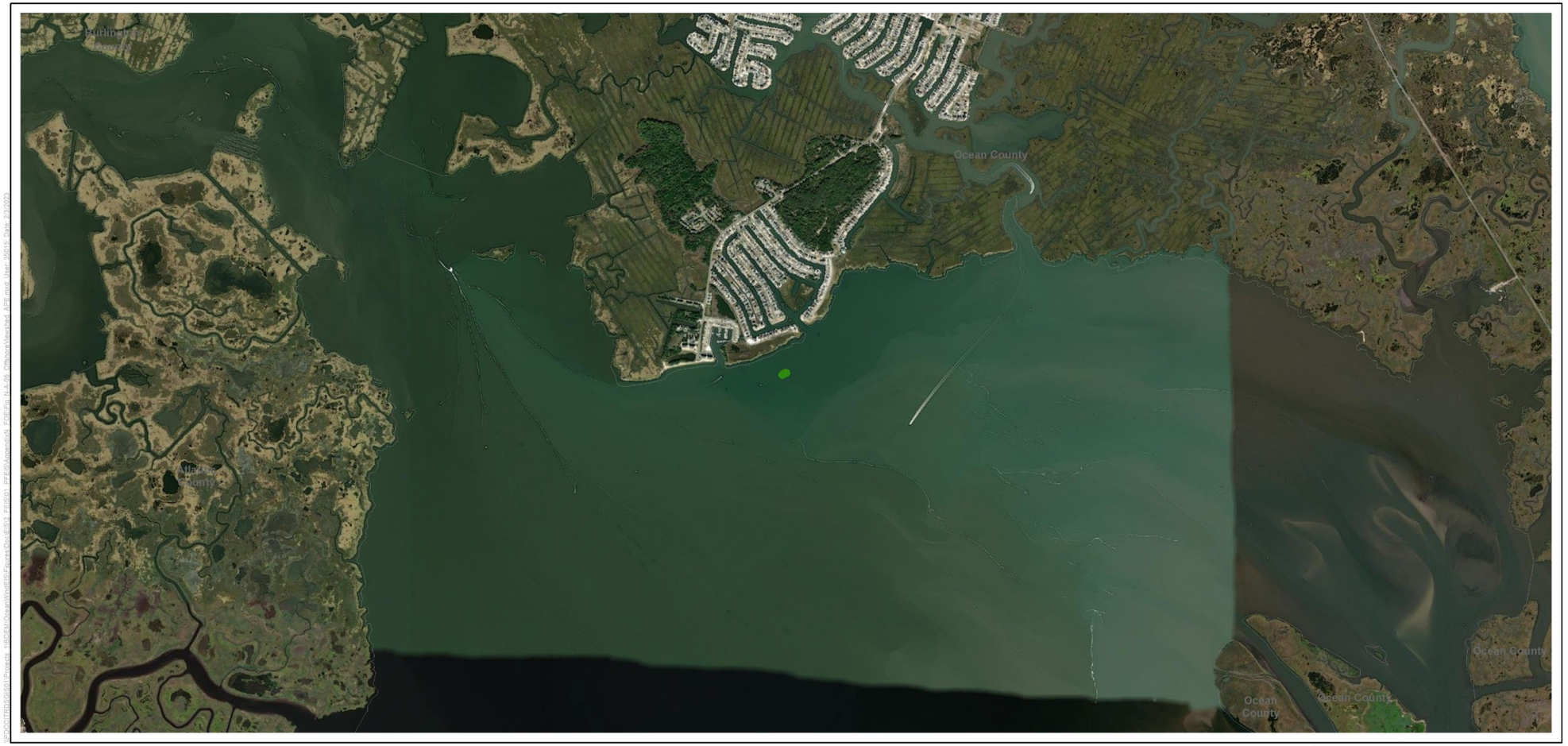
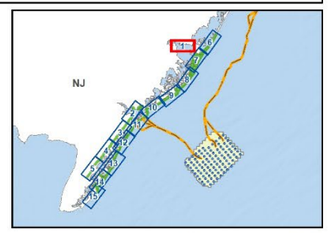


Legend

- Offshore Visual APE (Not to Scale)
- Wind Turbine
- Export Cable Route Landfall Options
- Onshore Interconnection Point
- Onshore Export Cable Route
- Onshore Export Cable Route Options
- Inshore Export Cable Route
- Offshore Export Cable Route
- Potential Onshore Substation Parcel
- Historic properties recommended adverse visual effects
- Historic properties recommended no adverse visual effects
- Historic properties recommended adverse visual effects
- Historic properties recommended no adverse visual effects



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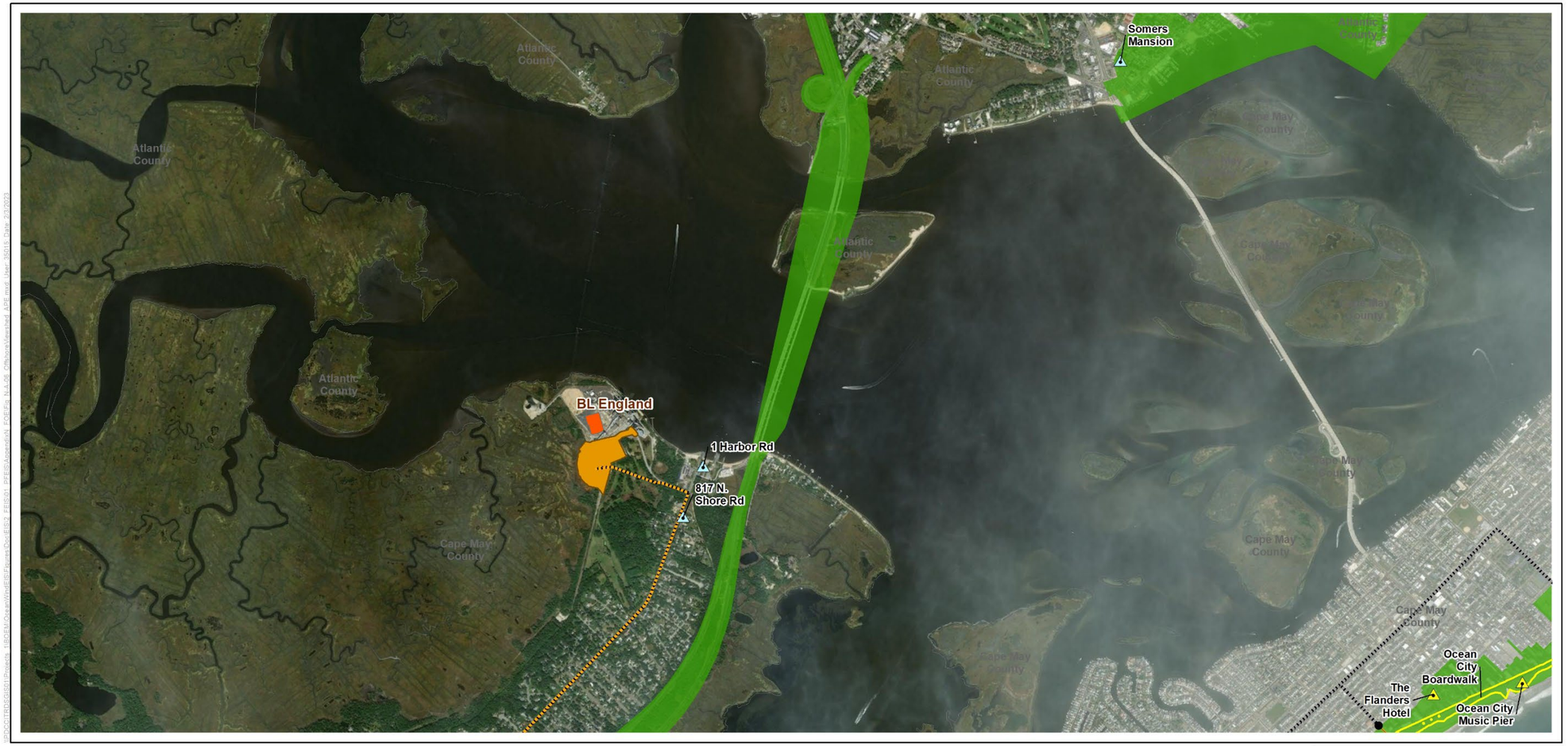
Sheet: 1 of 15

Figure 6 Offshore Visual APE with Historic Properties Adversely Affected and Foreseeable Future Project Areas—Sheet 1



Sheet: 2 of 15

Figure 6 **Offshore Visual APE with Historic Properties Adversely Affected and Foreseeable Future Project Areas—Sheet 2**

Legend

- Offshore Visual APE
- Wind Turbine
- Export Cable Route Landfall Options
- Onshore Interconnection Point
- Onshore Export Cable Route
- Onshore Export Cable Route Options
- Inshore Export Cable Route
- Offshore Export Cable Route
- Potential Onshore Substation Parcel
- Historic properties recommended adverse visual effects
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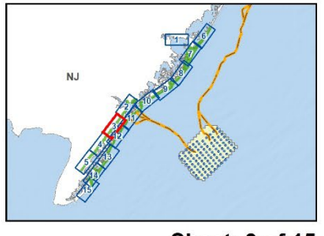
- Historic properties recommended adverse visual effects
- Historic properties recommended no adverse visual effects



Sheet: 3 of 15

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Figure 6 **Offshore Visual APE with Historic Properties Adversely Affected and Foreseeable Future Project Areas—Sheet 3**

Figure 6 **Offshore Visual APE with Historic Properties Adversely Affected and Foreseeable Future Project Areas—Sheet 4**

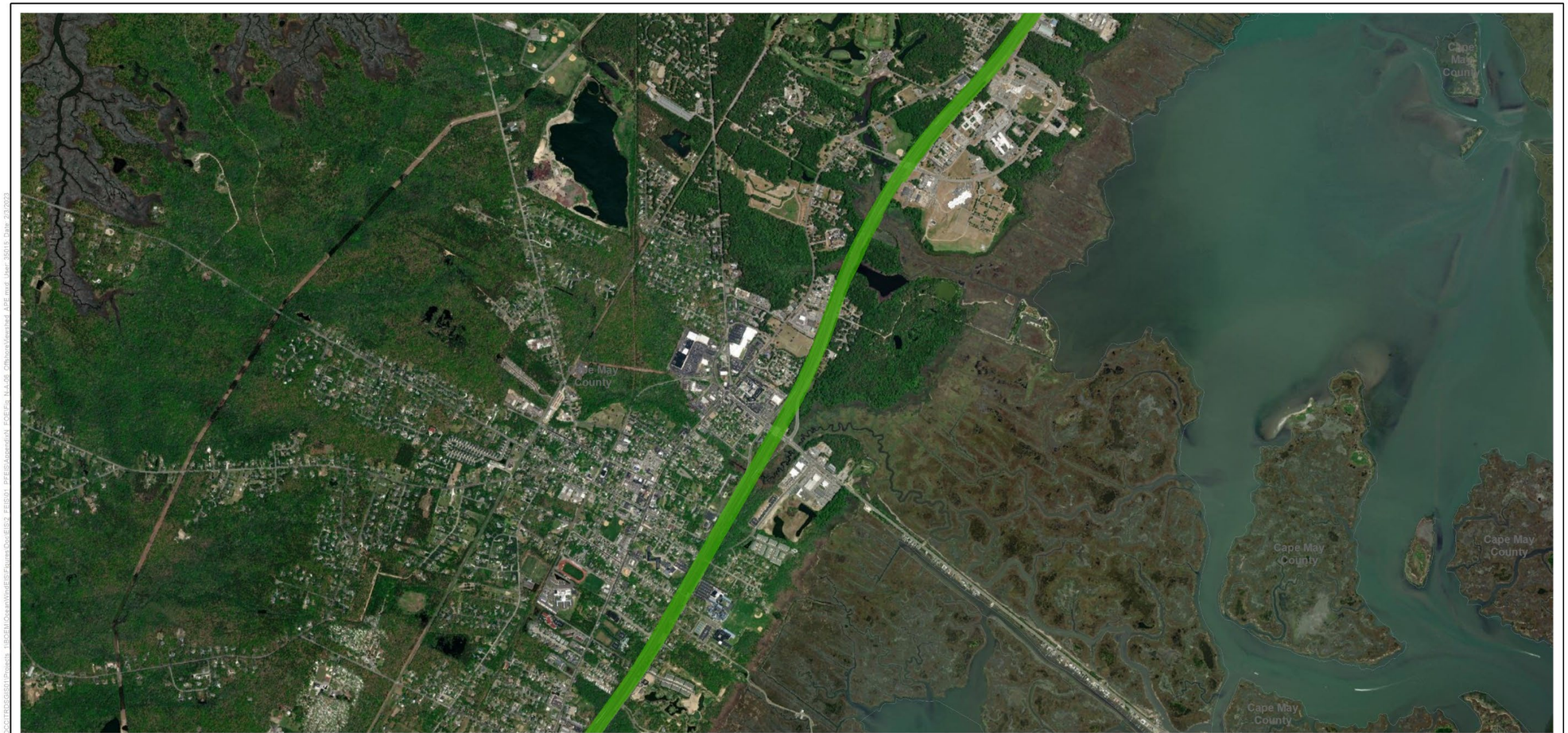

Figure 6 **Offshore Visual APE with Historic Properties Adversely Affected and Foreseeable Future Project Areas—Sheet 5**

Legend

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- Onshore Interconnection Point
- Onshore Export Cable Route
- Onshore Export Cable Route Options
- Inshore Export Cable Route
- Offshore Export Cable Route
- Potential Onshore Substation Parcel
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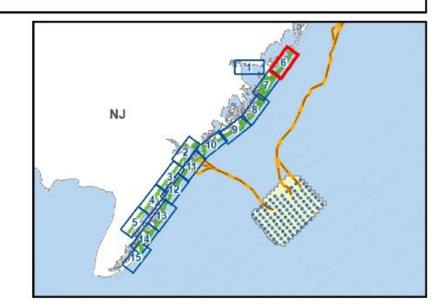

Sheet: 6 of 15

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Figure 6 Offshore Visual APE with Historic Properties Adversely Affected and Foreseeable Future Project Areas—Sheet 6

Sheet: 7 of 15

Figure 6 **Offshore Visual APE with Historic Properties Adversely Affected and Foreseeable Future Project Areas—Sheet 7**

Legend

- Offshore Visual APE
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- Export Cable Route Landfall Options
- Onshore Interconnection Point
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- Offshore Export Cable Route
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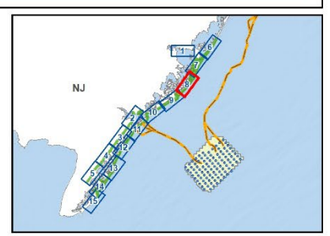

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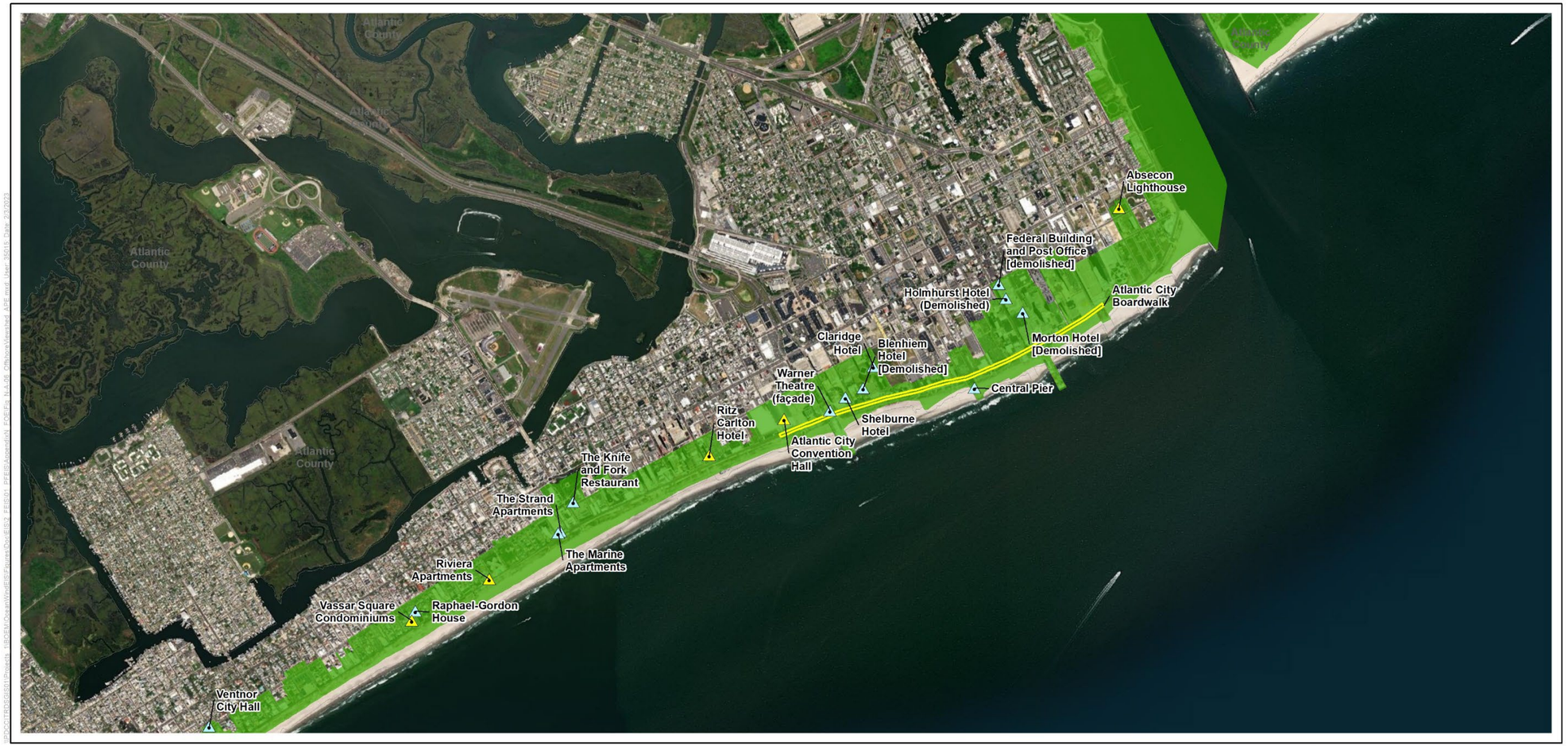
Sheet: 8 of 15

Figure 6 **Offshore Visual APE with Historic Properties Adversely Affected and Foreseeable Future Project Areas—Sheet 8**



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- Offshore Visual APE
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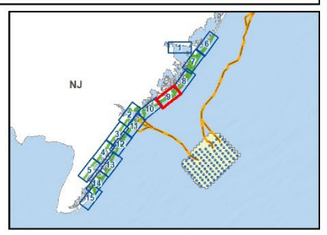

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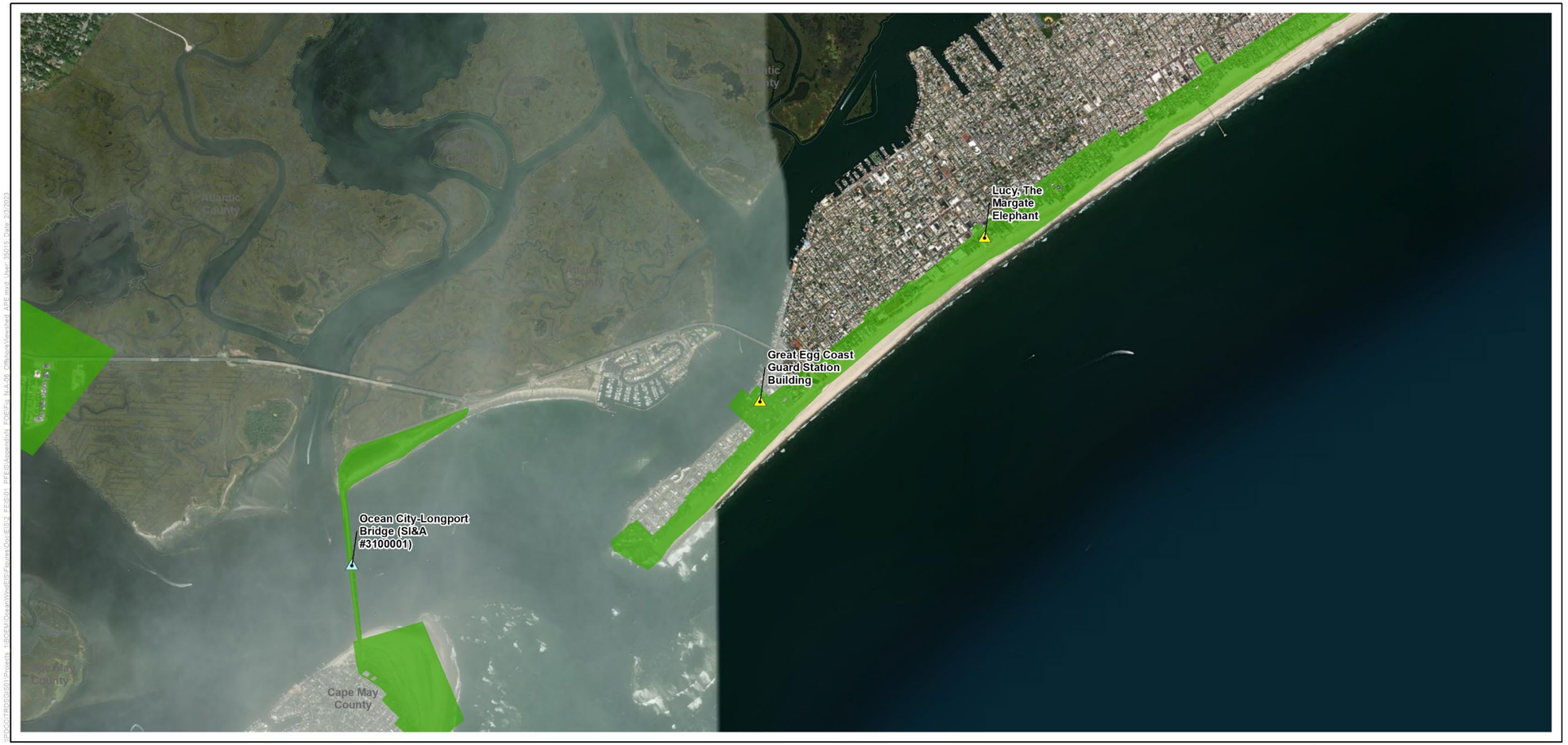
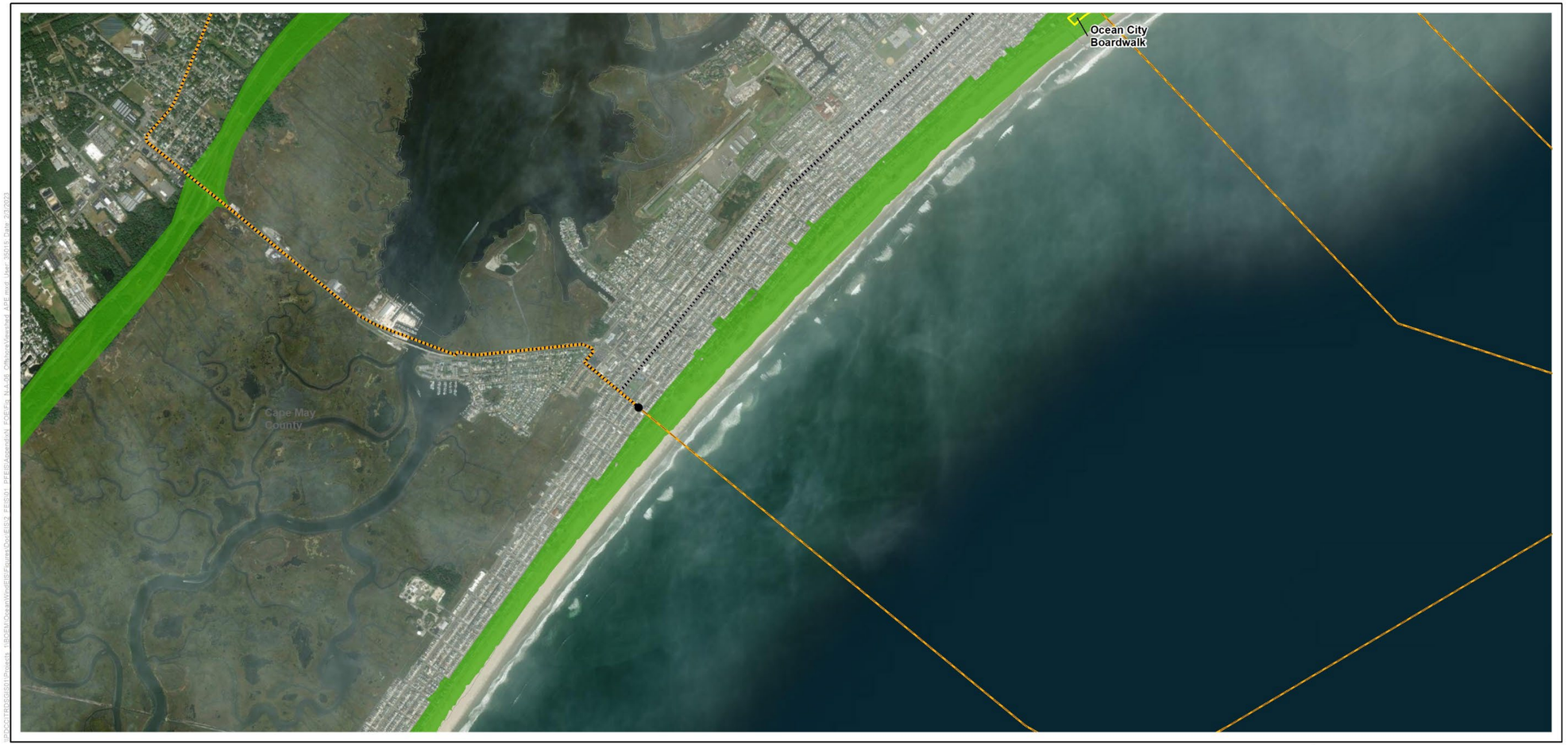
Sheet: 9 of 15

Figure 6 **Offshore Visual APE with Historic Properties Adversely Affected and Foreseeable Future Project Areas—Sheet 9**



Sheet: 10 of 15

Figure 6 **Offshore Visual APE with Historic Properties Adversely Affected and Foreseeable Future Project Areas—Sheet 10**



Legend

- Offshore Visual APE
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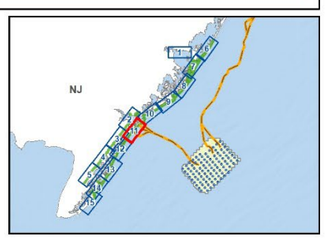

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Sheet: 11 of 15

Figure 6 **Offshore Visual APE with Historic Properties Adversely Affected and Foreseeable Future Project Areas—Sheet 11**

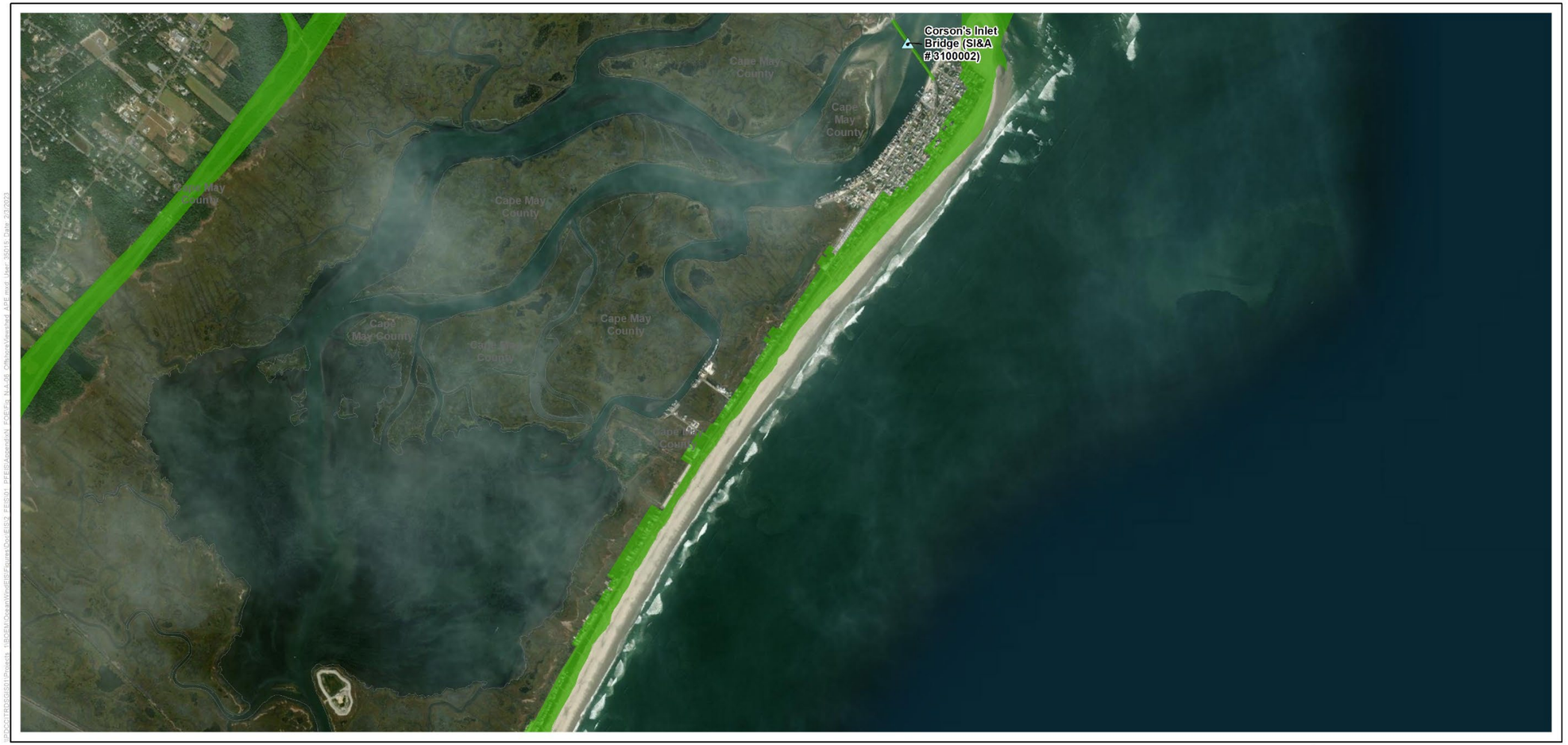

Figure 6 **Offshore Visual APE with Historic Properties Adversely Affected and Foreseeable Future Project Areas—Sheet 12**

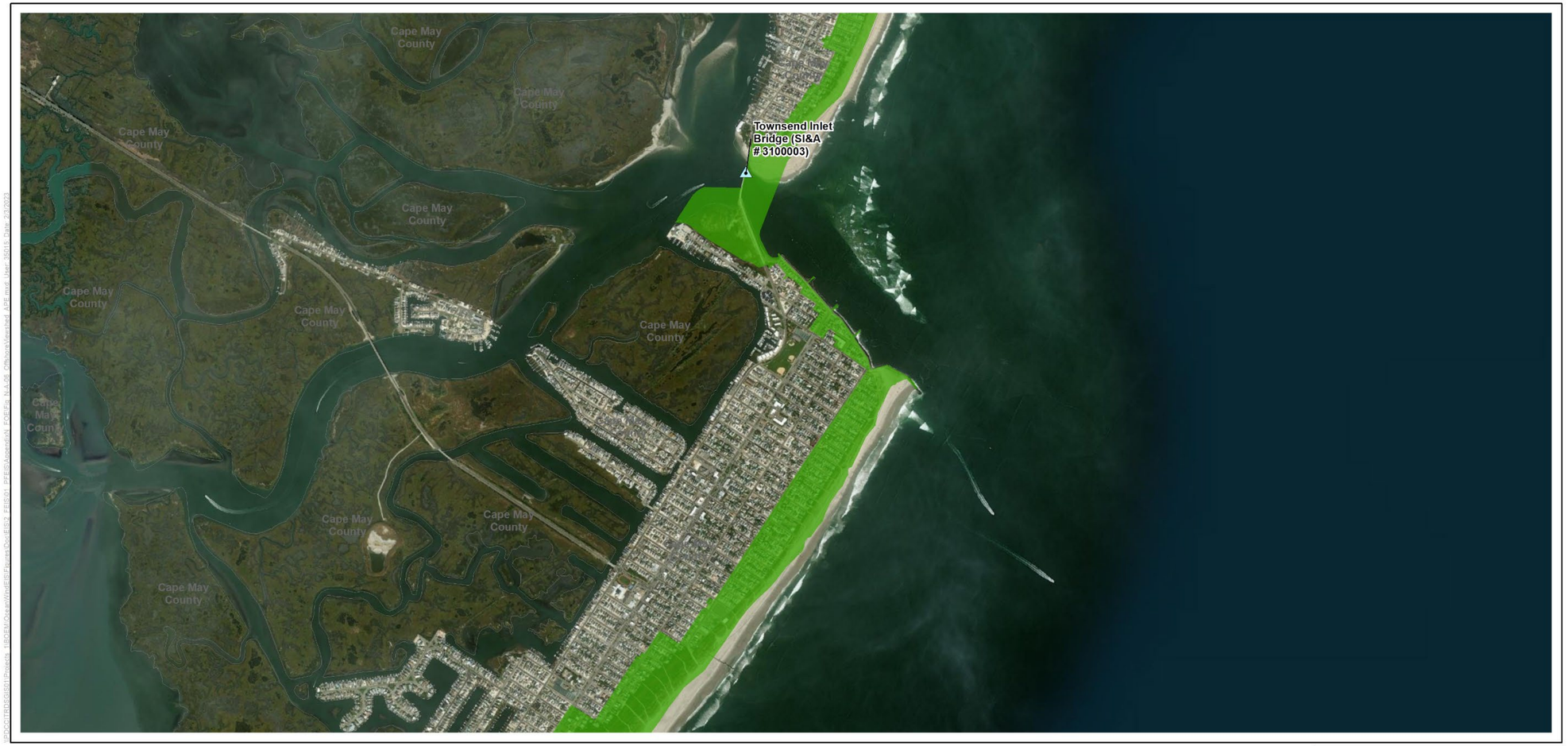

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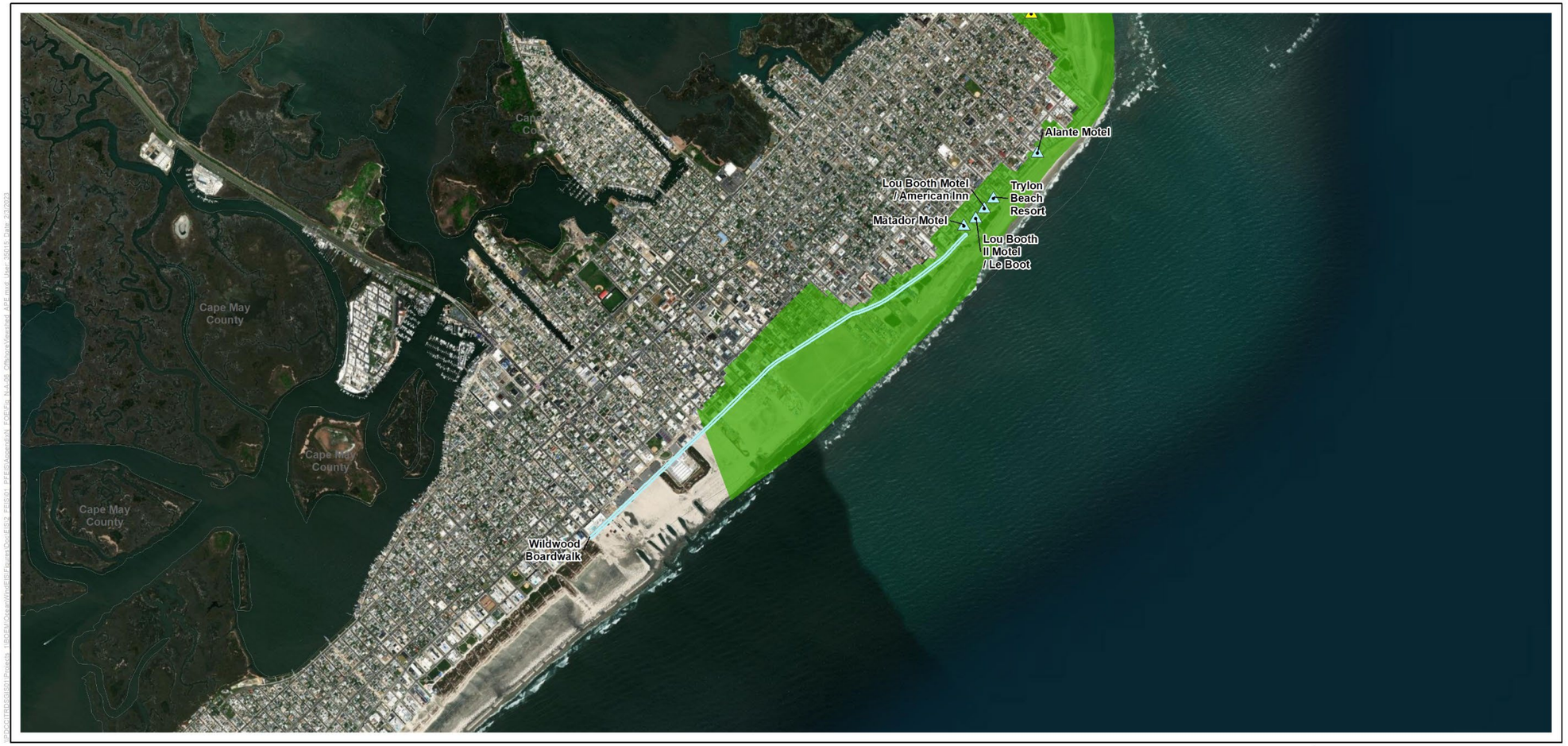
Figure 6 **Offshore Visual APE with Historic Properties Adversely Affected and Foreseeable Future Project Areas—Sheet 13**

Figure 6 **Offshore Visual APE with Historic Properties Adversely Affected and Foreseeable Future Project Areas—Sheet 14**



Legend

- Offshore Visual APE
- Wind Turbine
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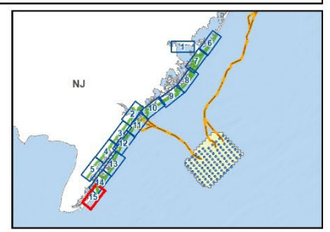

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Sheet: 15 of 15

Figure 6 Offshore Visual APE with Historic Properties Adversely Affected and Foreseeable Future Project Areas—Sheet 15

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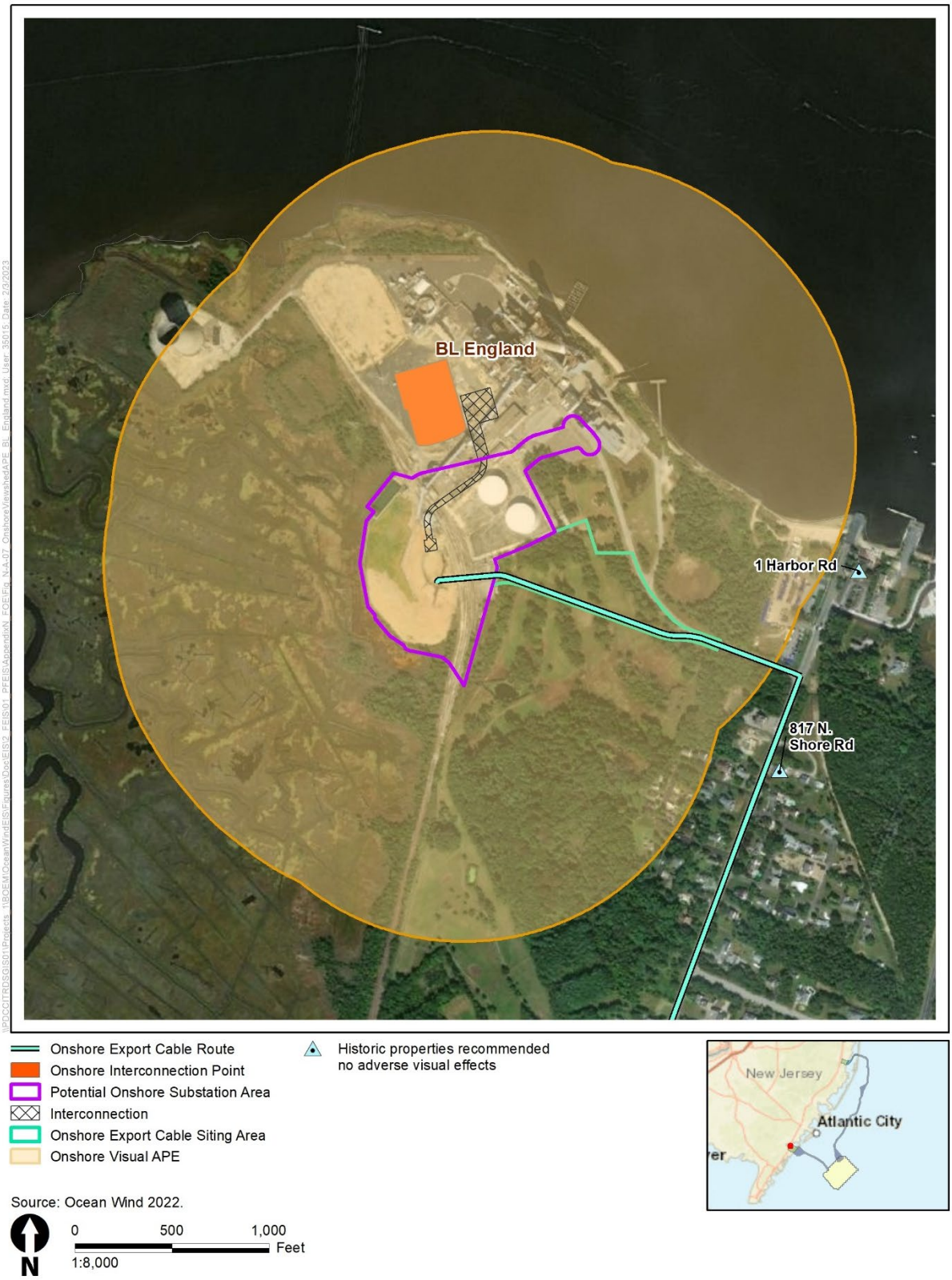

Figure 7 Onshore Visual APE for BL England Substation

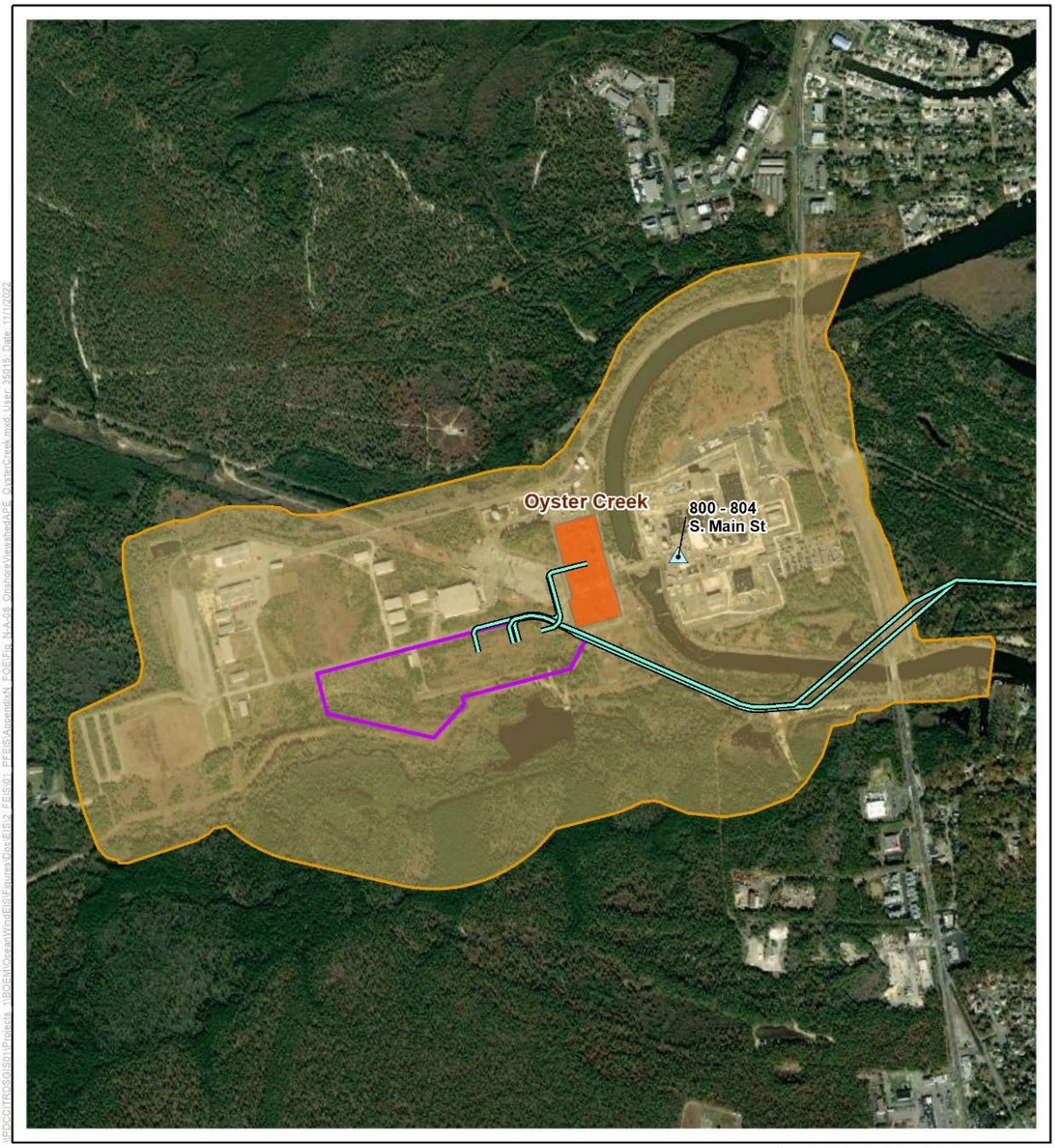

Figure 8 Onshore Visual APE for Oyster Creek Substation

ATTACHMENT 2 – LIST OF CONSULTING PARTIES

Table 1. Parties Invited to Participate in NHPA Section 106 Consultation

Participants in the Section 106 Process	Invited Parties
SHPOs and State Agencies	NJDEP, Historic Preservation Office
	NJDEP, Office of Historic Sites & Parks
	NJDLPS, Marine Service Bureau
	New Jersey Casino Reinvestment Development Authority
	New Jersey Historic Trust
Federal Agencies	ACHP
	NOAA
	USACE
	USCG
	USEPA
	USFWS
	National Park Service
	National Park Service, Region 1
Federally Recognized Tribes	Absentee-Shawnee Tribe of Indians of Oklahoma
	Delaware Tribe of Indians
	Eastern Shawnee Tribe of Oklahoma
	Shawnee Tribe
	The Delaware Nation
	Mashantucket Pequot Tribal Nation
	The Narragansett Indian Tribe
	The Rappahannock Tribe
	The Shinnecock Indian Nation
	Stockbridge-Munsee Community Band of Mohican Indians
Non-Federally Recognized Tribes	Lenape Indian Tribe of Delaware
	Nanticoke Indian Association, Inc.
	Nanticoke Lenni-Lenape Tribal Nation
	Nanticoke Lenni-Lenape Tribe
	Powhatan Renape Nation
	Ramapough Lenape Indian Nation
	Ramapough Mountain Indians
Local Governments	Absecon City
	Atlantic City
	Atlantic County
	Atlantic County, Department of Regional Planning and Development

Participants in the Section 106 Process	Invited Parties
	Avalon Borough
	Barnegat Light Borough
	Barnegat Township
	Beach Haven Borough
	Brigantine Beach City
	Cape May City
	Cape May County
	Cape May Point Borough
	Dennis Township
	Eagleswood Township
	Egg Harbor City
	Egg Harbor Township
	Galloway Township
	Hamilton Township
	Hammonton Town
	Harvey Cedars Borough
	Linwood City
	Little Egg Harbor Township
	Long Beach Township
	Longport Borough
	Lower Township
	Margate City
	Middle Township
	North Wildwood City
	Ocean City
	Ocean County
	Pleasantville City
	Sea Isle City
	Ship Bottom Borough
	Somers Point City
	Stafford Township
	Stone Harbor Borough
	Surf City Borough
	Tuckerton Borough
	Upper Township
	Ventnor City
	West Cape May Borough
	West Wildwood Borough

Participants in the Section 106 Process	Invited Parties
	Wildwood City
	Wildwood Crest Borough
	Woodbine Borough
Nongovernmental Organizations or Groups	Absecon Historical Society
	Absecon Lighthouse
	Atlantic City Convention Center
	Atlantic County
	Atlantic County Historical Society
	Avalon History Center
	Barnegat Light Museum
	Barnegat Lighthouse State Park
	Brigantine Beach Historical Museum
	Cape May Lighthouse
	Caribbean Motel
	Converse Cottage
	Donald & June Feith (114 South Harvard Avenue, Ventnor City, New Jersey)
	Dr. Edward H. Williams House
	Eagleswood Historical Society
	Emlen Physick Estate
	Flanders Condominium Association
	Friends of Barnegat Lighthouse
	Friends of the Cape May Lighthouse
	Friends of the World War II Tower
	Greater Cape May Historic Society
	Greater Egg Harbor Township Historical Society
	Hereford Inlet Lighthouse
	Historic Cold Spring Village
	Legacy Vacation Resorts
	Linwood Historical Society
	Long Beach Island Historical Association
	Long Beach Island Historical Association
	Longport Historical Society
	Madison Hotel
	Max Gurwicz Enterprises
	Museum of Cape May County
	New Jersey Lighthouse Society
	New Jersey Maritime Museum

Participants in the Section 106 Process	Invited Parties
	Ocean City Historical Museum
	Ocean City Music Pier
	Ocean County Historical Society
	Patriots for the Somers Mansion
	Preservation New Jersey
	Raphael-Gordon House
	Ritz Condominium Association
	Rutgers University, Department of Marine and Coastal Sciences, School of Environmental and Biological Sciences
	Save Lucy Committee, Inc.
	Stone Harbor Museum
	The Museum of Cape May County
	The Noyes Museum of Art
	Tuckerton Historical Society
	Vassar Square Condominium Association
	Wildwood Crest Historical Society
	Wildwood Historical Society

Table 2. Parties Participating in Section 106 Consultation

Participants in the Section 106 Process	Participating Parties
SHPOs and State Agencies	NJDEP, Historic Preservation Office
	NJDEP, Office of Historic Sites & Parks
	New Jersey Historic Trust
Federal Agencies	ACHP
	USACE
	USEPA
	USCG
	National Park Service
	U.S. Naval History and Heritage Command
Federally Recognized Tribes	Delaware Nation
	Delaware Tribe of Indians
	Stockbridge-Munsee Community Band of Mohican Indians
	The Shinnecock Indian Nation
	Wampanoag Tribe of Gay Head (Aquinnah)
Local Governments	Atlantic County
	Cape May City

Participants in the Section 106 Process	Participating Parties
	Cape May County
	Harvey Cedars Borough
	Linwood City
	Margate City
	North Wildwood City
	Ocean City
	Sea Isle City
	Somers Point City
	Stafford Township
Non-governmental Organizations or Groups	Absecon Lighthouse
	Donald & June Feith (114 South Harvard Avenue, Ventnor City, New Jersey)
	Flanders Condominium Association
	Garden State Seafood Association
	Long Beach Island Historical Association
	Save Lucy Committee, Inc.
	Ritz Condominium Association
	Rutgers University, School of Environmental and Biological Sciences
	The Noyes Museum of Art
	Vassar Square Condominiums

Table 3. Parties Invited to Consult under Section 106 and That Did Not Participate in Consultation

Participants in the Section 106 Process	Invited Consulting Parties
State Agencies	NJDEP, Office of Historic Sites & Parks
	NJDLPS, Marine Service Bureau
	New Jersey Casino Reinvestment Development Authority
Federal Agencies	NOAA
	USFWS
	National Park Service, Region 1
Federally Recognized Tribes	Absentee-Shawnee Tribe of Indians of Oklahoma
	Eastern Shawnee Tribe of Oklahoma
	Shawnee Tribe
	Mashantucket Pequot Tribal Nation
	The Narragansett Indian Tribe
	The Rappahannock Tribe
Non-Federally Recognized Tribe	Lenape Indian Tribe of Delaware
	Nanticoke Indian Association, Inc.
	Nanticoke Lenni-Lenape Tribal Nation
	Nanticoke Lenni-Lenape Tribe
	Powhatan Renape Nation
	Ramapough Lenape Indian Nation
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Local Governments	Absecon City
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	Avalon Borough
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	Barnegat Township
	Beach Haven Borough
	Brigantine Beach City
	Cape May Point Borough
	Dennis Township
	Eagleswood Township
	Egg Harbor City
	Egg Harbor Township
	Galloway Township
	Hamilton Township
	Hammonton Town
	Linwood City

Participants in the Section 106 Process	Invited Consulting Parties
	Little Egg Harbor Township
	Long Beach Township
	Longport Borough
	Lower Township
	Middle Township
	Ocean County
	Pleasantville City
	Ship Bottom Borough
	Stone Harbor Borough
	Surf City Borough
	Tuckerton Borough
	Upper Township
	Ventnor City
	West Cape May Borough
	West Wildwood Borough
	Wildwood City
	Wildwood Crest Borough
	Woodbine Borough
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	Atlantic City Convention Center
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	Atlantic County Historical Society
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	Barnegat Light Museum
	Barnegat Lighthouse State Park
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	Friends of Barnegat Lighthouse
	Friends of the Cape May Lighthouse
	Friends of the World War II Tower
	Greater Cape May Historic Society
	Greater Egg Harbor Township Historical Society
	Hereford Inlet Lighthouse

Participants in the Section 106 Process	Invited Consulting Parties
	Historic Cold Spring Village
	Legacy Vacation Resorts
	Linwood Historical Society
	Longport Historical Society
	Madison Hotel
	Max Gurwicz Enterprises
	Museum of Cape May County
	New Jersey Lighthouse Society
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	Ocean City Historical Museum
	Ocean City Music Pier
	Ocean County Historical Society
	Patriots for the Somers Mansion
	Preservation New Jersey
	Raphael-Gordon House
	Stone Harbor Museum
	The Museum of Cape May County
	Tuckerton Historical Society
	Wildwood Crest Historical Society
	Wildwood Historical Society

ATTACHMENT 3 – HISTORIC PROPERTY TREATMENT PLAN FOR THE OCEAN WIND 1 FARM ANCIENT SUBMERGED LANDFORM FEATURES, FEDERAL WATERS ON THE OUTER CONTINENTAL SHELF

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Ocean Wind 1
An Ørsted & PSEG project

Applicant-Proposed Draft with BOEM Revisions – Subject to Review by BOEM and Consulting Parties

Draft Historic Property Treatment Plan

for the

Ocean Wind 1 Farm

Ancient Submerged Landform Features
Federal Waters on the Outer Continental Shelf

Submitted to:

BOEM
Bureau of Ocean Energy Management

Bureau of Ocean Energy Management
U.S. Department of the Interior

Prepared for:

Ocean Wind 1
An Ørsted & PSEG project

Ocean Wind 1,
https://oceanwind.com/

Prepared by:

SEARCH

www.searchinc.com

April 2023

ABSTRACT

Federal Undertaking:	Ocean Wind 1 Offshore Wind Farm Project
Location:	Outer Continental Shelf, New Jersey
Federal and State Agencies:	Bureau of Ocean Energy Management U.S. Army Corps of Engineers New Jersey Department of Environmental Protections/State Historic Preservation Office Advisory Council on Historic Preservation
ACHP Project No.:	
Regulatory Process:	National Environmental Policy Act Section 106 of the National Historic Preservation Act
Regulatory Action:	Cultural Resources Mitigation pursuant to Bureau of Ocean Energy Management approval of the *Ocean Wind 1 Wind Farm Construction and Operations Plan*
Potential Adverse Effect Finding for:	13 Properties in Cape May, Ocean, and Atlantic Counties
Date:	April 2023

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

LIST OF ACRONYMS

ACHP	Advisory Council on Historic Preservation
ADLS	Aircraft Detection Lighting System
APE	Area of Potential Effects
BOEM	Bureau of Ocean Energy Management
CFR	Code of Federal Regulations
COP	Construction and Operations Plan
FEIS	Final Environmental Impact Statement
FR	Federal Regulation
HDR	HDR, Inc.
HPTP	Historic Properties Treatment Plan
MOA	Memorandum of Agreement
N/A	Not Applicable
NHL	National Historic Landmark
NHPA	National Historic Preservation Act of 1966
NJ DEP	New Jersey Department of Environmental Protection
NJHPO	New Jersey State Historic Preservation Office(r)
NPS	National Park Service
NRHP	National Register of Historic Places
OCS	Outer Continental Shelf
OCW1	Ocean Wind1 Offshore Wind Farm Project
QMA	Qualified Marine Archaeologist
PRDP	Post-Review Discoveries Plan
RFP	Request for Proposals
ROD	Record of Decision
SOI	Secretary of the Interior
TCP	Traditional Cultural Property
USCG	United States Coast Guard
WTG	Wind Turbine Generator

1.0 INTRODUCTION

Executive Summary

This Historic Properties Treatment Plan (HPTP) provides background data, historic property information, and detailed steps that will be implemented to carry out the potential cultural resources mitigation actions identified by the Bureau of Ocean Energy Management (BOEM) for the OCW1 Offshore Wind Farm (OCW1). The mitigation actions, if required, will be developed in consultation with the New Jersey State Historic Preservation Officer (NJHPO) and other National Historic Preservation Act (NHPA) Section 106 review consulting parties as elements of the Final Environmental Impact Statement (FEIS) and issued in accordance with 40 CFR parts 1500-1508, 36 CFR §§ 800.8, 800.10. This HPTP outlines the mitigation measures, implementation steps, and timeline for actions.

Section 1.0 Introduction: Outlines the content of this HPTP.

Section 2.0 Cultural Resources Regulatory Context: Briefly summarizes the OCW1 (the Undertaking) while focusing on cultural resources regulatory contexts (federal, tribal, state, and local, including preservation restrictions), identifies the 13 historic properties discussed in this HPTP that will be adversely affected by the Undertaking, and summarizes the pertinent conditions that guided the development of this document.

Section 3.0 Existing Conditions and Historic Significance: Provides a physical description of each historic property included in this HPTP. Set within their historic context, the applicable National Register of Historic Places (NRHP) criteria for each resource is discussed with a focus on the contribution of an ocean setting to its significance and integrity.

Section 4.0 Mitigation Measures: Presents specific steps to carry out the mitigation actions identified proposed by OCW1 in the COP. Each mitigation action includes a detailed description, intended outcome, and specifications that include maximum cost, methods, standards, requirements for documentation, and reporting instructions. Property-specific challenges, if any have been identified, are outlined as well.

Section 5.0 Implementation: Establishes the process for executing mitigation actions at the Historic Properties, as identified in Section 4.0 of this HPTP. For each action, organizational responsibilities are outlined, a timeline is provided, and regulatory reviews are listed.

Section 6.0 References: A list of works cited in this HPTP.

2.0 CULTURAL RESOURCES REGULATORY CONTEXT

Project Overview: Ocean Wind1 Offshore Wind Farm (OCW1)

BOEM has determined that approval, approval with modification, or disapproval of the OCW1 COP constitutes an undertaking subject to Section 106 of the National Historic Preservation Act (NHPA; 54 U.S.C. § 306108) and its implementing regulations (36 CFR 800), and that the activities proposed under the COP have the potential to affect historic properties. The OCW1 undertaking is defined as a wind-powered electric generating facility composed of up to 98 wind turbine generators (WTGs) and associated foundations, up to three offshore substations, and inter-array cables connecting the WTGs and the offshore substations (**Figure 2-1**). The WTGs, foundations, offshore substations, and inter-array cables will all be in federal waters on the Outer Continental Shelf (OCS), approximately 15 statute miles (mi) (13 nautical miles [nm]) southeast of Atlantic City, New Jersey. Cables will be buried below the seabed.

Export cables from the offshore substations will extend along the seabed and connect to buried onshore export cables, which will connect to two interconnection points, at Oyster Creek and BL England. Onshore cables will be buried within and up to a 15-meters (m)-wide (50-feet[ft]-wide) construction corridor with a permanent easement up to 9.8-m-wide (30-ft-wide) for BL England. Two new onshore substations are proposed at Oyster Creek and BL England along with grid connections to the existing grid for each substation. Onshore substation locations would be sited on existing parcels containing decommissioned power facilities at BL England and Oyster Creek. The Oyster Creek and BL England onshore substation locations would require a permanent site up to 31.5 acres (ac) (12.7 hectares [ha]) and 13 ac (5.3 ha) respectively, for the substation equipment and buildings, energy storage, and stormwater management and associated landscaping. Underground or overhead transmission lines would connect the substations to the planned interconnection point (grid connections).

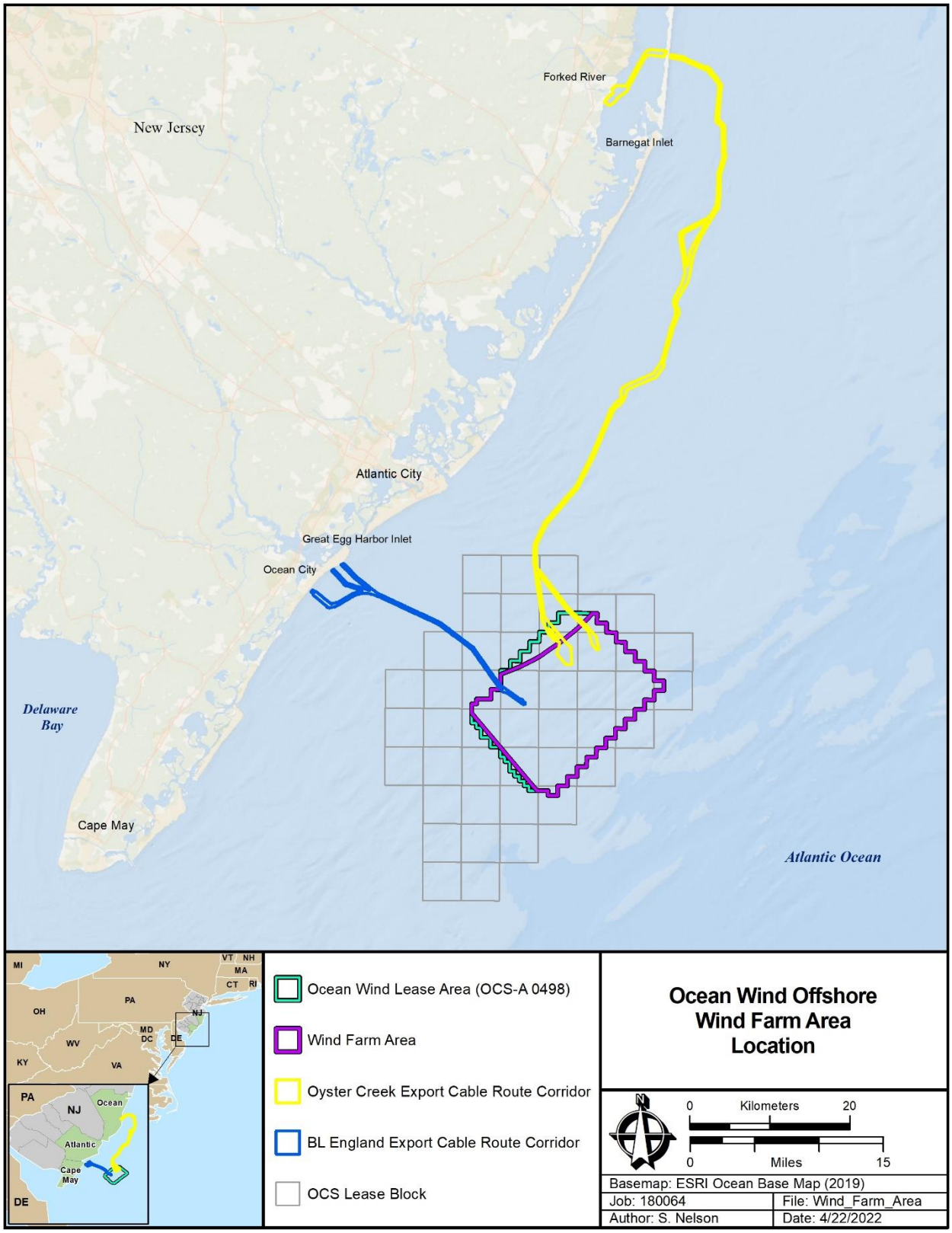

Figure 2-1. Project Location

Section 106 of the National Historic Preservation Act (NHPA)

This HPTP was developed based on coordination with BOEM and reflects consultations conducted by BOEM with multiple consulting parties, including the NJHPO and Tribes for whom the historic properties have traditional cultural and/or religious significance. The regulations at 36 CFR § 800.8 provide for use of the National Environmental Policy Act (NEPA) process to fulfill a federal agency's National Historic Preservation Act (NHPA) Section 106 review obligations in lieu of the procedures set forth in 36 CFR § 800.3 through 800.6. Under these provisions, issuance of a Record of Decision (ROD) and implementation of relevant conditions will resolve adverse effects to historic properties caused by the Undertaking. BOEM may also choose to develop an NHPA Section 106 Memorandum of Agreement (MOA) to resolve adverse effects to historic properties. As defined in 36 CFR § 800.6 (c), a project specific MOA will record the terms and conditions agreed upon to resolve adverse effects of the undertaking (i.e., the approval, approval with modification, or disapproval of the OCW1 COP). If BOEM chooses to approve the OCW1 COP or approve the COP with modifications, implementation of the NHPA Section 106 MOA will be included in the ROD).

OCW1 will implement the following applicant-proposed environmental protection measures to avoid and minimize potential impacts to marine archaeological resources:

- Tribal representatives were involved, and will continue to be involved, in marine survey protocol design, execution of the surveys, and review of the results;
- An anchoring plan for vessels will be developed prior to construction to identify avoidance/no-anchorage areas around historic properties to avoid anchoring impacts to these resources; and
- A Post-Review Discoveries Plan (PRDP) will be implemented that will include stop-work and notification procedures to be followed if a potentially significant archaeological resource is encountered during construction (refer to the Project's Marine Archaeological Resource Assessment Report [COP Appendix F-1]).

This HPTP describes the applicant-proposed treatment plans to resolve the remaining adverse effects after application of the above-listed measures. The mitigation measures reflect refinement of the conceptual mitigation framework proposed by Ocean Wind1 (see COP Appendix F-4).

All activities implemented under this HPTP will be conducted in accordance with any conditions imposed by BOEM in its ROD and with applicable local, state, and federal regulations and permitting requirements. Responsibilities for specific compliance actions are described in further detail in Section 5.0, Organizational Responsibilities.

Participating NHPA Section 106 Consulting Parties

BOEM initiated consultation under Section 106 with invitations to potential consulting parties in March 2021, including the NJHPO and ACHP. BOEM invited the following federally and state recognized Tribes with historic and cultural ties to the OCW1 project areas to participate in the Section 106 review as consulting parties:

- Absentee-Shawnee Tribe of Indians of Oklahoma
- Delaware Tribe of Indians
- Eastern Shawnee Tribe of Oklahoma
- Shawnee Tribe
- Stockbridge-Munsee Community Band of Mohican Indians
- The Delaware Nation
- The Narragansett Indian Tribe
- The Shinnecock Indian Nation

In addition to the federally and state recognized Tribes, BOEM invited the following state recognized Tribes to participate as Section 106 consulting parties.

- Nanticoke Indian Association, Inc.
- Nanticoke Lenni-Lenape Tribal Nation
- Nanticoke Lenni-Lenape Tribe
- Powhatan Renape Nation
- Ramapough Lenape Indian Nation
- Ramapough Mountain Indians
- Lenape Indian Tribe of Delaware

OCW1 anticipates the above-listed parties and any subsequently identified parties will participate in the finalization of this HPTP through BOEM's Section 106 consultation process.

After its initial invitation, BOEM hosted the following Section 106 consultation meetings with consulting parties on the following dates:

- April 13, 15, and 20, 2021: NEPA Public Scoping Meeting
- March 8, 2022: Section 106 Consulting Party Meeting 1
- May 4, 2022: Section 106 Consulting Party Meeting 2

Ocean Wind1 anticipates that BOEM will hold additional meetings pursuant to Sections 106 and 110(f) of the NHPA and in accordance with 36 CFR 800.8.

Consulting Parties referred to in this HPTP include the consulting parties, federally and state recognized Tribes, and state recognized Tribes detailed above. No additional Consulting Parties are expected to be involved in the implementation of this HPTP, not all parties identified may choose to provide input or participate in the HPTP mitigation process.

3.0 EXISTING CONDITIONS AND HISTORIC SIGNIFICANCE

Affected Ancient Submerged Landforms

This HPTP involves thirteen (13) historic properties, as identified below in **Table 3-1**. All 13 historic properties are ancient, submerged landform features (ASLFs) identified during geophysical and

geotechnical investigations within the OCW1 Wind Farm Area (WFA) and within the BL England and Oyster Creek Export Cable Routes (ECRs) Corridors.

Table 3-1. Historic Properties included in the HPTP.

Name	Project Component Area
Target 21	Wind Farm Area
Target 22	Wind Farm Area
Target 23	Wind Farm Area
Target 24	Wind Farm Area
Target 25	Wind Farm Area
Target 26	Wind Farm Area
Target 28	Wind Farm Area
Target 29	Wind Farm Area
Target 30	Wind Farm Area
Target 31	Wind Farm Area
Target 33	BL England Export Cable Route Corridor
Target 34	Oyster Creek Export Cable Route Corridor
Target 35	Oyster Creek Export Cable Route Corridor

Adversely Affected Historic Properties

Physical Description and Existing Conditions

Target 21: Target 21 represents the northern portion of an interfluve of U30/H30 flanked on the west by a meandering channel and a possible sinuous channel on the east. This topographical high between two channels was most likely a vegetative-rich area. Covering approximately 29.4 ha (146.2 ac), the acoustic imagery of Target 21 indicates a well-preserved margin between two divergent river channels. The reflector is buried 7.5 m (24.7 ft) below seabed (bsb) and is 874.3 m (2,868.4 ft) at its widest. Approximately 40% (23.6 ha [58.2 ac]) of Target 21 is present within the APE around a proposed turbine location and the inter-array cable corridor.

Target 22: Target 22 represents two possible landscapes based on the ground model and the seismic data. Seismic data appears to represent a preserved interfluve associated with U30/H30, while the ground model depicts a margin adjacent to a deeply incised channel. Marine transgression removed a large portion of the possible eastern tributary, resulting in two possible interpretations. Either environment would have been a vegetative rich landscape; archaeological core AC-15 recovered an intact paleosol from this area, aiding in the interpretation of Target 22. Covering approximately 181.9 ha (449.6 ac), the acoustic imagery of Target 22 suggests a well-preserved margin between a major paleochannel and a tributary. The reflector is buried 7.8 m (25.6 ft) bsb and is 1,478.9 m (4,852.0 ft) at its widest. Approximately 70% (127.8 ha [315.7 ac]) of Target 22 is present within the APE around a proposed turbine location and the inter-array cable corridor.

Target 23: Target 23 represents the western flank of a meandering paleochannel associated with U30/H30. Marine transgression removed portions of this margin, downcutting into the potential former subaerial landscape. Nearby archaeological core AC-03_rev did not yield any evidence of a paleosol as it penetrated through the channel. Covering approximately 202.0 ha (499.2 ac), the acoustic imagery of Target 23 evidences a slightly eroded, yet preserved paleochannel flank. The reflector is buried 6.2 m (20.3 ft) bsb and is 2,468.7 m (8,099.4 ft) at its widest. Approximately 76% (154.5 ha [381.7 ac]) of Target 23 is present within the APE around a proposed turbine location and the inter-array cable corridor.

Target 24: Target 24 represents the eastern flank of a meandering paleochannel associated with U30/H30. Marine transgression removed portions of this margin, downcutting into the former subaerial landscape. Archaeological core AC-16 recovered an intact paleosol from this area, aiding in the interpretation of Target 24. Covering approximately 126.5 ha (312.5 ac), the acoustic imagery of Target 24 indicates a slightly eroded, yet preserved paleochannel flank. The reflector, , is buried 3.2 m (10.5 ft) bsb and is 1,178.7 m (3867.1 ft) at its widest. Approximately 60% (75.6 ha [186.9 ac]) of Target 24 is present within the APE around a proposed turbine location and the inter-array cable corridor.

Target 25: Target 25 represents the eastern flank and floodplain of a major paleochannel associated with U30/H30. This geomorphic feature of archaeological interest is an extensive, well-preserved surface represented by a dark reflector in seismic imagery covering approximately 650.6 ha (1,607.6 ac). Archaeological cores AC-13_rev and AC-14_rev recovered similar intact paleosols from within Target 25, aiding in the interpretation of Target 25. The reflector is buried 5.8 m (19.0 ft) bsb and is 2,364.3 m (7,756.9 ft) at its widest. Approximately 41% (268.1 ha [662.5 ac]) of Target 25 is present within the APE intersecting four turbine locations and inter-array cable corridors.

Target 26: Target 26 represents a discrete portion of the western flank and floodplain of a meandering paleochannel associated with U30/H30, similar to Target 23. Covering approximately 33.9 ha (83.7 ac), the acoustic imagery of Target 26 suggests a well-preserved paleochannel flank and floodplain. The reflector is buried 1.8 m (5.9 ft) bsb and is 763.1 m (2,503.6 ft) at its widest. Nearby archaeological core AC-01 did not yield any evidence of a paleosol as it penetrated through the channel (see 2020 Marine Archaeological Geotechnical Campaign). Approximately 99% (33.4 ha [82.5 ac]) of Target 26 is present within the APE around a proposed turbine location and the inter-array cable corridor.

Target 28: Target 28 represents an interfluve between a bifurcation or convergence of a major paleochannel and a tributary associated with U30/H30. A significant portion of this geomorphic feature of archaeological interest remains intact, although marine transgression removed portions of this feature in the northeast, downcutting into the potential former subaerial landscape. Nearby archaeological cores AC-09a and AC-10 did not yield any evidence of a paleosol, as both penetrated the paleochannel. Covering approximately 210.8 ha (520.9 ac), the acoustic imagery of Target 28 indicates a well-preserved surface between two paleochannels. The reflector is buried 2.5 m (8.2 ft) bsb and is 1,7551.1 m (5,758.2 ft) at its widest. Approximately 24% (50.6 ha [125.1 ac]) of Target 28 is present within the APE around a proposed turbine location and the inter-array cable corridor.

Target 29: Target 29 represents an interfluve between a meandering paleochannel and a straight paleochannel associated with U30/H30. Marine transgression removed portions of this margin, truncating the floodplains. Additionally, portions of the meandering paleochannel cut through Target 29 for a period. Nearby archaeological core AC-05a did not yield evidence of a paleosol as it penetrated through a thin portion of U30/H30 to capture lower stratigraphic units. Covering approximately 203.4 ha (502.7 ac), the acoustic imagery of Target 29 suggests a slightly eroded, yet preserved paleochannel flank. The reflector is buried 1.1 m (3.6 ft) bsb and is 1,907.7 m (6,258.8 ft) at its widest. Approximately 41% (83.0 ha [205.2 ac]) of Target 29 is present within the APE around four proposed turbine locations and inter-array cable corridors.

Target 30: Target 30 represents a discrete portion of the eastern flank of a major paleochannel associated with U30/H30. Nearby archaeological core AC-04 captured evidence of a paleosol; however, the spatial extent of this surface is highly truncated ephemeral due to marine transgression. Covering approximately 23.7 ha (58.5 ac), the acoustic imagery of Target 30 indicates a slightly eroded, yet preserved paleochannel flank. The reflector is buried 2.5 m (8.2 ft) bsb and is 417.3 m (1,369.1 ft) at its widest. Approximately 69% (16.3 ha [40.4 ac]) of Target 30 is present within the APE around a proposed turbine location and the inter-array cable corridor.

Target 31: Target 31 represents an extensive portion of the western flank of a major paleochannel associated with U30/H30. Marine transgression removed portions of this margin, downcutting into the potential former subaerial landscape. Nearby archaeological core AC-08 did not yield any evidence of a paleosol as it penetrated through the channel. Radiocarbon dating from Target 31 suggests the former subaerial landscape is older than the archaeological framework for human settlement in North America; however, overlying stratigraphic units dated within the accepted timeframe. Covering approximately 59.6 ha (147.6 ac), the acoustic imagery of Target 31 indicates a slightly eroded, yet preserved paleochannel flank. The reflector is buried 1.8 m (5.9 ft) bsb and is 1,828.9 m (6,000.3 ft) at its widest. Approximately 79% (47.3 ha [116.9 ac]) of Target 31 is present within the APE around two proposed turbine locations and array cable corridors.

Target 33: Target 33 is located along the BL England ECR Corridor and represents the flank and floodplain of a paleochannel associated with U30/H30. Marine transgression removed portions of this paleolandform, downcutting into the potential former subaerial landscape. Acoustic imagery of Target 33 is similar to other targets within the WFA (i.e., Target 29). Covering approximately 55.9 ha (138.2 ac), the acoustic imagery of Target 33 indicates a slightly eroded, yet preserved paleochannel flank. The reflector is buried 2.3 m (7.5 ft) bsb and is 1,198.8 m (3,933.1 ft) at its widest. Approximately 69% (38.4 ha [94.8 ac]) of Target 33 is present within the APE.

Target 34: Target 34 is within the Oyster Creek ECR Corridor and represents the preserved channel margins of a minor tributary associated with U30/H30. Marine transgression removed portions of this paleolandform, downcutting into the potential former subaerial landscape. Acoustic imagery of Target 34 is similar to other targets within the WFA (i.e., Target 29). Covering approximately 13.1 ha (32.3 ac), the acoustic imagery of

Target 34 is indicative of a slightly eroded, yet preserved paleochannel flank. The reflector is buried 4.0 m (13.1 ft) bsb and is 743.2 m (2,438.3 ft) at its widest. Approximately 80% (10.5 ha [25.8 ac]) of Target 34 is present within the APE.

Target 35: Target 35 is in the Oyster Creek ECR Corridor and a small portion of the WFA and represents the eastern flank of a major paleochannel associated with U30/H30. Marine transgression removed portions of this margin, downcutting into the potential former subaerial landscape. Acoustic imagery of Target 35 is similar to other targets within the WFA (i.e., Target 29). Covering approximately 20.4 ha (50.5 ac), the acoustic imagery of Target 35 suggests a slightly eroded, yet preserved paleochannel flank. The reflector is buried 4.3 m (14.1 ft) bsb and is 1,110.8 m (3,644.3 ft) at its widest. Target 35 exists entirely within the APE.

Historic Context

The paleolandscape reconstruction for the APE based on the geophysical and geotechnical data indicated that unit 30 and its corresponding basal horizon (U30/H30) represented the last subaerial surface available for human occupation prior to the terminal Pleistocene sea level transgression. Radiocarbon data collected during the geoarchaeological campaign confirmed that U30/H30 dated to 9,351 cal BP to 13,646 cal BP. This timeframe correlates to the archaeologically defined Paleoindian Period (Lothrop et al. 2016) and Early Archaic Period (Kraft and Mournier 1982). Targets 21-26, 28-31, and 33-35 represent discontinuous portions of this surface and are the preserved margins adjacent to the paleo-fluvial network that once dominated this landscape. The interpretation of these ASLFs suggests that stable, former subaerial surfaces, such as these, are the most likely locations where evidence of human occupation could be preserved.

Although direct evidence of the former inhabitants does not exist within the current dataset, the paleoenvironmental reconstruction and correlation to similar, known terrestrial archaeological sites suggest the ASLFs are types of locations frequented by indigenous peoples in the region. Paleoindian and early Archaic peoples were highly mobile populations that relied on resource rich areas for survival, such as river valleys. Coastal adaptation during this time is not well-understood due to the nature of marine transgression. It is highly likely that the former coastline now drowned and buried on the OCS also was a locale frequented and utilized by the same indigenous populations.

The ASLFs discussed above represent preserved elements of a former subaerial surface, one that was likely home to the indigenous peoples. These types of features are recognized as having traditional cultural significance to the consulting Tribes, many of whom are ancestors of the people that once traversed this landscape. Several of the Tribes maintain within their traditions that their people have always been present here. Their Tribal histories possess accounts of their ancestors existing and interacting with these former subaerial surfaces, a place that holds value and importance to their heritage and identity.

NRHP Criteria

Based on prior BOEM consultations for the South Fork Wind Farm and Vineyard Wind 1 Wind Farm undertakings and the lessee's assessments, the identified ASLFs are potentially eligible for listing in the

National Register of Historic Places, per 36 CFR 60.4, under Criterion D for their potential to yield important information about the indigenous settlement of the northeastern United States and development of coastal subsistence adaptations. Each ASLF may also be eligible for listing under Criterion A for their association with and importance in maintaining the cultural identities of multiple Tribes.

4.0 MITIGATION MEASURES

This section details the proposed mitigation measures to resolve adverse effects to historic properties. The conceptual mitigation measures were developed on behalf of OCW1 by individuals who meet Secretary of the Interior (SOI) Qualifications Standards for Archeology and/or History (62 FR 33708) and are appropriate to fully address the nature, scope, size, and magnitude of adverse effects including cumulative effects caused by the Project to the NRHP-qualifying characteristics of each historic property that would be affected. OCW1 has prepared this draft HPTP for inclusion in the DEIS and subsequent review by consulting parties.

BOEM, OCW1, and NHPA Section 106 consulting parties with demonstrated interest in the affected properties will identify steps to implement the following proposed measures. The final mitigation measures agreed upon at the conclusion of the NHPA Section 106 consultations will be led by a Qualified Marine Archaeologist (QMA) pursuant to 30 CFR 585 and who meets SOI Qualifications Standards for Archeology and Historic Preservation (48 FR 44738-44739).

Preconstruction Geoarchaeology

Purpose and Intended Outcome

This mitigation measure will consist of, prior to construction, the collection of vibracores within the affected portions of each ASLF that was not previously investigated during the 2020 Geotechnical Survey campaign. Target 22, 24, 25, and 30 have already been sampled during the 2020 geoarchaeological effort and will not be sampled during this effort. The focus will be on the effected landforms not previously investigated. The collected cores, the locations which will be selected in consultation with Tribes, BOEM, and the NJHPO, and will be analyzed in collaboration with the Tribes to provide a more detailed understanding of ancient, former terrestrial landscapes within the OCW1 WFA and ECR corridors and how such settings may have been used by Late Pleistocene-Early Holocene indigenous peoples. Data acquired from this effort is expected to refine the age estimates for each stable landform, the timing and character of ecological transitions evidenced in the MARA report and provide an additional opportunity to recover evidence of ancient indigenous use of each ASLF.

This measure will provide for a more detailed analysis of the stratigraphy, chronology, and evolving ecological conditions at each ancient landform. Two separate reports on the analyses and interpretations will be developed. The first will be focused on content of specific interest to the consulting tribes, including a broad approach to integrating available data collected from other recent archaeological research and surveys on the Atlantic OCS. The specific content and formatting of this report will be refined in consultation

with the tribes to align the work product with intended intra- and inter-tribal audiences. The second report will be geared primarily toward technical, Tribal/State Historic Preservation Officer and agency audiences.

Research Agendas

Research surrounding localized regression models and the potential for landscape preservation is growing as development along the Atlantic OCS continues. Results from additional geotechnical sampling may inform a detailed paleoshoreline regression model for this area. Integration of this data with adjacent regression models would serve to increase the understanding of the Pleistocene/Holocene transition and inundation. Additionally, sampling will reveal extant sediment profiles indicative of preserved landforms and living surfaces. The results of this study could inform numerous research agendas including, but not limited to, the following:

1) Inform scientific community of larger inundation trends;
2) Shift shoreline modeling based on localized dates;
3) Provide robust paleoenvironmental reconstruction data;
4) Indicate time frames associated with preserved landforms and cultural complexes;
5) Inform localized preservation potential based on environmental contexts;
6) Determine possible evidence of human presence in the environment.

Additional research agendas and specific research questions will be determined through consultation. The OCS represents the last preserved portion of a former subaerial landscape originally home to the Tribes now scattered along the eastern seaboard and across the United States. This mitigation effort (**Table 4.1**)is designed to be a dynamic interaction between scientific research and tribal knowledge. Combining these two factors will serve to produce an understanding of not only the former physical landscape of the OCS, but also the potential interactions of humans with and on this landscape.

Table 4-1. Proposed ASLF Mitigation

ASLF ID	Paleolandform Type	Geotechnical Testing/Results	Proposed Mitigation	Research Agenda
Target 21	Interfluve w/possible meandering and sinuous channels	No testing	2-3 geoarchaeological cores	1-6
Target 22	Possible interfluve or margin adjacent to a large paleochannel	AC-15/preservation	No additional testing recommended	N/A
Target 23	Flank of meandering paleochannel	AC-03/No preservation	2-3 geoarchaeological cores	1-6

ASLF ID	Paleolandform Type	Geotechnical Testing/Results	Proposed Mitigation	Research Agenda
Target 24	Flank of meandering paleochannel	AC-16/preservation	No additional testing recommended	N/A
Target 25	Flank and floodplain of major paleochannel	AC-13, AC-14/preservation	No additional testing recommended	N/A
Target 26	Flank and floodplain of meandering paleochannel	AC-01/No preservation	2-3 geoarchaeological cores	1-6
Target 28	Interfluve between bifurcation/convergence of major paleochannel and tributary	AC-09a, AC-10/No preservation	2-3 geoarchaeological cores	1-6
Target 29	Interfluve between meandering paleochannel and straight paleochannel	AC-05a/No preservation	2-3 geoarchaeological cores	1-6
Target 30	Flank of major paleochannel	AC-04/preservation	No additional testing recommended	N/A
Target 31	Extensive flank of major paleochannel	AC-08/No preservation	2-3 geoarchaeological cores	1-6
Target 33	Flank and floodplain of paleochannel	No testing	2-3 geoarchaeological cores	1-6
Target 34	Channel margins of minor tributary	No testing	2-3 geoarchaeological cores	1-6
Target 35	Flank of major paleochannel	No testing	2-3 geoarchaeological cores	1-6

Scope of Work

The scope of work will consist of the following:

- Collaborative review of existing geophysical and geotechnical data with Tribes;

- Selection of coring locations in consultation with Tribes;
- Collection of two to three vibracores within each affected ASLF that has not been previously sampled, with a sampling focus on areas that will be disturbed by Project construction activities;
- Written verification to BOEM that the samples collected are sufficient for the planned analyses and consistent with the agreed scope of work;
- Collaborative laboratory analyses at a laboratory located in Rhode Island or New Jersey;
- Screening of recovered sediments for debitage or micro-debitage associated with indigenous land uses;
- Third-party laboratory analyses, including micro- and macro-faunal analyses, micro- and macro-botanical analyses, radiocarbon dating of organic subsamples, and chemical analyses for potential indirect evidence of indigenous occupations;
- Temporary curation of archival core sections;
- Draft reports for review by Consulting Parties;
- Final reporting;
- Public or professional presentations summarizing the results of the investigations, developed with the consent of the consulting Tribes.

Methodology

OCW1 will conduct the Preconstruction Geoarchaeology in consultation with the Tribes, BOEM, and the NJHPO. Although BOEM and the NJHPO will be consulted, the research, analyses, and interpretations are intended to be a collaborative effort between OCW1 and the consulting Tribes, who will be invited by OCW1 to a series of working sessions to:

- Review existing data;
- Develop specific research questions addressing the Tribes' interests in the ASLFs;
- Select candidate coring locations;
- Split, document, and sample recovered vibracores in the laboratory;
- Review analytic results and preliminary interpretations; and
- Review draft reporting.

Vibracores placed within the affected sections of each ASLF will extend a maximum depth of approximately 20 ft (6 m) below the seafloor. The cores will be cut on the survey vessel into approximately 1-meter-long sections and sealed to minimize the risk of environmental contamination. The core segments will be logged on the survey vessel and a chain of custody will be maintained to ensure all samples are accounted for and that all samples are transferred to the laboratory for geoarchaeological analyses. Once the core segments are transferred to the onshore laboratory, OCW1 will invite Tribal representatives to participate in the splitting, documentation, and subsampling of each core.

Each core segment will be split longitudinally into working and archival halves. Subsamples collected from working halves for specific third-party analyses will be packaged in a manner appropriate to the specific

analysis for which they are intended. Archival halves will be sealed and stored horizontally on shelves or racks in a climate-controlled facility for at least one year following completion of laboratory analyses. OCW1 will prioritize reasonable access to archival core segments by consulting parties and researchers when selecting the storage facility. All samples collected from the working halves will be submitted to third party laboratories within approximately 6 months of core transfer to the Qualified Marine Archaeologist facilities.

OCW1 will prepare a presentation of the preliminary results and interpretations for discussion with the Tribes (see work session schedule above). OCW1 will consider the Tribes' comments and suggestions when preparing the draft reports and will seek to resolve any disagreements among the parties through supplemental consultations prior to preparing the draft reports. OCW1 will submit the draft reports to the Consulting Parties for review and comment. OCW1 will consider all comments received when developing the final reports. Final digital copies of the completed reports will be provided to all Consulting Parties. Hard copies of the final reports will be submitted to the State Historic Preservation Officers, Tribes governments or other parties upon request.

Following the one-year retention period, OCW1 will offer transfer of the archival core segments to the Consulting Tribes, SHPOs and related state agencies, and regional research institutions with an interest in and capacity to conduct further analyses. OCW1 currently anticipates research institutions with potential interests/capacities to include the Princeton University, Rutgers University, New Jersey Institute of Technology, and the University of Rhode Island. OCW1 will notify the Consulting Parties of its intent to transfer archival core segments to any party at least 45 days prior to initiating such transfer and will consider any comments provided by Consulting Parties before proceeding. If no external parties agree to accept the archival core segments, OCW1 will water-screen the retained segments to identify and collect potential physical evidence of ancient Native American activity at the ASLFs. In such circumstances, OCW1 will prepare a technical memorandum summarizing the results of the archival core segment processing and analyses and submit that memorandum to the Consulting Parties.

Standards

The Preconstruction Geoarchaeology effort will be conducted in accordance with BOEM's *Guidelines for Providing Archaeological and Historic Property Information Pursuant to 30 CFR Part 585* (May 2020). The qualified professional archaeologists leading the research will meet the SOI professional qualification standards for archeology (62 FR 33708) and BOEM's standards for Qualified Marine Archaeologists.

Documentation

The following documentation is to be provided for review by Consulting Parties:

- Draft Tribe Audience Report;
- Draft Technical Report;
- Final Tribes Audience Report;
- Final Technical Report; and

- Draft Public or Professional Presentations.

Funds and Accounting

OCW1 will be responsible for funding and implementation of this mitigation measure.

Open-Source GIS and Story Maps

Purpose and Intended Outcome

This mitigation measure will consist of the compilation and transfer of relevant geophysical, geotechnical, and geoarchaeological datasets pertaining to the ASLFs to a non-proprietary GIS system for use by Tribes. The datasets will include sub-bottom (seismic) data used to characterize the seabed and ASLF features, the location of all geotechnical/geoarchaeological samples collected, and the vertical and horizontal extents of the affected features or sub-features within each ASLF. The GIS will be, to the extent feasible and practicable, compatible with GIS datasets compiled for other OCS projects to assist in the Tribes on-going research and stewardship efforts. Story Maps or equivalent digital media presentations will be prepared to integrate and present the complex technical data compiled during the MARA and mitigation investigations in a manner best suited for inter- and intra-tribal audiences. Story Map content would be developed in close consultation and collaboration with the consulting Tribes.

Incorporation of OCW1 datasets into a broader GIS framework will allow the Tribes to better understand and protect preserved elements of the ASLF of traditional cultural significance. The intent of this measure is to enhance the Tribes understanding of existing conditions for a range of ASLFs located in the northeastern Atlantic OCS. This knowledge would allow for more effective Government to Government consultations regarding similar features that may be affected by future federal undertakings. The value of the GIS will increase as additional datasets are acquired and incorporated. Access to the GIS will support each Tribes capacity to pursue their own research or intra-tribal educational programs related to the OCS and traditional cultural uses of the now-submerged landscapes of their ancestors.

The combined MARA and Preconstruction Geoarchaeology investigations will provide an important perspective on the preservation of submerged Traditional Cultural Properties within formerly glaciated sections of the OCS and within the footprint of former glacial lakes. Integrated GIS that can accommodate datasets collected from other OCS development projects and surveys would allow for comparisons to areas south of the maximum glacial limits on the OCS to provide a more comprehensive view of the ancient landscapes within the region. OCW1 will provide reasonable compensation to tribal representatives working with OCW1 on implementation of this measure. Story Maps created within the GIS will provide a flexible approach to incorporating media from a variety of sources, including geospatial data, interviews with traditional knowledge-holders, photographs, audio recordings, and archival cartography for a compelling interpretive experience. Story Maps can be tailored for specific tribal audiences and uses and would be developed in consultation with the consulting Tribes.

Scope of Work

The scope of work will consist of the following:

- Consultation with the Tribes to determine the appropriate open-source GIS platform;
- Review of candidate datasets and attributes for inclusion in the GIS;
- Data integration;
- Development of custom reports or queries to assist in future research or tribal maintenance of the GIS;
- Work Sessions with Tribes to develop Story Map content;
- Training session with Tribes to review GIS functionality;
- Review of Draft Story Maps with Tribes;
- Delivery of GIS to Tribes; and
- Delivery of Final Story Maps.

Methodology

OCW1 will develop the GIS in consultation with the Consulting Parties. At least one work session will be scheduled to refine specific functionality of interest to the Tribes. That session will be conducted after the preliminary data analyses for the Preconstruction Geoarchaeology effort has been completed. This will allow for a more focused walk-through of the data and options for organizing and integrating different datasets. OCW1 will request from the Tribes details on any existing open-source GIS systems currently in use by each Tribe/Tribal Nation to minimize any issues with data integration or interoperability.

Once the work session has been conducted OCW1 will proceed with development of the GIS, considering the Tribes' comments and suggestions. The draft GIS system will be shared with the Tribes in a training session that presents the functions of the GIS and familiarizes the Tribal representatives with the interfaces, data organization, and any custom features developed to enhance useability. OCW1 will consider any feedback from the Tribes on the draft GIS before proceeding with finalizing the system design and implementation. OCW1 will provide the GIS to the Tribes by physical storage media or as a secure digital file transfer, as appropriate to each Tribes IT infrastructure and preference. OCW1 does not intend to be responsible for the upkeep of the GIS database.

Story Map content will be developed with the consulting Tribes through one or more scheduled work sessions. Potential options for content intended for youth audiences, tribal governments, and/or general tribal membership will be discussed to refine the conceptual framework and develop draft Story Maps for review by the Tribes. OCW1 will consider all comments and feedback provided by the Tribes when preparing the final Story Maps. All comments and feedback will be collated and provided back to the Consulting Parties as part of the process.

Standards

The GIS developed under this measure will be free to use and free to modify by the Tribes. To the extent feasible, all data will be provided in formats that allow for interoperability with other GIS platforms that the Tribes may use. All datasets incorporated in the GIS will comply with Federal Geographic Data Committee data and metadata standards.

Documentation

OCW1 will provide draft descriptions and documentation of the GIS for review by the Consulting Parties and will provide a description of the draft Story Maps to the consulting Tribes following the initial working sessions.

The following documentation is to be provided for review by Consulting Parties:

- Draft Description of the GIS with appropriate schema, data organization, and custom reports/queries;
- Draft Story Map descriptions with details on content, formatting, and intended audiences; and
- Final Technical Description of the GIS with schema, data organization, and custom reports/queries.

Funds and Accounting

OCW1 will be responsible for funding and implementation of this mitigation measure.

Post-Construction Seafloor Impact Inspection

Purpose and Intended Outcome

OCW1 proposes a mitigation measure to assess impacts to ASLFs via seafloor inspection due to construction activities. This effort will focus on areas of cable installation as this activity is more likely to disturb and redistribute shallow portions of a previously identified ASLF. OCW1 will construct a 3D model defining the spatial relationship of project components and installation methodology (e.g., cable installation via trenching or jetting) relative to the ASLFs. The 3D model will identify portions of the ASLFs within the vertical APE that will be impacted and possess a high preservation potential for evidence of human occupation. OCW1 will coordinate with BOEM and consulting parties on the results of this effort to select locations for post-construction visual inspection.

OCW1's QMA will design and direct the visual inspection of the seafloor at the selected locations identified through the above process to assess for the presence/absence of displaced cultural materials from the ASLF. BOEM and OCW1 will work together to determine the ROV inspection methodology. Post-construction inspection will focus on the areas of disturbance within the ASLFs. Various factors, including but not limited to environmental conditions, health and safety risks, the spatial extent of impacts, and the unique characteristics of each selected ASLFs will be considered before mobilization to conduct the visual inspection.

Scope of Work

The scope of work will consist of the following:

- Development of 3D model throughout ASLFs designated for review.
- Development of the ROV investigation methodology
- Review of candidate datasets and attributes for inclusion in the GIS;
- Data Interpretative technical report draft; and
- Final technical report.

Methodology

Inspection of the impacted portions of the ASLFs will consist of the following:

- Development of 3D model throughout ASLFs designated for review.
- Consultation with BOEM to discuss the ROV investigation methodology.
- QMA directed remotely operated vehicle (ROV) inspection of the seafloor along impacted portions of the selected ASLFs:
    - Multibeam Echosounder (MBES)
    - Scanning Sonar
    - Ultra-short baseline (USBL) positioning
    - HD photo & video camera with laser scale
    - Lowlight camera
    - ROV lighting
    - Forward-looking sonar (FLS) multibeam
- Data interpretative technical draft and final reports with accompanying investigation data.

SEARCH will define the spatial relationship of project components and installation methodology relative to the ASLFs. The upper and lower ranges of each ASLF are not static and undulate unpredictably. Detailed review of the 2D seismic data will allow for selection of the best suited ASLFs for post-construction inspection. Based on the preliminary 2D seismic assessment, SEARCH will develop a 3D model of the affected ASLFs to finalize the areas for review. The 3D model will identify portions of the ASLFs within the vertical APE that will be impacted and possess a high preservation potential for evidence of human occupation. SEARCH will coordinate with BOEM and consulting parties on the results of this effort to select locations for post-construction visual inspection.

This effort will focus on areas of cable installation as this activity is more likely to disturb and redistribute shallow portions of a previously identified ASLF. Therefore, the inspection process is designed to focus on the ASLFs with the shallowest subsurface expression and highest likelihood of containing intact deposits. The final number of ASLFs will be selected for this post-construction inspection based on a detailed review of the proposed cable route and the aforementioned factors. Review will focus on the disturbed sediments

around the as-laid cable route and attempt to delineate any materials indicative of human presence (i.e., lithics, pottery sherds, etc.). It is important to note that it will not be possible to scientifically correlate any archaeological material to a particular ASLF. Any material identified during this inspection will be located on the seafloor and outside of its original archaeological context after being disturbed/removed by construction activities. There is no demonstrable way to determine if those materials were removed from an ASLF during construction activities, were removed from seafloor deposits overlaying the ASLF, or washed in by erosional and/or environmental factors. The goal of the investigation, therefore, is to determine the presence or absence of archaeological material on the OCS, as well as determine the preservation potential of material located on the OCS away from a coastal environment.

SEARCH will design and direct the visual and multibeam echosounder inspection of the seafloor at the selected locations identified through the above process to assess for the presence/absence of displaced cultural materials from the ASLF. ROV investigation will occur over three separate mobilizations and be conducted in 12-hour/day operations. The investigation will utilize a vessel based USBL for subsea positioning of the ROV. The site investigation would include conducting numerous passes at different approaches and orientations to capture video and still imagery of the selected ASLFs, which may be built into composite images and models. The QMA will direct the ROV to other points of interest and data acquisition points for further inspection/investigations and viewing. SEARCH will maintain detailed logs of ROV diving missions and archaeological information, as well as record video with voice-over narration and positioning overlay. Video will be recorded continuously recorded throughout the duration of all divers for later analysis and archiving. Detailed photographs, including the use of a laser scale, will be captured at the discretion of the QMA and ROV operator.

Reporting will include processing of bathymetry and imagery. MBES data will be processed in QPS Qimera to produce final sounding grids and bathymetric results on the project datum. Positional and attitude data will be refined using Applanix POSPac and post-processed vertical positions to reference the project's vertical datum. Spurious data points will be removed from gridding subsets, and sound velocity corrections will be applied before final points, grids and images are produced. Multibeam backscatter processing will be completed in QPS FMGT for each sonar. Photo and camera imagery will be utilized to provide information on potential further understanding of the selected ASLFs. Additionally, the imagery data may be merged in post-processing to develop composite images and extract point clouds to develop models of the sites in combination with the bathymetry. The goal of data acquisition and processing is to determine presence or absence of potential cultural material on the seafloor, but no cultural material will be collected.

Standards

To be determined in consultation with BOEM.

Documentation

OCW1 will provide appropriate Consulting Parties draft and final technical reports including the development of the 3D models and any resulting seafloor impact assessments.

Funds and Accounting

OCW1 will be responsible for funding and implementation of this mitigation measure.

Ethnographic Study

Purpose and Intended Outcome

OCW1 proposes a mitigation measure to fund an ethnographic study focusing on one New Jersey coastal watershed, the Great Egg Harbor River, and its potential submerged extension onto the Outer Continental Shelf (OCS) to be coordinated by the Delaware Tribe of Indians (DTI) with collaboration by The Delaware Nation (DN) and the Stockbridge-Munsee Community Band of Mohican Indians (SM).

The study will focus on Native American resources, sites, places, and knowledge of the established Great Egg Harbor River Watershed and OCS. This study constitutes baseline research to compile and assess multiple levels of documentary evidence about the ancestral and contemporary connections to the landscape (both onshore and offshore) and will utilize new data on the offshore paleolandscape, including identified ancient, submerged landform features. The study will result in a written report that may follow the general format of an Ethnographic Overview and Assessment document utilized by the National Park Service. The scope of the study may include, but is not limited to, an overview of documentary evidence including historic maps, photographs, oral histories, research reports, archival data, and interviews. Relevant GIS data layers from sources available to the public and from the recent Ocean Wind high resolution geophysical surveys could also be used for predictive modeling purposes to help identify areas of potential archaeological or other resource sensitivity of importance to the Tribes.

This study could complement additional similar studies funded by other offshore wind projects along the New Jersey shore. Although not included in this scope, the goal is for the results of this study to be integrated into a potential larger report focusing on the New Jersey coast and offshore landscapes with the intent of increasing community knowledge of the landscape and for potential use in guiding consultations for future federal undertakings.

Scope of Work

The scope of work will consist of the following:

- Funding ethnographic researcher selected by DTI for 2-year period;
- Funding for researcher travel to New Jersey for research and site visits;
- Funding for DTI, DN, and SM technology upgrades associated with analysis of GIS data;
- Funding for DTI Historic Preservation office oversight and indirect costs;
- Funding for DTI, DN, and SM THPO Collaboration;
- OCW1 will provide relevant ASLF GIS data layers to DTI for use in this study as well as provide a tutorial on the data (see previous Open-Source GIS and Story Maps mitigation measure);

- OCW1 will hold quarterly progress update calls lasting approximately one-half hour with DTI until the final technical reports are issued.
- Final deliverables will consist of one confidential report that may contain sensitive resource information and one report that could be made available to the public. Both reports will be distributed by the Tribes, at their discretion.
- Funding for a presentation to highlight the results of the study to be coordinated and executed by DTI.

Methodology

In addition to consulting the Tribal Nation's archives, documents, and oral history interviews with DTI elders, this study will also require archival research at applicable repositories in New Jersey by the ethnographic researcher with the intent of acquiring available land transfer documents, historic maps, and other historic documents. Site visits and additional research at the NJHPO facilities may also be completed by the ethnographic researcher as part of the study. Relevant GIS data layers will also be analyzed for insight into the location of potential archaeological or other resource sensitivity of importance to the Tribe. No archaeological fieldwork or landowner permissions will be required as part of this study. No sensitive or other confidential information including archaeological site locations will be made available in the public document.

Standards

The ethnographic researcher and key team members shall be fully qualified personnel as experts in their areas of traditional knowledge and research as determined by the DTI.

Documentation

To be determined in consultation with BOEM and DTI.

Funds and Accounting

OCW1 will be responsible for funding and implementation of this mitigation measure. Funding levels will follow dollar amounts previously agreed to by OCW1 and DTI.

5.0 IMPLEMENTATION

Timeline

The timeline for implementation of the mitigation measures will be determined in consultation with consulting parties based on the agreed upon mitigation measures described in the final version of this HPTP. This HPTP will be reviewed by and further developed in consultation with consulting parties as part of BOEM's NHPA Section 106 consultation and NEPA review schedule for OCW1 Wind Farm.

It is anticipated that the mitigation measure identified in Section 4.0 will commence within 2 years of ROD issuance or execution of a project specific MOA unless otherwise agreed by the consulting parties and accepted by BOEM. OCW1 assumes that the proposed scope of work will be completed within 5 years of ROD issuance or execution of the MOA, unless a different timeline is agreed upon by consulting parties and accepted by BOEM.

Organizational Responsibilities

Bureau of Ocean Energy Management (BOEM)

BOEM remains responsible for making all federal decisions and determining compliance with Section 106. BOEM has reviewed this HPTP to ensure, at minimum, it includes the content required.

- BOEM remains responsible for making all federal decisions and determining compliance with Section 106 of the NHPA;
- BOEM, in consultation with the Consulting Parties, will ensure that mitigation measures adequately resolve adverse effects, consistent with the NHPA;
- Work with OCW1, the NJHPO, Consulting Parties including federally and state recognized Tribes with cultural and/or historic ties to the Project development area, and the ACHP using the previously agreed upon HPTP framework;
- Review and provide feedback on draft HPTP;
- BOEM must accept the final HPTP before OCW1 may commence any of the actions included in the HPTP;
- BOEM will be responsible for sharing the annual summary report with consulting parties;
- BOEM is responsible for consultation related to dispute resolution; and
- If parties cannot reach concurrence, consult with ACHP and non-concurring party(s) to make final decision.

Ocean Wind LLC

Ocean Wind LLC will be responsible for:

- Funding the mitigation measures as required in the ROD and/or MOA and the final HPTP;
- Working with BOEM, the SHPO, federally and state recognized Tribes with cultural and/or historic ties to the Project development area, and the ACHP using the previously agreed upon HPTP framework;
- Considering the comments provided by the Consulting Parties in the development of this HPTP;
- Funding the mitigation measures specified in Section 4.0;
- Completion of the scope/s of work in Section 4.0;
- Ensuring all Standards in Section 4.0 are met;
- Providing the Documentation in Section 4.0 to the Consulting Parties for review and comment;
- Annual Reporting to BOEM; and

- OCW1 will be responsible for ensuring that all work that requires consultation with Tribes is performed by professionals who have demonstrated professional experience consulting with federally and state recognized Tribes.

New Jersey SHPO

The New Jersey SHPO will:

- Work with BOEM, Ocean Wind LLC, federally and state recognized Tribes with cultural and/or historic ties to the Project development area, and the ACHP using the previously agreed upon HPTP framework; and
- Review and provide feedback on draft HPTPs.

Federally and State recognized Tribes with cultural and/or historic ties to the Project development area

Federally recognized Tribes with cultural and/or historic ties to the Project development area will:

- Work with BOEM, Ocean Wind LLC, the SHPO, and the ACHP using the previously agreed upon HPTP framework;
- Review and provide feedback on draft HPTPs;
- Participate in all activities outlined in Section 4.0 and complete all associated reviews, comments, requests for feedback/input in agreed upon timeframes.

Advisory Council on Historic Preservation

The Advisory Council on Historic Preservation will:

- Work with BOEM, Ocean Wind, the SHPO, and federally and state recognized Tribes with cultural and/or historic ties to the Project development area using the previously agreed upon HPTP framework; and
- If parties cannot reach concurrence, consult with BOEM and non-concurring parties to make final decision.

Other Parties as Appropriate

OCW1 does not anticipate participation by any other NHPA Section 106 consulting parties. If BOEM determines additional consulting parties will participate in this plan, the plan will be updated to include those parties.

Participating Party Consultation

Consulting Parties will be provided opportunity for review and comment on the HPTP concurrent with BOEM's anticipated NHPA Section 106 review schedule for OCW1. OCW1 will provide this draft HPTP to BOEM for inclusion in the DEIS for review by consulting parties as part of BOEM's NHPA Section 106 review to provide meaningful input on the proposed mitigation measures to resolve adverse effects to historic

properties. OCW1 anticipates that further coordination to refine the HPTP may include meetings, conference calls, HPTP draft reviews and document exchanges, or similar means of communication of information.

6.0 REFERENCES

Federal Regulations

Code of Federal Regulations (CFR). 2022. 40 CFR 1500 – National Environmental Policy Act Implementing Regulations. Available at https://www.ecfr.gov/current/title-40/chapter-V/subchapter-A.

CFR. 2021a. 36 CFR 800 – Protection of Historic Properties [incorporating amendments effective December 15, 2021]. Available at https://www.ecfr.gov/current/title-36/chapter-VIII/part-800.

CFR. 2021b. 36 CFR 61.4(e)(1) – Procedures for State, Tribal, and Local Government Historic Preservation Programs [incorporating amendments effective December 15, 2021]. Available at https://www.ecfr.gov/current/title-36/chapter-I/part-61#p-61.4(e)(1).

CFR. 2021c. 36 CFR 65.2(c)(2) – National Historic Landmarks Program – Effects of Designation [incorporating amendments effective December 15, 2021]. Available at https://www.ecfr.gov/current/title-36/chapter-I/part-65#p-65.2(c)(2). Accessed December 21, 2021.

Federal Register. 1997. 62 FR 33708 – The Secretary of the Interior's Historic Preservation Professional Qualifications Standards. Office of the Federal Register, National Archives and Records Administration. Washington, D.C. Available at https://www.govinfo.gov/app/details/FR-1997-06-20/97-16168.

United States Code. 2016. Title 54 - National Historic Preservation Act [as amended through December 16, 2016]. Available at https://www.achp.gov/sites/default/files/2018-06/nhpa.pdf.

State Regulations

New Jersey Register of Historic Places Act of 1970 (N.J.S.A. 13:1B-15.128 et seq.): https://www.state.nj.us/dep/hpo/2protection/njsa13.htm

Public documents related to Ocean Wind1

https://www.boem.gov/ocean-wind

Ocean Wind1 COP: https://www.boem.gov/ocean-wind-construction-and-operations-plan

Ocean Wind 1 DEIS: TBD

Ocean Wind 1 FEIS: TBD

Ocean Wind 1 ROD: TBD

General Information on Section 106

https://www.achp.gov/protecting-historic-properties/section-106-process/introduction-section-106

https://www.achp.gov/digital-library-section-106-landing/section-106-consultation-involving-national-historic-landmarks

Kraft, Herbert, C. and Alan R. Mournier. 1982 The Archaic Period in New Jersey (ca. 8000 BC–1000 BC). In New Jersey's Archaeological Resources, A Review of Research Problems and Survey Priorities: The Paleo-Indian Period to Present. Electronic resource, http://www.nj.gov/dep/hpo, accessed December 2018.

Lothrop Jonathan, Darrin Lowery, Arthur Spiess, and Christopher Ellis 2016. Early Human settlement of Northeastern North America. PaleoAmerica 2: 192-251

National Park Service (NPS). 1997. How to Apply the National Register Criteria for Evaluation. Rev. ed. National Register Bulletin 15. Available at: https://www.nps.gov/subjects/nationalregister/upload/NRB-15_web508.pdf. Accessed April 21, 2022.

ATTACHMENT 4 – HISTORIC PROPERTIES TREATMENT PLAN FOR THE OCEAN WIND 1 OFFSHORE WIND FARM PROJECT, HISTORIC PROPERTIES SUBJECT TO ADVERSE VISUAL EFFECT, CAPE MAY AND ATLANTIC COUNTIES, NEW JERSEY

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Draft
Historic Properties Treatment Plan
for the
Ocean Wind 1 Offshore Wind Farm Project

Historic Properties Subject to Adverse Visual Effect
Cape May, Atlantic, and Ocean Counties, New Jersey

Submitted to:

Bureau of Ocean Energy Management
U.S. Department of the Interior

Prepared for:

Ocean Wind 1
https://oceanwind.com/

Prepared by:

HDR Engineering, Inc.
www.hdrinc.com

April 2023

ABSTRACT

Federal Undertaking:	Ocean Wind 1 Offshore Wind Farm Project, OCS-A 0498
Location:	Outer Continental Shelf, New Jersey
Federal and State Agencies:	Bureau of Ocean Energy Management Bureau of Safety and Environmental Enforcement Environmental Protection Agency National Marine Fisheries Service U.S. Army Corps of Engineers New Jersey Department of Environmental Protection/State Historic Preservation Office Advisory Council on Historic Preservation
ACHP Project No.:	016649
HPO Project No.:	18-1184-30
Potential Adverse Visual Effect Finding for:	Properties in Cape May, Atlantic, and Ocean Counties
Date:	April 2023

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LIST OF ACRONYMS

ACHP	Advisory Council on Historic Preservation
ADLS	Aircraft Detection Lighting System
APE	Area of Potential Effects
BOEM	Bureau of Ocean Energy Management
BSEE	Bureau of Safety and Environmental Enforcement
CFR	Code of Federal Regulations
COP	Construction and Operations Plan
EPA	Environmental Protection Agency
FEIS	Final Environmental Impact Statement
FR	Federal Regulation
HDR	HDR, Inc.
HPTP	Historic Preservation Treatment Plan
HRVEA	Historic Resources Visual Effects Analysis
N/A	Not Applicable
NHL	National Historic Landmark
NHPA	National Historic Preservation Act of 1966
NJ DEP	New Jersey Department of Environmental Protection
NJHPO	New Jersey State Historic Preservation Office(r)
NMFS	National Marine Fisheries Service
NPS	National Park Service
NRHP	National Register of Historic Places
OCS	Outer Continental Shelf
OW1	Ocean Wind 1 Offshore Wind Farm Project
RFP	Request for Proposal
ROD	Record of Decision
SOI	Secretary of the Interior
TCP	Traditional Cultural Property
USCG	United States Coast Guard
WFA	Wind Farm Area
WTG	Wind Turbine Generator

INTRODUCTION

This Historic Properties Treatment Plan (HPTP) was prepared to support fulfillment of Stipulation III.B of the *Memorandum of Agreement (MOA) Among the Bureau of Ocean and Energy Management, The New Jersey State Historic Preservation Officer, and the Advisory Council on Historic Preservation Regarding the Ocean Wind 1 Offshore Wind Farm Project*. This HPTP provides background data, historic property information, and detailed steps that will be implemented to carry out the mitigation actions to resolve adverse visual effects to 10 historic properties identified by the Bureau of Ocean Energy Management (BOEM) through Section 106 consultation for the Ocean Wind 1 Offshore Wind Farm (OW1), as identified in the *Ocean Wind Visual Effects on Historic Properties* (VEHP), also commonly referred to as the HRVEA (Historic Resources Visual Effects Analysis), dated October 2022 (HDR and SEARCH 2022), as well as seven additional historic properties BOEM has determined will be visually adversely affected as a result of consultation. The mitigation measures and the process for implementation described herein were developed in consultation with the federally recognized Tribes, New Jersey Historic Preservation Officer (NJHPO), the Advisory Council on Historic Preservation (ACHP), and other consulting parties. This HPTP outlines mitigation measures, implementation steps, and timeline for actions.

Introduction: Outlines the content of this HPTP.

Background Information: Briefly summarizes the OW1 (the Undertaking) while focusing on cultural resources regulatory contexts (federal, tribal, state, and local, including preservation restrictions), identifies the seventeen historic properties discussed in this HPTP that will be visually adversely affected by the Undertaking, and summarizes the pertinent conditions that guided the development of this document.

Existing Conditions and Historic Significance: Provides a physical description of each historic property included in this HPTP. Set within its historic context, each resource is discussed in terms of the applicable National Register of Historic Places (NRHP) criteria, with a focus on the contribution of a seaside setting to its significance and integrity.

Mitigation Measures: Presents specific steps to carry out the mitigation measures proposed by OW1 in the Construction and Operations Plan (COP). Each mitigation measure includes a detailed description, intended outcome, and specifications that include maximum cost, methods, standards, requirements for documentation, and reporting instructions. Property-specific challenges, if any have been identified, are outlined as well.

Implementation: Establishes the process for executing mitigation measures at the historic properties, as identified in Section 4.0 of this HPTP. For each action, organizational responsibilities are outlined, a timeline is provided, and regulatory reviews are listed.

References: A list of works cited in this HPTP.

BACKGROUND INFORMATION

BOEM has determined that the construction, operation, maintenance, and decommissioning of the Ocean Wind 1 Offshore Wind Farm constitutes an undertaking subject to Section 106 of the National Historic Preservation Act (NHPA; 54 U.S.C. § 306108) and its implementing regulations (36 CFR § 800), and that the activities proposed under the COP have the potential to affect historic properties. The Ocean Wind 1 Offshore Wind Farm undertaking (the Undertaking) includes a wind-powered electric generating facility composed of up to 98 wind turbine generators (WTGs) and associated foundations, up to three offshore substations, and inter-array cables connecting the WTGs and the offshore substations (Figure 1).

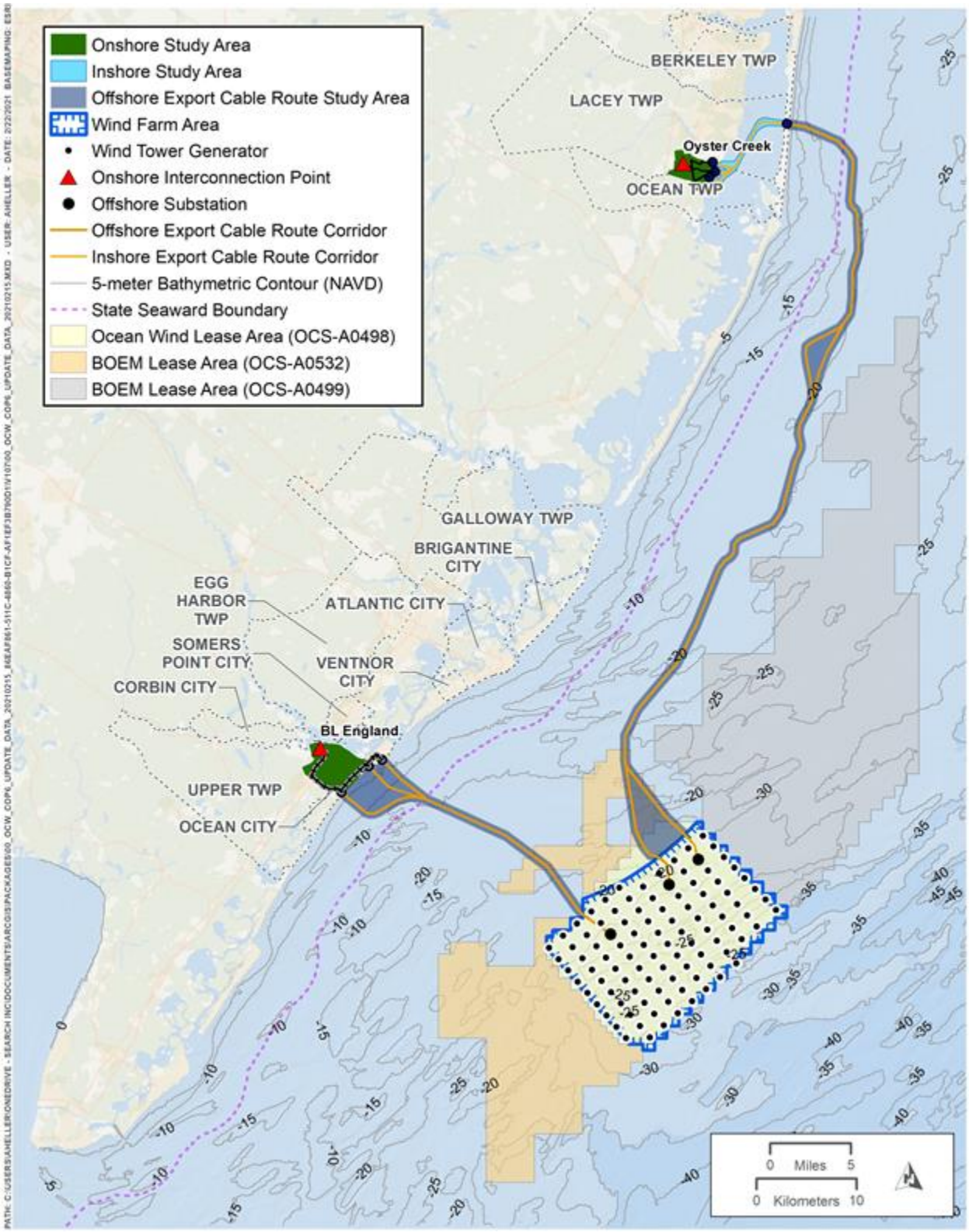
The WTGs, foundations, offshore substations, and inter-array cables will all be in federal waters on the Outer Continental Shelf (OCS), approximately 15 statute miles (mi) (13 nautical miles [nm]) southeast of Atlantic City, New Jersey. Cables will be buried below the seabed. Export cables from the offshore substations will extend along the seabed and connect to buried onshore export cables, which will connect to two interconnection points, at Oyster Creek and Bl England. Onshore cables will be buried within up to a 15-m-wide (50-ft-wide) construction corridor with a permanent easement up to 9.8-m-wide (30-ft-wide) for BL England. Two new onshore substations are proposed at Oyster Creek and BL England along with grid connections to the existing grid for each substation. Onshore substation locations would be sited on existing parcels containing decommissioned power facilities at BL England and Oyster Creek. The Oyster Creek and BL England onshore substation locations would require a permanent site up to 31.5 acres (ac) (12.7 hectares [ha]) and 13 ac (5.3 ha) respectively, for the substation equipment and buildings, energy storage, and stormwater management and associated landscaping. Underground or overhead transmission lines would connect the substations to the planned interconnection point (grid connections).

The maximum height of the offshore substations is 296 feet (ft) above mean lower low water (mllw) with a maximum length and width of 295 ft. The visible offshore components of the operational Undertaking will be located in Lease Area OCS-A 0532 (OCS-A 0498 prior to March 26, 2021) in water depths ranging from approximately 49 to 118 ft below mllw. See Figure 1, Project Location.

BOEM, as the lead federal agency for the NHPA Section 106 review, has defined the APE for the Undertaking as follows:

- The depth and breadth of the seabed potentially impacted by any bottom-disturbing activities;
- The depth and breadth of terrestrial areas potentially impacted by any ground disturbing activities;
- The viewshed from which renewable energy structures, whether located offshore or onshore, would be visible; and
- Any temporary or permanent construction or staging areas, both onshore and offshore.

Figure 1: Project Location



To support BOEM's efforts to identify historic properties within the APEs, OW1 conducted a terrestrial archaeological resource assessment (TARA), marine archaeological resource assessment (MARA), and historic resources visual effects assessment (HRVEA) within the APEs. The results of these investigations can be found in Volume II, Section 2.4 of the Ocean Wind 1 COP. Based on a review of these documents and consultations with federally recognized Tribes and NHPA Section 106 consulting parties, BOEM has determined that the undertaking will result in adverse effects to historic properties. Information about BOEM's assessment of adverse effects can be found in BOEM's Finding of Adverse Effect (FoAE) for the Undertaking.

In the FoAE, BOEM determined that the OW1 undertaking will have an adverse visual effect on 17 historic properties. BOEM has consulted with the Advisory Council on Historic Preservation (ACHP), New Jersey Historic Preservation Office (NJHPO), federally recognized Native American Tribes, and other NHPA Section 106 consulting parties to seek ways to avoid, minimize, or mitigate adverse effects to historic properties. BOEM has decided to codify the resolution of adverse effects through an NHPA Section 106 MOA pursuant to 36 CFR § 800.8(c)(4)(i)(B). As defined in 36 CFR § 800.6 (c), a project-specific MOA records the terms and conditions agreed upon to resolve adverse effects of the undertaking. This HPTP provides background data, historic property information, and detailed steps that will be implemented to carry out the mitigation measures. The resolution measures to resolve adverse effects to historic properties are recorded in the *Memorandum of Agreement Among the Bureau of Ocean and Energy Management, The New Jersey State Historic Preservation Officer, and the Advisory Council on Historic Preservation Regarding the Ocean Wind 1 Offshore Wind Farm Project.*

Pursuant to the terms and conditions of the MOA, OW1 will implement applicant-proposed environmental protection measures to avoid potential visual impacts to historic properties (see MOA Stipulations I.B and II.A). This HPTP was developed by the applicant to fulfill Stipulation III.B of the MOA to resolve adverse visual effects to 17 historic properties. Mitigation measures implemented under this HPTP will be conducted in accordance with all agreed upon terms and conditions in the MOA and with applicable local, state, and federal regulations and permitting requirements. Responsibilities for specific compliance actions are described in further detail in Section 5.2, Organizational Responsibilities.

Municipal Regulations

Before implementation, any on-site mitigation measures will be coordinated with local cities, towns, and commissions to obtain approvals, as appropriate. These may include, but are not limited to building permits, zoning, land use, planning, historic commissions, and design review boards. See Table 1 for local government administrative departments that will be contacted as part of the mitigation measures for the adversely affected historic properties. Additional information regarding compliance with local requirements appears below in Section 5.0, Implementation.

Table 1. Municipal Departments Requiring On-Site Mitigation Coordination

Historic Property	Municipality	Departments
Ocean City Boardwalk	Ocean City	Construction Code Division, Planning Board, Historic Preservation Commission
Ocean City Music Pier	Ocean City	Construction Code Division, Planning Board, Historic Preservation Commission
Flanders Hotel	Ocean City	Construction Code Division, Planning Board, Historic Preservation Commission
U.S. Lifesaving Station #35	Stone Harbor	Planning Board, Zoning Board
North Wildwood Lifesaving Station	North Wildwood	Construction Office, Planning Board, Historic Preservation Commission
Hereford Inlet Lighthouse	North Wildwood	Construction Office, Planning Board, Historic Preservation Commission
Brigantine Hotel	Brigantine	Planning Board
Absecon Lighthouse	Atlantic City	Construction Division, Planning and Development, Historic Preservation Commission
Atlantic City Boardwalk	Atlantic City	Construction Division, Planning and Development, Historic Preservation Commission
Atlantic City Convention Hall	Atlantic City	Construction Division, Planning and Development, Historic Preservation Commission
Ritz-Carlton Hotel	Atlantic City	Construction Division, Planning and Development, Historic Preservation Commission
Riviera Apartments	Atlantic City	Construction Division, Planning and Development, Historic Preservation Commission
Vassar Square Condominiums	Ventnor City	Division of Construction Code Enforcement, Planning Board
114 S Harvard Avenue	Ventnor City	Division of Construction Code Enforcement, Planning Board
Lucy the Margate Elephant	Margate City	Planning Board and Zoning, Historical Society
Great Egg Coast Guard Station	Longport	Zoning/Planning Board
Little Egg Harbor U.S. Lifesaving Station #23 (U.S. Coast Guard Station #119)	Little Egg Harbor	Construction Department, Zoning and Code Enforcement

Preservation Easements and Restrictions

Preservation easements and restrictions protect significant historic, archaeological, or cultural resources. Any mitigation work associated with a historic property will comply with the conditions of all extant historic

preservation legislation (see Table 2. Additional information regarding compliance with extant preservation legislation appears below in Section 5.0, Implementation.

Table 2. Applicable State/Local Legislation for Historic Properties

Legislation	Legislation	Agency
New Jersey Register of Historic Places Act	Chapter 268, Laws of 1970	Department of Environmental Protection
New Jersey Conservation Restriction and Historic Preservation Restriction Act	Chapter 378, Laws of 1979	Department of Environmental Protection
New Jersey Economic Recovery Act of 2020, Historic Property Reinvestment Program	Chapter 156, Laws of 2020, amended 2021	New Jersey Economic Development Authority
Municipal Land Use Law	Chapter 291, Laws of 1975	Municipal Historic Preservation Commissions/Planning Boards

Participating NHPA Section 106 Participating Parties

For the purposes of this HPTP, Participating Parties are defined as a subset of the NHPA Section 106 consulting parties that have a functional role in the process of fulfilling Stipulation III.B of the MOA and the mitigation measure implementation processes described herein. The roles of Participating Parties are identified for each mitigation measure in Section 4.0 of this document, including meeting participation and document reviews. Participating Parties with a demonstrated interested in the adversely affected historic properties are summarized in Table 3.

No other NHPA Section 106 consulting parties are anticipated to be Participating Parties for this Visual Effect HPTP. If BOEM determines additional consulting parties will participate in this plan, the plan will be updated to include those parties. The list of invited and participating of consulting parties is available as Attachment 3 of the MOA.

Table 3. Participating Parties involved with the Historic Property/s[1]

Name	Relationship to Historic Property	Address
Absecon Lighthouse	Interested Party	31 S Rhode Island Ave, Atlantic City, New Jersey 08401
Advisory Council on Historic Preservation	Federal Agency	Federal Property Management Section, 401 F St NW, Suite 308, Washington DC 20001
Atlantic City	Local Govt/Property Owner	1301 Bacharach Boulevard, Atlantic City, New Jersey 08401
Cape May County (Cultural Heritage Partners)	Interested Party	2101 L Street NW, Suite 800, Washington DC 20037
Delaware Nation	Tribal Govt	PO Box 825, Anadarko OK 73005
Delaware Tribe of Indians	Tribal Govt	5100 Tuxedo Blvd, Bartlesville OK 74006
Donald and June Feith	Property Owner	204 Marvin Road, Elkins Park, Pennsylvania 19027

Name	Relationship to Historic Property	Address
Environmental Protection Agency	Federal Agency	Region 2, 290 Broadway, 25th Fl, New York NY 10007
Flanders Condominium Association	Property Owner	Flanders Condominium Association, 719 East 11th Street, Ocean City, New Jersey 08226
Legacy Vacation Resorts	Property Owner	PO Box 690999, Orlando, Florida 32869
Margate City	Local Govt/Property Owner	Rutala Associates, LLC, 717 River Drive, Linwood, New Jersey, 08221-1226
Max Gurwicz Enterprises	Property Owner	331 Tilton Road, Northfield, New Jersey, 08225
Stockbridge-Munsee Community Band of Mohican Indians	Tribal Govt	N8705 MohHeConNuck Rd, Bowler WI 54416
MThirtySix PLLC	Tribal Advocacy	700 Pennsylvania Ave SE, 2nd Fl – The Yard, Washington DC 20003
National Park Service	Federal Agency	Region 1, 1234 Market Street, 20th Fl, Philadelphia PA 19107
New Jersey Casino Redevelopment Authority	State Agency/Property Owner	15 S. Pennsylvania Avenue, Atlantic City, New Jersey 08401
New Jersey Department of Environmental Protection – Historic Preservation Office	State Agency	Mail Code 501-048, NJDEP Historic Preservation Office, PO Box 420, Trenton, New Jersey 08625-0420
New Jersey Department of Environmental Protection – Office of Historic Sites & Parks	State Agency/Property Owner	NJDEP Office of Historic Sites & Parks, PO Box 420, Trenton, New Jersey 08625-0420
New Jersey Department of Law & Public Safety, Marine Service Bureau	State Agency/Property Owner	New Jersey Marine Service Bureau, 25 Market Street, Trenton, New Jersey, 08611
North Wildwood City	Interested Party	Blaney Donohue & Weinberg, P.C., 2123 Dune Drive, Suite 11, Avalon, New Jersey 08202
Ocean City	Local Govt/Property Owner	861 Asbury Ave, Ocean City, New Jersey 08226
Ritz Condominium Association	Property Owner	Ritz Condominium Association, 2715 Boardwalk, Atlantic City, New Jersey 08401
Rutgers University, Department of Marine and Coastal Sciences, School of Environmental and Biological Sciences	Property Owner	88 Lipman Drive, New Brunswick, New Jersey 08901
Save Lucy Committee, Inc.	Interested Party	Rutala Associates, LLC, 717 River Drive, Linwood, New Jersey, 08221-1226
Stone Harbor Museum	Property Owner	9410 2nd Avenue, Stone Harbor, New Jersey, 08247
US Coast Guard	Federal Agency/Property Owner	Sector Delaware Bay, 1 Washington Ave, Philadelphia PA 19147
US Coast Guard	Federal Agency/Property Owner	National Offshore Safety Advisory Committee, 2703 Martin Luther King Jr. Ave SE, Stop 7509, Washington DC 20593-7509
Vassar Square Condominiums	Property Owner	Vassar Square Condominiums, 4800 Boardwalk, Ventnor City, New Jersey 08406
Wampanoag Tribe of Gay Head (Aquinnah)	Tribal Govt	20 Black Brook Rd, Aquinnah MA 02535

[1] Ongoing consultation may result in refinement of this list of Participating Parties.

EXISTING CONDITIONS AND HISTORIC SIGNIFICANCE

Historic Properties

This HPTP involves 17 resources, as identified below in Table 4. All 17 historic properties are located along the New Jersey shoreline within 15–24 miles of the Wind Farm Area (WFA), and ocean views are a character-defining feature of each property's significance.

Table 4. Historic Properties included in the Visual Effect HPTP

Name	Property Address	BOEM Effect Finding
Cape May County		
Ocean City Boardwalk	East 6th Street to East 14th Street, Ocean City	Adverse effect
Ocean City Music Pier	811 Boardwalk, Ocean City	Adverse effect
Flanders Hotel	719 East 11th Street, Ocean City	Adverse effect
U.S. Lifesaving Station #35	11617 2nd Avenue, Stone Harbor	Adverse effect
North Wildwood Lifesaving Station	113 North Central Avenue, North Wildwood	Adverse effect
Hereford Inlet Lighthouse	111 North Central Avenue, North Wildwood	Adverse effect
Atlantic County		
Brigantine Hotel	1400 Ocean Avenue, Brigantine City	Adverse effect
Absecon Lighthouse	Pacific and Rhode Island Avenues, Atlantic City	Adverse effect
Atlantic City Boardwalk	South New Jersey Avenue to South Georgia Avenue	Adverse effect
Atlantic City Convention Hall	Boardwalk at Pacific Avenue	Adverse effect
Ritz-Carlton Hotel	2715 Boardwalk, Atlantic City	Adverse effect
Riviera Apartments	116 South Raleigh Avenue, Atlantic City	Adverse effect
Vassar Square Condominiums	4800 Boardwalk, Ventnor City	Adverse effect
114 South Harvard Avenue	114 South Harvard Avenue, Ventnor City	Adverse effect
Lucy the Margate Elephant	Decatur and Margate Avenues, Margate City	Adverse effect
Great Egg Coast Guard Station	2301 Atlantic Avenue, Longport	Adverse effect
Ocean County		
Little Egg Harbor U.S. Lifesaving Station #23 (U.S. Coast Guard Station #119)	800 Great Bay Boulevard, Little Egg Harbor	Adverse effect

Adversely Affected Historic Properties

In Section 3.2, the resources are described generally both physically and historically, with a focus on the contribution of an ocean view to the properties' significance and integrity.

Physical Description and Existing Conditions

Ocean City Boardwalk

Origins of the Ocean City Boardwalk date to 1880, when the first seasonal structure was constructed from 2nd Street to 4th Street and West Avenue. The Boardwalk was expanded in 1885 to extend the length of the beach, accommodating a new amusement pavilion at 11th Street (The Shore Blog 2021). In keeping with Ocean City's history as a Methodist camp, the Boardwalk offered not only live music, restaurants, and shopping, but free educational seminars and church services (*Daily Intelligencer Journal* 1950:10). The Boardwalk burned in 1927 and was reconstructed the following year. The 1928 Boardwalk was built on a concrete foundation in response to the fire, but portions reconstructed in the 2000s removed the concrete and replaced it with more cost-effective wood (*The Morning Call* 2017). Two important outcomes of the Boardwalk fire were the relocation of a large section of the Boardwalk one block closer to the beachfront and the establishment of a city ordinance that banned building on the ocean side of the Boardwalk (Kelly 2018). The Boardwalk was again reconstructed after the Ash Wednesday Storm of 1962. The Ocean City Boardwalk currently extends approximately 2.5 mi. Like the boardwalks in neighboring Atlantic City and Wildwood, the Ocean City Boardwalk is home to hotels, motels, amusement parks and other entertainments, restaurants, and shopping, housed in buildings constructed throughout the twentieth century. The local ordinance prohibiting construction on the east side of the Ocean City Boardwalk has preserved open and unobstructed views of the ocean along its length. Only the Ocean City Music Pier stands on the ocean side of the Boardwalk, as it was built in 1928, immediately after the fire. The Ocean City Boardwalk was treated as eligible for the NRHP as a result of the survey undertaken for OW1, with a boundary extending from East 6th Street to East 14th Street, reflecting the concentration of commercial development along its length. The property's significance is associated with the commercial and recreation-related growth of Ocean City (Criterion A). The WFA is approximately 15 mi southeast of this historic property.

The Ocean City Boardwalk is integral to the history of commercial development and recreation on the Jersey Shore. While the physical infrastructure of the Boardwalk has changed through the years, due to expansion, general improvements, and storm-related replacement and repairs, its role as a conduit along the shoreline has remained constant. The Ocean City Boardwalk is home to resources from the early twentieth century through the twenty-first century, offering visitors accommodations, entertainment, and food. Upgrades and improvements made to the buildings that line the Boardwalk have impacted the overall setting and feeling of the Boardwalk, as have modern infill buildings and structures. The Boardwalk has offered commercial and recreational opportunities along the seashore since its inception, and it has been subject to ongoing investment and economic development along its route, which in fact attests to its ongoing vitality and viability. However, visitors walking along the Boardwalk in 2022 are offered similar unobstructed sea views as those who walked the Boardwalk 50 years ago and 100 years ago, due the ordinance restricting development on the ocean side of the Boardwalk. The WFA would be visible along the horizon approximately 15 mi from the Boardwalk. Views of the WFA from the entire length of Boardwalk will alter its setting, which has been preserved through the local ordinance passed in the 1920s. As a result, the project will have an adverse effect on the Ocean City Boardwalk.

Ocean City Music Pier

The Ocean City Music Pier was constructed as a concert hall in 1928, after a fire destroyed much of the Ocean City boardwalk. The Ocean City Music Pier was determined eligible for the NRHP in 1990. NJHPO online records do not include information on the building's NRHP significance; however, it appears to be

significant under Criterion A for Entertainment and Recreation due to its long history as an entertainment venue on the Ocean City Boardwalk, and under Criterion C for Architecture. The Ocean City Music Pier continues to function as a music venue. The building includes an enclosed concert hall and attached open-air loggia. The enclosed portion of the building features large arched windows, while the loggia has open arches. There are sea views from both inside the concert hall and inside the loggia, although the views have changed somewhat over the years. Originally, the pier was built over the water and views were exclusively of the ocean. In 1993, a major beach restoration project imported 6.4 million cubic ft of sand to widen Peck Beach in Ocean City (USACE 2011). Since 1993, the pier has been over sand rather than water and the views to the north and south primarily include the beach, with water views visible at an angle. The building's primary entrance faces west and is accessed via the Ocean City Boardwalk, and the rear of the building sits on piers driven into the sand. The WFA is due east of the Ocean City Music Pier, approximately 15.2 mi away.

The Ocean City Music Pier is the only building in Ocean City located on the east side of the Boardwalk. The building has a direct relationship with the ocean due to its location. Location and setting are both character-defining features that are echoed in the building's design and construction, and directly relate to its significance under Criterion A for Entertainment and Recreation, and Criterion C for Architecture. As a result of its location and lack of development on its north, east and west sides, the views of the beach and ocean are unobstructed for people enjoying programs inside of the facility and people observing the building from the Boardwalk. The building's significance under Criterion A for Entertainment and Recreation is historically tied to its prominent location on the Boardwalk. The building is at the center of activity in Ocean City and although there are other entertainment venues in Ocean City, the music pier is arguably the most popular due to its location and setting (Pritchard 2012). The property's significance under Criterion C is for its Mediterranean Revival style. The open loggia and expansive arched windows with sea views are key features of that significance. Given the proximity of the WFA to this property and that open shoreline and sea views are character-defining features, the proposed project's introduction of a modern visual element to the music pier's setting may diminish its integrity of setting, feeling, and association as it relates to its significance. Therefore, the project will have an adverse effect on the Ocean City Music Pier.

Flanders Hotel, Ocean City

The Flanders Hotel is an NRHP-listed property located one-half block from the boardwalk in Ocean City. The building is listed under Criterion A for Entertainment and Recreation, and Community Planning and Development, and under Criterion C for Architecture. The property currently includes a 1923 nine-story U-Shaped Spanish-Colonial style hotel, a two-story commercial and solarium annex, a pool, and a parking lot (Bethke 2009). The hotel is the tallest building in the area. Its upper floors (approximately floors 5–9) have unobstructed views of the ocean, while its lower levels (approximately floors 1–4) have views blocked or obscured by Playland's Castaway Cove and other nearby development.

The two-story solarium annex is located on the building's east side, and from 1927 to 1978, the solarium overlooked three saltwater pools located between the hotel and the Ocean City Boardwalk. When it was built, the two-story solarium annex featured large windows and an open central section, all with direct views to the water. The pools were removed in 1978 and the land was later redeveloped (Bethke 2009). The

building originally featured an 8th-story terrace overlooking the ocean. The terrace was a significant part of the original design meant to capture expansive sea views. According to the hotel's 2009 NRHP nomination, the terrace was enclosed in 1960. The building also originally featured a tower on the building's south wing with open sides that had unobstructed sea views. A 1990s remodeling project included the addition of two stories to the south wing. According to the NRHP nomination, much of the building's significance is associated with it being the first high-end hotel in Ocean City. The project is due east of the hotel, approximately 15.2 mi distant. BOEM has determined that the project will have an adverse effect on the Flanders Hotel.

U.S. Lifesaving Station #35, Stone Harbor

The U.S. Lifesaving Station #35 (now the Steven C. Ludlum American Legion Post 331) is a former US Life-Saving Service and US Coast Guard Station constructed in 1895. The building is located at 11617 2nd Avenue at the northwest corner of 2nd Avenue and 117th Street in Stone Harbor. The American Legion currently owns and operates the building after purchasing it in 1948 when its function as a lifesaving station became obsolete. The building is listed in the NRHP under Criterion A for Transportation and Maritime History and under Criterion C for Architecture. The station is a representative example of the 1893 Duluth Design by George R. Tolman (Koski-Karell et al. 2013). The main structure features three parts and includes the primary lifesaving station building along the south, a four-story tower in the center, and a boat room along the north façade. The NRHP nomination for U.S. Lifesaving Station #35 states that the structure was originally located on ocean front property but is now positioned two blocks to the west due to dense residential infill and sand deposits to the east along the shoreline. The building is approximately 21.9 mi from the project. BOEM has determined that the project will have an adverse effect on U.S. Lifesaving Station #35.

North Wildwood Lifesaving Station, North Wildwood

The North Wildwood Lifesaving Station is a former U.S. Coast Guard Station constructed in 1938. The building is located at 113 North Central Avenue and sits on the northeast corner of the intersection of North Central Avenue and East First Avenue, directly to the northeast of the Hereford Inlet Lighthouse. The building was determined eligible by the New Jersey HPO in 2001. It was constructed later than the Hereford Lighthouse, thus, the North Wildwood Lifesaving Station is not mentioned as a contributing resource to the Hereford Lighthouse in its the lighthouse's NRHP nomination. NJHPO's online records do not include information on the building's significance; however, it is likely significant under Criterion A for Maritime History and under Criterion C as an example of the 1934 Roosevelt Design for Coast Guard stations during that era (Koski-Karell et al. 2013). The station is positioned near the Hereford inlet between North Wildwood and Stone Harbor. The inlet was heavily trafficked by ships and an important entry location for the Intracoastal Waterway pivotal to local commerce. The building was constructed in 1938 as a U.S. Coast Guard station, then later converted to the NJ Marine Police Headquarters.

The station replaced an 1888 lifesaving station at this same site (Koski-Karell et al. 2013). The 1934 Roosevelt Design was transitional, incorporating design cues from previous lifesaving station designs with evolving missions and administrative duties after consolidation of predecessor services under the U.S. Coast Guard. Key to the station's significance is its intact representation of the 1934 standardized Roosevelt Design. The

station is approximately 23.4 mi from the project. BOEM has determined that the project will have an adverse effect on the North Wildwood Lifesaving Station.

Hereford Inlet Lighthouse, North Wildwood

The Hereford Inlet Lighthouse, constructed in 1874 and listed in the NRHP in 1977, is located at 113 North Central Avenue on the north end of North Wildwood. The lighthouse sits on the northeast corner of the intersection of North Central Avenue and East First Avenue. The lighthouse originally marked the Hereford Inlet between North Wildwood and Stone Harbor, an important waterway for local commerce. The lighthouse consists of one- and two-story sections surrounding a central four-story tower. The lighthouse's original setting was approximately 150 ft west of its present-day location. It was relocated in the early twentieth century due to erosion, weathering, and damage to the foundation (Elias 2018). Its NRHP nomination indicates that the lighthouse is no longer adjacent to the shoreline due to infill, which includes the construction of a contemporary police station to its north. The U.S. Coast Guard automated the lighthouse in 1964 and eventually converted it into a museum. The lighthouse is significant under Criterion A for Commerce and Criterion C for Architecture. The project is approximately 23.4 mi from the Hereford Inlet Lighthouse. BOEM has determined that the project will have an adverse effect on the Hereford Inlet Lighthouse.

Brigantine Hotel, Brigantine City

The Brigantine Hotel, at 1400 Ocean Avenue, is an 11-story rectangular plan, Art Deco-inspired hotel built in 1926–1927. The Brigantine Hotel was surveyed for OW1 in January 2021 and was recommended eligible for NRHP listing under Criterion A for Ethnic Heritage: Black, due to its associations with prominent African American figures and its role in integrating the Jersey Shore. The hotel is on Brigantine Beach at a distance of approximately 16 mi from the project.

The Brigantine Hotel is sited directly on the beach and has unobstructed sea views from most of the building. The hotel is recommended significant under Criterion A for Ethnic Heritage due to its association with black history on the Jersey Shore. As a hotel, the building represents a recreational property type associated with tourist activity in New Jersey, which heightens the importance of its setting, in particular those of sea views within the setting. As possibly the first hotel to welcome black guests and integrate New Jersey's beaches, the Brigantine Hotel reflects the challenges black Americans faced to gain equal access to recreational opportunities. Because the focus of recreational activity in this location is the beach and access to the sea, this aspect of the setting supports the hotel's significance under Criterion A. Conspicuous views of the WFA from the both the beach and guest rooms in the hotel will alter the character-defining setting of the building. As a result, the project will have an adverse effect on the Brigantine Hotel.

Absecon Lighthouse, Atlantic City

The Absecon Lighthouse, constructed in 1856, is an NRHP-listed property on the north end of Atlantic City. The lighthouse originally marked the inlet between Absecon and Brigantine Islands, although that channel has shifted northward since the lighthouse's construction. The 171-ft-tall light tower is constructed of iron and brick, and has a diameter of 27 ft at its base and 13 ft-7.5 in at the lens chamber. Lightkeepers had a

view of the Absecon Inlet from "A catwalk at a storage level just below the lens" (Wilson 1970). The Absecon Lighthouse was decommissioned in 1933. Its original setting was the undeveloped north end of Absecon Island, and the light station site included a keeper's house, assistant keeper's house, and oil house (all nonextant, although the keeper's house has been reconstructed). The 1970 NRHP nomination states the lighthouse is significant for navigational history (Criterion A) and architecture (Criterion C). The project is approximately 15.3 mi southeast of the Absecon Lighthouse. BOEM has determined that the project will have an adverse effect on the Absecon Lighthouse.

Atlantic City Boardwalk, Atlantic City

Origins of the Atlantic City Boardwalk date to 1870, when the first seasonal structure was constructed between South Massachusetts Avenue and what is now Columbia Place (between South Mississippi and Missouri Avenues). Four boardwalks soon followed in succession prior to 1900: widened for increased usage, but still seasonal (1880); permanent with electric lighting (1884); replacement due to hurricane (1890); and steel-braced (1898). Several piers were added in the 1890s, including Playground Pier, Central Pier, and Steel Pier. Large-scale hotels attracting tourists and businesspeople lined the west side of the Boardwalk beginning in the late 1890s and into the first decades of the twentieth century. Only a few of the hotels remain, largely due to the 1976 state legislation that required hotels to have at least 400 rooms, 325 square ft each, in order to operate a casino on the premises. This precluded many of the existing hotels from taking advantage of the new gambling legislation without extensive renovations. Many of the grand hotels on the Boardwalk were razed in the 1970s and 1980s to make room for new construction (*The Daily News* 1978:13). The Atlantic City Boardwalk was identified as a potential historic property in 1978, with NJHPO data indicating a boundary extending from the Atlantic City Convention Hall (South Georgia Avenue) to just northeast of South New Jersey Avenue. NJHPO data indicates the property's potential significance is associated with the commercial and recreation-related growth of Atlantic City (Criterion A). The WFA is approximately 15.3 mi southeast of Atlantic City Boardwalk. The Boardwalk is being treated as eligible for NRHP listing for the purposes of Section 106 compliance for the Project.

The Atlantic City Boardwalk is integral to the history of commercial development and recreation on the Jersey Shore. While the physical infrastructure of the Boardwalk has changed through the years, due to expansion, general improvements, and storm-related replacement and repairs, its role as a conduit along the shoreline has remained constant. The Atlantic City Boardwalk is home to resources from the early twentieth century through the twenty-first century, offering visitors accommodations, entertainment, and food, and, since the late 1970s, gambling opportunities. While large-scale towers built since the 1970s, including Caesar's Atlantic City (1979), Atlantic Palace (1986), Showboat Atlantic City (1987), Bally's Tower (1989), Hard Rock Hotel and Casino (1990), Ocean Casino (2012), have impacted the overall setting and feeling of the Boardwalk, as have the upgrades and improvements made to many of the one- and two-story buildings that line the Boardwalk, visitors walking along the Boardwalk in 2022 are still offered unobstructed sea views in some locations. Dunes and vegetation obstruct views of the horizon in other locations. Yet the Boardwalk has offered commercial and recreational opportunities along the seashore since its inception, and it has been subject to ongoing investment and economic development along its route, which in fact attests to its ongoing vitality and viability. To the extent that the WFA would be visible along the horizon

approximately 15.3 mi from the Boardwalk, BOEM has determined that the impact to setting rises to the level of adverse effect.

Atlantic City Convention Hall, Atlantic City

The Atlantic City Convention Hall, constructed 1929, is a National Historic Landmark-designated property on the Boardwalk in Atlantic City. The Convention Hall's 1985 NRHP nomination notes its eligibility under Criterion A for Recreation and Criterion C for Engineering. The Convention Hall's relationship to the Boardwalk, and by extension to the ocean, is defined by a curved limestone exedra (arcade) across the Boardwalk and in front of the hall's oceanside entrance. The exedra is "appropriately ocean-oriented, with decoration, like that of contemporary Atlantic City hotels, using forms of ocean flora and fauna" (Charleton 1985:2). The Convention Hall's views to the ocean from the building's interior are limited to ground floor entrances, where direct views of the ocean are screened partially by the exedra, and a ballroom on the second floor. The WFA is approximately 15.5 mi from the Atlantic City Convention Hall.

The Atlantic City Boardwalk was the center of social activity on the Jersey Shore in the early twentieth century, and the Convention Hall epitomized the Boardwalk's social and entertainment appeal. The Convention Hall's significance as a recreational venue (Criterion A) is tied to its large auditorium that hosted concerts, pageants, and sporting and political events. While the auditorium has no views to the exterior, an event space on the second story above the main Boardwalk entrance features a loggia of arched windows designed to provide sea views. This space was historically utilized as a ballroom but currently serves as a multi-function space for gatherings and smaller events (a reversible change).

The Project will have a visual effect on the Atlantic City Convention Hall, largely borne by the exedra walkway, a contributing structure of the site, located across the Boardwalk from the Convention Hall. While the Project would not alter any characteristics or physical features within the Convention Hall that contribute to its historic significance, BOEM determined that the Project would diminish its integrity of setting, an aspect of its historic integrity that relates to its significance. The Atlantic City Convention Hall is significant under Criterion A for Recreation and Criterion C for Engineering. The building's location on Atlantic City's Boardwalk is paramount to its history and associated significance. To the extent that the WFA would be visible along the horizon approximately 15.5 mi from the historic property, BOEM has determined that the impact to setting rises to the level of adverse effect.

Ritz-Carlton Hotel, Atlantic City

The Ritz-Carlton Hotel (constructed 1921, now The Ritz Condominiums) is an NRHP-eligible property at 2715 Boardwalk in Atlantic City. It was designed by Philadelphia's Horace Trumbauer in association with New York-based Warren and Wetmore. The hotel has a five-story block fronting the Atlantic City Boardwalk and a 15-story block that extends north creating an L footprint. The hotel was determined eligible for the NRHP in 2011. NJHPO data indicates the property's significance is associated with its construction at the height of Atlantic City's "urban hotel by the sea" period. The Boardwalk wing capitalizes on the Boardwalk's commercial activity while the orientation of the main block of hotel rooms maximized rooms with northeast and southwest sea views. It was determined to be significant under Criterion A for Commerce and Criterion C for Architecture. The WFA is approximately 15.3 mi southeast of this property.

The Ritz-Carlton Hotel is on the Atlantic City Boardwalk with the main hotel block extending north-northwest from the shoreline. The hotel block rising behind the commercial Boardwalk block is oriented to maximize the number of rooms on its narrow, deep lot. The ocean-facing elevation of this block is three bays wide, with a central-bay Juliet balcony on each floor. In addition to southeast elevation windows on both the main hotel block and the five-story Boardwalk block, most windows on the southwest elevation will have a view of the WFA. The building's siting and orientation are important to its Criterion A significance for Commerce. While architectural elements oriented toward the WFA have been subject to modification, most notably at the mezzanine level on the exterior, where a redesign with replacement materials creates a solid screen in front of double-height arched windows, conspicuous views of the WFA from guest rooms in the hotel will alter the character-defining setting of the building. As a result, the project will have an Adverse Effect to the Ritz-Carlton Hotel.

Riviera Apartments, Atlantic City

The Riviera Apartments at 116 South Raleigh Avenue in Atlantic City is a nine-story apartment building dating to 1930. It was surveyed for OW1 in January 2021 and was recommended eligible under Criterion C for its Spanish-influenced Art Deco style of architecture. NJHPO records attribute the design to Philadelphia architect Harry Sternfeld, and describe the building as "the queen of Atlantic City's larger apartment houses—its concrete and tile decoration are exuberant and original, rare outside of New York" (NJHPO 1980). The building appears to have undergone very few changes over the years, maintaining its original form, massing, and Art Deco design details. The building is adjacent to the Atlantic City Boardwalk. Its primary façade (northeast elevation) does not face the ocean. Both the northeast and southeast elevations include bands of windows, some of which are bay windows to optimize sea views. The building also includes rooftop balconies with sea views. It is approximately 15.6 mi from the WFA.

The Riviera Apartments building sits directly on the Atlantic City Boardwalk. This area was developed by the time the Riviera Apartments were constructed; however, aerial imagery shows that the surrounding buildings were primarily modest single-family detached homes in the 1930s, likely two to three stories tall. The apartment building was the tallest building in the area and would have had clear ocean views. The building's design focused on both the northeast and southeast elevations, with the southwest elevation having the appearance of a wall that would typically be found facing an alley. The two elevations with design emphasis have numerous windows, including bay windows, that maximize light and views in the apartments. Under the apartment building's significance for Criterion C, the property's historic integrity of location, design, materials and workmanship are critical, and those will not be altered by the proposed Project. Integrity of setting, feeling, and association have the potential to be affected by the project. Both ground-level views and views from inside the nine-story building may be affected by the introduction of the WFA on the horizon. The seascape was an important consideration in the selection of the location for this building, reflected in its design and siting. The project will be conspicuously visible in the viewshed, and it will affect views to the sea, a character-defining feature of the property. Therefore, the project will have an adverse effect on the Riviera Apartments.

Vassar Square Condominiums, Ventnor City

The Vassar Square Condominiums building at 4800 Boardwalk in Ventnor City is a high-rise building dating to 1969. The 21-story building is 218 ft (66.45 m) tall (CTUBH 2021) and was surveyed for OW1 in January 2021. The building was surveyed for OW1 in January 2021 and was recommended eligible for the NRHP under Criterion C for Architecture, as a good example of mid-century high-rise design with Formalist architectural details (reinterpretations of classical building components). The building's units each have a cantilevered balcony with glass railings. Corner balconies have views in multiple directions. This is especially important for units at the rear of the building (northwest), which, despite their location, have sea views due to the balcony design. Balconies on the northeast and southwest elevations angle outward to create an interesting dimensional effect across the wall plane. The angle also affords additional space on the balcony and increases the field of view from each unit. The building's upper levels are primarily glass and brick, while the ground level features stuccoed arches infilled with glass or metal grate. The building is approximately 16 mi from the WFA.

The Vassar Square Condominiums building sits directly on the Atlantic City Boardwalk. It sits on a deep lot with its longest elevations facing to the northeast and southwest. Although these elevations are perpendicular to the coastline, due to the building's height, extended balconies allow for sea views along these longer elevations. When the building was originally constructed, the Vassar Square area primarily included single-family detached houses two to three stories tall. However, multistory and multi-unit buildings were becoming more common south of the Atlantic City core. Although there are several similarly sized buildings in the vicinity as of 2021, Vassar Square Condominiums offer sea views from nearly all units. The building's design maximized sea views for its residents. Each unit has a glass-railed balcony, and even those that are farthest from the beachfront have corner balcony designs that allow for at least partial water views. Under the property's significance for Criterion C, its historic integrity of location, design, materials and workmanship are critical, and those will not be altered by the proposed project. Integrity of setting, feeling, and association have the potential to be affected by the project. Both ground-level views along the Boardwalk and views from inside the building may be affected by the introduction of the WFA on the horizon. Because the seascape was an important consideration in the selection of the location for this building and the building's design maximized expansive sea views, the project will impact a characteristic of the property that supports its eligibility for listing in the NRHP. Therefore, the project will have an adverse effect on the Vassar Square Condominiums building.

114 South Harvard Avenue, Ventnor City

The house at 114 South Harvard Avenue in Ventnor City is a two-and-a-half-story French Eclectic style building dating to 1925. The building was surveyed for OW1 in January 2021 and was recommended NRHP-eligible under Criterion C for Architecture as a good example of early twentieth-century beachfront housing in Ventnor City. The building appears to retain its original form and massing, and includes French Eclectic features such as textured stucco walls, a steeply pitched roof, flared eaves and multiple eave heights, and an asymmetrical plan with a tower. The house is immediately adjacent to the beach and Boardwalk, and has open views toward the Atlantic Ocean. The building faces northeast toward South Harvard Avenue, with its southeast elevation facing the Boardwalk. The southeast elevation includes an enclosed ground-level sun

room with arched windows facing the ocean. Above the sun room is a second-story porch with unobstructed sea views. The WFA is approximately 15.7 miles southeast of the property.

With limited visual obstructions, the project is expected to be visible on the horizon from this location. The building does not directly face the water, but sea views appear to have been an important consideration in the building's design, as it includes a sea-facing sun room and a second-story deck on its southeast elevation. Under significance for Criterion C for Architecture, the property's historic integrity of location, design, materials and workmanship are critical, and those will not be altered by the proposed project. Integrity of setting, feeling, and association may be impacted by the project. Both ground-level views and views from inside the building may be affected by the introduction of the WFA on the horizon. The seascape was an important consideration in the building's design, and the proposed project will alter a characteristic of the property that qualifies it for NRHP eligibility. Therefore, the project will have an adverse effect on the house at 114 South Harvard Avenue in Ventnor City.

Lucy the Margate Elephant, Margate City

Lucy the Margate Elephant, originally known as Elephant Bazaar, was NRHP-listed in 1971 and designated as a National Historic Landmark in 1976. The building is listed under Criterion C for Invention, Sculpture, and Other: "architectural folly" (Pitts 1971). Lucy the Margate Elephant is a six-story, elephant-shaped architectural folly located in Margate City. Lucy was built in 1881 by inventor James V. Lafferty, who had received a U.S. patent with exclusive rights to construct buildings in the shape of animals beginning in 1881. Lafferty was a land speculator who owned undeveloped land in the area that is now Margate City. Lucy was originally constructed in this barren location by Lafferty as a means of attracting potential buyers and visitors to the area (Lucy the Elephant 2011a). Lafferty sold Lucy to Anton Gertzen in 1887, and members of the Gertzen family continued to own the building until 1970 (Lucy the Elephant 2011a, 2011d). During the Gertzen family ownership, the building was used temporarily as both a house and tavern, but primarily as a piece of novelty architecture. The family capitalized on it by offering tours for an admission fee (Lucy the Elephant 2011b, 2011c).

Modifications to Lucy include the partitioning of the domed interior space in 1902 and replacement of the original howdah (canopied seat) after it was destroyed in a storm in 1928. The building went without a howdah (or with a very deteriorated howdah) for several years. When the building was nominated as an NHL in 1976, the nomination stated, "she will have a new howdah when funds permit." The howdah was eventually replaced with a less ornate version with a different roof type (Pitts 1971). In 1968, the Gertzen family sold the parcel on which Lucy was located and donated the building to the City. It was moved to its current parcel in 1970. Lucy's original location was near the intersection of present-day Atlantic Avenue and South Cedar Grove Avenue, two blocks north-northeast of its present location (NETR 1963, 1970). The building is currently located approximately one half-block farther inland than its original location. It continues to operate as a tourist attraction, with guided tours offered for a fee. The immediate surroundings include a single-story beachfront grill, several two- and three-story condominium buildings, a restaurant, and a 19-story condominium building (located on Lucy's original site). The building is approximately 15.3 mi west-northwest of the WFA. From its upper levels, views to the Atlantic Ocean are unobstructed.

Lucy the Margate Elephant is integral to the history of commercial development and recreation on the Jersey Shore. Originating as an architectural folly, it stands as one of the most recognizable symbols of the Jersey Shore experience. Part commercial, part recreational, part functional, part folly, Lucy is a tourist attraction that represents the vision a late nineteenth-century entrepreneur had for seaside development that continued through the twentieth century, a vision reflected in Margate's growth all around the building. While some original materials have changed through the years, and its setting has been subject to infill, impacting ground-level views of the sea, Lucy provides similar unobstructed sea views from its upper level as it did when it was first built. The uniqueness of the resource and its property type merited additional consideration during effects assessment.

The building's seaside location, while not original, generally replicates the sea views and setting of its original location a few blocks away. The building has windows on all sides, albeit small. The 18-in windows facing the ocean are inserted as the elephant's porthole eyes. The howdah (canopied seat) at the top of the building also has unobstructed ocean sea views; it was reportedly used by Lafferty as a viewing platform for potential investors to see advantageous views of the surrounding real estate (NJ South 2019).

At a distance of 15.3 mi, characterized in the VIA as apparent, the WFA will be visible on the horizon, altering the property's setting and potentially, the experience of visitors to the site. Lucy's significance as an architectural folly and sculpture, while not specified in its NRHP nomination, likely falls under Criteria A and C. Sea views are a key component of the building's property type and contribute to its significance. Therefore, a finding of Adverse Effect is recommended for Lucy the Margate Elephant.

Great Egg Coast Guard Station, Longport

The Great Egg Coast Guard Station is located at 2301 Atlantic Avenue in Longport. It was listed in the NRHP in October 2005 under Criterion C for Architecture as an example of the 1934 Roosevelt Design for Coast Guard stations (Berkey 2005; Koski-Karell et al. 2013). The station is located in an area of Longport that is approximately two blocks deep between Great Egg Harbor and the Atlantic Ocean. The station was constructed in 1938 as a U.S. Coast Guard station, and was abandoned in 1947 by the U.S. Treasury Department, which oversaw the Coast Guard until 1967. The City of Longport purchased the building and used it as a municipal hall (Berkey 2005). In 1994, it was leased to the Longport Historical Society and Museum. The primary building is two-and-a-half stories with a central three-story tower set within the roof ridgeline. The station replaced an 1888 lifesaving station at this same site (Berkey 2005). The 1934 Roosevelt Design was transitional, incorporating design cues from previous lifesaving station designs with evolving missions and administrative duties after consolidation of predecessor services under the U.S. Coast Guard. Located approximately 0.14 mi (740 ft) from the shore, the building is one-and-a-half blocks removed from the ocean front. It is approximately 15.2 mi from the project. BOEM has determined that the project will have an adverse effect on the Great Egg Coast Guard Station.

Little Egg Harbor U.S. Lifesaving Station #23 (U.S. Coast Guard Station #119, Little Egg Harbor)

The original Little Egg Harbor U.S. Lifesaving Station #23 was built in 1869 on Tucker Island and moved several times due to beach erosion. It succumbed to the ocean in the early 1930s, while Tucker Island itself disappeared by the early 1950s. In 1937, the U.S. Coast Guard constructed the current station, a two-and-

one-half-story building, just west of Tucker Island on the southern point of Little Egg Harbor's salt marsh peninsula on Great Bay. The station used the federal government's 1934 Roosevelt Design that incorporated Colonial Revival elements into a two-story, rectangular plan with a central cupola. The station and associated boathouses are on elevated piers to accommodate the tides (Koski-Karell et al. 2013). The station is accessed from Great Bay Road by a long pedestrian boardwalk. The Coast Guard operated the station into the 1960s. It was then left vacant until purchased in 1972 by Rutgers University for use as a marine field station, and it continues to operate as Rutgers Tuckerton Marine Field Station.

The station was determined individually eligible for NRHP listing by NJHPO in 2014. NJHPO's online records do not include information on the building's NRHP significance; however, it appears to be significant under Criterion A for Maritime History and under Criterion C for Architecture as an example of the 1934 Roosevelt Design, based on application of the eligibility requirements in the U.S. Government Lifesaving Stations, Houses of Refuge, and pre-1950 U.S. Coast Guard Lifeboat Stations Multiple Property Documentation Form (MPDF) (Koski-Karell et al. 2013). The 1934 Roosevelt Design was transitional, incorporating design cues from previous lifesaving station designs with evolving missions and administrative duties after consolidation of predecessor services under the U.S. Coast Guard. Key to the station's significance is its intact representation of the 1934 standardized Roosevelt Design. Its period of significance, 1937–1960s, reflects its use as a Coast Guard station. The project is approximately 21.25 mi south of the station. BOEM has determined that the project will have an adverse effect on U.S. Coast Guard Station #119.

Historic Context

North Wildwood, Cape May County

The city of North Wildwood is on Five Mile Island, where the Lenni-Lenape tribe often visited to fish and collect shells they used as currency. Farmers used the Wildwood area to graze their livestock, and fishermen and whalers established temporary camps on Five Mile Island between the early seventeenth and the mid-nineteenth centuries. Fishermen established the first settlement on Five Mile Beach—Anglesea—ca. 1859. Development increased following construction of a railroad and bridge in 1884. Anglesea incorporated as the North Wildwood Borough in 1885. The borough became the City of North Wildwood City in 1917. The city experienced a post-World War II boom following the growing popularity of personal automobiles and resultant tourism (VisitNJShore.com 2021a). New hotels featured futuristic forms and neon signage, a distinctive style later called Wildwood's "Doo Wop." North Wildwood was heavily damaged by the Ash Wednesday Storm of 1962, which flooded and destroyed beachfront properties and roads and caused major coastline loss (NPS 2019). Tourism declined in the 1970s and 1980s, but rebounded in the late 1990s with the establishment of the Doo Wop Preservation League, charged with restoring and promoting appreciation of the Wildwood area hotels and their history (VisitNJShore.com 2021a).

Ocean City, Cape May County

A barrier island, Ocean City (first known as Peck's Beach) was regularly used as a whaling camp by 1700. Later in the eighteenth century, John Townsend acquired much of the seven-mile-long island that featured several freshwater ponds, making it beneficial for grazing cattle (Miller 2003). It had its first permanent residence by 1850. In the post-Civil War period, Peck's Beach evolved into a tourist destination. Atlantic City,

which featured a famous boardwalk and hotels in the 1870s, served as a model for Peck's Beach, albeit with exceptions. In 1879, a group of Methodists leaders—including Rev. Ezra B. Lake, Rev. James B. Lake, Rev. S. Wesley Lake, and Rev. William H. Burrell—founded Ocean City. The founders were intent of developing a Christian-influenced resort that, unlike Atlantic City, boasted no gambling or drinking (Esposito and Esposito 1996). One of the main attractions was a boardwalk completed in 1883. Development of transportation was key to the city's success as a tourist destination, as early twentieth-century options included a steamboat service, bridges, and a trolley (VisitNJShore.com 2021b). The national prosperity of the post-World War I period was reflected in the development of beachfront hotels. A fire destroyed much of Ocean City in 1927, including the city's beachside boardwalk (Ocean City, New Jersey 2021). The boardwalk was rebuilt in 1928–1929. The Great Depression severely impacted the local New Jersey Shore economy (Bzdak 2001), but bolstered by a post-World War II economic recovery, Ocean City was the largest town in Cape May County by 1960 (VisitNJShore.com 2021b).

Brigantine City, Atlantic County

The Lenni-Lenape tribe first traveled to Brigantine Island from the mainland to fish and collect shells they used as currency. Brigantine Improvement Company purchased the island by the late nineteenth century. Railroad and light rail transportation facilitated early development during the period, but growth was limited by bad weather and difficult financial times. Brigantine invested in infrastructure development in the 1920s, including the construction of roads and sewage lines, only to have its growth stymied again by numerous storms and the Great Depression (SouthJersey.com 2015). Development continued post-World War II. Brigantine was heavily damaged by the Ash Wednesday Storm of 1962, which flooded and destroyed beachfront properties and roads, causing major coastline loss (NPS 2019). Due to its proximity and access to Atlantic City, development was consistent in the second half of the twentieth century, with older neighborhoods and commercial development interspersed with newer single-family and multi-family housing (Gatza 1991).

Atlantic City, Atlantic County

Atlantic City is located on Absecon Island, where the Lenni-Lenape tribe often visited to fish and collect shells they used as currency. Jeremiah Leeds built the first structure on the island in 1785, and his descendant had built seven permanent dwellings by 1850 (Town Square Publications 2010). The city incorporated in 1854 and rail development soon followed. The city grew quickly in the late nineteenth century as a resort town located near New York and Philadelphia. Unlike primarily residential communities on the New Jersey Shore, Atlantic City development included businesses, recreational spaces, and tourist attractions like theaters and the Boardwalk. Half of the Boardwalk was destroyed in the Great Atlantic Hurricane of 1944. The city's popularity continued through the mid-twentieth century. but diminished in the 1950s when air travel allowed vacationers more options (ACFPL 2021). Atlantic City was heavily damaged by the Ash Wednesday Storm of 1962, which flooded and destroyed beachfront properties and roads and caused major coastline loss (NPS 2019). Another wave of large-scale development followed the city's gambling legalization in 1976 (ACFPL 2021).

Ventnor City, Atlantic County

Ventnor City is located immediately south of Atlantic City on Absecon Island. The name Ventnor City was chosen in 1889 in honor of Ventnor, England. The arrival of railroad service catalyzed development in the late nineteenth and early twentieth centuries. The city incorporated in 1903, and between 1910 and 1917, the number of buildings in Ventnor City increased from approximately 100 to nearly 1,300. New York-based architects John M. Carrère and Thomas Hastings created a downtown plan for Ventnor City ca. 1907–1908 using City Beautiful planning principles. Architect Frank Seeburger designed homes in what is now the John Stafford NRHP-listed historic district (Thomas 1986). The city's popularity continued through the first half of the twentieth century given its proximity to Atlantic City. Films advertising Ventnor City were shown in Reading Terminal in Philadelphia, highlighting the city's beaches, boardwalk, public buildings, and homes (Smith 1963). Ventnor City was heavily damaged by the Ash Wednesday Storm of 1962, which flooded and destroyed beachfront properties and roads and caused major coastline loss (NPS 2019). By the mid-1960s, Ventnor City was the second-largest municipality on Absecon Island, a primarily residential resort that catered to seasonal rentals (Smith 1963).

Margate City, Atlantic County

Margate City is located five miles south of Atlantic City on Absecon Island, where the Lenni-Lenape tribe often visited to fish and collect shells they used as currency. Early settlers moved to modern Margate City in the early nineteenth century, and by the mid-nineteenth century, fishing, trade, and salt industries attracted increasing numbers of workers (VisitNJShore.com 2021c). Completion of a rail line from Philadelphia also opened Margate to seasonal residents, and Margate City neighborhoods like Marven Gardens attracted affluent vacationers interested in buying second homes (Ralph 1989). In 1882, James V. Lafferty built Lucy the Elephant, an elephant-shaped hotel and restaurant, to attract land buyers and commercial development. The city incorporated as South Atlantic City in 1897, and changed its name to Margate City in 1909. Development continued in the late nineteenth and early twentieth centuries following the arrival of railroad service (VisitNJShore.com 2021c). The Ash Wednesday Storm of 1962 heavily damaged Margate City, including washing away what remained of the city's boardwalk that had initially been washed out in the Great Atlantic Hurricane of 1944 (Galloway 2019).

Longport, Atlantic County

Longport is located on Absecon Island, where the Lenni-Lenape tribe often visited to fish and collect shells they used as currency. The borough is named for James Long, who owned the area including modern Longport from 1857 to 1882. Long sold the parcel to M. Simpson McCollough, who planned to develop a resort community. Development in the late nineteenth and early twentieth centuries was largely commercial, while development in the mid-twentieth century was primarily residential. Longport was heavily damaged by the Ash Wednesday Storm of 1962 (NPS 2019). Two early twentieth-century buildings—the Longport Cabin Inn and the Gospel Hall Home for the Aged—were demolished in the early twenty-first century in favor of residential development. Several historic buildings have been remodeled and repurposed, however, including the Betty Bacharach Home for Afflicted Children, which has served as Borough Hall since 1987 (Borough of Longport 2021).

MITIGATION MEASURES

This section details the proposed mitigation measures to resolve adverse effects to historic properties stipulated in the MOA, and describes the purpose and intended outcome, scope of work, methodology, standards, deliverables and funds and accounting for each measure. The content of this section was developed on behalf of OW1 by individuals who meet Secretary of the Interior (SOI) Qualifications Standards for History, Architectural History and/or Architecture (62 FR 33708) and is consistent with fulfilling the mitigation measures such that they fully address the nature, scope, size, and magnitude of the visual adverse effect. Fulfillment of the mitigation measures will be led by individuals who meet SOI Qualifications Standards for History, Architectural History and/or Architecture. This document identifies which mitigation measures are likely to trigger need for compliance with the identified state/local level legislation.

Historic Context Mitigation Measures

Purpose and Intended Outcome

Based on input from Participating Parties during consultation, historic contexts consistent with agreed upon themes will be developed to disseminate significance of specific property types to Jersey Shore history. Consistent with MOA stipulations III.B.1.i.a-c, historic context themes will include:

- Historic Context addressing early 20th century New Jersey Shore Hotels
- Historic Context addressing Mid-century High-rise residential buildings at the New Jersey shore
- Historic Context addressing Boardwalks of the New Jersey Shore, and Survey and Evaluation of Atlantic City Boardwalk, Ocean City Boardwalk, and Wildwood Boardwalk.

Historic context content would draw largely on additional research to expand on existing documentation. Each context will also provide registration requirements to assist in future NRHP eligibility evaluations. Survey and evaluation will only be conducted for Atlantic City Boardwalk, Ocean City Boardwalk, and Wildwood Boardwalk.

Scope of Work

The scope of work for each historic context will consist of the following:

- Historic Context addressing New Jersey Shore early 20th century Hotels (MOA Stipulation III.B.1.i.a)
    - Compile research for historic context;
    - Deliver Draft historic context for review by OW1, BOEM, and Participating Parties; and
    - Deliver Final historic context NJHPO.
- Historic Context addressing Mid-century High-rise residential buildings at the New Jersey shore (MOA Stipulation III.B.1.i.b)
    - Compile research for historic context;
    - Deliver Draft historic context for review by OW1, BOEM, and Participating Parties; and
    - Deliver Final historic context NJHPO.
- Historic Context addressing Boardwalks of the New Jersey Shore, and Survey and Evaluation of Atlantic City Boardwalk, Ocean City Boardwalk, and Wildwood Boardwalk (MOA Stipulation III.B.1.i.c)
    - Compile research for historic context;

- Deliver Draft historic context for review by OW1, BOEM, and Participating Parties; and
- Deliver Final historic context to NJHPO.
- Conduct field survey of Atlantic City Boardwalk, Ocean City Boardwalk, and Wildwood Boardwalk.
- Deliver draft Survey and Evaluation Report for review by OW1, BOEM, and Participating Parties, and
- Deliver Final Survey and Evaluation Report to NJHPO.

Methodology

OW1 will release an RFP for consultant services and select a consultant to perform the Scope of Work listed for Historic Context Mitigation Measures, for each context, or as part of a larger consultancy RFP for additional or all mitigation measures listed herein. The chosen consultant should have staff that meet SOI Professional Qualifications for Architecture, Architectural History, or History. A draft of the documents will be provided to the Participating Parties for review and comment. The final documents will be developed incorporating comments from the Participating Parties and will be submitted to NJHPO by OW1 in an NJHPO-approved format.

Standards

The project will comply with following standards and guidelines:

- NPS White Paper: The Components of a Historic Context, Barbara Wyatt (2009);
- NPS Bulletin 15: How to Apply the National Register Criteria for Evaluation (revised 1995);
- New Jersey Historic Preservation Office Guidelines for Architectural Survey; and
- New Jersey Historic Comprehensive Statewide Historic Preservation Plan 2023–2028 (2022).

Deliverables

The following documentation is to be provided for review by the Participating Parties and ultimately, submitted to the NJHPO:

- Historic Context addressing New Jersey Shore Hotels
  - Draft Historic Context
  - Final Historic Context
- Historic Context addressing Mid-century High-rise residential buildings at the New Jersey shore
  - Draft Historic Context
  - Final Historic Context
- Historic Context addressing Boardwalks of the New Jersey Shore, and Survey and Evaluation of Atlantic City Boardwalk, Ocean City Boardwalk, and Wildwood Boardwalk.
  - Draft Historic Context
  - Final Historic Context
  - Draft Survey and Evaluation Report
  - Final Survey and Evaluation Report

Schedule

The following is a preliminary schedule for execution of historic contexts based on the current BOEM timeline for completing the OW1 NEPA and NHPA Section 106 reviews. A more detailed schedule will be requested in the solicitation/request for proposal used to identify and select a consultant to perform the scope of work described in the HPTP. Once the consultant is identified and under contract, the consultant, OW1, and the Participating Parties will develop and agree upon a final delivery schedule.

Fall 2023	Solicitation/Request for Proposal for consultant and contracting consultant to perform tasks.
Winter 2023-2024	Preliminary documentation submitted for 30-day review first by OW1 and then by BOEM. Consultant revisions completed.
Spring 2024	Draft deliverables for 30-day review by Participating Parties followed by submission of final deliverables.

Funds and Accounting

OW1 will be responsible for funding and implementation of this mitigation measure.

Funding for Visitor Experience and Public Access

Purpose and Intended Outcome

Based on input from Participating Parties during consultation, funding will be provided to facilitate access and support the visitor experience at historic properties with public visitation applicable to but not limited to Lucy the Margate Elephant, Absecon Lighthouse (Atlantic city), and the Atlantic City Boardwalk (Atlantic City). Examples for use of these funds may include: directional signage, parking, improvements to site circulation (including ADA accessibility), public access, safety and security, and funding for maintenance and improvement to areas heavily used or damaged due to public visitation. When applicable, physical improvements to the properties should adhere to applicable preservation standards, including but not limited to the Secretary of the Interior Standards for the Treatment of Historic Properties. The intent of this funding is to support and improve public access at these historic properties to foster an appreciation of the sites and their contribution to the historic character of the Jersey Shore. This funding should ensure that improvements are made with careful consideration of the historic character of the property and sympathetic to the existing physical structure.

Scope of Work

The scope of work for each historic property, as appropriate, will consist of the following:

- Determine priority projects in collaboration with Participating Parties and property owners.
- Develop plans appropriate to the identified project, and submit plans for review by OW1, BOEM, and Participating Parties.;
- Identify qualified contractors to execute plans.

- Complete planned work and acquire final approval from OW1, BOEM, and Participating Parties, or a designated representative for the three entities.

Methodology

OW1 will provide funds to the property owner for an approved Scope of Work. In consultation with OW1, the property owner will solicit bids for consultant services and select a consultant to perform the approved Scopes of Work. The chosen consultant should have staff that meet SOI Professional Qualifications for Architecture or Architectural History. Draft project plans developed by the consultant will be provided to OW1, the Participating Parties and the property owner, as appropriate, for review and comment. Work will be monitored as needed, and a final walkthrough and approval of work is required. Work must be approved by OW1, Participating Parties, and the property owner, or a designee of all three.

Standards

The project will comply with following standards:

- Local preservation standards as applicable.
- The Secretary of the Interior Standards for Rehabilitation (for applicable projects).

Deliverables

The following documentation is to be provided for review by the Participating Parties:

- Project plans.
- Photos of completed work.

Schedule

The following is a preliminary schedule for execution of visitor experience and public access improvements based on the current BOEM timeline for completing the OW1 NEPA and NHPA Section 106 reviews. A more detailed schedule will be requested in the solicitation/request for proposal used to identify and select a consultant to perform the scope of work described in the HPTP. Once the consultant is identified and under contract, the consultant, OW1, and the Participating Parties will develop and agree upon a final delivery schedule.

Fall 2023	Determination of priority projects at each historic property.
Winter 2023-2024	Solicitation/Request for Proposal for consultant and contracting to perform tasks.
Spring 2024	Execution of projects followed by submission of complete project photos and approval of work. .

Funds and Accounting

OW1 will be responsible for funding and implementation of this mitigation measure.

IMPLEMENTATION

Timeline

Within one year of the MOA being executed, these mitigation measures must be initiated. Tasks associated with the Historic Context Mitigation Measures can occur during and/or after construction. Mitigation measures within this HPTP are to be completed within four years of its initiation, unless a different timeline is agreed upon by Participating Parties and accepted by BOEM and may be completed simultaneously, as applicable.

Reporting

Following the execution of the MOA until it expires or is terminated, OW1 shall prepare and, following BOEM review and approval, provide all signatories, invited signatories, and consulting parties to the MOA a summary report detailing work undertaken pursuant to the MOA consistent with MOA Stipulation XV (Monitoring and Reporting), including the mitigation measures outlined in the final HPTP. This report will be prepared, reviewed, and distributed by January 31, and summarize the work undertaken during the previous year.

Organizational Responsibilities

BOEM

- Make all federal decisions and determine compliance with Section 106;
- Ensure that mitigation measures adequately resolve adverse effects, consistent with the NHPA, and in consultation with the Participating Parties;
- Consult with OW1, NJHPO, ACHP, and other consulting parties with demonstrated interest in the affected historic properties; and
- Review and approve the annual summary report prepared and distributed to the consulting parties by OW1.

Ocean Wind LLC

- Fund and implement the mitigation measures Stipulated in III.B of the MOA and described in the Mitigation Measures section of this HPTP;
- Prepare Annual Reporting, submit reporting to BOEM for review and approval, and distribute to Consulting Parties per the Mitigation Measures section of this HPTP;
- Submit information for Participating Party review per the Mitigation Measures section of this HPTP;
- Creation and distribution of RFPs to solicit consultant support for mitigation measure fulfillment;
- Proposal review and selection of a consultant who meets the qualifications specified in the SOI Qualifications Standards for History, Architectural History and/or Architecture (62 FR 33708);
- Initial review of Documentation for compliance with the Scope of Work, Methodology and Standards;

- Distribution of Documentation to Participating Parties for their review; and
- Review and comment on deliverables.

New Jersey SHPO

- Consult, when necessary, on implementation of this HPTP.

Advisory Council on Historic Preservation

- Consult, when necessary, on implementation of this HPTP.

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New Jersey Register of Historic Places Act of 1970 (N.J.S.A. 13:1B-15.128 et seq.):
https://www.state.nj.us/dep/hpo/2protection/njsa13.htm

Public documents related to Ocean Wind1

https://www.boem.gov/ocean-wind
https://www.boem.gov/ocean-wind-1-construction-and-operations-plan
[Ocean Wind1 FEIS]
[Ocean Wind1 ROD]

General Information on Section 106

https://www.achp.gov/protecting-historic-properties/section-106-process/introduction-section-106

https://www.achp.gov/digital-library-section-106-landing/section-106-consultation-involving-national-historic-landmarks

ATTACHMENT 5 – TERRESTRIAL ARCHAEOLOGICAL MONITORING PLAN

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Monitoring Plan

Monitoring Plan for the Treatment of Cultural Resources Encountered During Construction of Onshore Facilities associated with the Ocean Wind Offshore Wind Farm (Lease Area OCS-A 0498)

Cape May and Ocean Counties, New Jersey

1 Introduction

Ocean Wind LLC (Ocean Wind) has proposed construction of the Ocean Wind 1 Offshore Wind Project (Project), consisting of the Wind Farm located in federal water on the Atlantic Outer Continental Shelf (OCS) within the Bureau of Ocean Energy Management (BOEM) Renewable Energy Lease Area OCS-A 0498 (Lease Area) as well as the export cable routes from offshore to onshore, nearshore and onshore horizontal directional drilling (HDD) locations and open-trench cuts, and substation interconnections (Figure 1).

This plan describes the protocols to be followed in the event that cultural resources and/or human remains are inadvertently exposed during onshore construction activities performed in the Area of Potential Effects (APE) and as documented in the Terrestrial Archaeological Resources Assessment (TARA) and nearshore/onshore portions documented in the Marine Archaeological Resources Assessment (MARA).

1.1 Regulatory Framework

The Outer Continental Shelf Lands Act, 1953 (as amended) (43 U.S.C 1337), grants the lead enforcement of laws and regulations governing offshore leasing on Federal offshore lands to BOEM (CFR Title 30, Chapter V, Subpart B-Offshore). The issuance of Lease Area OCS-A 0498 to Ocean Wind under the "Commercial Lease of Submerged Lands for Renewable Energy Development of the Outer Continental Shelf, Number OCS-A 0498") constitutes a federal undertaking subject to Section 106 of the National Historic Preservation Act (NHPA) (54 U.S.C. § 300101 et seq.). The Section 106 implementing regulations (36 CFR Part 800) define an undertaking as a:

> project, activity, or program funded in whole or in part under the direct or indirect jurisdiction of a federal agency, including those carried out by or on behalf of a federal agency; those carried out with federal financial assistance; and those requiring a federal permit, license or approval (36 CFR 800.16[y]).

The Section 106 process "requires Federal agencies to take into account the effects of their undertakings on historic properties and afford the Advisory Council on Historic Preservation (ACHP) a reasonable opportunity to comment on such undertakings" (36 CFR 800.1[a]). In December 2020, BOEM made the decision to substitute the National Environmental Policy Act (NEPA) review process to comply with Section 106 procedures, under 36 CFR 800.8(c). Procedures and documents required for the preparation of the Project's environmental impact statement (EIS) and record of decision (ROD) replaced the standard Section 106 review process.

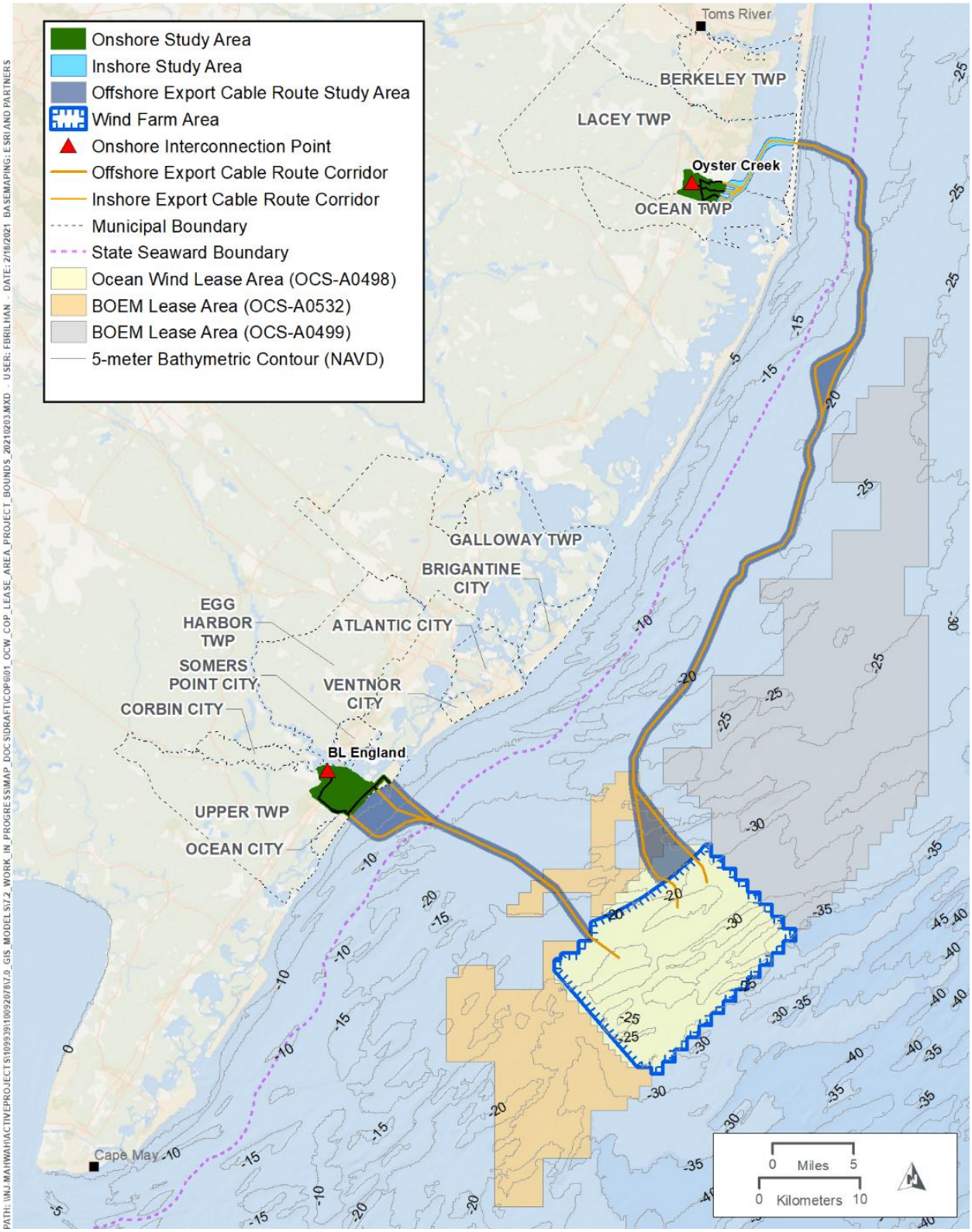

Figure 1. General Location of the Project.

1.2 Purpose

Between 2018 and 2022, Ocean Wind conducted Phase I archaeological investigations of the onshore portions of the Project, including the export cable routes from offshore to onshore, nearshore and onshore HDD locations and open-trench cuts, and substation interconnections. These surveys were completed in accordance with NJ HPO's *Guidelines for Phase I Archaeological Investigations: Identification of Archaeological Resources*, and its *Guidelines for Preparing Cultural Resources Management Archaeological Reports Submitted to the Historic Preservation Office*. The surveys identified six archaeological sites; two are expansions of previously reported sites, three are newly reported, and one is a previously reported site adjacent to the APE. Avoidance, protective measures, and monitoring were recommended during construction for this Project.

The purpose of this monitoring plan is to prevent or address unintended adverse effects to historic properties that may occur during the construction of the Project. This plan was prepared in accordance with the TARA recommendations found in Section 8.5.3 and conveyed within subsequent Section 106 consultation meetings.

Prior to beginning any construction activities related to the onshore cable routes at both Oyster Creek and BL England, Ocean Wind will share this construction monitoring plan that addresses the following:

- Training procedures to familiarize construction personnel with the identification and appropriate treatment of historic properties;
- Monitoring of construction activities by a qualified archaeologist meeting, at a minimum, the *Secretary of the Interior's (SOI) Professional Qualifications Standards for Archaeologists* (48 Federal Register 44738-44739);
- Provisions for monitoring and coordination with Tribal Monitors;
- Provisions for temporary avoidance measures;
- Process for determining the relevance of monitoring a construction activity;
- Reporting including regular updates to the Section 106 consulting parties (e.g. BOEM, New Jersey Historic Preservation Office [NJ HPO] serving as the State Historic Preservation Office [SHPO]), and Tribal representatives and/or Tribal Historic Preservation Officers (THPOs) during construction and the completion of a monitoring report following the completion of construction activities;

The ensuing archaeological monitoring will be conducted in compliance with the above referenced provisions.

1.3 Definition of Ground-Disturbing Activities Requiring Archaeological Monitoring

Archaeological monitoring is generally defined as the observation of ground-disturbing construction activities by a qualified archaeologist in order to identify, document, protect, and/or recover information on the cultural resources to avoid adverse effects.

Ground disturbance is defined as activities that compacts or disturbs the ground. Ground-disturbing activities that will require monitoring for this Project include mechanical tree removal and grubbing, scraping, grading, excavating, drilling, trenching, augering and coring.

2 Project Personnel Roles

Qualified Archaeologist (or archaeologist) – A professional archaeologist meeting, at a minimum, the *Secretary of the Interior's (SOI) Professional Qualifications Standards for Archaeologists* (48 Federal Register 44738-44739);

Cultural Resource Compliance Manager – Ocean Wind's defined point-of-contact for construction activities;

Cultural Resources Manager – Archaeological monitor manager, meeting, at a minimum, the *Secretary of the Interior's (SOI) Professional Qualifications Standards for Archaeologists* (48 Federal Register 44738-44739). This person may not be in the field but will manage archaeological monitoring aspects; and

Construction Contractor – Construction team manager or supervisor. There may be more than one Construction Contractor, dependent on the construction activity.

Archaeological Monitor(s) – field archaeologist with education and training in archaeology, supervised by SOI qualified archaeologist.

Tribal Monitor(s) – a Native American with affiliation with affected Tribes and specialized training in cultural resources and monitoring.

3 Training Procedures

A qualified archaeologist will provide on-site archaeological orientation and training in advance of the start of construction to applicable construction workers, including managers and supervisors, Archaeological Monitors and Tribal Monitors. Training will be provided as-needed for new workers as construction continues. The training, which will last no longer than 30 minutes, will outline the steps to be taken in the event of an unanticipated discovery. During the training the qualified archaeologist will:

- Give information and examples of the types of cultural resources that may be encountered in the area, including how to identify stone tools, bone, ceramics, glass, and various wood and metal objects;
- Outline the laws that protect cultural resources;
- Outline applicable penalties for damaging sites; and
- Provide contact information for the qualified archaeologist, the Archaeological Principal Investigator (PI), and any backup.

Individuals attending a training session will sign a sheet indicating the date and time of their attendance, which will be maintained by the qualified archaeologist.

Archaeological monitors and Tribal Monitors must participate in safety training prior to entering construction areas. That training will be provided at regular intervals before and during construction and updated in daily safety meetings. The Construction Contractor will provide a list of personal protective equipment that will be required for archaeological monitors.

4 Monitoring Procedures

The following procedures will be adhered to during archaeological monitoring of the ground-disturbing activities taking place during construction.

Work under the terms of the monitoring plan is to be carried out under the direct supervision of a qualified archaeologist meeting, at a minimum, the *Secretary of the Interior's Professional Qualifications Standards for Archaeologists* (48 Federal Register 44738-44739).

4.1 Coordination with Tribal Monitors

Tribal representatives and/or Tribal Historic Preservation Offices (THPOs) will be notified of construction activities minimally two-weeks in advance to participate in monitoring activities, if desired. Once monitoring has begun, the qualified archaeologist will notify Tribal representatives and/or THPOs who have expressed an intent to have a monitor present each day prior of the starting location for the next day.

4.2 Locations Requiring Monitoring

Six archaeological sites and nine archaeologically sensitive areas were identified during the TARA, completed between 2018 and 2022 (Tables 1 through 3). Additional areas of monitoring may be identified during construction, and is at the discretion of the Cultural and Tribal monitors and contacts.

Table 1: List of Archaeological Sites Identified during the Terrestrial Archaeological Resources Assessment.

Site Name	Number	Date	Size	Project Impacts
B.L. England (Locus 1) (Expansion)	28-Cm-032	Precontact: Late Archaic to Transitional, Middle to Late Woodland	2,695 m² (29,012 ft²)	Site previously determined eligible for the National Register. Site to be avoided and protected, area to be monitored.
GEHB Site 1 (Expansion)	28-Cm-064	Precontact and Historic: Woodland, Late 17th to early 20th century	53 m² (173 ft²)	Site to be avoided and protected, area to be monitored.
Cedar Hollow Historic Site	28-Cm-091	Historic: 18th to 19th century	104 m^2 (1125 $ft^{2)}$	Site to be avoided and protected, area to be monitored.
Oyster Creek Paleoindian Spot Find	28-Oc-249	Precontact: Paleoindian	17 m² (55 ft²)	Site considered eligible for the National Register. Site to be avoided and protected, area to be monitored.
Chamberlain Historic Midden	28-Oc-250	Historic: 18th to 20th century	550 m² (1,800 ft²)	Site to be avoided and protected, area to be monitored.
Unnamed Site	28-Oc-055	Possible precontact shell midden (appears to be mislocated in site forms).	Unknown	Adjacent to PAPE, area to be monitored.

Table 2. Summary of Pre-Contact and Historical Archaeological Sensitivity of the Oyster Creek Area of Potential Effects.

Landfall/Route	Pre-Contact Sensitivity	Historical Sensitivity	NJ CRGIS LUCY – Archaeology Grid Designation
Oyster Creek Substation	Moderate	Low	Not Evaluated

Landfall/Route	Pre-Contact Sensitivity	Historical Sensitivity	NJ CRGIS LUCY – Archaeology Grid Designation
Farm Property	Moderate	Moderate	Identified
US Route 9	Low	Moderate	Identified
Bay Parkway	Moderate	Moderate	Identified
Old Main Street	Moderate	High	Identified
Lighthouse Drive	Low	Low	Identified
Nautilus Road	Low	Low	Identified
Holiday Harbor Marina	Low	Moderate	Identified

Table 3. Summary of Pre-Contact and Historical Archaeological Sensitivity of the B.L. England Area of Potential Effects.

Landfall/Route	Precontact Sensitivity	Historic Sensitivity	NJ CRGIS LUCY – Archaeology Grid Designation
B.L. England Substation	High	Low	Eligible
US Route 9 (North Shore Road)	Moderate	High	Identified
Roosevelt Boulevard	Low	Low	Not Evaluated
West Ave – Ocean City	Moderate	Moderate	Not Evaluated and Eligible

The Project proposes to avoid impacts to known sites; however, archaeological monitoring was determined necessary during construction near known archaeological sites, as well as along the proposed cable routes and within roadways deemed to be highly sensitive, based on the sensitivity maps presented in the TARA.

4.3 Temporary Avoidance Measures

This section outlines the proposed avoidance measures to undertake at each of the archaeological sites, where applicable.

4.3.1 Site 28-Cm-032 (B.L. England)- Expanded Boundaries

Site number	28-Cm-032 (B.L. England)
Date	Late Archaic to Transitional and Middle to Late Woodland Periods
Type	Toolmaking/shellfish and mammal processing site; Late Archaic to Transitional and Middle to Late Woodland Periods
Size	2,695 m^2 (29,012 ft^2)
Depth	.5 m (1.5 ft)
Within/Adjacent PAPE	The site, although expanded, is no longer included as part of the PAPE, but is immediately adjacent to the north and west of the PAPE.
Proposed Impacts	Adjacent to the APE. No direct effects.
Protection/Avoidance Measures	Site protection measures and monitoring will occur.

The qualified archaeologist will install snow fencing and signage around the external limits of the site boundary within a 10-foot buffer of the APE and as mapped in the TARA no more than one week prior to construction. The signage will be demarcated with “Restricted Area” printed on corrugated plastic materials. The sign will be double- sided to ensure visibility. The signage will not denote the area as archaeological in nature. The signage and snow fencing will remain in place during construction activities, with the qualified archaeologist removing it within one week of completion of all construction activities within a 1-mile radius for the Project. The Construction Contractor will be responsible for ensuring the fencing remains in place, and should it fall or be removed, the Construction Contractor

will notify the qualified archaeologist within 24-hours. Please note, placement of snow fencing and signage is dependent upon approval from the landowner.

The qualified archaeologist will monitor ground-disturbing construction activities within the immediate vicinity, defined necessary by the qualified archaeologist, of the archaeological site.

4.3.2 Site 28-Cm-064 (GEHB Site 1), Expanded Boundaries

Site number	28-Cm-064 (expansion)
Date	Woodland Period and Late 17th – Early 20th century
Type	Precontact camp, tool production, and food processing site; historic house midden.
Size	53 m^2 (173 ft^2)
Depth	.5 m (1.5 ft)
Within/Adjacent PAPE	Within the defined PAPE, but between edge of pavement and edge of ROW
Proposed Impacts	The cable may be placed in the road near the site area if this alternate is selected. No direct effects.
Protection/Avoidance Measures	Site protection measures and monitoring will occur.

The qualified archaeologist will install snow fencing and signage around the external limits of the site boundary within a 10-foot buffer of the APE and as mapped in the TARA no more than one week prior to construction. The signage will be demarcated with “Restricted Area” printed on corrugated plastic materials. The sign will be double- sided to ensure visibility. The signage will not denote the area as archaeological in nature. The signage and snow fencing will remain in place during construction activities, with the qualified archaeologist removing it within one week of completion of all construction activities within a 1-mile radius for the Project. The Construction Contractor will be responsible for ensuring the fencing remains in place, and should it fall or be removed, the Construction Contractor will notify the qualified archaeologist within 24-hours. Please note, placement of snow fencing and signage is dependent upon approval from the landowner.

The qualified archaeologist will monitor ground-disturbing construction activities within the immediate vicinity, defined necessary by the qualified archaeologist, of the archaeological site.

4.3.3 Site 28-Cm-091 (Cedar Hollow Historic Site), Newly Identified Site

Site number	28-Cm-091
Date	18th – 19th century
Type	House midden
Size	105 m^2 (1125 ft^2)
Depth	0.35-0.55 m (1-1.5 ft)
Within/Adjacent PAPE	Within the defined PAPE, but between edge of pavement and edge of ROW.
Proposed Impacts	The cable may be placed in the road near the site area if this alternate is selected. No direct effects.
Protection/Avoidance Measures	Site protection measures and monitoring will occur.

The qualified archaeologist will install snow fencing and signage around the external limits of the site boundary within a 10-foot buffer of the APE and as mapped in the TARA no more than one week prior to construction. The signage will be demarcated with “Restricted Area” printed on corrugated plastic materials. The sign will be double- sided to ensure visibility. The signage will not denote the area as

archaeological in nature. The signage and snow fencing will remain in place during construction activities, with the qualified archaeologist removing it within one week of completion of all construction activities within a 1-mile radius for the Project. The Construction Contractor will be responsible for ensuring the fencing remains in place, and should it fall or be removed, the Construction Contractor will notify the qualified archaeologist within 24-hours. Please note, placement of snow fencing and signage is dependent upon approval from the landowner.

The qualified archaeologist will monitor ground-disturbing construction activities within the immediate vicinity, defined necessary by the qualified archaeologist, of the archaeological site.

4.3.4 Site 28-Oc-055, Unnamed Site

Site number	28-Oc-055
Date	Possible Pre-Contact
Type	Shell midden
Size	Approximately 40 m^2 (430 ft^2)
Depth	Unknown
Within/Adjacent PAPE	Possibly mapped the defined PAPE. Site was not relocated during survey
Proposed Impacts	The cable may be placed in the road and near the site area if this alternate is selected. No direct effects.
Protection/Avoidance Measures	Monitoring will occur.

The qualified archaeologist will monitor ground-disturbing construction activities within the immediate vicinity, defined necessary by the qualified archaeologist, of the archaeological site.

4.3.5 Site 28-Oc-249, Oyster Creek Paleoindian Spot Find

Site number	Site 28-Oc-249,
Date	Paleoindian, c. 12,500 B.P.
Type	Spot find
Size	706 m^2 (7,854 ft^2)
Depth	0-40 cm (1.3 ft)
Within/Adjacent PAPE	Within the PAPE, just outside of the proposed limits of disturbance (LOD), as the cable will be buried in this location via HDD. Entry/exit pit approximately 50 feet east of find.
Proposed Impacts	The site will be avoided. No direct effects.
Protection/Avoidance Measures	Site protection measures and monitoring will occur.

The qualified archaeologist will install snow fencing and signage around the external limits of the site boundary as mapped in the TARA no more than one week prior to construction. The signage will be demarcated with “Restricted Area” printed on corrugated plastic materials. The sign will be double-sided to ensure visibility. The signage will not denote the area as archaeological in nature. The signage and snow fencing will remain in place during construction activities, with the qualified archaeologist removing it within one week of completion of all construction activities within a 1-mile radius for the Project. The Construction Contractor will be responsible for ensuring the fencing remains in place, and should it fall or be removed, the Construction Contractor will notify the qualified archaeologist within 24-hours.

The qualified archaeologist will monitor ground-disturbing construction activities within the immediate vicinity, defined necessary by the qualified archaeologist, of the archaeological site.

4.3.6 Site 28-Oc-250, Chamberlain Historic Midden Site

Site number	Site 28-Oc-250,
Date	Historic, c. late 18th-20th centuries
Type	House midden
Size	550 m² (1,800 ft²)
Depth	15-40 cm (0.5-1.3 ft)
Within/Adjacent PAPE	Within the defined PAPE, but between edge of pavement and edge of ROW.
Proposed Impacts	The cable may be placed in the road if this alternate is selected.
Protection/Avoidance Measures	Site protection measures and monitoring will occur.

The qualified archaeologist will install snow fencing and signage around the external limits of the site boundary within a 10-foot buffer of the APE and as mapped in the TARA no more than one week prior to construction. The signage will be demarcated with “Restricted Area” printed on corrugated plastic materials. The sign will be double- sided to ensure visibility. The signage will not denote the area as archaeological in nature. The signage and snow fencing will remain in place during construction activities, with the qualified archaeologist removing it within one week of completion of all construction activities within a 1-mile radius for the Project. The Construction Contractor will be responsible for ensuring the fencing remains in place, and should it fall or be removed, the Construction Contractor will notify the qualified archaeologist within 24-hours.

The qualified archaeologist will monitor ground-disturbing construction activities within the immediate vicinity, defined necessary by the qualified archaeologist, of the archaeological site.

4.3.7 Archaeological Monitoring Along the Export Cable Routes, Including Open Cut Trench Landings and HDD Locations

The qualified archaeologist will monitor ground-disturbing construction activities within archaeologically sensitive areas along the export cable routes. This includes all areas of the export cable routes except areas along Lighthouse Drive, Nautilus Road, and Roosevelt Boulevard.

4.4 Process for Determining if Monitoring a Construction Activity is Necessary

Ground-disturbing construction activities should assume to be monitored; however, consultation with the qualified archaeologist should occur should there be a question whether monitoring is necessary. Questions regarding whether monitoring is necessary must go through the request for information process before proceeding.

4.5 Responsibilities During Construction

The qualified archaeologist will be responsible for confirming that the proper steps are followed to assess and protect cultural resources. The qualified archaeologist has the authority and responsibility to stop work if any previously unidentified cultural resources are encountered. The Cultural Resource Manager will be responsible for coordinating for coordinating logistics for Archaeological Monitors and Tribal Monitors.

The qualified archaeologist will be present where monitoring is required and will be responsible for the recordation of unanticipated discoveries. The qualified archaeologist will be equipped with:

- A digital camera;
- Global Positioning System (GPS) unit capable of submeter accuracy;
- Monitor's daily logs;
- Relevant Project contact information;
- Safety evacuation information.

Other equipment will be determined by the Project design and needs.

To minimize the hazards associated with the archaeological monitoring of construction, there will be close coordination between the archaeological monitors and construction personnel. The qualified archaeologist will be responsible for the following tasks:

- Be present during mechanical tree removal, scraping, grading, excavating, trenching, and other ground-disturbing activities in all required monitoring areas in the Project APE.
- Inspect the newly exposed surface as sediment is moved by heavy equipment.
- Identify cultural materials and ascertain whether the material is archaeological.
- Determine the significance of unanticipated discoveries.
- Consult and coordinate with the BOEM, NJ HPO, and Tribal representatives and/or THPOs in order to mitigate unanticipated discoveries.
- Coordinate with relevant construction personnel when unanticipated discoveries are made.

If cultural remains, or possible human remains are noted, construction activities will be halted within the immediate vicinity of the discovery, in an area defined sufficient by the qualified archaeologist. Construction may proceed in other areas of the Project APE.

Archaeological monitoring will not be required once all surface and subsurface ground-disturbing activity in a construction area is completed. Equipment or vehicles traveling over previously disturbed surfaces will not require monitoring. Routine travel on existing or disturbed areas will not be monitored for cultural resources.

Blading, scraping, grading, trenching, or excavating at a depth beyond the previously disturbed area will be monitored for cultural resources, even within previously graded or bladed areas, where the potential exists for impacting intact subsurface deposits.

4.6 Responsibilities for Reporting

Qualified archaeologists will maintain monitoring records, photographs, and digital data, and will maintain daily logs of Project-related monitoring activities comprising the following:

- Date, time of work, and amount of time spent at a construction monitoring location;
- Area of work;
- Type of work, equipment present, and name of construction crew being monitored;

- Documentation of successful resource avoidance, including a map showing locations of excavations, surface structures, topography, and identified archaeological deposits within the APE;
- Activities for which there are circumstances that limit or prevent visual examination of Project excavations (including delimiting those areas on a Project area map), cultural resource problems, non-compliances, or other concerns;
- Identification of an unanticipated discovery, steps taken to protect the discovery, and documentation of notifications (name, agency, time, and notes); and
- Color digital photographs taken (as appropriate) to document construction and monitoring activities and submitted as attachments to the daily log.

Qualified archaeologists will prepare and provide their monitoring logs daily to the Cultural Resources Manager, who will prepare and provide bi-weekly summary reports on the progress or status of cultural resources-related activities during active construction.

- The bi-weekly reports will summarize construction progress, monitoring (including monitor name, dates worked, finds, issues, etc.), and status of cultural resources-related issues.
- Bi-weekly reports will include photographs of the activities as well as a look-ahead schedule of upcoming activities.
- These reports will also include the appropriate state archaeological isolate or site forms for finds identified under the monitoring program.
- Site forms for any newly discovered properties will include recommendations for National Register of Historic Places (NRHP) eligibility and Project effect.

The Cultural Resources Manager will submit bi-weekly reports to Ocean Wind, BOEM, NJ HPO, and Tribal representatives and/or THPOs via email. BOEM will be notified of all unanticipated finds within 24-hours of discovery via email.

4.7 Detailed Procedures

This section includes detailed information regarding the construction and post-construction tasks to be performed by the qualified archaeologist and other parties, as well as the procedure for documenting and reporting unanticipated discoveries made during construction.

4.7.1 Construction Tasks

While construction activities are ongoing, the qualified archaeologist will observe ground-disturbing activities. If an unanticipated discovery is made and that find is determined significant by the qualified archaeologist, construction work within the site boundary will halt temporarily.

In the event of an unanticipated discovery, the Terrestrial Archaeology Post-Review Discovery Plan will be followed. If the discovery is recommended eligible for the NRHP, the qualified archaeologist will consult with the appropriate agency archaeologist. No construction work will occur at the discovery location until agency concurrence is made and the relevant data recovery is completed.

4.7.2 Post-Construction Tasks

Once the qualified archaeologist has reviewed the condition of the site and documented damage (if any), site-defining, snow fencing and signage will be removed.

5 Artifact Collection and Curation

If artifacts are collected, they will be prepared for curation at the state designated curatorial facility, or as otherwise directed by the NJ HPO and in consultation with BOEM and the Tribal representatives and/or THPOs.

6 Reporting

6.1 Daily Monitoring Logs

All qualified archaeologists will keep daily logs. These logs will capture the Project name and number, which GPS system unit was used, the camera used and associated photograph numbers, the monitor's and any visiting personnel's names, the company whose work is being monitored, the location of the area(s) monitored, the actions monitored (excavation, drilling, etc.), the number of sites (if any) that were monitored and their Smithsonian trinomial, any sites or cultural material discovered while monitoring that day, any safety incidents, and a narrative for the daily activities. In-field recordation will be made digitally for reporting purposes.

6.2 Bi-Weekly Progress Reports

The Cultural Resources Manager will complete a bi-weekly progress report, sent via email, BOEM, NJ HPO, and Tribal representatives and/or THPOs. This progress report will summarize the past two weeks' daily logs and will give a brief outlook for the following two weeks' archaeological monitoring activities. Unexpected discoveries should be noted in the progress report but should not be the primary form of communication for an unexpected discovery (see the Terrestrial Archaeology Post Review Discovery Plan for additional notification procedures).

6.3 Technical Reports

When construction activities have ceased and there is no longer a need for archaeological monitoring, a technical report will be prepared. This report will synthesize all monitoring activities, including photographs of sites before, during, and after construction. For any unanticipated discoveries, the report will cover the treatment activity completed (including excavation summaries if applicable) and any necessary site updates or new site forms created due to ground-disturbing activities.

Technical reports will abide by relevant agency guidelines, and a draft will be submitted within 30 days of archaeological monitoring completion.

7 Federal, State, Tribal, and Project Contacts

7.1 Federal Contacts

Bureau of Ocean Energy Management
Sarah Stokely
Lead Historian and Section 106 Team Lead
Bureau of Ocean Energy Management
Office of Renewable Energy Programs
45600 Woodland Road, VAM-OREP
Sterling, Virginia 20166
571-460-9954
Sarah.Stokely@boem.gov

7.2 New Jersey State Historic Preservation Office

Katherine J. Marcopul
Deputy State Historic Preservation Officer
501 East State Street
P.O. Box 420, Mail Code 501-04B
Trenton, New Jersey 08609
609-940-4312

7.3 New Jersey State Police and County Medical Examiner Offices

New Jersey State Police
Office of Forensic Sciences
Forensic Anthropology Unit
NJ Forensic Technology Center
1200 Negron Drive - Horizon Center
Hamilton, New Jersey 08691
Phone: (609) 584-5054 x5656

Cape May County Medical Examiner Office
Dr. Eric Duval and Dr. Charles Siebert Jr.
County Medical Examiner
1175 DeHirsch Avenue
Woodbine, New Jersey 08270
Phone: (609) 861-3355

Ocean County Medical Examiner Office
County Medical Examiner
P.O. Box 2191, Sunset Avenue
Toms River, New Jersey 08754-2191
Phone: (732) 341-3424

7.4 Tribal Contacts

Absentee-Shawnee Tribe of Indians of Oklahoma
Mr. Devon Frazier
Tribal Historic Preservation Officer
2025 South Gordon Cooper Drive
Shawnee, Oklahoma 74801
405.275.4030 x6243
dfrazier@astribe.com

The Delaware Nation
Ms. Carissa Speck
Historic Preservation Director
P.O. Box 825
Anadarko, Oklahoma 73005
Phone: (405).247-2448 Ext. 1403
cspeck@delawarenation-nsn.gov

Delaware Tribe of Indians
Ms. Susan Bachor
Historic Preservation Representative
Delaware Tribe Historic Preservation Office
126 University Circle
Stroud Hall, Rm. 437
East Stroudsburg Pennsylvania 18301
610.761.7452
sbachor@delawaretribe.org

Eastern Shawnee Tribe of Oklahoma
Mr. Brett Barnes
Cultural Preservation Director
70500 East 128 Road,
Wyandotte, Oklahoma 74370
Phone: (918) 238-5151

Lenape Tribe of Delaware
4164 N. Dupont Hwy., Suite 6
Dover, Delaware 19901-1573
302-730-4601

Nanticoke Indian Association, Inc.
Natasha Carmine
27073 John J Williams Highway
Millsboro, Delaware 19966
info@nanticokeindians.org
302.945.3400

Nanticoke Lenni-Lenape Tribal Nation
Mark Gould
Principal Chief/Chairman
18 E Commerce Street
Bridgeton, New Jersey 08302
tribalcouncil@nlltribe.com
856.455.6910

The Narragansett Indian Tribe
Mr. John Brown
Tribal Historic Preservation Officer
P.O. Box 268
Charlestown, Rhode Island 02813
Phone: (401).364-1100
tashtesook@aol.com

Ramapough Lenape Indian Nation
Steven Burton89
New Jersey Commission on American Indian Affairs, Commission Member, Representing Ramapough Lenape Indian Nation
NJ Commission on Indian Affairs, PO Box 300
Trenton, New Jersey 08625
609.633.9627

Shawnee Tribe
Ms. Tonya Tipton
Tribal Historic Preservation Officer
P.O. Box 189 29 S Hwy 69A
Miami, Oklahoma 74355
Phone: (918).542-4030 x124
tonya@shawnee-tribe.com

The Shinnecock Indian Nation
Ms. Shavonne Smith
Director, Shinnecock Environmental Department
PO Box 5006
Southampton New York 11969
Phone: (631) 283-6143
ShavonneSmith@shinnecock.org
Jeremy Dennis, Junior THPO
P.O. Box 2338
Southampton New York 11968
jeremynative@gmail.com
(631) 566-0486

Stockbridge-Munsee Community Band of Mohican Indians
Mr. Jeffrey Bendremer
Tribal Historic Preservation Officer

Stockbridge-Munsee Mohican Tribal Historic Preservation Extension Office
86 Spring Street
Williamstown, Massachusetts 01267
Phone: (413)884-6029
thpo@mohican-nsn.gov

7.5 Project Contacts

Ocean Wind
Katharine Perry
Ocean Wind 1 Permit Manager
437 Madison Avenue, 19th floor
New York, New York
KAPER@orsted.com
917-524-4633

Ocean Wind
TBD
Cultural Resources Compliance Manager

HDR
Kimberly Smith
Cultural Resources Lead
235 Promenade Street, Suite 104
Providence, Rhode Island 02908
Kimberly.smith@hdrinc.com
717-515-8994

ATTACHMENT 6 – POST-REVIEW DISCOVERY PLAN FOR SUBMERGED CULTURAL RESOURCES FOR THE OCEAN WIND 1 OFFSHORE WIND FARM FOR LEASE OCS A-0498 CONSTRUCTION AND OPERATIONS PLAN

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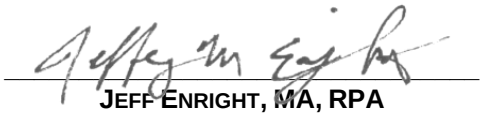
Post-Review Discovery Plan for Submerged Cultural Resources for the Ocean Wind 1 Offshore Wind Farm for Lease Area OCS A-0498 Construction and Operations Plan

Ocean Wind 1 Offshore Wind Farm

AUTHORED BY

JOSEPH GRINNAN, MA, RPA, BENJAMIN C. WELLS, MA, RPA, AND JEFFREY M. ENRIGHT, MA, RPA



JEFF ENRIGHT, MA, RPA
QUALIFIED MARINE ARCHAEOLOGIST

SEARCH

WWW.SEARCHINC.COM

NOVEMBER 2022

1. Introduction

Ocean Wind LLC (Ocean Wind) proposes to construct and operate the Ocean Wind 1 Offshore Wind Farm (Project) within the Bureau of Ocean Energy Management (BOEM) Renewable Energy Lease Area OCS A-0498 (Lease Area). The Project consists of the Ocean Wind 1 Offshore Wind Farm and two unique offshore export cable route (ECR) corridors, which traverse federal and state waters. The BL England ECR Corridor has a proposed landfall near Ocean City, New Jersey, while the two Oyster Creek ECR corridors have a proposed landfall near Lacey Township, New Jersey. Ocean Wind has submitted a Construction and Operations Plan (COP) for the Project to BOEM to support the development, operation, and eventual decommissioning of Project infrastructure, including offshore wind turbines, offshore substations, array cables, substation interconnector cables, and offshore export cables. SEARCH provided technical expertise to Ocean Wind's environmental consultant, HDR Engineering, Inc. (HDR), by providing a Qualified Marine Archaeologist (QMA) in accordance with Lease Agreement Stipulation Addendum C Section 2.1.1.2.

SEARCH developed this Post-Review Discovery Plan (PRDP) to assist Ocean Wind and its contractors to preserve and protect potential cultural resources from adverse impacts caused by Project construction, operation and maintenance, and decommissioning activities. The PRDP sets forth guidelines and procedures to be used in the event potential submerged cultural resource are encountered during bottom disturbing activities and assists Ocean Wind in its compliance with Section 106 of the National Historic Preservation Act (NHPA) (Title 54 U.S.C. § 306108), Native American Graves Protection and Repatriation Act (Title 25 U.S.C. § 3001 et seg.), Lease OCS A-0498 Lease Stipulations, and other relevant state and local laws as applicable. This PRDP is subject to revisions based on consultations with interested parties pursuant to Section 106 of the National Historic Preservation Act or the Act's implementing regulations at 36 CFR Part 800.

2. Roles and Responsibilities

Implementation of the provisions and procedures in the PRDP will require the coordinated efforts of Ocean Wind and their contractors during all construction, operations and maintenance, and decommissioning activities with the potential to impact the seafloor. The following sections identify key participants in the PRDP and outlines their roles and responsibilities.

2.1 Ocean Wind

Implementation of the provisions and procedures outlined in this plan is ultimately the responsibility of Ocean Wind or its designee, who will be responsible for the following:

- Ensuring procedures and policies outlined in the PRDP and PRDP training materials are implemented;
- Identifying a responsible party within Ocean Wind tasked with overseeing implementation of the PRDP during all project and contractor activities;
- Developing cultural resource and PRDP awareness training programs for all project staff and contractors;
- Requiring all project and contractor staff complete cultural resource and PRDP awareness training;
- Coordinating and facilitating communication between the QMA, project staff, and contractors if a potential cultural resource is encountered during project activities; and
- Participating in and/or facilitating consultations with state and federal agencies (BOEM, New Jersey Historic Preservation Office [NJ HPO], etc…), federally recognized Tribes'/Tribal Nations' Tribal Historic Preservation Offices (THPOs), and other consulting parties, as appropriate.

2.2 Qualified Marine Archaeologist

Ocean Wind's QMA to provide cultural resource advisory services during implementation of the PRDP. The QMA will be responsible for the following:

- Assist Ocean Wind with the development and implementation of the procedures outlined in the PRDP;
- Assist Ocean Wind in developing a cultural resource and PRDP awareness training program and informational graphic;
- Review and document potential submerged cultural resources identified by the project and/or contractor staff;
- Assist Ocean Wind with the Section 106 consultation process that may arise as a result of an unanticipated submerged cultural resource; and
- Conduct archaeological investigation of unanticipated submerged cultural resources following coordination with appropriate consulting parties.

3. Training and Orientation

Ocean Wind will develop a training and orientation program for Project and contractor staff on cultural resources and PRDP awareness prior to the start of bottom disturbing activities. The training will be sufficient to allow Project and contractor staff to identify common types of marine cultural resources and implement the PRDP procedures. The training will be delivered as a standalone training and/or combined with the Project's or contractors' general health and safety (H&S) or environment, health, and safety (EHS) induction training. The training program may include, but not be limited to, the following elements:

- A review of applicable state and federal cultural resource laws and regulations;
- Characteristics of common types of submerged cultural resources found on the Atlantic Outer Continental Shelf (e.g. wooden shipwrecks, metal shipwrecks, downed aircraft, post-Contact artifacts, pre-Contact artifacts, bone and faunal remains, etc.);
- How to identify potential submerged cultural resources during bottom disturbing activities; and
- Procedures to follow and parties to notify if potential submerged cultural resources/materials are encountered during project activities.

The QMA will develop draft cultural resources and PRDP awareness training in coordination with Ocean Wind. The training program will be provided to BOEM, and the NJ HPO for review and comment before the training program is finalized. In additional to the training program, the QMA will generate an informational graphic summarizing the PRDP and the materials discussed in the cultural resources and PRDP awareness training program. The informational graphic will include:

- Images of common types of submerged cultural resources and materials;
- A flow chart depicting the PRDP reporting process;
- A notice to all employees of their stop work authority if potential cultural resources are encountered; and
- Contact information for the Ocean Wind staff responsible for overseeing implementation of the PRDP and the QMA.

The informational graphic will be placed in a conspicuous location on each project and contractor vessel where workers can see it and copies will be made available to project and/or contractor staff upon request.

4. Procedures for when Cultural Material are Observed

To support BOEM's efforts to identify historic properties within the Project's Area of Potential Effects (APE), Ocean Wind conducted an extensive marine archaeological resources assessment (MARA) of the APE. The MARA identified 19 potential submerged cultural resources (Targets 01-19) and 16 ancient submerged landform features (ASLFs) (Targets 20-35) within the APE. Ocean Wind anticipates avoidance of Targets 01-12, 14, and 16-19 and the associated recommended avoidance buffers. Ocean Wind anticipates avoidance of Targets 21-26, 28-31, and 33-35 is not possible. Ocean Wind anticipates construction activities may extend into the avoidance buffers for Targets 13 and 15, but would avoid the actual targets. Additionally, as the final design is not known, the degree of adverse effects to Targets 21-26, 28-31, and 33-35 is currently unknown. Ocean Wind is developing a Mitigation Framework to aid in avoiding, minimizing, and/or mitigating adverse effects upon historic properties.

Even with the extensive preconstruction marine archaeological surveys, it is impossible to ensure that all cultural resources have been identified within the APE. Even at sites that have been previously identified and assessed, there is a potential for the discovery of previously unidentified archaeological components, features, or human remains that may require investigation and assessment. Furthermore, identified historic properties may sustain effects that were not originally anticipated. Therefore, a procedure has been developed for the treatment of unanticipated discoveries that may occur during site development.

The implementation of the final PRDP will be overseen by Ocean Wind and a QMA who meets or exceeds the Secretary of the Interior's Professional Qualifications Standards for Archaeology [48 FR 44738-44739] and has experience in conducting HRG surveys and processing and interpreting data for archaeological potential [BOEM 2020]. See Figure 1 for a flow chart of the communications and notification plan for unanticipated discoveries.

If unanticipated submerged cultural resources are discovered, the following steps should be taken:

1. Per Lease Stipulation 4.2.7.1, all bottom-disturbing activities in the immediate area of the discovery shall cease and every effort will be made to avoid or minimize impacts to the potential submerged cultural resource(s).
2. The project or contractor staff will immediately notify Ocean Wind of the discovery.
3. Ocean Wind will notify the QMA and provide them with sufficient information/documentation on the potential find to allow the QMA to evaluate the discovery and determine if the find is a cultural resource. If necessary, the QMA may request to visit the find site or the vessel that recovered the cultural material to inspect the find. If the find is a cultural resource, the QMA will provide a preliminary assessment as to its potential to be a historic property as defined in 36 CFR Part 800.
4. Per Lease Stipulation 4.2.7.1, BOEM shall be notified of the potential submerged cultural resource within 24 hours of the discovery. Ocean Wind shall also notify the State Historic Preservation Officer (SHPO) of New Jersey, the State Archaeologist, and the Tribal Historic Preservation Officers (THPOs) or other designated representatives of the consulting tribal governments.
5. Within 72 hours of being notified of the discovery, Ocean Wind shall issue a report in writing to BOEM providing available information concerning the nature and condition of the potential submerged cultural resource and observed attributes relevant to the resource's potential eligibility for listing in the National Register of Historic Places (NRHP).
6. Ocean Wind shall consult with BOEM, as feasible, to obtain technical advice and guidance for the evaluation of the discovered cultural resource.
7. If the impacted resource is determined by BOEM to be NRHP eligible, a mitigation plan shall be prepared by Ocean Wind for the discovered cultural resource. This plan must be reviewed by BOEM prior to submission to the NJ HPO and representatives from consulting federally recognized

Tribes/Tribal Nations for their review and comment. The NJ HPO and Tribes/Tribal Nations will review the plan and provide comments and recommendations within a one week, with final comments to follow as quickly as possible.

8. Per Lease Stipulation 4.2.6, Ocean Wind may not impact a known archaeological resource in federal waters without prior approval from BOEM. No development activities in the vicinity of the cultural resource will resume until either a mitigation plan is executed or, if BOEM determines a mitigation plan is not warranted, BOEM provides written approval to Ocean Wind to resume bottom disturbing activities. For discoveries in state waters, Ocean Wind will not impact a known archaeological resource with prior approval from BOEM, and the NJ HPO. If suspected human remains are encountered, the below procedures, which comply with the Advisory Council on Historic Preservation's (ACHP) *Policy Statement Regarding Treatment of Burial Sites, Human Remains and Funerary Objects*, should be followed.

1. All work in the near vicinity of the human remains shall cease and reasonable efforts should be made to avoid and protect the remains from additional impact. Encountered potential material shall be protected, which may include keeping the remains submerged in an onboard tank of sea water or other appropriate material.
2. The Onboard Representative shall immediately notify the County Medical Examiner, State Archaeologist, the Forensic Anthropology Unit of the New Jersey State Police, and Ocean Wind as to the findings.
3. Ocean Wind will notify the QMA and provide them with sufficient information/documentation on the potential find to allow the QMA to evaluate the discovery and determine if the find is a cultural resource. If necessary, the QMA may request to visit the vessel to inspect the potential human remains. If the find is a cultural resource, the QMA will provide a preliminary assessment. The QMA will document and inventory the remains and any associated artifacts, and assist in coordinating with federal, state, and local officials.
4. A plan for the avoidance of any further impact to the human remains and/or mitigative excavation, reinternment, or a combination of these treatments will be developed in consultation with the State Archaeologist, the NJ HPOBOEM, and appropriate Indian tribes or closest lineal descendants. All parties will be expected to respond with advice and guidance in an efficient time frame. Once the plan is agreed to by all parties, the plan will be implemented.

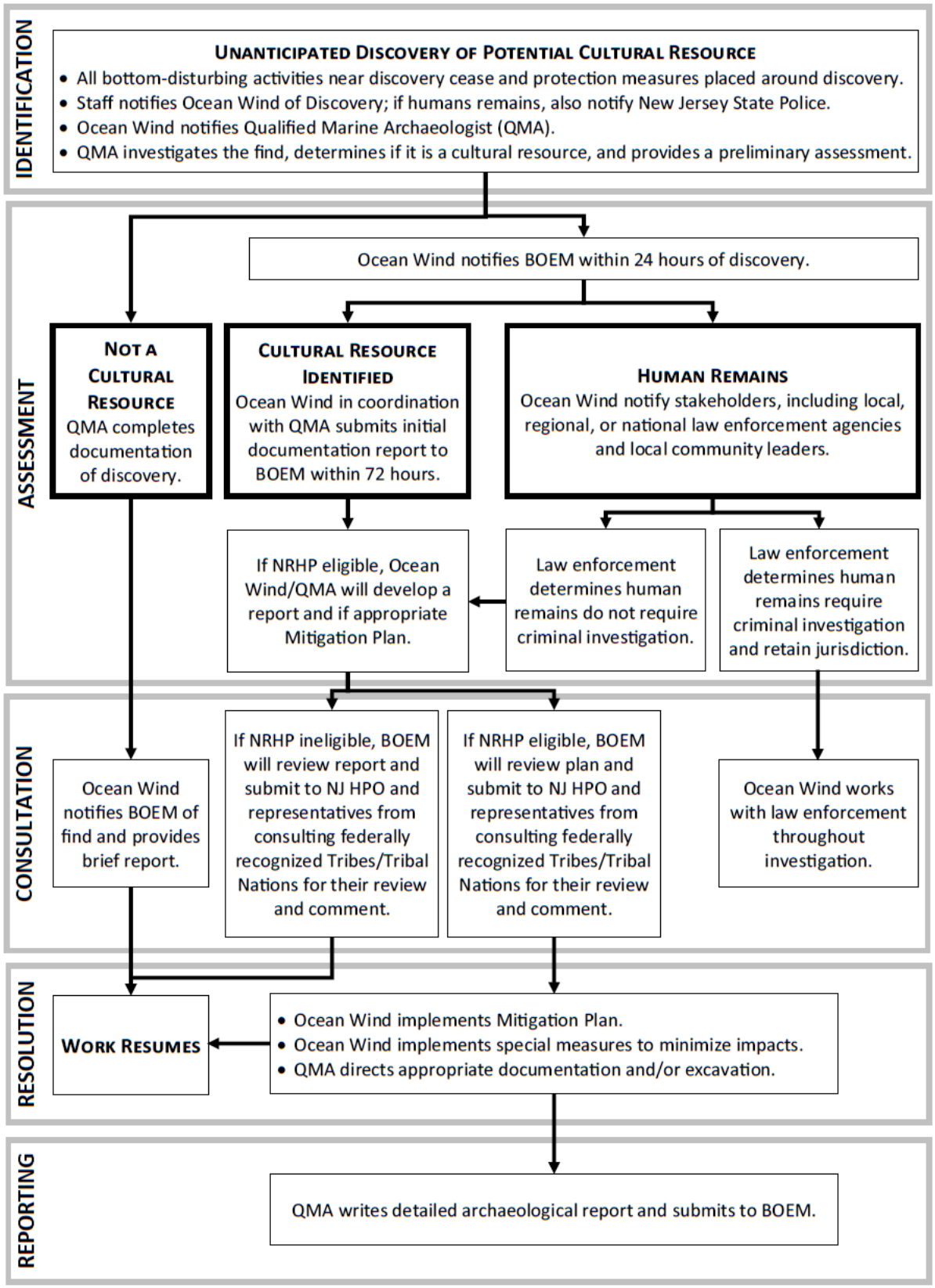


Figure 1. Communications and notification plan for unanticipated discoveries.

5. Archaeological Investigation of a Submerged Unanticipated Discovery

Archaeological investigation of a submerged unanticipated discovery may be necessary in order to evaluate the find, determine its eligibility for listing in the NRHP, and/or assess any construction impacts that may have occurred. The following is a recommended procedure for complying with the PRDP and providing the BOEM, and NJ HPO with the necessary information to make informed decisions to approve continuation of bottom disturbing activities. After each step, consultation among the appropriate parties will occur.

1. Initial assessment of unanticipated discovery via a refined HRG survey and/or ROV investigation (Phase Ia reconnaissance survey).
    a. May result in no further recommended action (i.e., target is not a historic property) or additional investigation.
2. Develop an avoidance zone based upon Step 1.
    a. Minimally, construction activity will remain outside of the avoidance zone for a period of time necessary to allow archaeological investigation, if required.
    b. Determine whether construction activity can remain outside of the avoidance zone permanently.
3. Identify the source, delineate the site boundary, and assess potential impacts that led to the unanticipated discovery (Phase Ib identification).
    a. Accomplished utilizing archaeological/scientific diving and/or ROV investigation.
    b. May result in no further recommended action (i.e., target is not a historic property) or additional investigation.
4. Determine eligibility for listing in the NRHP (Phase II NRHP evaluation).
    a. Accomplished utilizing archaeological/scientific diving.
    b. May require extensive excavation.
    c. May require archival research.
5. Develop a strategy to resolve adverse effects to the historic property that occurred as a result of the unanticipated discovery and to minimize or mitigate potential future adverse effects as construction proceeds.
6. On-site monitoring of bottom disturbing activities at the location.

Not all of these steps may be necessary, and the appropriate course of action will be determined at the time of discovery and in consultation with BOEM, and if applicable, NJ HPO.

6. Notification List

Contacts and a communication plan will be updated and provided during training.

Ocean Wind Katharine Perry Environmental Manager 917-524-4633	Bureau of Ocean Energy Management Sarah Stokely Lead Historian and Section 106 Team Lead Office of Renewable Energy Programs 45600 Woodland Road, VAM-OREP Sterling, Virginia 20166	New Jersey State Historic Preservation Office 501 E. State Street Trenton, NJ 08609 609-984-0176

Ocean Wind Compliance Manager TBD	The Shinnecock Indian Nation Ms. Shavonne Smith Director, Shinnecock Environmental Department PO Box 5006 Southampton NY 11969 Phone: (631) 283-6143 ShavonneSmith@shinnecock.org Jeremy Dennis, Junior THPO P.O. Box 2338 Southampton NY 11968 jeremynative@gmail.com (631) 566-0486	The Narragansett Indian Tribe Mr. John Brown Tribal Historic Preservation Officer P.O. Box 268 Charlestown, RI 02813 Phone: (401).364-1100 tashtesook@aol.com
Eastern Shawnee Tribe of Oklahoma Mr. Brett Barnes Cultural Preservation Director 70500 East 128 Road, Wyandotte, OK 74370 Phone: (918) 238-5151	The Delaware Nation Ms. Carissa Speck Historic Preservation Director P.O. Box 825 Anadarko, OK 73005 Phone: (405).247-2448 Ext. 1403 cspeck@delawarenation-nsn.gov	Lenape Tribe of Delaware 4164 N. Dupont Hwy., Suite 6 Dover, DE 19901-1573 302-730-4601
Delaware Tribe of Indians Ms. Susan Bachor Historic Preservation Representative Delaware Tribe Historic Preservation Office 126 University Circle Stroud Hall, Rm. 437 East Stroudsburg PA 18301 610.761.7452 sbachor@delawaretribe.org	Absentee-Shawnee Tribe of Indians of Oklahoma Mr. Devon Frazier Tribal Historic Preservation Officer 2025 South Gordon Cooper Drive Shawnee, OK 74801 405.275.4030 x6243 dfrazier@astribe.com	Stockbridge-Munsee Community Band of Mohican Indians Mr. Nathan Allison Tribal Historic Preservation Officer Stockbridge-Munsee Mohican Tribal Historic Preservation Extension Office 86 Spring Street Williamstown, MA 01267 Phone: (413).884-6029 nathan.allison@mohican-nsn.gov
Shawnee Tribe Ms. Tonya Tipton Tribal Historic Preservation Officer P.O. Box 189 29 S Hwy 69A Miami, OK 74355 Phone: (918).542-4030 x124 tonya@shawnee-tribe.com	Nanticoke Indian Association, Inc. Natasha Carmine 27073 John J Williams Highway Millsboro, DE 19966 info@nanticokeindians.org 302.945.3400	Nanticoke Lenni-Lenape Tribal Nation Mark Gould Principal Chief/Chariman 18 E Commerce Street Bridgeton, NJ 08302 tribalcouncil@nlltribe.com 856.455.6910

Powhatan Renape Nation Barabara Jefferson New Jersey Commission on American Indian Affairs, Commission Member, Representing Powhatan Renape Tribe NJ Commission on Indian Affairs, PO Box 300 Trenton, NJ 08625 609.633.9627	Ramapough Lenape Indian Nation Steven Burton89 New Jersey Commission on American Indian Affairs, Commission Member, Representing Ramapough Lenape Indian Nation NJ Commission on Indian Affairs, PO Box 300 Trenton, NJ 08625 609.633.9627	Ramapough Mountain Indians Dwaine Perry Chief 189 Stag Hill Road Mahwah, NJ 07430
New Jersey State Police Office of Forensic Sciences Forensic Anthropology Unit NJ Forensic Technology Center 1200 Negron Drive - Horizon Center Hamilton, NJ 08691 Phone: (609) 584-5054 x5656	Cape May County Medical Examiner Office Dr. Eric Duval and Dr. Charles Siebert Jr. County Medical Examiner 1175 DeHirsch Avenue Woodbine, NJ 08270 Phone: (609) 861-3355	Ocean County Medical Examiner Office County Medical Examiner P.O. Box 2191, Sunset Avenue Toms River, NJ 08754-2191 Phone: (732) 341-3424

7. References Cited

Advisory Council on Historic Preservation's (ACHP)

2007 *Policy Statement Regarding Treatment of Burial Sites, Human Remains and Funerary Objects*. https://www.achp.gov/sites/default/files/policies/2018-06/ACHPPolicyStatementRegardingTreatmentofBurialSitesHumanRemainsandFuneraryObjects0207.pdf, Digital article accessed December 9, 2021.

Bureau of Ocean Energy Management (BOEM)

2020 *Guidelines for Providing Archaeological and Historical Property Information Pursuant to 30 CFR Part 585.* United States Department of the Interior, Office of Renewable Energy Programs.

ATTACHMENT 7 – POST-REVIEW DISCOVERY PLAN FOR TERRESTRIAL RESOURCES FOR THE OCEAN WIND 1 OFFSHORE WIND FARM FOR LEASE AREA OCS A-0498 CONSTRUCTION AND OPERATIONS PLAN

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Post-Review Discovery Plan for Terrestrial Resources for the Ocean Wind 1 Offshore Wind Farm for Lease Area OCS A-0498 Construction and Operations Plan

Ocean Wind 1 Offshore Wind Farm

AUTHORED BY

HDR

WWW.HDRINC.COM

NOVEMBER 2022

1. Introduction

Ocean Wind LLC (Ocean Wind), an affiliate of Ocean Wind Power North America LLC (Ocean Wind) is developing the Ocean Wind 1 Offshore Wind Farm Project (Project) pursuant to the Bureau of Ocean Energy Management (BOEM) requirements for the commercial lease of submerged lands for renewable energy development on the outer continental shelf (Lease Area OCS-A 0498).

The purpose of the Project is to develop an offshore wind generation project within the BOEM Lease Area, to deliver competitively priced renewable energy and additional capacity to meet State and regional renewable energy demands and goals.

The Project includes up to 98 wind turbine generators (WTGs), up to three offshore alternating current substations, array cables linking the individual turbines to the offshore substations, substation interconnector cables linking the substations to each other, offshore export cables, an onshore export cable system, two onshore substations, and connections to the existing electrical grid in New Jersey (underground cables or overhead transmission lines would be required to connect each onshore substation to the existing grid). The WTGs and offshore substations, array cables, and substation interconnector cables will be located in Federal waters approximately 13 nautical miles (nm, 15 statute miles) southeast of Atlantic City. The offshore export cables will be buried below the seabed surface within Federal and State waters. The onshore export cables, substations, and grid connections are intended to be located in Ocean, and Cape May Counties, New Jersey. The Project location is depicted in Figure 1-1. The Project will be installed beginning in 2023 and operational in 2024.

Section 106 of the National Historic Preservation Act (Section 106, 54 USC 306108) requires federal agencies to take into account the effects of an undertaking on historic properties listed in or eligible for the National Register of Historic Places (NRHP). As the lead federal agency for this undertaking, BOEM has the responsibility for compliance with the NHPA and other federal statutes, regulations, and guidance relating to the protection of historic properties. Similarly, the State of New Jersey has promulgated regulations and guidance related to the protection of historic properties, including the properties listed in the State Register of Historic Places (SRHP). Ocean Wind is committed to the protection of historic properties in accordance with federal and state statues, regulations, and appropriate guidance.

To support BOEM's efforts to identify historic properties within the Project's Area of Potential Effects (APE), Ocean Wind has undertaken cultural resources studies to identify historic properties that may be affected by construction and operation of the Project. No archaeological properties listed in, eligible for, or recommended as eligible for inclusion in the NRHP or SRHP have been identified within the APE for terrestrial archaeological resources, and a majority of the APE has been previously disturbed by prior anthropogenic activity. Notwithstanding these conditions, Ocean Wind recognizes that it is possible that significant and unanticipated archaeological resources and/or human remains may be discovered during construction of onshore facilities, primarily during excavation. Ocean Wind also recognizes the importance of complying with federal, state, and municipal laws and regulations regarding the treatment of human remains, if any are discovered.

This Terrestrial Post-Review Discovery Plan (PRDP) outlines the protocol/steps for dealing with potential unanticipated discoveries of cultural resources, including human remains, during the construction of the proposed Project.

The Protocol:

1. Presents to regulatory and review agencies the protocol the Lessee and its contractors and consultants will follow to prepare for and potentially respond to unanticipated cultural resource (i.e., terrestrial archaeological) discoveries; and

2. Provides guidance and instruction to Ocean Wind personnel and its contractors and consultants as to the proper procedures to be followed in the event of an unanticipated cultural resource (i.e., terrestrial archaeological) discovery.

The following terms are used throughout the Protocol:

- The Facility: The Facility collectively refers to all components of the onshore portions of the Project.

- Unanticipated Discovery/Unanticipated Cultural Resource Discovery: Any indications of the presence of archaeological materials including historic-period or pre-contact Native American artifacts, stone features, animal bone, and/or human remains. Common historic-period artifacts encountered may include bottles/glass, pottery/ceramics, stone foundations, hand-dug wells, brick, nails, miscellaneous metal fragments, or charcoal or ash-stained soils. Common pre-contact Native American artifacts encountered may include arrowheads/spearheads, stone (chert or "flint") chips or flakes, charcoal or ash-stained soils, rough gray, black, or brown pottery, and other stone tools/artifacts of obvious human origin.

- Potential Human Remains: Any indications of potential human remains, such as bones or bone fragments, that cannot definitely be determined to be non-human.

- Preliminary Area of Potential Effect (PAPE): All areas of potential soil disturbance associated with the construction and operation of the proposed Facility.

- Cultural Resources Compliance Manager (CRCM): The Lessee's designated on-site staff person responsible for monitoring compliance with permitting conditions and commitments during construction.

- Archaeologist: The Lessee's Secretary of the Interior (SOI) qualified cultural resources consultant. Review of any potential unanticipated discoveries will be conducted under the supervision of a Registered Professional Archaeologist (RPA).

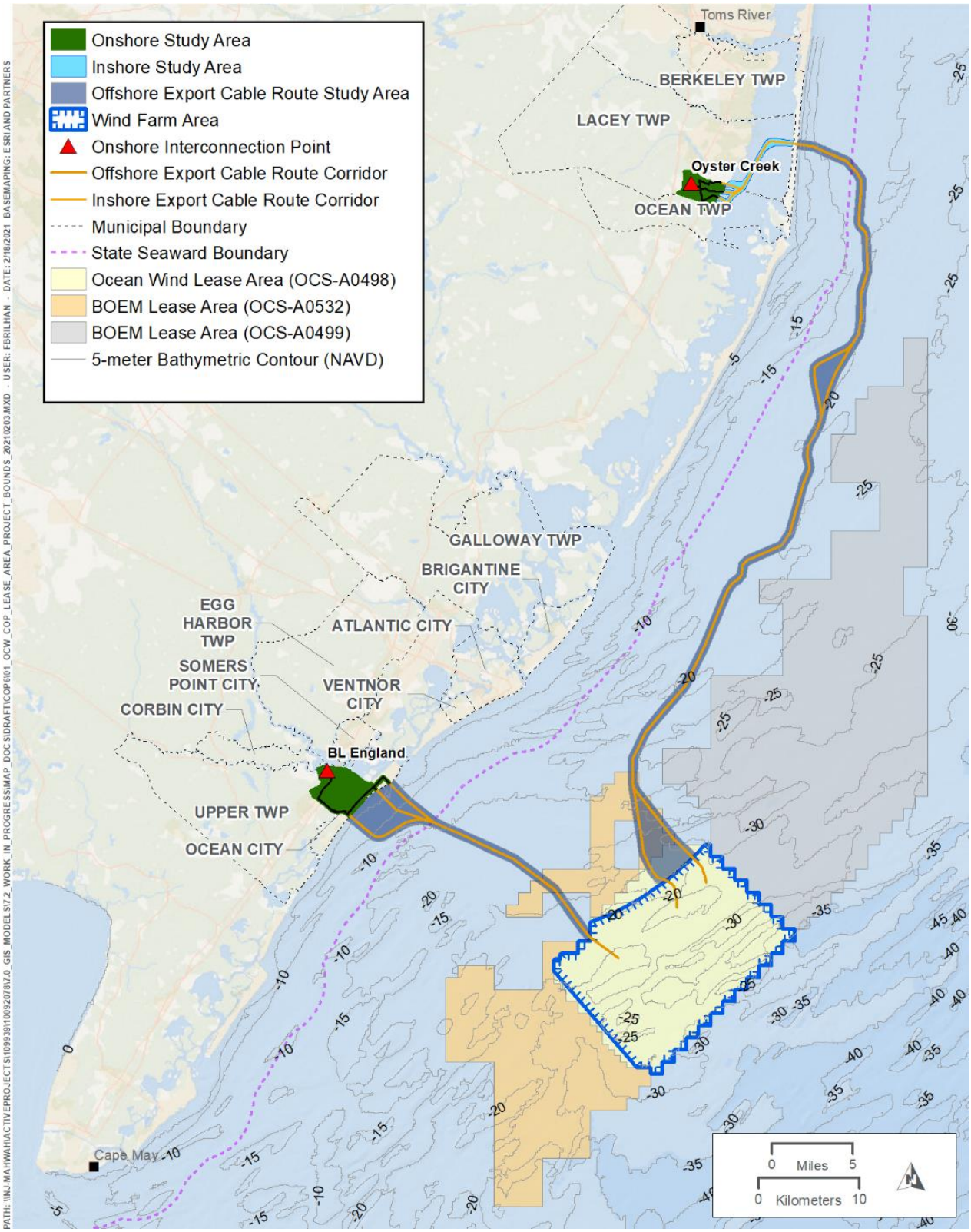

Figure 1-1. Lease Area and Project boundaries

2. Laws, Regulations, Standards, and Guidelines Relating to Unanticipated Discoveries of Archaeological Resources and/or Human Remains

- Section 106 of the National Historic Preservation Act of 1966, as amended (54 USC 300101) and Advisory Council on Historic Preservation (ACHP) implementing regulations (36 CFR 800);
- Secretary of the Interior's Standards for Archeology and Historic Preservation (48 CFR 44716-42);
- ACHP Policy Statement Regarding Treatment of Burial Sites, Human Remains, and Funerary Objects (2007);
- Native American Graves Protection and Repatriation Act (NAGPRA)(25 USC 3001 et seq.);1 and
- New Jersey Register of Historic Places Act (New Jersey Administrative Code, Section 7:4).

3. Training and Orientation

The identification of archaeological resources, human remains, and burial sites is facilitated by training and orientation. All Project inspectors, resident engineers, and construction supervisors working on the Project's onshore excavation activities will be given basic training to facilitate their identification of archaeological sites, artifacts, features, and human remains prior to the start of Project-related excavation or construction activities. The training will be given by a SOI qualified archaeologist[2]. Additional training will be conducted on an as-needed basis (e.g., for new construction supervisors) during Project construction.

The purpose of this training will be to review Ocean Wind's to provide an overview of the general cultural history of the Project area, so that both Ocean Wind employees and contractors will be aware of the types of archaeological resources that may be encountered in the field. In addition, the training program will emphasize the protocols to be followed, as outlined in this PRDP, regarding actions to be taken and notification required in the event of an unanticipated discovery of archaeological resources and/or human remains.

4. Cultural Resources Compliance Manager

Prior to the start of excavation or other ground-disturbing activities, Ocean Wind will designate a Cultural Resources Compliance Manager (CRCM) to coordinate compliance activities described in the PRDP including:

- Maintaining records related to unanticipated discoveries of archaeological resources and/or human remains, including records relating to the notification of appropriate parties, consultation, archaeological investigations, work stoppages, avoidance areas, and treatment or disposition of unanticipated discoveries; and
- Coordinating training in accordance with Section 3 of the PRDP, including maintaining records of the qualifications of the archaeologist conducting the training, the names of employees or contractors that have completed the training, and the date the training was completed.

The CRCM will serve as the point-of-contact for all activities conducted in accordance with the PRDP and will have authority to stop work as needed to comply with the PRDP.

[1] Pursuant to 43 CFR Part 10, NAGPRA applies to human remains, sacred objects, and items of cultural patrimony (described as "cultural items" in the statute) located on federal or tribal lands or in the possession and control of federal agencies or certain museums. The Project's onshore infrastructure will not occupy federal or tribal lands. Notwithstanding the limits of NAGPRA's applicability, the principles described in NAGPRA and its implementing regulations will serve as guidance should remains or associated artifacts be identified as Native American, and to the extent such principles and procedures are consistent with any other applicable laws, guidelines, statutes, and requirements.

[2] As used in this PRDP, an "archaeologist" is an archaeologist who meets the Secretary of the Interior's Professional Qualification Standards for Archaeology (48 FR 44738 – 44739, September 1983).

5. Unanticipated Discovery Procedures

Although unlikely, there is the potential that undocumented archaeological resources may be inadvertently discovered during the course of Project construction activities. The procedures described in this section provide protocols for the inadvertent discovery of archaeological resources and the treatment of human remains during onshore construction. Ocean Wind will consult BOEM and other parties as necessary to determine if oversight of ground clearing activities by a SOI Qualified Archaeologist is warranted and the specific project locations where oversight is necessary based on the potential sensitivity for an unanticipated archaeological discovery.

5.1 Procedures for Unanticipated Archaeological Discoveries

1. SOI qualified professional archaeologist will initially monitor all construction activities that could potentially impact archaeological deposits. Monitoring will be discontinued as soon as the archaeologist is satisfied that final construction will not disturb important deposits.
2. In the event that suspected archaeological resources are discovered during a construction activity, that activity shall immediately be halted until it can be determined whether the archaeological resources may represent a potentially significant site.
3. The employee(s) and/or contractor(s) will immediately notify the CRCM of the suspected unanticipated discovery.
4. The CRCM will direct ground-disturbing activities to be halted in an appropriate vicinity of the discovery. The area of work stoppage will be adequate to provide for the security, protection, and integrity of the potential resource. Vehicles, equipment, and unauthorized personnel will not be permitted to access the discovery site. At minimum, the immediate area of any terrestrial archaeological discovery will be protected by a temporary barrier and the location will be marked on Project maps as a restricted area.
5. The CRCM will notify an archaeologist who will in turn be responsible for determining whether a site visit is required. That determination may be made by viewing photographs of any object or soil discolorations sent to the archaeologist in combination with a verbal description from the CRCM.
6. If the archaeologist determines a site visit is not required as the reported discovery of archaeological resources is determined by the archaeologist to not be a potentially significant archaeological resource, the archaeologist will notify the CRCM who will then notify the employee(s) and/or contractor(s) to resume work.
7. If the archaeologist determines that a site visit is necessary, the site visit will be conducted within 48 hours of notification by the CRCM.
8. If a site visit is necessary, the archaeologist will conduct limited investigations to make a preliminary identification and assessment of the find. This may include photos, measurements, and limited hand excavation. The archaeologist will provide a summary report and initial recommendations within 72 hours of completing the site visit.
9. The CRCM will provide the qualified archaeologist's summary report and initial recommendations to the New Jersey State Historic Preservation Office (NJSHPO), and (as appropriate)[3] the Absentee-Shawnee Tribe of Indians of Oklahoma, The Delaware Nation, Delaware Tribe of Indians, Eastern Shawnee Tribe of Oklahoma, Shawnee Tribe, Stockbridge-Munsee Community Band of Mohican Indians, Narragansett Indian Tribe, Shinnecock Indian Nation, Lenape Tribe of Delaware , Nanticoke Indian Association, Inc., Nanticoke Lenni-Lenape Tribal Nation, Powhatan Renape Nation, Ramapough Lenape Indian Nation, and Ramapough Mountain Indians.

[3] Notification of and consultation with the Indian Tribes is appropriate when archaeological resources may be related to Native American use or occupation of the area.

10. Ocean Wind will consult with appropriate Parties to determine the treatment of the site. As necessary, and in consultation with the appropriate Parties, Ocean Wind may direct the archaeologist to conduct additional archaeological investigations and/or evaluate the site's eligibility for inclusion in the NRHP and SRHP.
11. Work in the vicinity of the resource will proceed once a Treatment Plan has been approved by the NJSHPO or the site is determined to be ineligible for the NRHP or SRHP.

Duration of any work stoppages will be contingent upon the significance of the identified archaeological resource(s) and consultation with appropriate Parties to determine the appropriate measures to avoid, minimize, or mitigate any adverse effects to the site.

5.2 Procedures for the Unanticipated Discovery of Human Remains

Treatment and disposition of any human remains that may be discovered will be managed in a manner consistent with NAGPRA (see footnote 1) and the ACHP's 2007 *Policy Statement Regarding Treatment of Burial Sites, Human Remains, and Funerary Objects*. At all times, human remains will be treated with the utmost dignity and respect.

1. In the event that suspected human remains or a burial site are discovered during a construction activity, that activity shall immediately be halted.
2. The employee(s) and/or contractor(s) will immediately notify the CRCM of the suspected unanticipated discovery of human remains.
3. The CRCM will immediately direct any ground-disturbing activities to be halted within a minimum of 100 feet of the discovery. The immediate area of any human remains or suspected human remains will be protected by a temporary barrier and the location will be marked on Project maps as a restricted area.
4. The CRCM will notify the New Jersey State Police and the Medical Examiner with jurisdiction in the county and will arrange for inspection of the site.
5. The Medical Examiner and law enforcement will make an official determination on the nature of the remains, being either forensic or archaeological.
6. If the remains are determined to be forensic in nature, the Medical Examiner and law enforcement will notify Ocean Wind when work in the area may resume.
7. If human remains are determined to be archaeological and Native American, the CRCM will contact the Parties, and the remains will be left in place and protected from further disturbance until a plan for their avoidance or removal can be developed in coordination with the landowner and Parties. Results of this consultation will be documented in writing. Avoidance is the preferred option and remains will only be removed following written concurrence from the NJSHPO.
8. If human remains are determined to be archaeological and non-Native American, the CRCM will contact the NJSHPO, and the remains will be left in place and protected from further disturbance until a plan for their avoidance or removal can be developed in coordination with the landowner and NJSHPO. Results of this consultation will be documented in writing. Avoidance is the preferred option and remains will only be removed following written concurrence from the NJSHPO Avoidance is the preferred choice.
9. In all cases, due care will be taken in the excavation and subsequent transport and storage of the remains to ensure their security and respectful treatment.

6. Notification List

Contacts and a communication plan will be updated and provided during training.

Ocean Wind Katharine Perry Environmental Manager 917-524-4633	Bureau of Ocean Energy Sarah Stokely Lead Historian and Section 106 Team Lead Bureau of Ocean Energy Management Office of Renewable Energy Programs 45600 Woodland Road, VAM-OREP Sterling, Virginia 20166	New Jersey State Historic Preservation Office 501 E. State Street Trenton, NJ 08609 609-984-0176
Ocean Wind Compliance Manager TBD	The Shinnecock Indian Nation Ms. Shavonne Smith Director, Shinnecock Environmental Department PO Box 5006 Southampton NY 11969 Phone: (631) 283-6143 ShavonneSmith@shinnecock.org Jeremy Dennis, Junior THPO P.O. Box 2338 Southampton NY 11968 jeremynative@gmail.com (631) 566-0486	The Narragansett Indian Tribe Mr. John Brown Tribal Historic Preservation Officer P.O. Box 268 Charlestown, RI 02813 Phone: (401).364-1100 tashtesook@aol.com
Eastern Shawnee Tribe of Oklahoma Mr. Brett Barnes Cultural Preservation Director 70500 East 128 Road, Wyandotte, OK 74370 Phone: (918) 238-5151	The Delaware Nation Ms. Carissa Speck Historic Preservation Director P.O. Box 825 Anadarko, OK 73005 Phone: (405).247-2448 Ext. 1403 cspeck@delawarenation-nsn.gov	Lenape Tribe of Delaware 4164 N. Dupont Hwy., Suite 6 Dover, DE 19901-1573 302-730-4601

Delaware Tribe of Indians Ms. Susan Bachor Historic Preservation Representative Delaware Tribe Historic Preservation Office 126 University Circle Stroud Hall, Rm. 437 East Stroudsburg PA 18301 610.761.7452 sbachor@delawaretribe.org	Absentee-Shawnee Tribe of Indians of Oklahoma Mr. Devon Frazier Tribal Historic Preservation Officer 2025 South Gordon Cooper Drive Shawnee, OK 74801 405.275.4030 x6243 dfrazier@astribe.com	Stockbridge-Munsee Community Band of Mohican Indians Mr. Nathan Allison Tribal Historic Preservation Officer Stockbridge-Munsee Mohican Tribal Historic Preservation Extension Office 86 Spring Street Williamstown, MA 01267 Phone: (413).884-6029 nathan.allison@mohican-nsn.gov
Shawnee Tribe Ms. Tonya Tipton Tribal Historic Preservation Officer P.O. Box 189 29 S Hwy 69A Miami, OK 74355 Phone: (918).542-4030 x124 tonya@shawnee-tribe.com	Nanticoke Indian Association, Inc. Natasha Carmine 27073 John J Williams Highway Millsboro, DE 19966 info@nanticokeindians.org 302.945.3400	Nanticoke Lenni-Lenape Tribal Nation Mark Gould Principal Chief/Chairman 18 E Commerce Street Bridgeton, NJ 08302 tribalcouncil@nlltribe.com 856.455.6910
Powhatan Renape Nation Barabara Jefferson New Jersey Commission on American Indian Affairs, Commission Member, Representing Powhatan Renape Tribe NJ Commission on Indian Affairs, PO Box 300 Trenton, NJ 08625 609.633.9627	Ramapough Lenape Indian Nation Steven Burton89 New Jersey Commission on American Indian Affairs, Commission Member, Representing Ramapough Lenape Indian Nation NJ Commission on Indian Affairs, PO Box 300 Trenton, NJ 08625 609.633.9627	Ramapough Mountain Indians Dwaine Perry Chief 189 Stag Hill Road Mahwah, NJ 07430
New Jersey State Police Office of Forensic Sciences Forensic Anthropology Unit NJ Forensic Technology Center 1200 Negron Drive - Horizon Center Hamilton, NJ 08691 Phone: (609) 584-5054 x5656	Cape May County Medical Examiner Office Dr. Eric Duval and Dr. Charles Siebert Jr. County Medical Examiner 1175 DeHirsch Avenue Woodbine, NJ 08270 Phone: (609) 861-3355	Ocean County Medical Examiner Office County Medical Examiner P.O. Box 2191, Sunset Avenue Toms River, NJ 08754-2191 Phone: (732) 341-3424

ATTACHMENT 8 – MITIGATION FUNDING AMOUNTS PROPOSED BY SIGNATORIES AND CONSULTING PARTIES

The mitigation measures proposed in Stipulation III have been developed by individuals who meet the qualifications specified in the SOI's Qualifications Standards for Archaeology, History, Architectural History, and/or Architecture (36 CFR 61). The proposed mitigation measures consider the nature, scope, and magnitude of adverse effects caused by the Project, the qualifying characteristics of each historic property that would be affected. The following funding amounts were considered by signatories, invited signatories, and consulting parties for historic properties mitigation measures based on budgets proposed by lessee for each mitigation effort. These budgets are good faith estimates, based on the experience of these qualified consultants with similar activities and comparable historic properties. The proposed level of funding is appropriate to accomplish the identified preservation goals and result in meaningful benefits to the affected properties, resolving adverse effects.

- Marine APE
    - $2,217,238 for mitigation to resolve adverse effects at the 13 ASLFs (Targets 21–26, 28–31, and 33–35), including Pre-construction Geoarchaeology ($1,875,758), Open Source GIS and Story Maps ($150,000), ASLF Post-Construction Seafloor Inspection ($1,540,000), and Ethnographic Study ($191,480).

The mitigation measures outlined in the MOA for Absecon Lighthouse, Atlantic City Boardwalk (Atlantic City), and Lucy the Margate Elephant (NHL) as well as for multi-property mitigation have been developed by individuals who meet the qualifications specified in the SOI's Qualifications Standards for Archeology, History, Architectural History, and/or Architecture (36 CFR 61) in consultation with the consulting parties.

- $55,000 for mitigation of adverse effects at the Absecon Lighthouse through:
    - Contribution to support planned, preservation-related rehabilitation activities at the lighthouse.
- $140,000 for mitigation of adverse effects at the Atlantic City Boardwalk through:
    - Contribution to support planned, preservation-related improvements to the boardwalk.
- $170,000 for mitigation of adverse effects at Lucy the Margate Elephant (NHL) through:
    - Contribution to support planned, preservation-related visitor center upgrades and site improvements.
- $175,000 to draft the following multi-property and multi-county mitigation measures:
    - Historic context addressing early 20th century New Jersey Shore Hotels to resolve adverse effects to Brigantine Hotel, Atlantic County, Ritz-Carlton Hotel, Atlantic County, and Flanders Hotel, Cape May County.
    - Historic context addressing mid-20th century New Jersey High-Rises to resolve adverse effects to Riviera Apartments, Atlantic City and Vassar Square Condominiums, Atlantic County.
    - Historic context addressing Boardwalks of the New Jersey Shore, with Surveys and Evaluations of Atlantic City Boardwalk, Ocean City Boardwalk, and Wildwood Boardwalk to resolve adverse effects to the Atlantic City Boardwalk and Ocean City Boardwalk.

These mitigation measures for the Ocean City Boardwalk, Ocean City Music Pier, Atlantic City Convention Hall (NHL), Flanders Hotel, U.S. Lifesaving Station #35, North Wildwood Lifesaving Station, Hereford Inlet Lighthouse, Brigantine Hotel, Ritz-Carlton Hotel, Riviera Apartments, Vassar Square Condominiums, 114 S Harvard Avenue, Great Egg Coast Guard Station, and U.S. Coast Guard

Station #119, were proposed by lessee and circulated by BOEM in HPTPs to consulting parties. These mitigation measures have been developed by individuals who meet the qualifications specified in the SOI's Qualifications Standards for Archeology, History, Architectural History, and/or Architecture (36 CFR 61).

- $140,000 for mitigation of adverse effects at the Ocean City Boardwalk.
- $145,000 for mitigation of adverse effects at the Ocean City Music Pier.
- $170,000 for mitigation of adverse effects at the Atlantic City Convention Hall (NHL).
- $50,000 for mitigation of adverse effects at the Flanders Hotel.
- $55,000 for mitigation of adverse effects at U.S. Lifesaving Station #35.
- $55,000 for mitigation of adverse effects at the North Wildwood Lifesaving Station.
- $50,000 for mitigation of adverse effects at the Hereford Inlet Lighthouse.
- $65,000 for mitigation of adverse effects at the Brigantine Hotel.
- $65,000 for mitigation of adverse effects at the Ritz-Carlton Hotel.
- $70,000 for mitigation of adverse effects at the Riviera Apartments.
- $70,000 for mitigation of adverse effects at the Vassar Square Condominiums.
- $55,000 for mitigation of adverse effects at 114 S Harvard Avenue.
- $45,000 for mitigation of adverse effects at the Great Egg Coast Guard Station.
- $45,000 for mitigation of adverse effects at U.S. Coast Guard Station #119.

ATTACHMENT B
FIGURES

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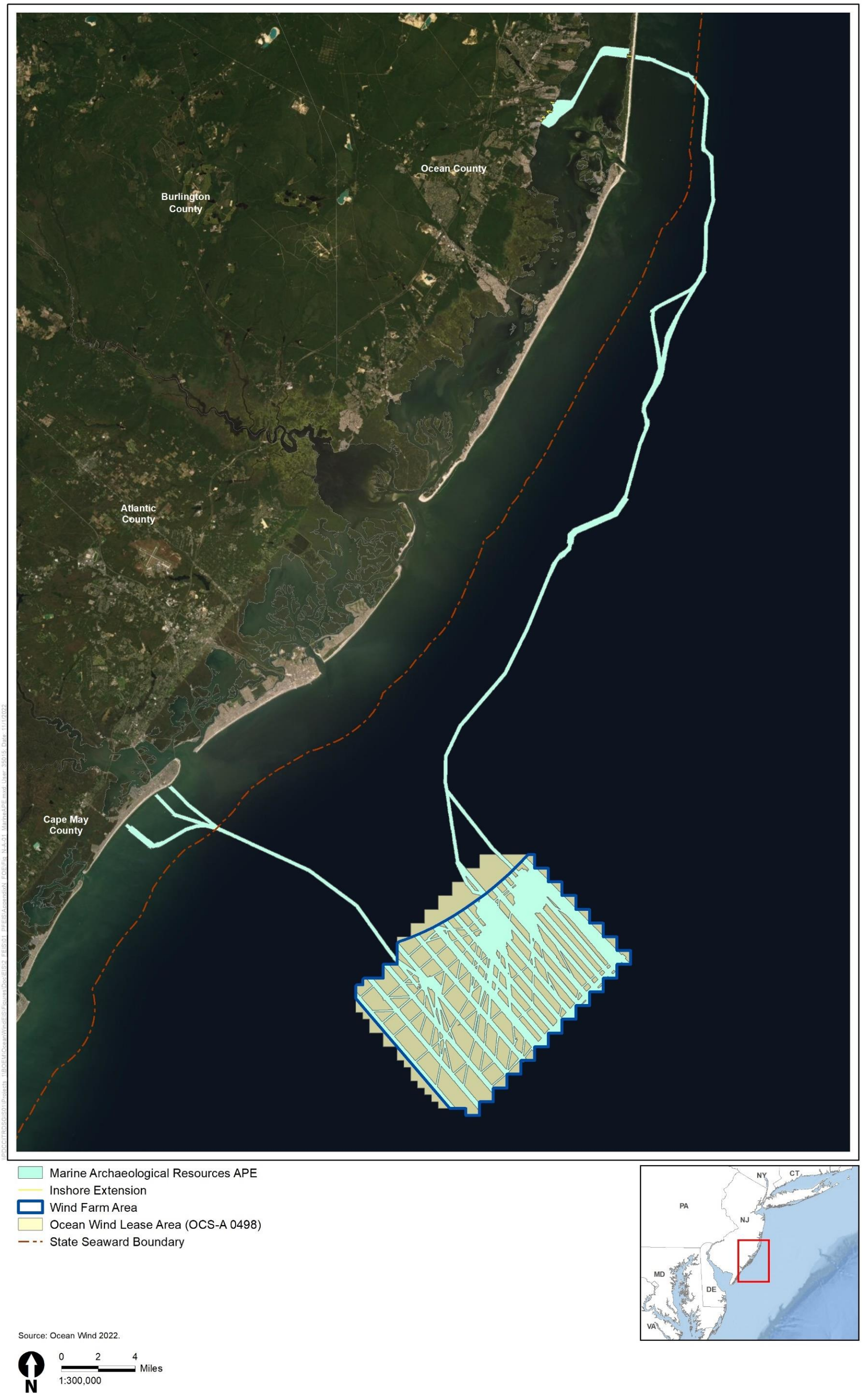

Figure 1 Marine Archaeological Resources APE for Activities within the Lease Area

Figure 2 Marine Archaeological Resources APE for Activities within the Oyster Creek Export Cable Route Corridor

Figure 3 Marine Archaeological Resources APE for Activities within the BL England Export Cable Route Corridor

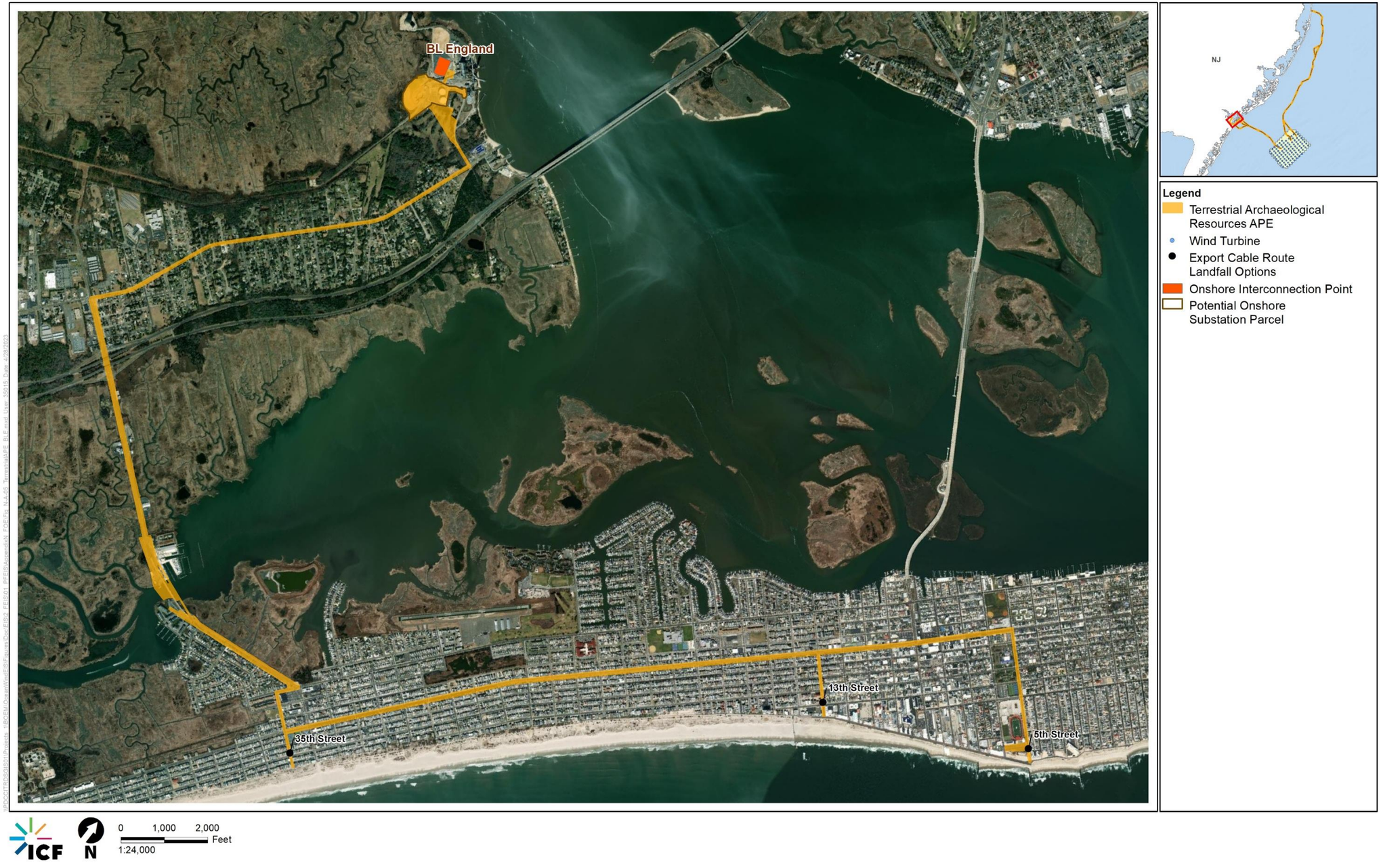

Figure 4 Terrestrial Archaeological Resources APE with Onshore Cable and Landfall Site Alternatives for BL England

Figure 5 Terrestrial Archaeological Resources APE with Onshore Cable and Landfall Site Alternatives for Oyster Creek

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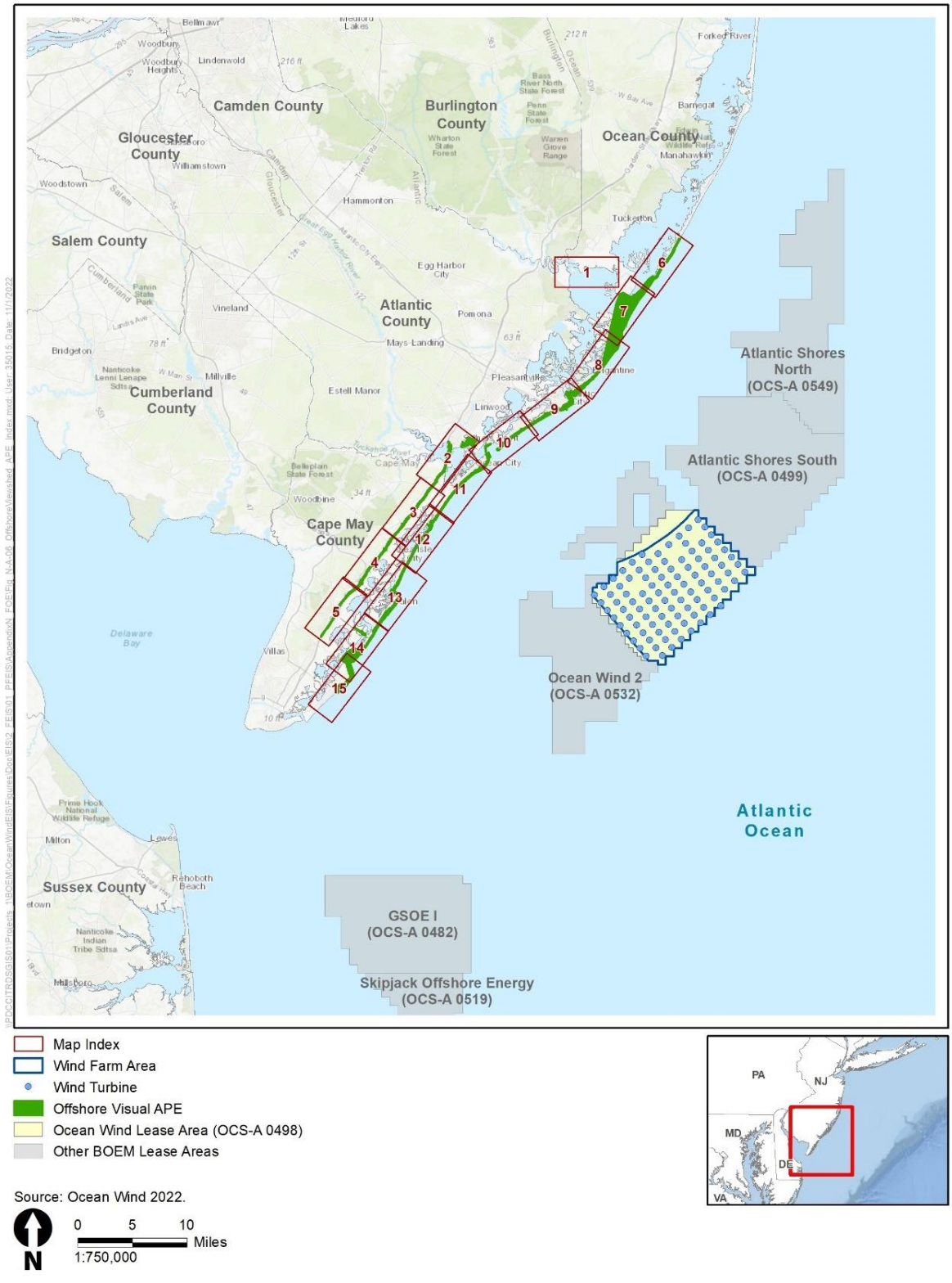

Figure 6 Offshore Visual APE with Historic Properties Adversely Affected and Foreseeable Future Project Areas—Index

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Legend

- Offshore Visual APE (Not to Scale)
- Wind Turbine
- Export Cable Route Landfall Options
- Onshore Interconnection Point
- Onshore Export Cable Route
- Onshore Export Cable Route Options
- Inshore Export Cable Route
- Offshore Export Cable Route
- Potential Onshore Substation Parcel
- Historic properties recommended adverse visual effects
- Historic properties recommended no adverse visual effects
- Historic properties recommended adverse visual effects
- Historic properties recommended no adverse visual effects

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Sheet: 1 of 15

Figure 6 Offshore Visual APE with Historic Properties Adversely Affected and Foreseeable Future Project Areas—Sheet 1

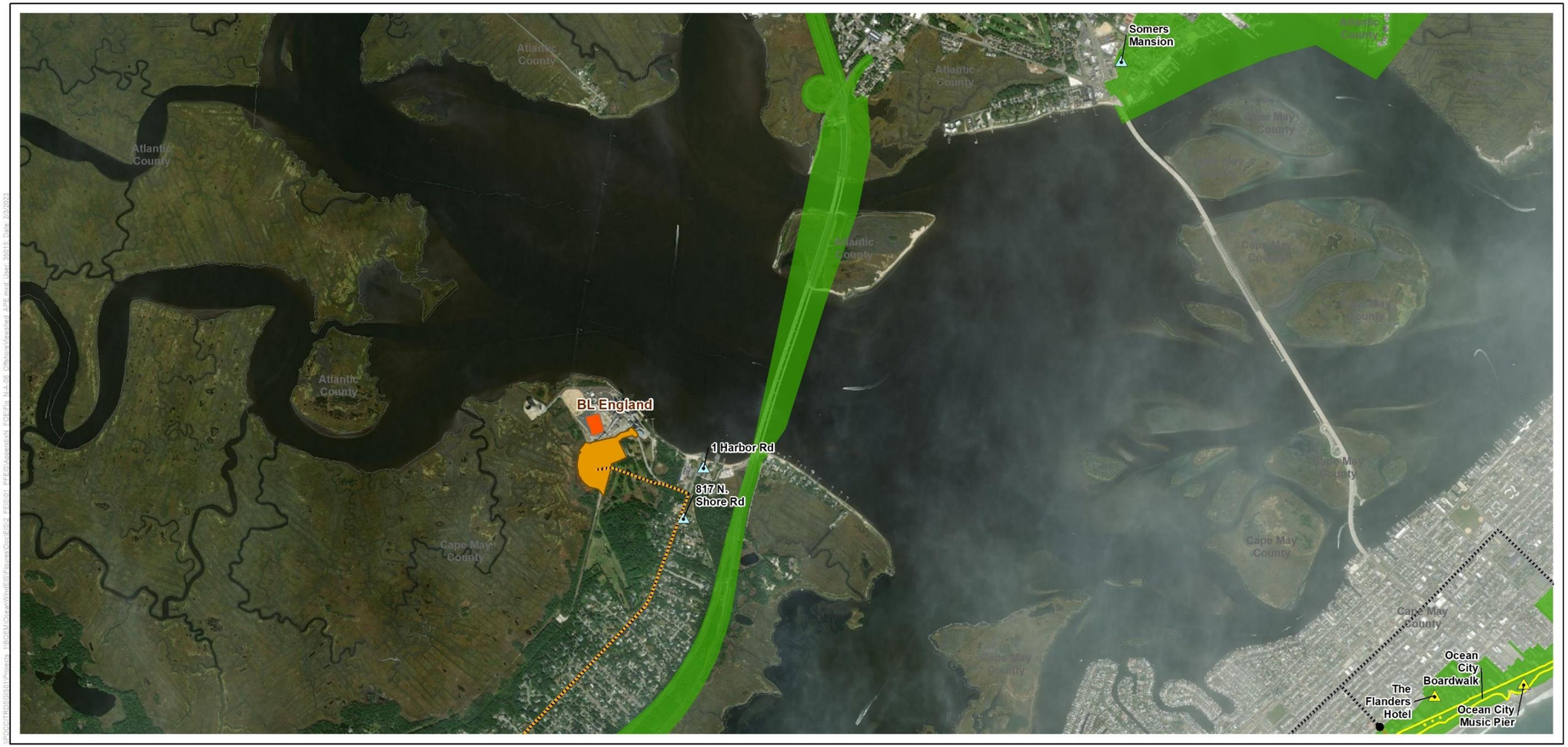


Figure 6 **Offshore Visual APE with Historic Properties Adversely Affected and Foreseeable Future Project Areas—Sheet 2**

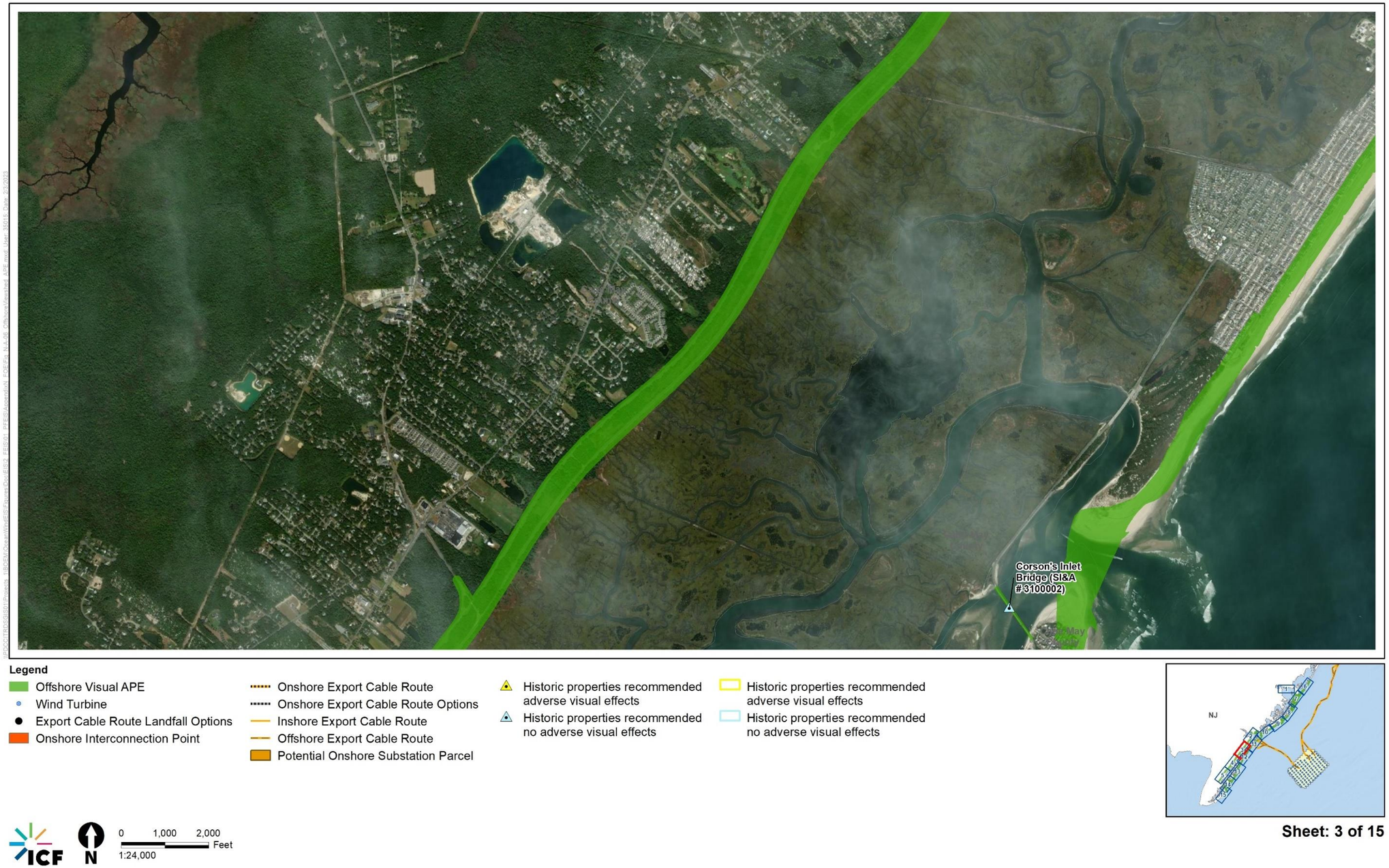


Figure 6 **Offshore Visual APE with Historic Properties Adversely Affected and Foreseeable Future Project Areas—Sheet 3**

Figure 6 Offshore Visual APE with Historic Properties Adversely Affected and Foreseeable Future Project Areas—Sheet 4

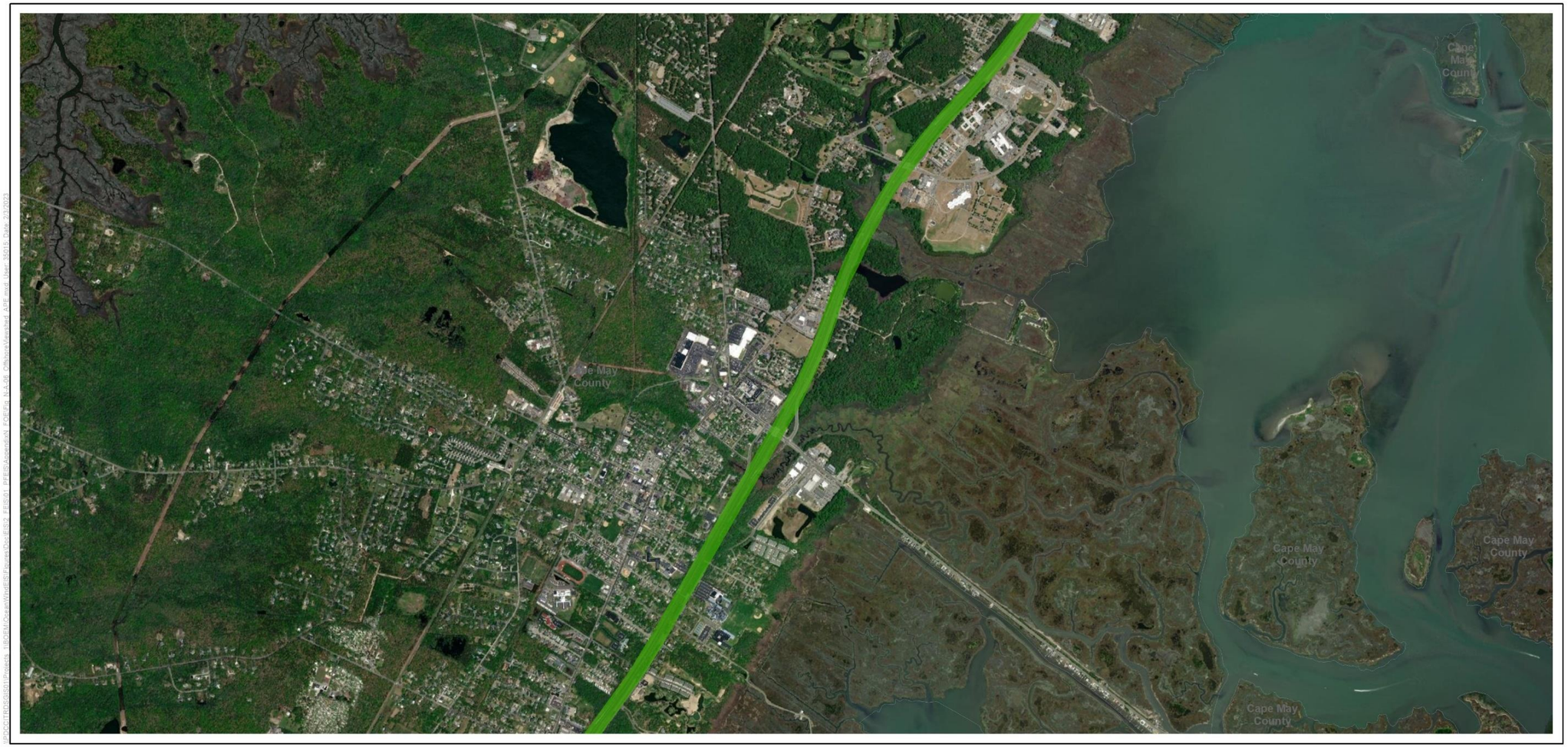


Figure 6 **Offshore Visual APE with Historic Properties Adversely Affected and Foreseeable Future Project Areas—Sheet 5**

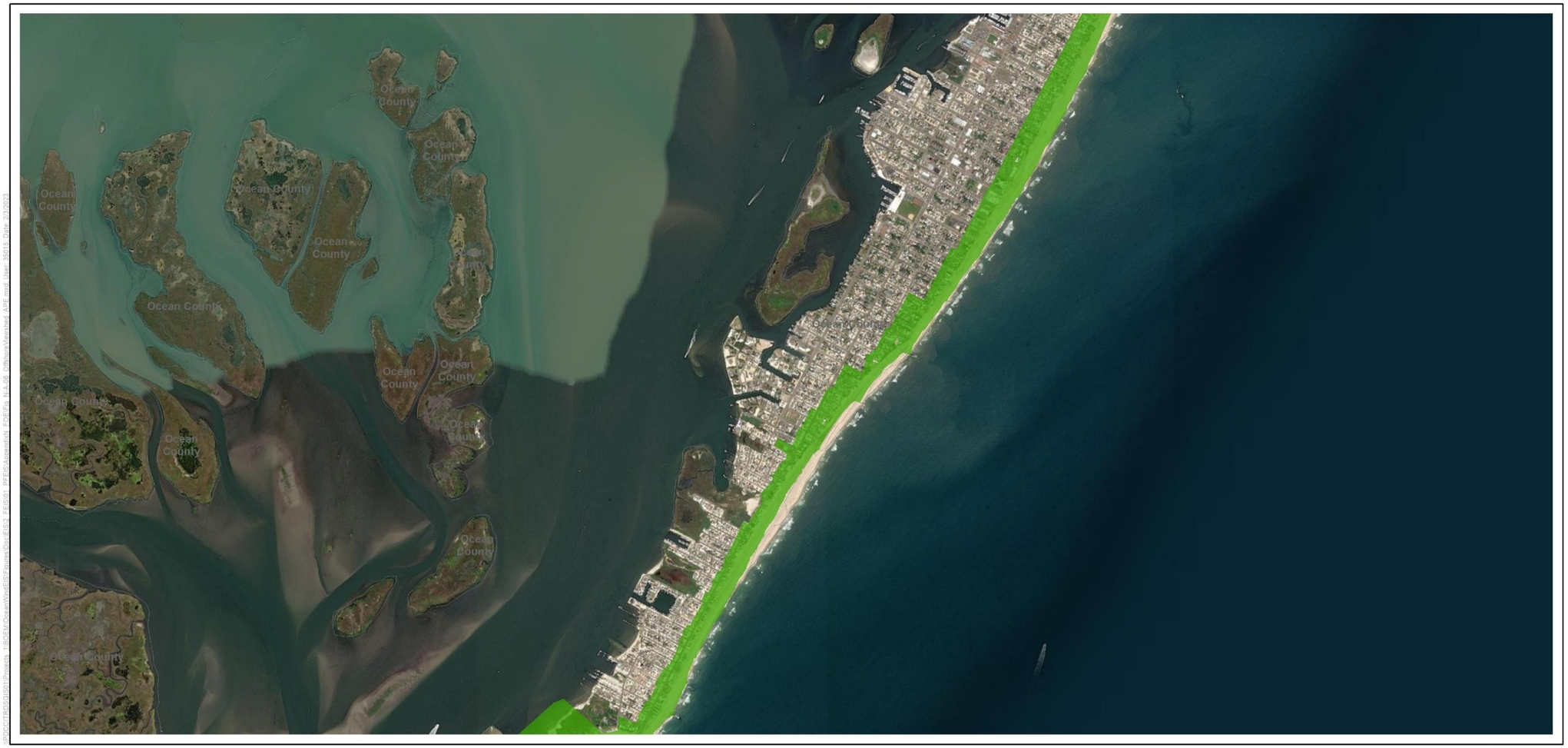


Figure 6 **Offshore Visual APE with Historic Properties Adversely Affected and Foreseeable Future Project Areas—Sheet 6**

Figure 6 **Offshore Visual APE with Historic Properties Adversely Affected and Foreseeable Future Project Areas—Sheet 7**

Figure 6 **Offshore Visual APE with Historic Properties Adversely Affected and Foreseeable Future Project Areas—Sheet 8**

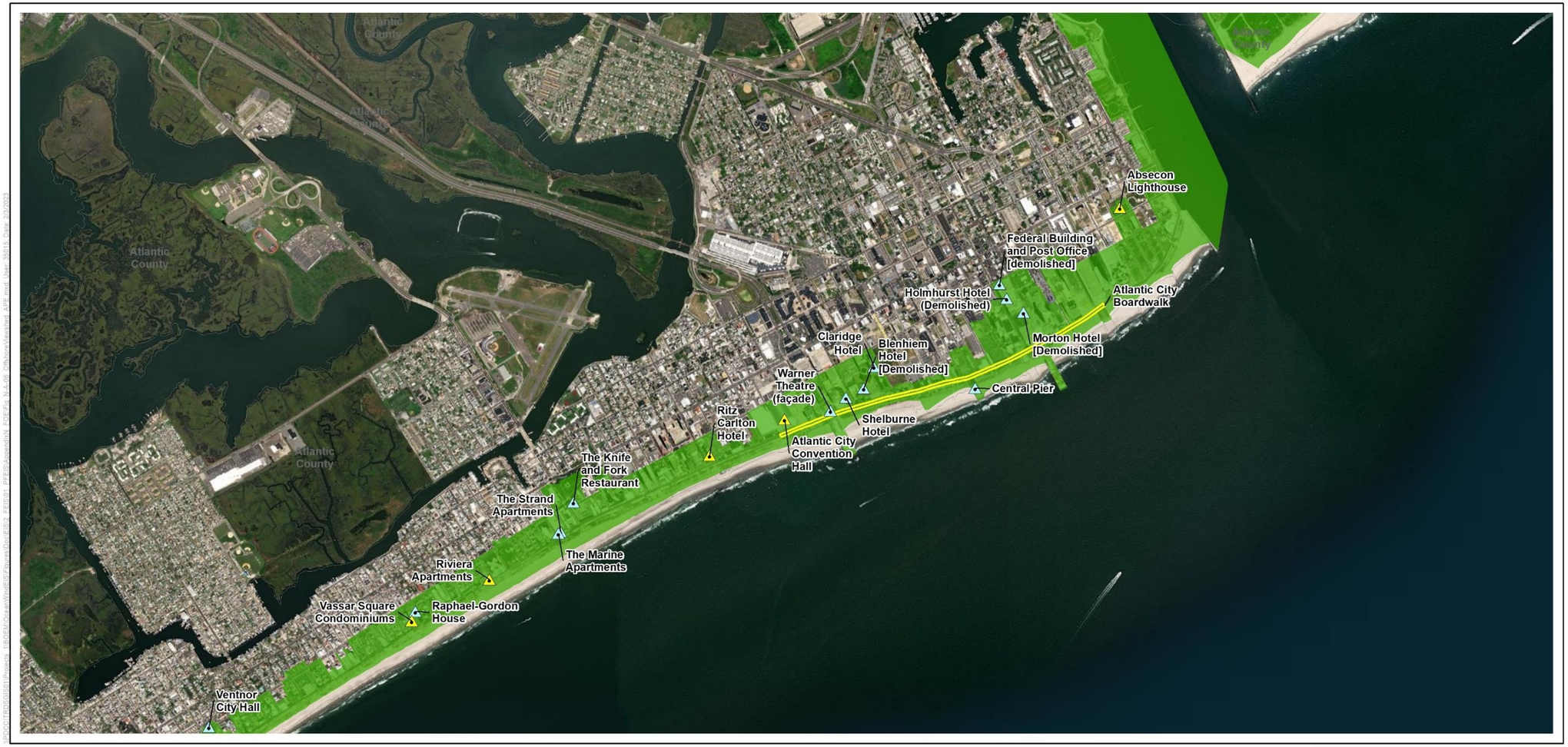
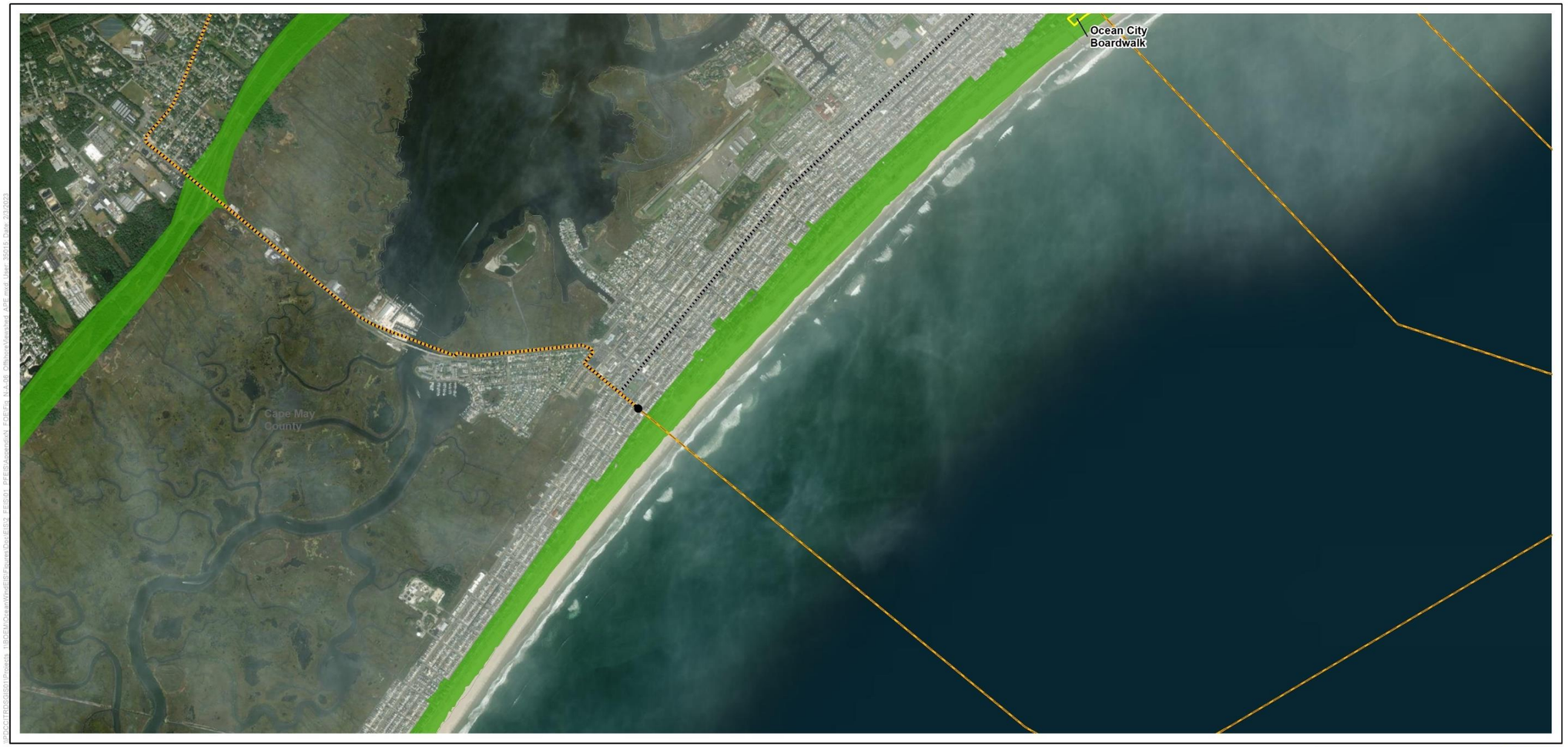


Figure 6 **Offshore Visual APE with Historic Properties Adversely Affected and Foreseeable Future Project Areas—Sheet 9**

Figure 6 Offshore Visual APE with Historic Properties Adversely Affected and Foreseeable Future Project Areas—Sheet 10



Legend

- Offshore Visual APE
- Wind Turbine
- Export Cable Route Landfall Options
- Onshore Interconnection Point
- Onshore Export Cable Route
- Onshore Export Cable Route Options
- Inshore Export Cable Route
- Offshore Export Cable Route
- Potential Onshore Substation Parcel
- Historic properties recommended adverse visual effects
- Historic properties recommended no adverse visual effects
- Historic properties recommended adverse visual effects
- Historic properties recommended no adverse visual effects

Sheet: 11 of 15

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Figure 6 Offshore Visual APE with Historic Properties Adversely Affected and Foreseeable Future Project Areas—Sheet 11

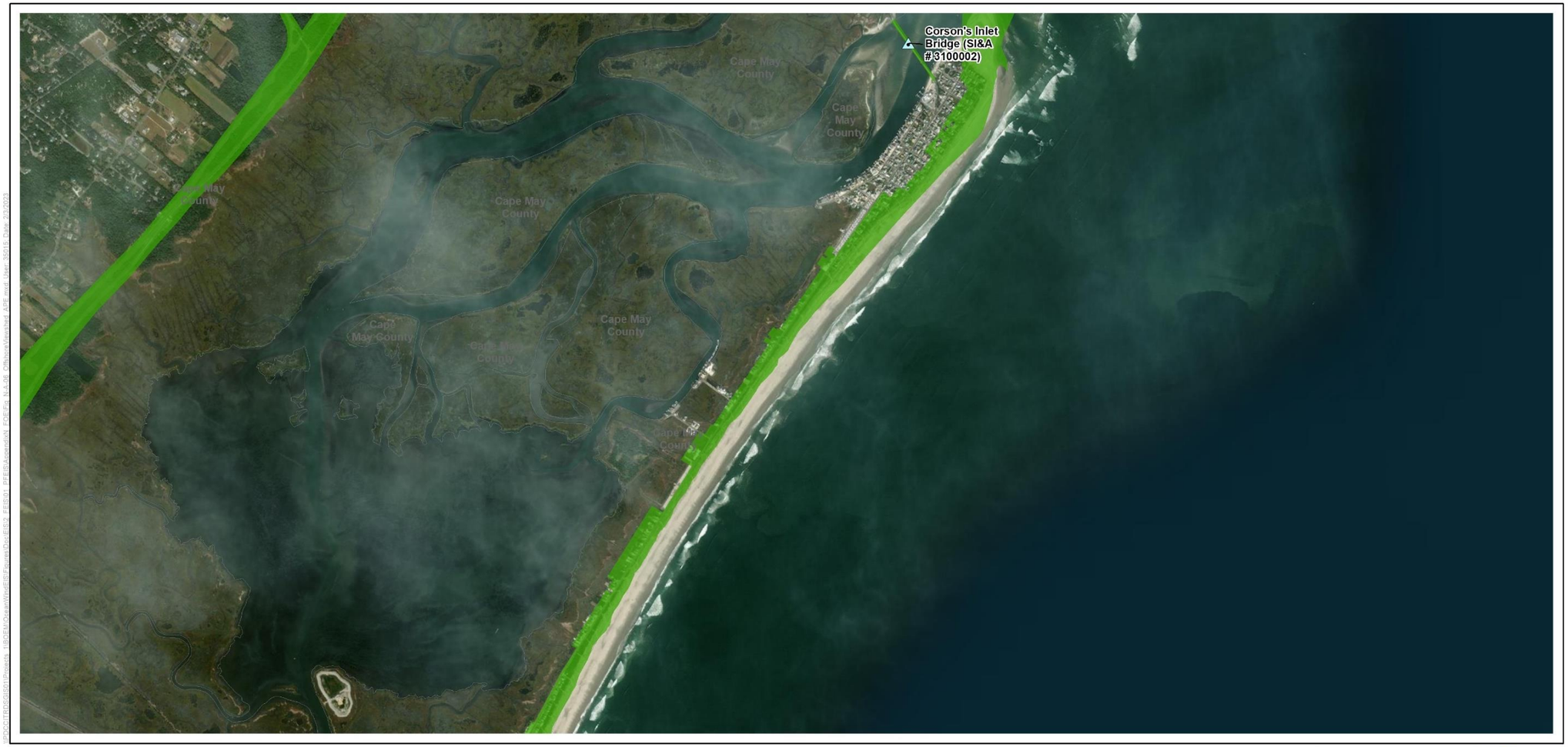

Figure 6 Offshore Visual APE with Historic Properties Adversely Affected and Foreseeable Future Project Areas—Sheet 12

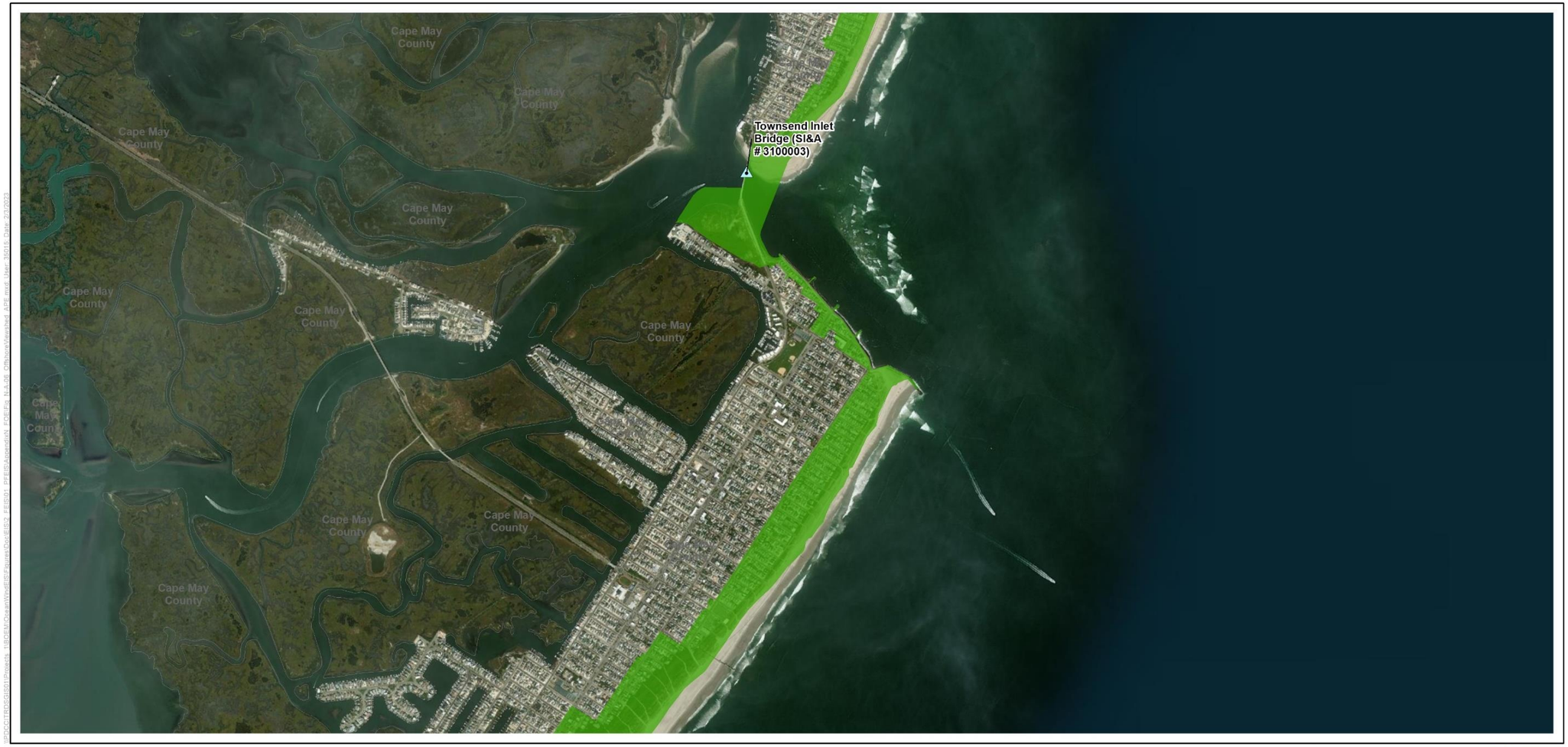

Figure 6 Offshore Visual APE with Historic Properties Adversely Affected and Foreseeable Future Project Areas—Sheet 13

Figure 6 **Offshore Visual APE with Historic Properties Adversely Affected and Foreseeable Future Project Areas—Sheet 14**

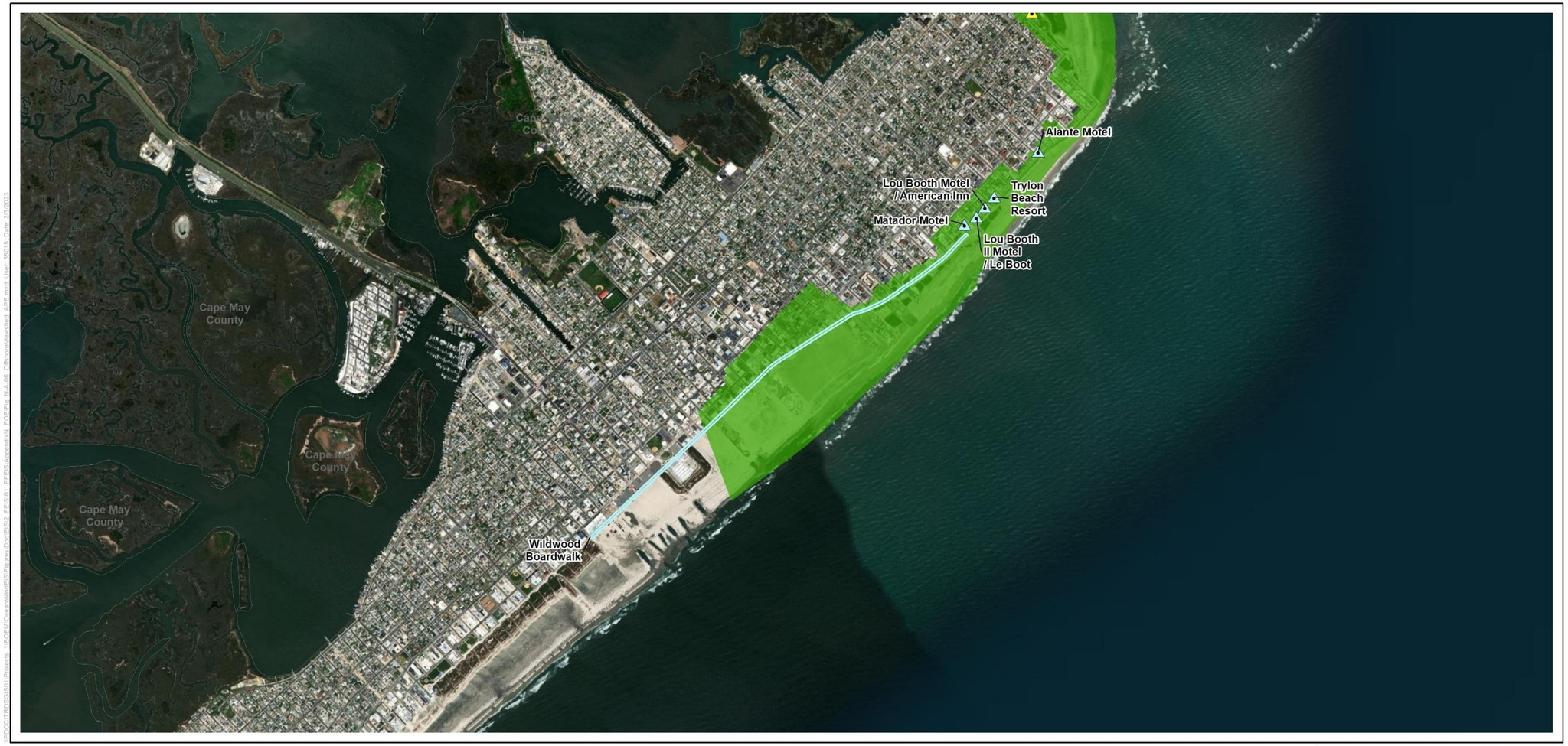

Figure 6 **Offshore Visual APE with Historic Properties Adversely Affected and Foreseeable Future Project Areas—Sheet 15**

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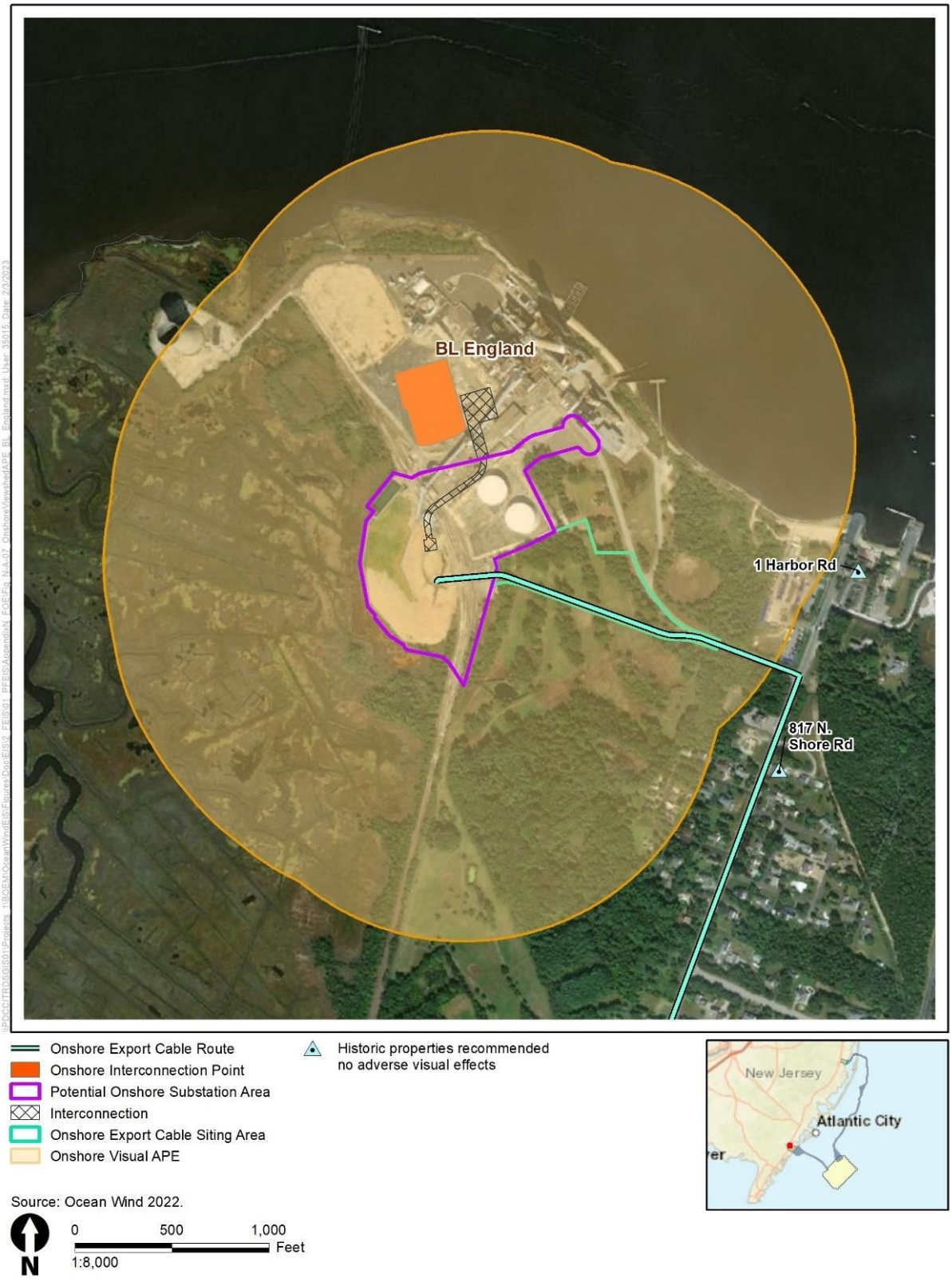

Figure 7 Onshore Visual APE for BL England Substation

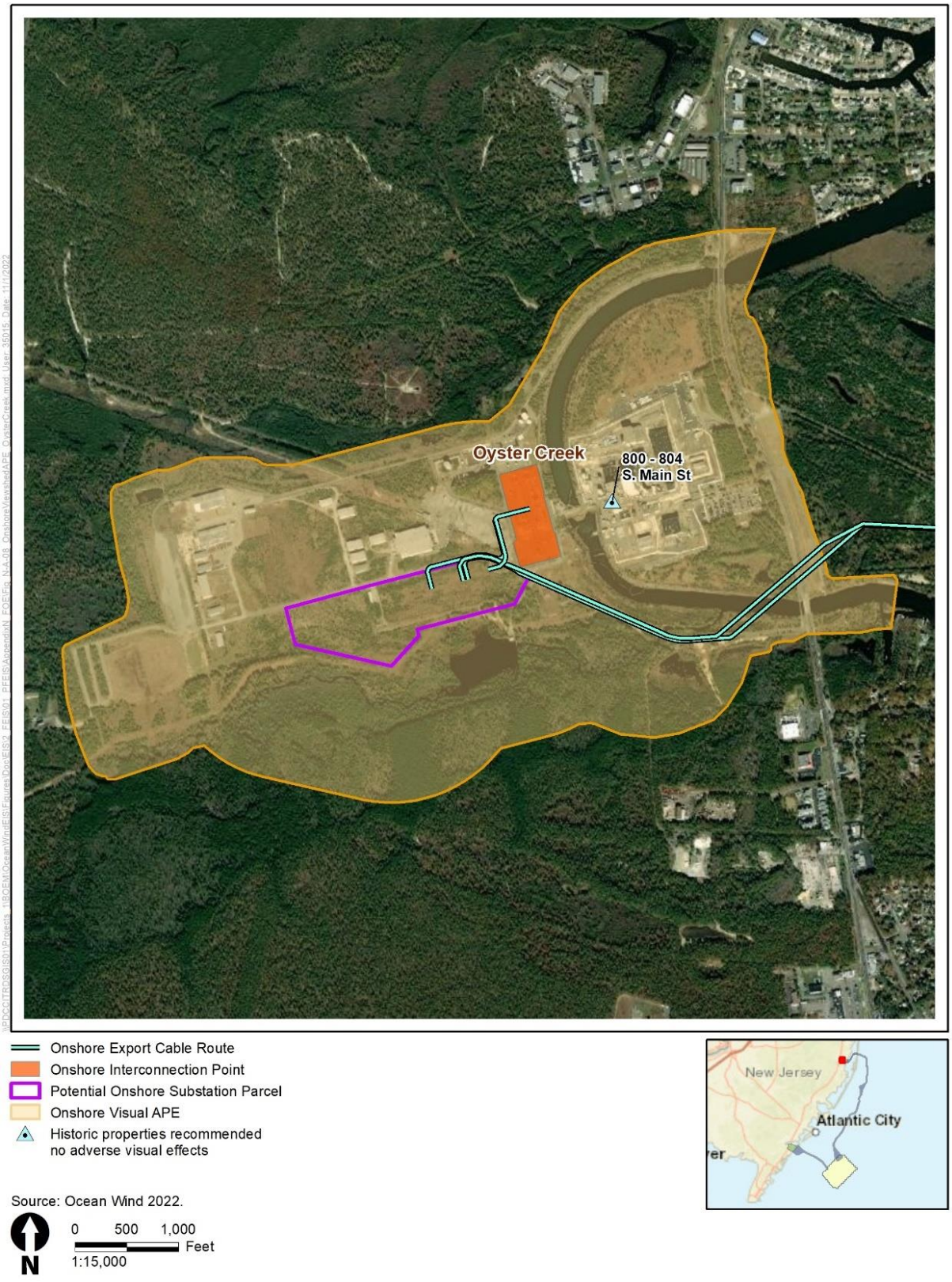

Figure 8 Onshore Visual APE for Oyster Creek Substation

ATTACHMENT C
ENTITIES INVITED TO BE CONSULTING PARTIES

The following is a list of governments and organizations that BOEM contacted and invited to be a consulting party to the NHPA Section 106 review of the Ocean Wind Project. During the consultations, additional parties were made known to BOEM and were added as they were identified.

Participants in the Section 106 Process	Invited Consulting Parties
SHPOs and State Agencies	NJDEP, Historic Preservation Office
	NJDEP, Office of Historic Sites & Parks
	NJDLPS, Marine Service Bureau
	New Jersey Casino Reinvestment Development Authority
	New Jersey Historic Trust
Federal Agencies	ACHP
	NOAA
	USCG
	USEPA
	USFWS
	National Park Service
	National Park Service, Region 1
Federally Recognized Tribes	Absentee-Shawnee Tribe of Indians of Oklahoma
	Delaware Tribe of Indians
	Eastern Shawnee Tribe of Oklahoma
	Shawnee Tribe
	The Delaware Nation
	The Narragansett Indian Tribe
	The Rappahannock Tribe
	The Shinnecock Indian Nation
	Wampanoag Tribe of Gay Head (Aquinnah)
Non-Federally Recognized Tribes	Lenape Indian Tribe of Delaware
	Nanticoke Indian Association, Inc.
	Nanticoke Lenni-Lenape Tribal Nation
	Nanticoke Lenni-Lenape Tribe
	Powhatan Renape Nation
	Ramapough Lenape Indian Nation
	Ramapough Mountain Indians
Local Governments	Absecon City
	Atlantic City
	Atlantic County
	Atlantic County, Department of Regional Planning and Development
	Avalon Borough

Participants in the Section 106 Process	Invited Consulting Parties
	Barnegat Light Borough
	Barnegat Township
	Beach Haven Borough
	Brigantine Beach City
	Cape May City
	Cape May County
	Cape May Point Borough
	Dennis Township
	Eagleswood Township
	Egg Harbor City
	Egg Harbor Township
	Galloway Township
	Hamilton Township
	Hammonton Town
	Harvey Cedars Borough
	Linwood City
	Little Egg Harbor Township
	Long Beach Township
	Longport Borough
	Lower Township
	Margate City
	Middle Township
	North Wildwood City
	Ocean City
	Ocean County
	Pleasantville City
	Sea Isle City
	Ship Bottom Borough
	Somers Point City
	Stafford Township
	Stone Harbor Borough
	Surf City Borough
	Tuckerton Borough
	Upper Township
	Ventnor City
	West Cape May Borough
	West Wildwood Borough
	Wildwood City
	Wildwood Crest Borough
	Woodbine Borough

Participants in the Section 106 Process	Invited Consulting Parties
Nongovernmental Organizations or Groups	Absecon Historical Society
	Absecon Lighthouse
	Atlantic City Convention Center
	Atlantic County
	Atlantic County Historical Society
	Avalon History Center
	Barnegat Light Museum
	Barnegat Lighthouse State Park
	Brigantine Beach Historical Museum
	Cape May Lighthouse
	Caribbean Motel
	Converse Cottage
	Donald & June Feith
	Dr. Edward H. Williams House
	Eagleswood Historical Society
	Emlen Physick Estate
	Flanders Condominium Association
	Friends of Barnegat Lighthouse
	Friends of the Cape May Lighthouse
	Friends of the World War II Tower
	Greater Cape May Historic Society
	Greater Egg Harbor Township Historical Society
	Hereford Inlet Lighthouse
	Historic Cold Spring Village
	Legacy Vacation Resorts
	Linwood Historical Society
	Long Beach Island Historical Association
	Long Beach Island Historical Association
	Longport Historical Society
	Madison Hotel
	Max Gurwicz Enterprises
	Museum of Cape May County
	New Jersey Lighthouse Society
	New Jersey Maritime Museum
	Ocean City Historical Museum
	Ocean City Music Pier
	Ocean County Historical Society
	Patriots for the Somers Mansion
	Preservation New Jersey
	Raphael-Gordon House

Participants in the Section 106 Process	Invited Consulting Parties
	Ritz Condominium Association
	Rutgers University, Department of Marine and Coastal Sciences, School of Environmental and Biological Sciences
	Save Lucy Committee, Inc.
	Stone Harbor Museum
	The Museum of Cape May County
	The Noyes Museum of Art
	Tuckerton Historical Society
	Vassar Square Condominium Association
	Wildwood Crest Historical Society
	Wildwood Historical Society

ATTACHMENT D
CONSULTING PARTIES TO THE OCEAN WIND PROJECT

The following is a current list of consulting parties to the NHPA Section 106 review of the Ocean Wind Project, as of May 9, 2023.

Government or Organization	Participating Consulting Parties	Contact
SHPOs and State Agencies	NJDEP, Historic Preservation Office	Katherine Marcopul, Administrator and Deputy Historic Preservation Officer
	NJDEP, Office of Historic Sites & Parks	Mark Texel, Administrator
	New Jersey Historic Trust	Dorothy Guzzo, Executive Director
Federal Agencies	ACHP	Christopher Daniel, Federal Property Management Section, Program Analyst Chris Koeppel, Federal Property Management Section, Assistant Director
	USACE	Naomi Handell, Regulatory Program Manager, USACE North Atlantic Division Brian Anthony, Biologist, Regulatory Branch, USACE Philadelphia District Ann Marie Dilorenzo, Division Section 408 Coordinator, USACE North Atlantic Division Juan Carlos Corona, Philadelphia District Section 408 Coordinator
	USCG	Matt Creelman, District 5 Agency Point of Contact Jerry Barnes, District 5 Waterways Stephen West, Headquarters George Detweiler, Headquarters Jen Doherty, Sector Delaware Bay Jordan Marshall, Sector Delaware Bay
	USEPA	Abbey States, Human Health Risk Assessor Mark Austin, Team Leader, Environmental Reviews
	National Park Service	Mary Krueger, Energy Specialist for the Northeast Region Kathy Schlegel, Historical Landscape Architect
	U.S. Naval History and Heritage Command	Dr. Alexis Catsambis, Underwater Archaeology Branch
Federally Recognized Tribes	Delaware Nation	Debora Dotson, President of Executive Committee Carissa Speck, Historic Preservation Director
	Delaware Tribe of Indians	Susan Bachor, Archaeologist, Delaware Tribe Historic Preservation Office Representative
	Stockbridge-Munsee Community Band of Mohican Indians	Jeff Bendremer, PhD, Tribal Historic Preservation Officer Graig Kroening, Jr., Vice President

Government or Organization	Participating Consulting Parties	Contact
	The Shinnecock Indian Nation	Bryan Polite, Chairman Shavonne Smith, Director, Shinnecock Environmental Department Jeremy Dennis, Junior Tribal Historic Preservation Officer Kelly Dennis, Council of Trustees Peter Running Deer Silva Rebecca Genia Tela Troge
	Wampanoag Tribe of Gay Head (Aquinnah)	Cheryl Andrews-Maltais, Chairwoman Bettina Washington, Tribal Historic Preservation Officer Lael Echo-Hawk, General Counsel Al Clark, Vice-Chair Kevin Devine, Tribal Council Person
Local Governments	Atlantic County	Gerald DelRosso, County Administrator Frances Brown, Senior Planner
	Cape May City	Warren Coupland, Historic Preservation Commission Chairperson
	Cape May County	William Cook, Special Council, Cultural Heritage Partners Jessica Krauss, Special Council, Cultural Heritage Partners
	Harvey Cedars Borough	Daina Dale, Municipal Clerk Jonathan Oldham, Mayor Paul Rice, Commissioner
	Linwood City	Mary Cole, Deputy Municipal Clerk Leigh Ann, Napoli Municipal Clerk, Registrar of Vital Statistics
	Margate City	Roger McLarnon, Planner, Zoning Officer James M. Rutala, Rutala Associates, LLC
	North Wildwood City	Michael J. Donohue, Blaney Donohue & Weinberg, P.C. Nicholas Long, City Administrator
	Ocean City	George Savastano, Business Administrator Doug Bergen, Public Information Officer Dottie McCrosson, City Solicitor
	Sea Isle City	George Savastano, Business Administrator Shannon Romano, Municipal Clerk
	Somers Point City	Jason Frost, City Administrator
	Stafford Township	Mathew von der Hayden, Township Administrator Rachel Giolitto, Confidential Assistant to the Mayor
Nongovernmental Organizations or Groups	Absecon Lighthouse	Jean Muchanic, Executive Director
	Flanders Condominium Association	Peter Voudouris, President

Government or Organization	Participating Consulting Parties	Contact
	Garden State Seafood Association	Scot Mackey, Trenton Representative
	Long Beach Island Historical Association	Ronald Marr, President
	House at 114 South Harvard Avenue, Ventnor City, New Jersey	Donald & June Feith, Property Owner
	Ritz Condominium Association	Gordon Pherribo, President of the Board
	Rutgers University, School of Environmental and Biological Sciences	Oscar Schofield, Chair, Rutgers Department of Marine and Coastal Sciences
	Save Lucy Committee, Inc.	Richard Helfant, Executive Director James Rutala, Rutala Associates
	The Noyes Museum of Art	Michael Cagno, Executive Director
	Vassar Square Condominiums	Paul Snyderman, President, Board of Trustees

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ATTACHMENT E
ADDENDUM TO THE FINDING OF ADVERSE EFFECT FOR HADDON HALL/RESORTS CASINO HOTEL

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Ocean Wind 1 Offshore Wind Farm

Addendum to the Finding of Adverse Effect for Haddon Hall/Resorts Casino Hotel, 1121 Boardwalk, Atlantic City, New Jersey

May 2023

U.S. Department of the Interior
Bureau of Ocean Energy Management
Office of Renewable Energy Programs

TABLE OF CONTENTS

1.1. Summary

The Bureau of Ocean Energy Management (BOEM) prepared this summary in response to additional information received from a consulting party in April 2023 and to augment the Finding of Adverse Effect Report associated with the identification and evaluation of effects to historic properties for the Ocean Wind 1 project (Project) pursuant to Section 106 of the National Historic Preservation Act (NHPA) and its implementing regulations, "Protection of Historic Properties" (36 CFR Part 800). In April 2023, a consulting party requested information from BOEM regarding the property identified as the Resorts Casino Hotel located at 1121 Boardwalk in Atlantic City, New Jersey. The consulting party asked BOEM if this property could be a potential historic property in the Project's visual area of potential effects (APE) for offshore project components and, if yes, whether it could be visually adversely affected. In consideration of comments received from this consulting party, BOEM confirmed this property is in the offshore visual APE (Appendix A). BOEM, then requested confirmation from the Lessee, Ocean Wind LLC (Ocean Wind), regarding whether this property was surveyed during the Ocean Wind's previous intensive above-ground property surveys, which had been completed as a requirement for their Construction and Operations Plan (COP) submittal. BOEM also requested additional information on the property's historic significance and its eligibility for listing in the National Register of Historic Places (NRHP) if it was not previously surveyed.

Ocean Wind clarified that this property was not previously surveyed due to several factors. The current hotel, now operating as Resorts Casino Hotel, was previously called Haddon Hall. The New Jersey Historic Preservation Office (NJHPO), in its online GIS system called LUCY Cultural Resources GIS, identified this property as demolished and a previously contributing element within the NJHPO-identified Atlantic City Boardwalk District. Subsequent field verification by Ocean Wind in April 2023 determined that Haddon Hall is extant, having only been modified but not demolished as part of the opening of the current Resorts Casino Hotel in 1976. Haddon Hall is now the current Oceans Tower associated with the Resorts Casino Hotel.

Based on this additional information and as summarized in this Addendum, BOEM has determined that it will consider this property, Resorts Casino Hotel, as potentially eligible for listing in the NRHP and that it will be visually adversely affected. BOEM, with the assistance of Ocean Wind , believes it is appropriate to resolve the adverse effect to this property with measures analogous to similarly situated properties (i.e., the Ritz-Carlton), namely through the development of an historic context study that analyzes early 20th century hotels located in the visual APE, to include the Resorts Casino Hotel, and by providing funding in the amount of $65,000 to a project-specific mitigation fund established to resolve visual adverse effects attributed to this Project.

BOEM summarizes here within this Addendum to the *Finding of Adverse Effect for the Ocean Wind 1 Construction and Operations Plan* (FOE) the following information associated with the Resorts Casino Hotel:

- a description of the historic property;
- a statement of significance for this property (pursuant to 36 CFR 800.4(c));
- an evaluation of this property for NRHP eligibility (pursuant to 36 CR 800.4(c)(2));
- a description of BOEM's finding of adverse effect to this property; and
- a description of resolution measures to resolve the adverse effect to this property.

The following reports previously documented the historic properties within the visual Area of Potential Effect (APE) for the Project: the Historic Resources Visual Effects Assessment (HRVEA); the Cumulative Historic Resources Visual Effects Assessment (CHRVEA); the Finding of Adverse Effects (FOE); and the Environmental Impact Statement (EIS) for the Project (COP Volume III, Appendix F-3; Ocean Wind 2023a; BOEM 2023a, 2023b, 2023c). BOEM has determined amendments to the HRVEA and CHRVEA are not necessary as this Addendum addresses the additional information related to Resorts Casino Hotel including its NRHP-eligibility and the potential adverse effects.

1.2. Project Background

BOEM is the lead federal agency responsible for the decision on whether to approve, approve with modifications, or disapprove the Project's construction and operations plan (COP) pursuant to 43 United States Code 1332(3). To further inform that decision, ICF serves a third-party contractor to assist BOEM in its compliance with NHPA Section 106. On August 15, 2019, BOEM received a COP from Ocean Wind proposing an offshore wind energy project within Lease Area OCS-A 0498 offshore New Jersey. In addition, Ocean Wind submitted updates to the COP on March 13, 2020, September 24, 2020, March 24, 2021, November 16, 2021/December 10, 2021, October 14, 2022, and April 24, 2023. In its COP, Ocean Wind is proposing the construction, operation, and eventual decommissioning of a minimum 1,100-MW wind energy project consisting of offshore wind turbine generators (WTGs) and their foundations, offshore substations (OSS) and their foundations, scour protection for foundations, inter-array cables linking the individual turbines to the OSS, substation interconnector cables linking the substations to each other, offshore export cables and an onshore export cable system, onshore substations, and connections to the existing electrical grid in New Jersey. At their nearest points, WTG and OSS components of the Project would be approximately 13 nautical miles (15 statute miles) southeast of Atlantic City, New Jersey. Offshore Project elements would be on the Outer Continental Shelf, with the exception of a portion of the offshore export cables within state waters. Ocean Wind is utilizing a project design envelope (PDE) in its COP, which represents a reasonable range of design parameters that may be used for the Project. In reviewing the PDE, BOEM is analyzing the maximum-case scenario that could occur from any combination of the contemplated parameters. This includes alternatives that may require phased identification of historic properties in the marine APE. BOEM's analysis and review of the PDE may result in the approval of a project that is constructed within that range or a subset of design parameters within the proposed range.

1.3. Visual Area of Potential Effect (APE)

The APE for visual effects analysis (hereafter visual APE) includes the viewshed from which renewable energy structures—whether offshore or onshore—would be visible. Offshore, the visual APE includes a boundary of 40 miles radial distance from the Wind Farm Area, which is the approximate maximum theoretical distance—a distance that does not factor in certain environmental factors such as weather or environmental conditions—at which the WTGs could be visible (COP Volume III, Appendix F-3, page 23; Ocean Wind 2023). However, subsequent desktop analysis, visualizations, and field verification determined that the actual visibility of Wind Farm Area infrastructure beyond 25 miles is unlikely (COP Volume III, Appendix F-3, page 23; Ocean Wind 2023). See Finding of Effect (FOE) Attachment B, Figure 6, Sheets 1–16.

Geographic information system analysis and subsequent field investigation delineated the visual APE methodically through a series of steps, beginning with the maximum theoretical distance WTGs could be

visible. This was determined by first considering the visibility of a WTG from the water level to the tip of an upright rotor blade at a height of 906 feet. The analysis then accounted for how distance and environmental conditions impede visibility as the distance increases between the viewer and WTGs (i.e., by a 40-mile distance, even blade tips would be below the sea level horizon line). The mapping effort then removed all areas with obstructed views toward WTGs, such as those views impeded by intervening topography, vegetation, and structures. Areas with unobstructed views of offshore Project elements then constituted the APE. FOE Attachment B, Figure 6 Map Index, also depicts reasonably foreseeable future project areas for consideration of cumulative effects within the APE.

Onshore, the visual APE includes a 0.25-mile boundary around the BL England substation location (see FOE Attachment B, Figure 7) and a minimum 0.25-mile boundary around the Oyster Creek substation location (see FOE Attachment B, Figure 8). Any overhead lines would fall within these boundaries (COP Volume III, Appendix F-3, page 19; Ocean Wind 2023a). All other elements would be underground and would not be visible.

BOEM confirmed Resorts Casino Hotel is in the offshore visual APE (see Appendix A).

1.4. Description of the Historic Property – Haddon Hall; Currently Operating as Part of the Resorts Casino Hotel

Haddon Hall, 1121 Boardwalk, Atlantic City

Haddon Hall at 1121 Boardwalk in Atlantic City, New Jersey, is located in this Project's visual APE. It is an E-plan hotel completed in phases from 1920 to1929 and executed in the Beaux Arts style. The main tower block is 15 stories with a central 3-story penthouse level; it was completed in 1929. Two flanking projecting blocks, 12 stories tall, were built in 1921–1922 as additions to an earlier iteration of the hotel, a frame building constructed in 1896. While some of the building's exterior is covered in a smooth stucco in 2023, contemporary photography and newspaper descriptions indicate the concrete and steel building originally had a red brick, Indiana limestone, and granite exterior with terra cotta details. Some of these original exterior materials are still visible, albeit painted. Typical of Philadelphia-based architecture firm of Rankin and Kellogg, who designed the 1920s building components, Haddon Hall's Beaux Arts design includes exterior walls featuring inset decorative detailing, quoins, pilasters, string courses, dentil molding at cornice levels, and roof-line balustrades (Ocean Wind 2023b).

1.5. Historic Context and Significance

As described in the survey form produced by Ocean Wind (Appendix B), extant components of Haddon Hall are now part of the Resorts Casino Hotel, the first casino-hotel in Atlantic City and the first legal casino outside of the state of Nevada. The oldest extant portions of the hotel date to 1920-1921 and include the two-story arcade along the Boardwalk, extending between South North Carolina and Mansion Avenues. The hotel expanded following its merger with the neighboring Chalfonte Hotel (no longer extant) immediately southwest of Haddon Hall and across South North Carolina Avenue. Construction on the "Boardwalk wing," a 12-story addition built by the George A. Fuller Company of New York began in 1921 and had been completed by the summer of 1922. An addition was erected on the Mansion Avenue side of the hotel between 1924-1925, which included a corridor entrance connecting Haddon Hall to the Chalfonte. The original central frame section of Haddon Hall (1896) was demolished in 1928 to allow for the construction of the current central block, designed by Philadelphia architects Rankin & Kellogg. New

York-based Turner Construction won the building contract and broke ground in October 1928. The new Haddon Hall was completed in 1929.

During World War II, the owners of what was then known as Chalfonte-Haddon Hall leased the buildings to the Army between 1943-1946, as was typical among beachfront hotels. Haddon Hall was retrofitted to serve as a medical facility and along with the Chalfonte, Traymore, and other Atlantic City hotels, was part of the Thomas England General Hospital. Nicknamed "Camp Boardwalk," Haddon Hall served as the Thomas England General Hospital's main building and could house approximately 2,000 patients. By 1945, the hospital was the largest in the United States specializing in amputations and neurosurgery.

Upon its return to the Leeds & Lippincott Company, Chalfonte-Haddon Hall was re-opened to the public. With talk of gaming legalization in Atlantic City, Resorts International (formed in 1968), purchased Leeds & Lippincott Company and its hotels, renovating Haddon Hall in preparation for the passage of the 1976 gaming referendum. Haddon Hall, known from that point as the Resorts Casino Hotel, re-opened in 1978 as a hotel/casino. The Chalfonte Hotel, unable to meet the minimum room requirement to be converted into a gaming hotel, was demolished in 1980. The site was redeveloped as parking for the Resorts Casino Hotel. In 2002, the Rendezvous Tower was constructed, replacing a Ramada Inn on the site. The new tower opened in 2004.

Several components of local and regional history are associated with the Haddon Hall, including its association with pre-World War II, pre-gambling-era development in Atlantic City, its Beaux-Art architectural style, and its use as a World War II hospital. Recorded use of the property began with a Quaker rooming house in 1869, followed by construction of a 400-person capacity hotel in 1896, and then the development of Haddon Hall by Leeds & Lippincott Company in the 1920s in response to the growing popularity of Atlantic City as a resort area. Haddon Hall is an example of a Beaux Arts-style high-rise hotel designed by Philadelphia-based architects Rankin & Kellogg. Rankin & Kellogg's portfolio includes 72 buildings, primarily residential and commercial types executed in the Beaux Arts style. Finally, as the main building within the Thomas England General Hospital established in World War II, Haddon Hall was associated with advanced amputation and neurosurgery operations and rehabilitation, which bears additional research.

1.6. National Register of Historic Places Eligibility

The extant 1920s components of Haddon Hall were designed by the Philadelphia-based architecture firm of Rankin and Kellogg; the firm was responsible for the central tower block, its two flanking wings, and two-story arcade building. The building is associated with both the development of Atlantic City as a seaside resort and the use of Atlantic City hotels for the Thomas England General Hospital during World War II. Thus, Haddon Hall is significant under Criterion A for Commerce and, potentially, with additional research, Health/Medicine. The hotel is not known to be associated with historically important persons; therefore, it is not significant under Criterion B. The hotel is associated with Philadelphia-based architects Rankin & Kellogg, who designed several local landmarks, including the Camden County Courthouse and Jail, and United States Post Office and Custom House in Camden, New Jersey. Haddon Hall is an example of the firm's Beaux Arts designs; the building holds significance under Criterion C for Architecture. The hotel is not likely to yield information important to prehistory or history; thus, it is not significant under Criterion D. (Ocean Wind 2023b). While Haddon Hall has been subject to modifications through the years, including the addition of a porte cochere entrance on its primary elevation and modifications to the two-story arcade building, main tower block, and flanking projecting wings, which impact its integrity of design, materials, and workmanship, enough of the hotel design and materials are

extant to be able to convey the building's significance under Criterion A and C. It is therefore recommended Eligible for inclusion in the NRHP at the local level, with significant periods including 1921–1929, reflecting its construction period, and 1943–1946, reflecting its use as a hospital during World War II. (Ocean Wind 2023b).

The HRVEA identified historic properties in the visual APEs consistent with the *Programmatic Agreement Among The U.S. Department of the Interior, Bureau of Ocean Energy Management, The State Historic Preservation Officers of New Jersey and New York, The Shinnecock Indian Nation, and The Advisory Council on Historic Preservation Regarding Review of Outer Continental Shelf Renewable Energy Activities Offshore New Jersey and New York Under Section 106 of the National Historic Preservation Act* (Programmatic Agreement) which was executed on June 3, 2016. This Addendum specifically applies Stipulation I.D. of the Programmatic Agreement, treating the Resorts Casino Hotel as potentially eligible for inclusion in the NRHP unless BOEM determines, and the SHPOs agree, that the property is ineligible (Ocean Wind 2023b). This NRHP eligibility in this Addendum addresses Haddon Hall only and further analysis will be needed to determine the NRHP-eligibility for Resorts Casino Hotel. The proposed mitigation measures for this property including the historic context for early 20th century hotels will provide additional information needed to determine if it is eligible for listing in the NRHP.

1.7. Project Effects

BOEM finds that Resorts Casino Hotel will be visually adversely affected by the project and will require resolution of these effects.

Haddon Hall, now part of the Resorts Casino Hotel, is on the Atlantic City Boardwalk with the main hotel block extending north-northwest from the shoreline. The hotel block rising behind the commercial Boardwalk block is oriented to maximize the number of rooms on its narrow, deep lot. The ocean-facing elevation of this block is nine bays wide. In addition to southeast elevation windows, most windows on the southwest elevation of the projecting wings and the central tower block will have a view of the Wind Farm Area (WFA). The building's siting and orientation are important to its Criterion A significance for Commerce. While architectural elements oriented toward the WFA have been subject to modification, most notably at the two-story arcade building, conspicuous views southeast toward the WFA from guest rooms in the hotel will alter the character-defining setting of the building. (Ocean Wind 2023b).

Because of Resorts Casino Hotel's close proximity to the Ritz-Carlton Hotel, BOEM believes that the cumulative impacts on each of the two properties would be very similar. Therefore, BOEM has determined that the Resorts Casino Hotel will be cumulatively visually adversely affected by the Project. Cumulative impacts on the Ritz-Carlton Hotel are discussed in section N.3.1.3.5 of the FOE.

1.8. Resolution Measures

BOEM believes that it is appropriate to resolve the adverse effect to the Resorts Casino Hotel through analogous measures for similarly-situated properties, namely, the development of an historic context study that analyzes early 20th century hotels located in the visual APE, including the Resorts Casino Hotel, and a requirement for Ocean Wind to fund in the amount of $65,000 to a project-specific mitigation fund established specifically for visual adverse effects attributed to this Project.

1.9. References Cited

Bureau of Ocean Energy Management (BOEM). 2023a. *Ocean Wind 1 Offshore Wind Farm Final Environmental Impact Statement*. May. OCS EIS/EA BOEM 2023-020. U.S. Department of the Interior, Bureau of Ocean Energy Management, Office of Renewable Energy Programs, Washington, D.C.

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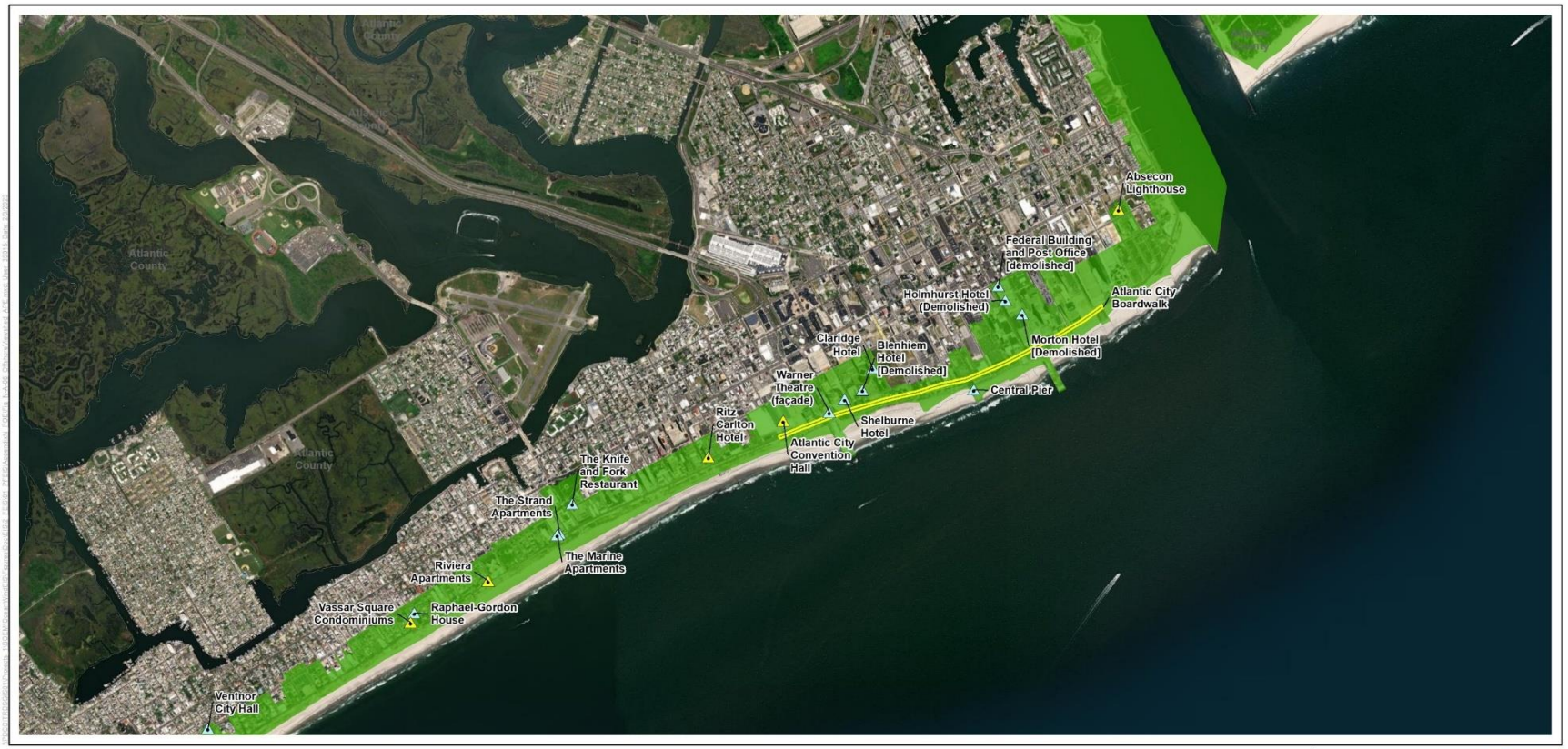
Ocean Wind LLC (Ocean Wind). 2023a. *Construction and Operations Plan, Ocean Wind Offshore Wind Farm*. Volumes I–III. May. Available: https://www.boem.gov/ocean-wind-construction-and-operations-plan/.

Ocean Wind LLC (Ocean Wind). 2023b. *Ocean Wind Intensive-Level Architectural Survey of Haddon Hall, 1121 Boardwalk, Atlantic City, New Jersey*. May. Prepared for Bureau of Ocean Energy Management, Washington, D.C.

APPENDIX A
OFFSHORE VISUAL AREA OF POTENTIAL EFFECT FOCUSED ON RESORTS CASINO HOTEL



Legend

- Offshore Visual APE
- Wind Turbine
- Export Cable Route Landfall Options
- Onshore Interconnection Point
- Onshore Export Cable Route
- Onshore Export Cable Route Options
- Inshore Export Cable Route
- Offshore Export Cable Route
- Potential Onshore Substation Parcel
- Historic properties recommended adverse visual effects
- Historic properties recommended no adverse visual effects
- Historic properties recommended adverse visual effects
- Historic properties recommended no adverse visual effects

0 1,000 2,000 Feet
1:24,000

Sheet: 9 of 15

APPENDIX B
INVENTORY FORM FOR HADDON HALL/RESORTS CASINO HOTEL

Ocean Wind 1
An Ørsted & PSEG project

May 3, 2023

Sarah Stokely
Lead Historian and Section 106 Team Lead
Renewable Energy Program
Bureau of Ocean Energy Management
1849 C Street, NW
Washington, DC 20240

Dear Sarah:

Ocean Wind LLC (Ocean Wind), a subsidiary of Ørsted Wind Power North America LLC, proposes to construct and operate the Ocean Wind Offshore Wind Farm Project (Project) off the coast of New Jersey. Ocean Wind is developing the Project pursuant to the Bureau of Ocean Energy Management (BOEM) requirements for the commercial lease of submerged lands for renewable energy development on the outer continental shelf (Lease Area OCS-A 0498). Ørsted has contracted HDR Engineering, Inc. (HDR) to provide environmental support for the project. HDR has subcontracted SEARCH, Inc. (SEARCH) to support cultural resources assessments.

BOEM is currently undergoing environmental review of Ocean Wind's Construction and Operations Plan (COP) under the National Environmental Policy Act and is consulting on this undertaking pursuant to the National Historic Preservation Act. Appendix F of the COP is the *Ocean Wind Visual Effects on Historic Properties Report*, also known as the *Historic Resources Visual Effects Assessment* (HRVEA), completed by the SEARCH/HDR team in March 2021, with revisions completed through January 2023. This document includes visual effects evaluations for historic properties that are either listed in or eligible for the National Register of Historic Places (NRHP). In coordination with the New Jersey Historic Preservation Office (NJHPO), BOEM established a preliminary area of potential effects (PAPE) for the Project, and SEARCH/HDR conducted a thorough review of the PAPE to identify historic properties requiring evaluation in the HRVEA. Historic properties were identified through review of NJHPO files, and through a historic resources survey conducted for the project. Historic resources survey results are presented in the *Architectural Intensive Level Survey, Ocean Wind Offshore Windfarm, New Jersey Report* completed by SEARCH/HDR in September 2021, with revisions completed in October 2022.

During the course of Section 106 consulting party meetings, a consulting party informed the SEARCH/HDR team of a historic-age resource that SEARCH/HDR then determined was inadvertently omitted from the 2021 survey and 2022 updates. SEARCH/HDR did not include this property in the survey because the property was indicated in the NJHPO's online GIS system called LUCY Cultural Resources GIS[1] as a demolished resource within the NJHPO-identified Atlantic City Boardwalk Historic District. The resource was recorded on April 20, 2023. SEARCH/HDR conducted research, completed an NJHPO Inventory Form, and made an NRHP eligibility recommendation for the resource.

[1] https://www.arcgis.com/home/item.html?id=44ce3eb3c53349639040fe205d69bb79.

The resource recorded is Haddon Hall, currently operating as part of the Resorts Casino Hotel at 1121 Boardwalk in Atlantic City, Atlantic County.

Following is a brief summary and NRHP recommendation for Haddon Hall. Its inventory form with detailed information is appended to this letter.

Haddon Hall, 1121 Boardwalk, Atlantic City

Haddon Hall at 1121 Boardwalk is an E-plan hotel completed in 1922–1929 and executed in the Beaux Arts style. The main tower block is 15 stories with a central 3-story penthouse level; it was completed in 1929. Two flanking projecting blocks, 12 stories tall, were built in 1921–1922 as additions to an earlier iteration of the hotel, a frame building constructed in 1896. While some of the building's exterior is covered in a smooth stucco in 2023, contemporary photography and newspaper descriptions indicate the concrete and steel building originally had a red brick, Indiana limestone, and granite exterior with terra cotta details. Some of these original exterior materials are still visible, albeit painted. Typical of Philadelphia-based architecture firm of Rankin and Kellogg, who designed the 1920s building components, Haddon Hall's Beaux Arts design includes exterior walls featuring inset decorative detailing, quoins, pilasters, string courses, dentil molding at cornice levels, and roof-line balustrades.

The extant 1920s components of Haddon Hall were designed by the Philadelphia-based architecture firm of Rankin and Kellogg; the firm was responsible for the central tower block, its two flanking wings, and two-story arcade building. The building is associated with both the development of Atlantic City as a seaside resort and the use of Atlantic City hotels for the Thomas England General Hospital during World War II. Thus Haddon Hall is significant under Criterion A for Entertainment/Recreation and (potentially, with additional research) Health/Medicine. The hotel is not known to be associated with historically important persons; therefore, it is not significant under Criterion B. The hotel is associated with Philadelphia-based architects Rankin & Kellogg, who designed several local landmarks, including the Camden County Courthouse and Jail, and United States Post Office and Custom House in Camden, New Jersey. Haddon Hall is an example of the firm's Beaux Arts designs; the building holds significance under Criterion C for Architecture. The hotel is not likely to yield information important to prehistory or history; thus, it is not significant under Criterion D.

While Haddon Hall has been subject to modifications through the years, including its porte cochere entrance addition on its primary elevation and modifications to the two-story arcade building, which impact its integrity of design, materials, and workmanship, enough of the hotel design and materials are extant to be able to convey the building's significance under Criterion A and C. It is therefore recommended **Eligible** for inclusion in the NRHP at the local level, with significant periods including 1921–1929, reflecting its construction period, and 1943–1946, reflecting its use as a hospital during World War II.

Haddon Hall is on the Atlantic City Boardwalk with the main hotel block extending north-northwest from the shoreline. The hotel block rising behind the commercial Boardwalk block is oriented to maximize the number of rooms on its narrow, deep lot. The ocean-facing elevation of this block is nine bays wide. In addition to southeast elevation windows, most windows on the southwest elevation of the projecting wings and the central projecting tower block will have a view

of the Wind Farm Area (WFA). The building's siting and orientation are important to its Criterion A significance for Commerce. While architectural elements oriented toward the WFA have been subject to modification, most notably at the two-story arcade building, conspicuous views southeast toward the WFA from guest rooms in the hotel will alter the character-defining setting of the building. As a result, it is recommended that the Project will have an Adverse Effect on Haddon Hall.

If BOEM has any questions about the information presented here, please do not hesitate to contact myself, Katharine Perry at (917) 524-4633 or KAPER@orsted.com.

Finally, Ørsted requested that the SEARCH/HDR team conduct an additional analysis of the list of demolished resources in the NJHPO's LUCY Cultural Resources GIS to confirm whether all other resources on the demolished list were, in fact, no longer extant. As outlined in the attached memorandum, this analysis confirmed that no other extant properties on that list meet the criteria for intensive-level survey.

Sincerely,

Katharine Perry
Permitting Manager, Ocean Wind 1

BASE FORM

Historic Sites #:

Property Name: Haddon Hall

Street Address: *Street #:* 1121 (Low) _____ (High) *Apartment #:* _____ (Low) _____ (High)

Prefix: _____ *Street Name:* Boardwalk *Suffix:* _____ *Type:* _____

County(s): Atlantic **Zip Code:** 08401

Municipality(s): Atlantic City **Block(s):** 60

Local Place Name(s): _____ **Lot(s):** 14

Ownership: Private **USGS Quad(s)** Atlantic City

Description:
Please see Exterior Description on Building Attachment Form.

Registration and Status Dates:

National Historic Landmark: _____ SHPO Opinion: _____

National Register: _____ Local Designation: _____

New Jersey Register: _____ Other Designation: _____

Determination of Eligibility: _____ Other Designation Date: _____

Photograph:

Survey Name: **OCEAN WIND INTENSIVE-LEVEL ARCHITECTURAL SURVEY** Date: May 3, 2023

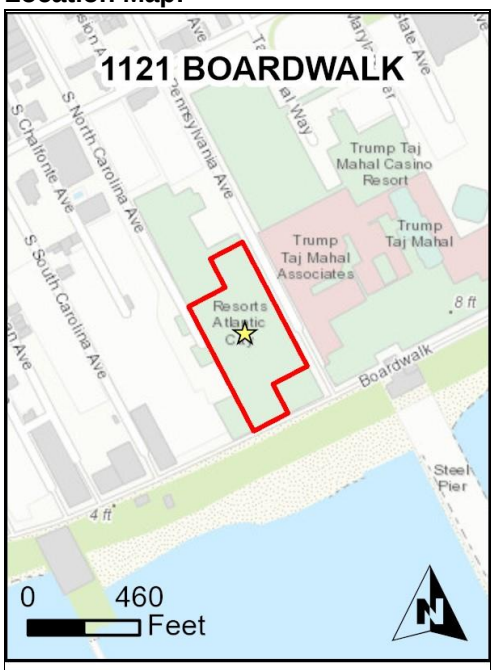
Surveyor: **Ann Keen (HDR), Liz Blackwell (SEARCH)**

Organization: **HDR and SEARCH**

BASE FORM

Historic Sites #:

Location Map:



Service Layer Credits: World Topographic Map: State of New Jersey, Esri, HERE, Garmin, INCREMENT P, USGS, METI/NASA, EPA, USDA

Site Map:

Service Layer Credits: World Imagery: Maxar

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Atlantic City Gazette-Review
1920 “The Haddon Hall Arcade.” June 26, 1920:4.
1921a “Leeds & Lippincott and The Leeds Company.” Display ad. February 2, 1921:4.
1921b “May Span Street From Chalfonte to Haddon Hall.” December 2, 1921:1.
1924 “New Additions to Shore Hotel.” July 26, 1924:1.

Atlantic City Sunday Press the Sunday Gazette
1928a “Will Enlarge Haddon Hall.” April 1, 1928:13.
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1929 "Completion." [Photograph]. Philadelphia: Rankin & Kellogg/ Doe Collection, 33-P-038-008. July 4, 1929. Image courtesy Philadelphia Architects and Buildings. Available online at https://www.philadelphiabuildings.org/pab/app/im_display.cfm/504329?ProjectId=1B50E3AE-69BE-4232-B7494729A7A3F686, accessed April 2023.

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BASE FORM

Historic Sites #:

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2023 “Rankin & Kellogg (fl. 1891-1903 and 1925-1943).” Available online at https://www.philadelphiabuildings.org/pab/app/ar_display.cfm?ArchitectId=A1137, accessed April 2023.

Press of Atlantic City
1921 “Twelve Story Addition For Haddon Hall.” October 4, 1921:1.
1925 “Hundreds of Thousands of Dollars Spend to Get Hotels Ready for Rush: Great Chalfonte-Haddon Hall Addition.” April 11, 1925:2.

Resorts Casino Hotel
2023 “Atlantic City’s First Casino – A Resorts AC History.” Available online at https://resortsac.com/history/#:%7E:text=Before%20becoming%20Resorts%20International%20in,opened%20its%20doors%20for%20business, accessed April 2023.

Additional Information:
Additional Information

More Research Needed? ☒Yes ☐No

INTENSIVE LEVEL USE ONLY

Attachments Included: ☒ Building ☐ Structure ☐ Object ☐ Bridge ☐ Landscape ☐ Industry

Within Historic District? ☐ Yes ☒ No

Status: ☐ Key-Contributing ☐ Contributing ☐ Non-Contributing

Associated Archaeological Site/Deposit? ☐ Yes
(Known or potential Sites – if yes, please describe briefly)

BUILDING ATTACHMENT

Historic Sites #:

Common Name:	Resorts Casino Hotel		
Historic Name:	Haddon Hall		
Present Use:	Residential Activity, Transient		
Historic Use:	Residential Activity, Transient		
Construction Date:	1920, 1921, 1924, 1928	**Source:**	Press of Atlantic City 1921, Atlantic City Gazette-Review 1924, Resorts Casino Hotel 2023
Alteration Date(s):	1976–1978	**Source:**	Resorts Casino Hotel 2023

Designer:	Rankin & Kellogg	**Physical Condition:**	Good
Builder:	George A. Fuller Company, Turner Construction	**Remaining Historic Fabric:**	Medium
Style:	Beaux Arts		
Form:	Other: High Rise	**Stories:**	15
Type:	Other	**Bays:**	21
Roof Finish Materials:	Unknown		
Exterior Finish Materials	Brick, stone, terra cotta, stucco		

Exterior Description:
Haddon Hall at 1121 Boardwalk is an E-plan hotel completed in 1922–1929 and executed in the Beaux Arts style. The main tower block is 15 stories with a central 3-story penthouse level; it was completed in 1929. Two flanking projecting blocks, 12 stories tall, were built in 1921–1922 as additions to an earlier iteration of the hotel, a frame building constructed in 1896. While some of the building's exterior is covered in a smooth stucco in 2023, contemporary photography and newspaper descriptions indicate the concrete and steel building originally had a red brick, Indiana limestone, and granite exterior with terra cotta details. Some of these original exterior materials are still visible, albeit painted. Typical of Beaux Arts design, exterior walls feature inset decorative detailing, quoins, pilasters, string courses, dentil molding at cornice levels, and roof-line balustrades. Residential-level windows are 1/1 sash. Windows in the lower levels are a mix of multi-light sash, horizontal sliders with rounded-arch mixed transoms; some windows have been infilled. The porte cochere on the southwest elevation is not original; it does not appear in contemporary photography from the 1920s.

A two-story commercial wing along the boardwalk was completed in 1921, also built as an addition to the 1896 iteration of Haddon Hall. Commercial space on the first level was arcaded, but many of the rounded-arch openings have been infilled. Rounded-arch windows on the second-story promenade are replacement. Limestone, brick, and terra cotta components visible on the exterior of this two-story building reflect how the exterior of the main hotel blocks used to appear.

Interior Description:
Not Applicable.

BUILDING ATTACHMENT

Historic Sites #:

Setting:
Haddon Hall is part of **Error! Reference source not found.**located on the north side of the Boardwalk, between South Pennsylvania Avenue and South North Carolina Avenue in Atlantic City, Atlantic County. Other buildings in the immediate area vary in scale and include restaurants, hotels, and casinos. Directly across South North Carolina from Haddon Hall is a paved parking lot where the Chalfonte Hotel was located until 1980, when it was demolished.

ELIGIBILTY WORKSHEET

Historic Sites #:

History:
Atlantic City is located on Absecon Island, where the Lenni-Lenape tribe often visited to fish and collect shells they used as currency. Jeremiah Leeds built the first structure on the island in 1785, and his descendant had built seven permanent dwellings by 1850 (Town Square Publications 2010). The city incorporated in 1854 and rail development soon followed. The city grew quickly in the late nineteenth century as a resort town located near New York and Philadelphia. Unlike primarily residential communities on the New Jersey Shore, Atlantic City development included businesses, recreational spaces, and tourist attractions like theaters and the Boardwalk. Half of the Boardwalk was destroyed in the Great Atlantic Hurricane of 1944. The city's popularity continued through the mid-twentieth century. but diminished in the 1950s when air travel allowed vacationers more options (ACFPL 2021). Atlantic City was heavily damaged by the Ash Wednesday Storm of 1962, which flooded and destroyed beachfront properties and roads and caused major coastline loss (NPS 2019). Another wave of large-scale development followed the city's gambling legalization in 1976 (ACFPL 2021).

The Resorts Casino Hotel was the first casino-hotel in Atlantic City, and the first legal casino outside of the state of Nevada. Originally named Haddon Hall, the extant components of the hotel were constructed in stages beginning in 1920–1921. The oldest extant component of Haddon Hall is the two-story arcade along the Boardwalk, between South North Carolina and Mansion Avenues (*Atlantic City Gazette-Review* 1920:4). The hotel complex expanded following its merger with the neighboring Chalfonte Hotel (no longer extant), immediately southwest of Haddon Hall across South North Carolina Avenue (*Atlantic City Gazette-Review* 1921a:2; *Atlantic City Gazette-Review* 1921b:1). Construction on the "Boardwalk wing," a 12-story addition built by the George A. Fuller Company of New York, began construction in 1921 and was completed in the summer of 1922 (*Press of Atlantic City* 1921:1). Similarly, the hotel constructed an addition on the Mansion Avenue side of the building between 1924–1925, including a corridor entrance connecting the Haddon Hall to the Chalfonte (*Atlantic City Gazette-Review* 1924:1; *Press of Atlantic City* 1925:2). The central frame section of Haddon Hall (built in 1896) was demolished in 1928 to allow for the construction of the current central block, which was designed by Philadelphia architects Rankin & Kellogg (*Atlantic City Sunday Press the Sunday Gazette* 1928a:13). The project was awarded to New York-based Turner Construction, and broke ground in October 1928 (*Atlantic City Sunday Press the Sunday Gazette* 1928b:13). It was completed in 1929.

Like many beachfront hotels, what was then known as Chalfonte-Haddon Hall leased its buildings to the Army between 1943 and 1946, where it was nicknamed "Camp Boardwalk." Haddon Hall was retrofitted to serve as a medical facility, and with the Chalfonte, Traymore, and other Atlantic City hotels, it was officially known as the Thomas England General Hospital. Haddon Hall was noted as the hospital's main building. The Haddon Hall section of the hospital had capacity for approximately 2,000 patients. By 1945, the hospital was the largest in the United States specializing in amputations and neurosurgery (IrishBrigade.com n.d.)

Upon its return to the Leeds & Lippincott Company, Chalfonte-Haddon Hall was re-opened to the public. With talk of gaming legalization in Atlantic City, Resorts International (formed in 1968), purchased Leeds & Lippincott Company and its hotels, renovating Haddon Hall in preparation for the passage of the 1976 gaming referendum. Haddon Hall, known from that point as the Resorts Casino Hotel, re-opened in 1978 as a hotel/casino. The Chalfonte Hotel, unable to meet the minimum room requirement to be converted into a gaming hotel, was demolished in 1980. The site was redeveloped into parking for the Resorts Casino Hotel. In 2002, the Rendezvous Tower was constructed, replacing a Ramada Inn on the site. The new tower opened in 2004 (Resorts Casino Hotel 2023; Olshan 2001:25).

ELIGIBILTY WORKSHEET

Historic Sites #:

Significance:
1121 Boardwalk is associated with pre-World War II, pre-gambling-era development Atlantic City. The location of a Quaker rooming house beginning in 1869. Expansion took place over the years, culminating in construction of a hotel with a 400-person capacity on the site in 1896. This iteration of Haddon Hall was expanded between 1920 and 1928 to include a two-story arcade and promenade along the Boardwalk and two 12-story wing additions. Haddon Hall was developed by Leeds & Lippincott Company, which expanded the hotel in response to the growing popularity of Atlantic City as a resort area, and commissioned the replacement of the 1896 central building with a 16-story concrete and steel structure capped by a 3-story penthouse structure. Extant components of Haddon Hall were designed by the Philadelphia-based architecture firm of Rankin & Kellogg.

The Resort Casino Hotel is an example of a Beaux Arts-style high-rise hotel designed by Philadelphia-based architects Rankin & Kellogg. Rankin & Kellogg's portfolio includes 72 buildings, primarily residential and commercial types executed in the Beaux Arts style.

As the main building associated with the Thomas England General Hospital during World War II, Haddon Hall was associated with advanced amputation and neurosurgery operations and rehabilitation, which bears additional research.

Eligibility for New Jersey and National Registers:	☒ Yes	☐ No	**National Register Criteria:**	☒ A	☐ B	☒ C	☐ D
Level of Significance	☒ Local	☐ State	☐ National				

Justification of Eligibility/Ineligibility:
The extant 1920s components of Haddon Hall were designed by the Philadelphia-based architecture firm of Rankin and Kellogg. The firm was responsible for the central tower block, its two flanking wings, and two-story arcade building. The building is associated with both the development of Atlantic City as a seaside resort and the use of Atlantic City hotels for the Thomas England General Hospital during World War II. Thus Haddon Hall is significant under Criterion A for Commerce and (potentially, with additional research) Health/Medicine. The hotel is not known to be associated with historically important persons; therefore, it is not significant under Criterion B. The hotel is associated with Philadelphia-based architects Rankin & Kellogg, who designed several local landmarks, including the Camden County Courthouse and Jail, and United States Post Office and Custom House in Camden, New Jersey. Haddon Hall is an example of the firm's Beaux Arts designs; the building holds significance under Criterion C for Architecture. The hotel is not likely to yield information important to prehistory or history; thus, it is not significant under Criterion D.

Haddon Hall has been subject to modifications through the years, including its porte cochere entrance addition on its primary elevation and modifications to the two-story arcade building, impacting its integrity of design, materials, and workmanship. However, enough of the hotel design and materials are extant to be able to convey the building's significance under Criterion A and C. It is therefore recommended Eligible for inclusion in the NRHP at the local level, with significant periods including 1921–1929, reflecting its construction period, and 1943–1946, reflecting its use as a hospital during World War II.

ELIGIBILTY WORKSHEET

Historic Sites #:

For Historic Districts Only:

Property Count: Key Contributing: _____ Contributing: _____ Non-Contributing: _____

For Individual Properties Only:

List the completed attachments related to the property's significance:

Narrative Boundary Description:
The survey boundary includes the entire legal parcel associated with the building at 1121 Boardwalk.

CONTINUATION SHEET

Historic Sites #:

ADDITIONAL PHOTOGRAPHS

Photo Description:
Resorts Casino Hotel, 1121 Boardwalk, view to the northeast. 2004 tower on left, Haddon Hall on right.

Photo Description:
Resorts Casino Hotel entrance at Haddon Hall, 1121 Boardwalk, view to the southeast.

Survey Name: **OCEAN WIND INTENSIVE-LEVEL ARCHITECTURAL SURVEY** Date: May 3, 2023
Surveyor: **Ann Keen (HDR), Liz Blackwell (SEARCH)**
Organization: **HDR and SEARCH**

CONTINUATION SHEET

Historic Sites #:

ADDITIONAL PHOTOGRAPHS

Photo Description:
Haddon Hall, 1121 Boardwalk, view to the northeast.

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CONTINUATION SHEET

Historic Sites #:

Figure 1. Sketch rendering of the 12-story addition to Haddon Hall, 1921 (*Press of Atlantic City* 1921:1)

CONTINUATION SHEET

Historic Sites #:

Figure 2. Photograph commemorating the completion of Haddon Hall project, 1929 (Atlantic Foto Service 1929).