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 COP. BOEM finds that the undertaking would adversely affect the following historic properties:

- Riviera Apartments, Atlantic City
- Vassar Square Condominiums, Ventnor City
- House at 114 South Harvard Avenue, Ventnor City
- Charles Fischer House, Ventnor City
- Ocean City Music Pier, Ocean City
- Two submerged archaeological resources (Target 13 and Target 15)
- Sixteen ancient submerged landforms (Targets 20–35)

The Project would introduce visual and add cumulative effects from WTG visibility to five historic buildings where ocean views are character-defining features that contribute to their NRHP eligibly. The Project would encroach on the 50-meter buffer of two submerged archaeological resources (Target 13 and Target 15) in the BL England Export Cable Route Corridor. Additionally, 16 ancient submerged landforms within the Lease Area may 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. Of these 16 ancient submerged landforms, nine (Targets 21–26, 28–29, 31) cannot be avoided by the Proposed Action. Avoidance may be possible for the remaining seven ancient submerged landforms (Targets 20, 27, 30, 32–35), but avoidance must be demonstrated as Ocean Wind 1 design refinement progresses and further consultation among BOEM and consulting parties takes place. 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 National Historic Landmark (NHL) properties, BOEM has identified two NHLs in the visual APE and determined they will not be adversely affected by the undertaking.

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 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, and November 16, 2021/December

10, 2021. 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 additional inshore and onshore cable route options that require phased identification of historic properties, and 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.

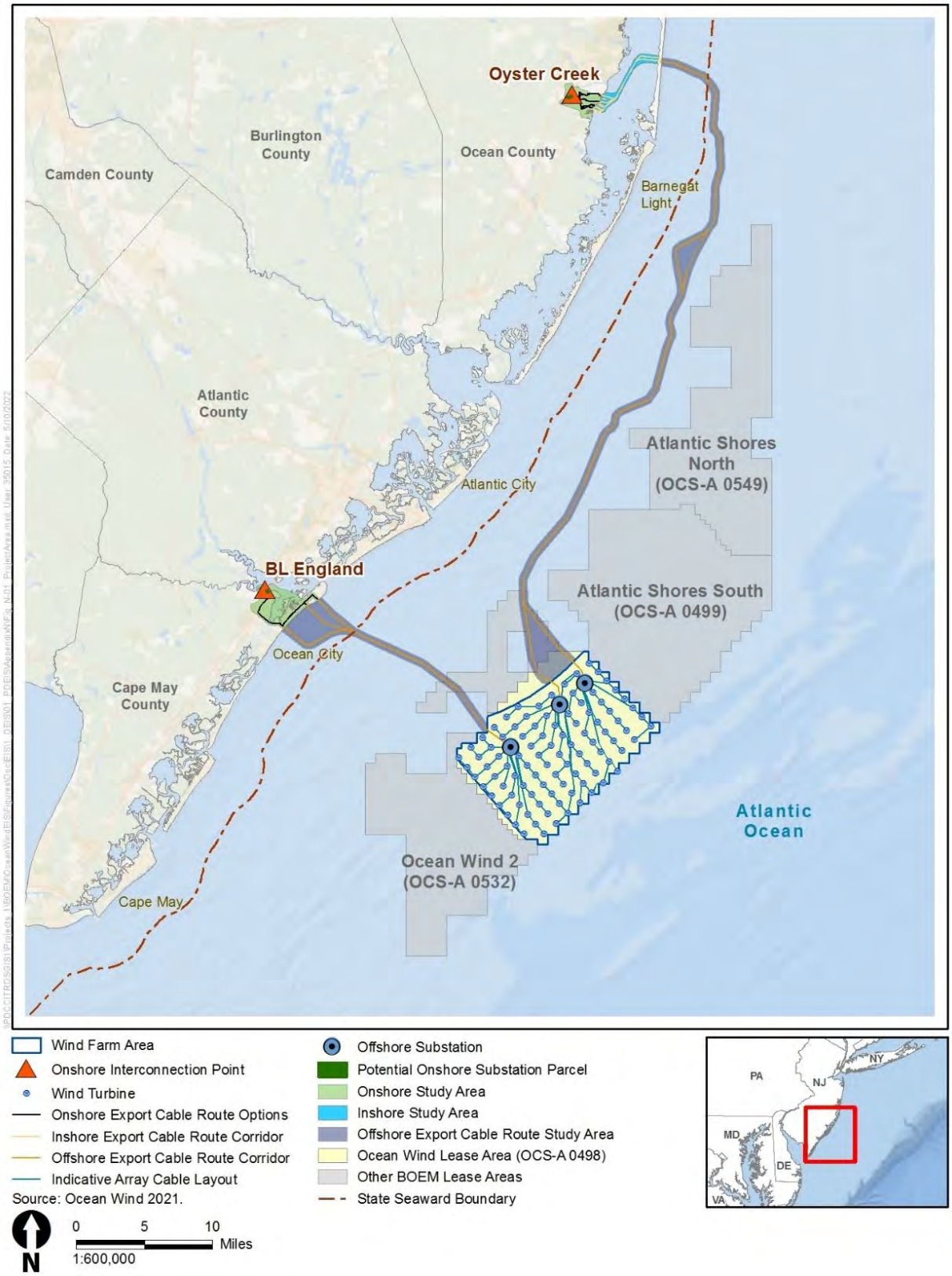

Figure N-1 Ocean Wind 1 COP Proposed Project Elements

If approved by BOEM and other agencies with authority to approve Project components outside BOEM's jurisdiction, Ocean Wind 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 has published this 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 Draft EIS. This Draft 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 43 feet (13.1 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.

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 annual maintenance of WTGs, including safety surveys, blade maintenance, and painting as needed. Foundation inspections would be conducted 1 year, 2–3 years, and 5–8 years post-commissioning. OSS would be routinely maintained for preventative maintenance up to 12 times per year. The offshore export cables, inter-array cables, and OSS interconnector cables typically have no maintenance requirements unless a failure occurs. 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 foundations would need to be removed 15 feet (4.6 meters) below the mudline (30 CFR 585.910(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 Draft 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 2022), 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 BL England export cable route corridor (Attachment B, Figure 2), and activities within the Oyster Creek 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. The marine APE also 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. 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 2022). 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 2022). 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 2022). 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. Additional marine archaeological investigations with new information will be provided for submerged areas associated with the Alternative E APE expansion in March 2022 and will be reviewed for sufficiency by BOEM.
- 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.

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 for Ocean Wind Farm Project* (BOEM 2022). The Cumulative Historic Resources Visual Effects Assessment 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 2022), 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. Five 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 five historic properties are the Riviera Apartments in Atlantic City; Vassar Square Condominiums, the house at 114 South Harvard Avenue, and Charles Fischer House in Ventnor City; and Ocean City Music Pier in Ocean City.

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 2022).	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 eight previously recorded archaeological resources within 250 meters of the terrestrial preliminary APE; none of these resources are within the terrestrial preliminary APE, but three are immediately adjacent. These archaeological resources date to pre-contact and post-contact periods. The study also analyzed 628 buildings or structures within the preliminary APE to identify those that may have important archaeological components associated with them. A total of 10 buildings dating to the 18th or 20th centuries were identified, nearly all of which are along the BL England corridor. A total of 1,177 shovel tests and seven 1- by 1-meter units were excavated throughout the terrestrial preliminary APE. The vast majority of tests did not contain cultural material. Two areas of artifact concentration were noted near previously identified sites in the BL England corridor. Both locations within the Project area evidenced extensive disturbance; while the sites' boundaries were expanded slightly from their original estimation, no additional study was recommended. A single, isolated projectile point (approximately 12,500 years old) was recovered in a test in the Oyster Creek corridor. A subsequent controlled unit confirmed the point was recovered from a modern trench and not in its original depositional context. Eight close-interval radial tests and subsequent unit excavation did not recover any additional pre-contact material. The artifact is interpreted as an isolated find, like many other Paleoindian sites in New Jersey. Archaeological monitoring during construction is recommended within a 10-meter by 10-meter area surrounding the Paleoindian projectile point, and a monitoring plan should be developed.

Portion of APE	Report	Description	Key Findings / Recommendation
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 2022).	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 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.	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 the Project would encroach upon the recommended 50-meter avoidance buffer for two of these 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 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.
Visual	Ocean Wind Visual Effects on Historic Properties (COP Volume III, Appendix F-3; Ocean Wind 2022)	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.	This report identified seven historic districts and 34 individual buildings or structures within the Offshore Infrastructure preliminary APE. A "No Adverse Effect" recommendation was made for 35 properties, and a potential for adverse effect was recommended for six properties. These six properties included the Riviera Apartments in Atlantic City; Vassar Square Condominiums, the house at 114 South Harvard Avenue, and the Charles Fischer House in Ventnor City; Ocean City Music Pier in Ocean City; and Villa Maria by the Sea in Stone Harbor. Although the visual effects

Portion of APE	Report	Description	Key Findings / Recommendation
		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. 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 NHL properties in the offshore infrastructure preliminary APE, no properties with recommended adverse effects are designated NHL properties or districts. 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 2022).

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.	

Sources: COP Volume III, Appendix F-1, F-2, F-3; Ocean Wind 2022; 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 in-person public hearings on July 19, 20, and 21, 2022, and two virtual public hearings on July 14 and July 26, 2022. The public comment period is scheduled to close on August 8, 2022. The input received via this process was 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 COP Scoping Report; and Ocean Wind 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 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 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 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, complete cumulative visual effects assessment report. 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.

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 plans to hold two additional consultation meetings to consult on the finding of effect and the resolution of adverse effects, to receive additional input regarding the Draft EIS analysis, and to consult on a Memorandum of Agreement prior to issuing the ROD.

Additional consultation meetings may be scheduled during the period between the Draft EIS and 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 adverse effects on two of the 19 known submerged archaeological resources and 16 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 or potential shipwrecks from the Historic period (COP Volume III, Appendix F-1, pages 168–169; Ocean Wind 2022). Seventeen of these would be avoided, with 50-meter avoidance buffers, by all Project activities that are part of the undertaking. Two additional resources would also be avoided, but seafloor impacts could encroach into the recommended 50-meter avoidance buffers. One of the two resources is a potential shipwreck within the Oyster Creek export cable route corridor. The other is a shipwreck in the BL England export cable route corridor believed to be one of three possible shipwrecks: the *Huron,* which sunk in 1866; the *Rhine,* which sunk in 1840; or the *Sindia,* which sunk in 1901 (COP Volume III, Appendix F-1, page 123; Ocean Wind 2022). Ocean Wind proposes to modify the design to avoid the two resources, but the Project would still fall within their associated avoidance buffers. As a result, the Project would result in adverse effects on these two 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 2022).

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. Up to 16 ancient submerged landforms within the Lease Area may be affected by the Project. Nine ancient submerged landforms (Targets 21–26, 28–29, 31) 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 may avoid impacts on seven ancient submerged landforms (Targets 20, 27, 30, 32–35): four in the Lease Area, one in the BL England export cable route corridor, and two in the Oyster Creek export cable route corridor. However, avoidance must be demonstrated as Ocean Wind 1 design refinement progresses and further consultation among BOEM and consulting parties takes place. As such, the undertaking would result in adverse effects

on 16 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

No historic properties were identified within the terrestrial APE (COP Volume III, Appendix F-2; Ocean Wind 2022). Therefore, BOEM finds no historic properties affected in the terrestrial APE.

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

Review of the offshore visual area identified seven historic districts and 34 individual historic properties, and review of the onshore visual area identified three historic properties. Of these, five historic properties would be adversely affected by visual impacts from the proposed Project (COP Volume III, Appendix F-3; Ocean Wind 2022). The five 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. 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 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, pages 56–57; Ocean Wind 2022).

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 57; Ocean Wind 2022).

As described in the *Ocean Wind Cumulative Historic Resources Visual Effects Analysis*, the Riviera Apartments are 15.2 miles from the nearest WTG associated with the Project and 8.9 miles from the nearest potential WTG location for other wind energy development activities. The total number of potentially visible turbines from Riviera Apartments is 617 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 Riviera Apartments when combined with the effects of other past, present, or reasonably foreseeable future actions (BOEM 2022).

N.3.1.3.2 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, pages 60–61; Ocean Wind 2022).

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 62; Ocean Wind 2022).

As described in the *Ocean Wind Cumulative Historic Resources Visual Effects Analysis*, the Vassar Square Condominiums are 16.0 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 Vassar Square Condominiums is 629 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 Vassar Square Condominiums when combined with the effects of other past, present, or reasonably foreseeable future actions (BOEM 2022).

N.3.1.3.3 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, pages 70–72; Ocean Wind 2022).

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 72; Ocean Wind 2022).

As described in the *Ocean Wind Cumulative Historic Resources Visual Effects Analysis*, the house at 114 South Harvard Avenue is 16.0 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 the house at 114 Harvard Avenue is 571 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 house at 114 South Harvard Avenue when combined with the effects of other past, present, or reasonably foreseeable future actions (BOEM 2022).

N.3.1.3.4 Charles Fischer House, Ventnor City, New Jersey

This property is at 115 South Princeton Avenue in Ventnor City and is approximately 15.7 miles from the Wind Farm Area. It consists of a 2.5-story Mediterranean-eclectic residence constructed in 1915. The

building was surveyed in January 2021 and was recommended eligible for individual listing in the NRHP under Criterion C as a good example of early 20th century beachfront housing in Ventnor City (COP Volume III, Appendix F-3, pages 73–75; Ocean Wind 2022).

Although this building does not directly face the water, ocean views do appear to have been an important consideration in the building's design. The Project would not affect the building's integrity of location, design, materials, and workmanship, but it could affect its integrity of setting, feeling, and association. At present, the property features extensive vegetative growth that could mitigate potential visual effects. However, if this vegetation is removed, views could be affected by the presence of the Project on the horizon. Because seascape views were an important consideration when the building was designed, 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 75; Ocean Wind 2022).

As described in the *Ocean Wind Cumulative Historic Resources Visual Effects Analysis*, the Charles Fischer House is 16.0 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 the Charles Fischer House is 571 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 Charles Fischer House when combined with the effects of other past, present, or reasonably foreseeable future actions (BOEM 2022).

N.3.1.3.5 Ocean City Music Pier, Ocean City, New Jersey

This property is at 811 Boardwalk in Ocean City and consists of a multi-story Mediterranean Revival-style building constructed in 1928. According to New Jersey Historic Preservation Office 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, pages 91–93; Ocean Wind 2022).

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, pages 92–93; Ocean Wind 2022).

As described in the *Ocean Wind Cumulative Historic Resources Visual Effects Analysis*, the Ocean City Music Pier is 15.5 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 Ocean City Music Pier is 612 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 Ocean City Music Pier 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 proposes to modify the design to avoid effects on 17 of the 19 submerged archaeological resources and their associated avoidance buffers. For two of the 19 submerged archaeological resources, Ocean Wind proposes to modify the design to avoid the resources but not their associated avoidance buffers. In addition, nine of the 16 ancient submerged landforms 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 may avoid seven of 16 ancient submerged landforms. However, until Ocean Wind 1 sufficiently demonstrates avoidance in final design, these seven ancient submerged landforms are assumed to be adversely affected. 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 no archaeological historic properties within the terrestrial APE, including previously disturbed areas. Therefore, BOEM finds no effect on this type of 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 found that the Project would have a adverse visual effect on:

- Riviera Apartments in Atlantic City, New Jersey
- Vassar Square Condominiums, Ventnor City, New Jersey
- House at 114 South Harvard Avenue, Ventnor City, New Jersey
- Charles Fischer House in Ventnor City, New Jersey
- Ocean City Music Pier, Ocean City, New Jersey

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 *Ocean Wind Visual Effects on Historic Properties* (COP Volume III, Appendix F-3; Ocean Wind 2022) study also recommended Villa Maria by the Sea in Stone Harbor as a property within the visual APE that would be adversely affected by visual impacts from the Project, that property was

demolished in May 2021 (Leahy and Leahy 2021). As such, there is no longer potential for the Project to adversely affect that property.

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

BOEM will stipulate measures to avoid, minimize, or 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, and minimize visual effects on historic properties. BOEM will also stipulate mitigation measures that would be triggered in cases where avoidance of known ancient submerged landforms is not feasible, or in cases where there is unanticipated 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 one or multiple Historic Property Treatment Plans in consultation with consulting parties who have demonstrated interest in specific historic properties and property owners to address impacts on archaeological resources and ancient submerged landforms if they cannot be avoided. Historic Properties Treatment Plans will also provide details and specifications for actions consisting of mitigation measures to resolve adverse visual effects and cumulative adverse visual effects.

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. Ocean Wind would avoid any identified archaeological resource or TCP or, if Ocean Wind cannot avoid the resource, it must perform additional investigations for the purpose of determining eligibility for listing in the NRHP. Of those resources determined eligible, BOEM would require Phase III data recovery investigations and alternative mitigation such as preparation of public outreach materials and presentation of technical findings for the purposes of resolving adverse effects per 36 CFR 800.6.
4. Implementation of terrestrial and marine unanticipated discoveries plans would reduce potential impacts on any previously undiscovered archaeological resources (if present) encountered during construction. Archaeological monitoring and the implementation of an unanticipated 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.
5. Ocean Wind would avoid ancient submerged landforms or, if Ocean Wind cannot avoid these landforms, it must perform mitigation for ancient submerged landforms as outlined in COP Volume III, Appendix F-4 for the purposes of resolving adverse effects per 36 CFR 800.6, including:
    a. Geoarchaeologcial analysis consisting of archaeological core processing and artifact screening, tribal participation in lab processing of core samples, data analysis, and update to paleolandscape reconstruction model
    b. Completion of NRHP nomination
    c. Tribal outreach and preparation of educational materials developed with participating tribes such as ethnographic/oral history study, open-source geographic information system, digital/media products, teaching curricula, or interpretation products that address traditional past land uses

associated with the submerged landforms

d. Completion of a non-technical report for public education informed by tribal input and associated presentation of findings

6. 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:

   a. Funding of HABS Level II documentation and educational content for the Riviera Apartments website to resolve adverse effects on the Riviera Apartments, Atlantic City

   b. Funding of HABS Level II documentation and educational content for the Vassar Square Condominiums website to resolve adverse effects on Vassar Square Condominiums, Ventnor City

   c. Funding of HABS Level II documentation and a Historic Structure Report or NRHP nomination to resolve adverse effects on the house at 114 South Harvard Avenue, Ventnor City

   d. Funding of HABS Level II documentation and a Historic Structure Report or NRHP nomination to resolve adverse effects on the Charles Fischer House, Ventnor City

   e. Funding of HABS Level II documentation, a Historic Structure Report or NRHP nomination, and educational content for the Ocean City Music Pier website to resolve adverse effects on Ocean City Music Pier, Ocean City

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 inshore cable route extensions and onshore cable routes added to the Project in March 2022 and associated with Oyster Creek landfall locations will not be available until after the Final EIS. The Marine Archaeological Resources Assessment report and Terrestrial Archaeological Resources Assessment report will be updated following completion of field investigations in the summer of 2022. BOEM will use the Memorandum of Agreement to establish commitments for reviewing the sufficiency of these report updates as phased identification and evaluation of historic properties, amending the APE, and consulting on the post-ROD finding of effects. See Attachment A. The approach will be in accordance with BOEM's existing *Guidelines for Providing Archaeological and Historic Property Information Pursuant to Title 30 Code of Federal Regulations Part 585*, and ensure potential historic properties are identified, effects assessed, and adverse effects resolved prior to construction. Given the inshore routes would be below sea level and onshore routes would be buried in existing road rights-of-way or installed via HDD below the ground surface, no phased identification to identify and evaluate historic properties to assess visual effects is anticipated. Figure N-2 shows phased identification areas for the additional Oyster Creek inshore and onshore cable routes options.

Information pertaining to identification of historic properties within certain portions of the APE related to Alternatives C-1, C-2, and D will not be available until after the ROD is issued and the COP is approved. If Alternative 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 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. 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 with a 1.1-nm setback and any distance other than the 750-meter setback 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 D is selected, previously un-surveyed areas associated with the inter-array cable may need to be surveyed for marine archaeology.

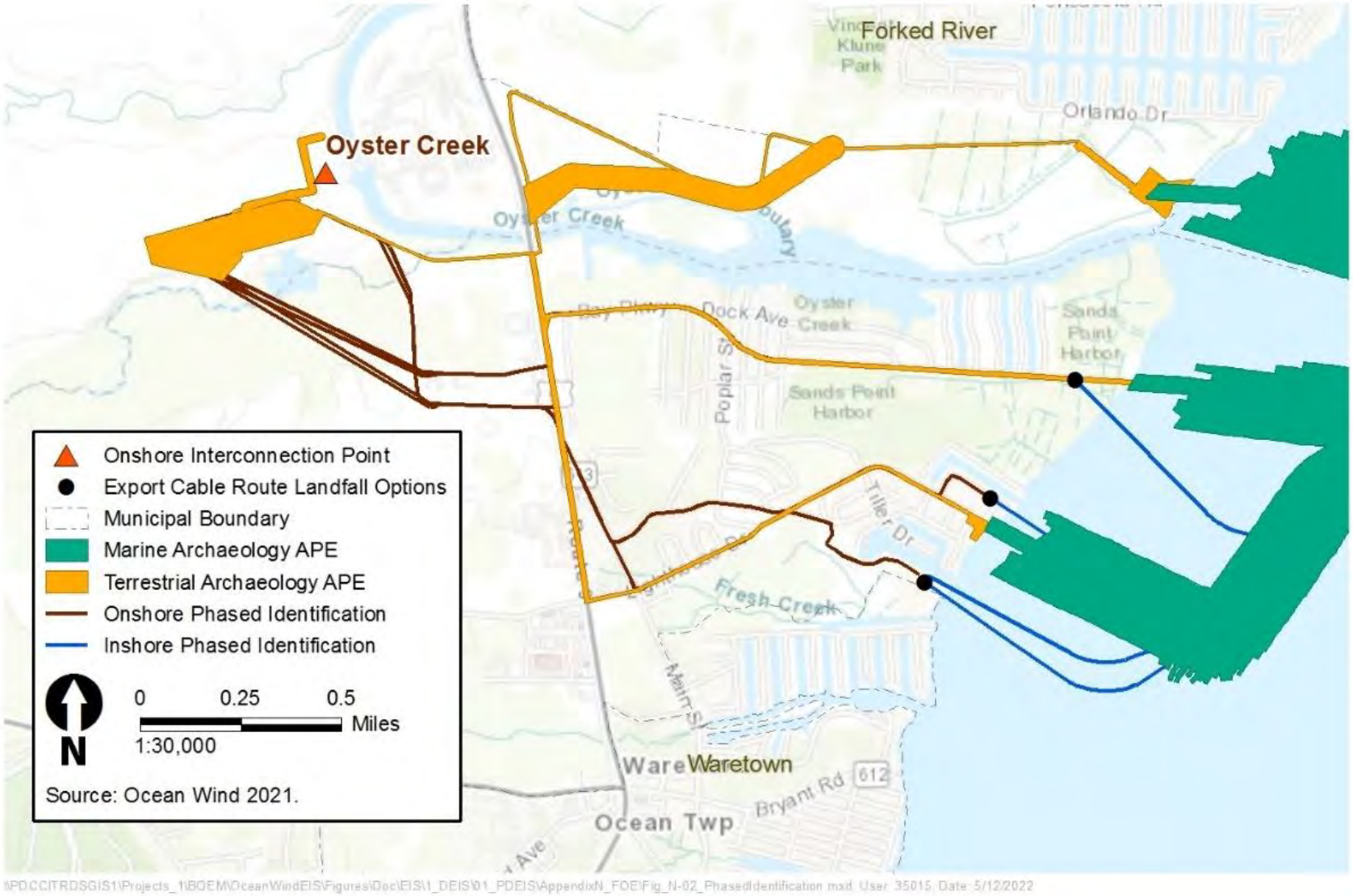

Figure N-2 Ocean Wind 1 Oyster Creek Phased Identification Areas

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: Lucy the Margate Elephant, an elephant-shaped building, and Atlantic City Convention Hall.

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. It was listed in the NRHP under Criterion C for exemplifying "architectural folly" (Pitts n.d.). The building's only windows facing the ocean are two small portholes constituting the "eyes" of the elephant. Although the ocean is viewable from a platform designed in the form of a howdah on the elephant's "back," this platform was built for the purposes of viewing the surrounding land in support of real estate development, with "ocean views a consequence of its location" (COP Volume III, Appendix F; Ocean Wind 2022). Its original howdah was damaged in a 1928 storm and subsequently replaced. Both alterations occurred prior to the building being listed in the NRHP. In a 2021 review of the property, it was noted that:

> The building has views of the Project area; however, at a distance of 15.3 mi away, the [Wind Farm Area] will be visible on the horizon, potentially with

> minor impact to the current altered setting and to the experience of visitors to the site. Lucy's significance as an architectural folly and sculpture under Criterion C, and its related integrity of setting is from a view to the property with the ocean behind or just outside of the field of view … Since the current setting and location are not consistent with the building's period of significance, and ocean views are not a key component (COP Volume III, Appendix F-3, page 77; Ocean Wind 2022).

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:

> Although the Project will have a visual effect on the Atlantic City Convention Hall, this effect would not alter any characteristics or physical features within the property's setting that contribute to its historic significance, nor would it diminish any aspect of the property's historic integrity that relates to its significance… The Atlantic City Convention Hall is significant under Criterion A for Recreation and Criterion C for Engineering. Under the theme of Recreation, the integrity of design, feeling, association, and location are the most important aspects of integrity. The building's location on Atlantic City's Boardwalk is paramount to its history and associated significance, but ocean views are a consequence of its prominent location rather than essential to its integrity… The ocean views from this space are not a character-defining feature of the building and do not directly relate to its significance under Criterion C. Integrity of location, design, materials, and workmanship are all substantially higher priority than setting, relative to significance under Criterion C. Views to and from the Boardwalk and the ocean are partially screened by the curved exedra. Ocean views are a backdrop behind the exedra and not a character-defining feature that contributes to the property's significance (Figure 26) (COP Volume III, Appendix F, pages 50–53; Ocean Wind 2022).

BOEM has determined these properties would not be adversely affected by the Project. While these buildings have seaside locations, these ocean views are not character defining (COP Volume III, Appendix F-3, pages 51–52 and 77; Ocean Wind 2022).

In transmittal of this Finding of Adverse Effect document to the National Park Service, BOEM will specifically request National Park Service consulting party points of contact provide input from National Park Service's NHL Program pursuant to 36 CFR 800.10(c), to which the Secretary of the Interior has delegated consultation authority, and will address this request to the NHL Program lead for the region.

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ATTACHMENT A
MEMORANDUM OF AGREEMENT

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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 (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*) (Attachment 1); and

WHEREAS, BOEM plans to approve with conditions the Construction and Operations Plan (COP) submitted by Ocean Wind, LLC (Ocean Wind); 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 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 ACHP accepted on April 6, 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. Both Section 106 reviews for the lease issuance and the approval of the site assessment plan were conducted pursuant to the 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 viewshed portion of the APE (viewshed 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 2 APE Maps); and

WHEREAS, BOEM identified seven historic districts and thirty-four aboveground historic properties in the offshore Project components' portion of the viewshed APE and three historic properties in the onshore Project components' portion of the viewshed APE; nineteen submerged historic properties and sixteen ancient submerged landforms and features (ASLFs) in the marine APE; and no historic properties in the terrestrial APE; and

WHEREAS, BOEM identified two National Historic Landmarks (NHLs) in the offshore Project components' portion of the viewshed APE, Lucy the Margate Elephant and Atlantic City Convention Hall, and BOEM determined there would be no visual adverse effect to these to these two NHLs because ocean views are not character-defining features of these historic properties; and

WHEREAS, within the range of Project alternatives analyzed in the EIS, BOEM determined that five aboveground historic properties would be subject to visual adverse effects from WTGs, two submerged historic properties (Target 13 and Target 15) may be potentially adversely affected by physical disturbance from export cable construction within the avoidance buffers of these resources, 16 ASLFs may be potentially adversely affected by physical disturbance in the lease area and from export cable construction, and no historic properties in the terrestrial APE would be adversely affected with implementation of the undertaking; and

WHEREAS, BOEM determined that the implementation of the avoidance measures identified in this MOA will avoid adverse effects to seven historic districts and twenty-nine aboveground historic properties in the offshore viewshed APE, to three historic properties in the onshore viewshed APE, and to seventeen submerged cultural resources and seven ASLFs in the marine 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 sixteen ASLFs: Targets 20 through 35; and

WHEREAS, under each of the Project alternatives analyzed in the EIS, BOEM determined the Project would visually adversely affect these five aboveground historic properties in New Jersey: Riviera Apartments, Atlantic City; Vassar Square Condominiums, Ventnor City; House at 114 South Harvard Avenue, Ventnor City; Charles Fischer House, Ventnor City; and Ocean City Music Pier, Ocean City; and

WHEREAS, New Jersey SHPO concurred with BOEM's finding of adverse effect on [insert date of SHPO's concurrence]; 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 additional 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 3; and

WHEREAS, BOEM has consulted with Ocean Wind in its capacity as applicant seeking federal approval of the COP, and, because Ocean Wind 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 will be issuing 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 [Month XX, 20XX], BOEM invited the USACE to sign this MOA as a concurring party, and the USACE accepted the invitation to sign this MOA as a concurring party; and

WHEREAS, USACE is the Lead Federal Agency, reviewed, and authorized a separate project for marine upgrades at the Atlantic City, New Jersey O&M facility, which will be used by the Project but not dependent on the Project; 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 Ocean Wind to sign as invited signatory and the consulting parties as listed in Attachment 3 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 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 8, 2022, and made an updated version of the Draft MOA available to the public from [Month XX, 2022], to [Month XX, 2022], using BOEM's Project website, and BOEM [did or did not receive any comments from the public]; 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 Ocean Wind, 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 COP:

   i. Ocean Wind will avoid known shipwrecks 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. Ocean Wind will avoid potential shipwrecks and potentially significant debris fields previously identified during marine archaeological surveys by a distance of no less than 300 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 100 meters from the known extent of the resource.

   iii. Ocean Wind will avoid ASLFs previously identified during marine archaeological resource assessments for the Project 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, to the extent practicable.

B. Viewshed APE

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

i. To maintain avoidance of adverse effects to historic properties in the viewshed APE where BOEM determined no adverse effects or where no effects would occur, BOEM will require Ocean Wind 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 Offshore Wind Farm Project, May, 2022).

II. MEASURES TO MINIMIZE ADVERSE EFFECTS TO IDENTIFIED HISTORIC PROPERTIES

A. Viewshed APE

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

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

   ii. Ocean Wind 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. Ocean Wind 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. Ocean Wind 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. Ocean Wind will encroach on the avoidance buffers for two submerged archaeological resources – a potential shipwreck within the Oyster Creek export cable route (Target 13) and a known shipwreck in the BL England export cable route corridor (Target 15). To resolve the adverse effects to these two resources, BOEM will include the following as conditions of approval of the Ocean Wind 1 COP and require Ocean Wind to fulfill the following as mitigation measures prior to construction [BOEM will require Ocean Wind to develop a treatment plan with more mitigation measures details and consultation specificity if NJ SHPO, ACHP, and the consulting parties agree to these proposed mitigation measures for the potentially adversely affected historic properties]:

   i. Phase IB identification/Phase II NRHP evaluation and site boundary delineation, including:

a. Additional high resolution geophysical (HRG) survey to further refine Target 13 and 15 (i.e. increased data density for reassessment of target and dive planning).

b. Identification, significance evaluation, and delineation of the target sources accomplished with a remotely operated vehicle or, subject to satisfaction of internal health safety and environment (HSE) requirements and protocols, surface-supplied diver investigations, depending upon HRG survey characteristics. This could include limited investigation.

c. Archival research.

ii. Revisit avoidance recommendation and adjust avoidance buffer, if warranted, based on Phase IB/Phase II results and allow BOEM to make final determination if the avoidance buffers will need to be adjusted

iii. Coordinate with BOEM regarding recommended NRHP eligibility, allow BOEM to make the final determination, and consult further with interested Consulting Parties [these consulting parties will be identified through future consultation on this MOA and associated treatment plan], if the properties are determined eligible for listing in the NRHP.

iv. If NRHP-eligible, BOEM, with the assistance of Ocean Wind, will consult with the NJ SHPO, ACHP, and interested Consulting Parties [these consulting parties will be identified through future consultation on this MOA and associated treatment plan]to develop a limited data recovery research design and alternative mitigation.

v. Subject to satisfaction of internal HSE requirements and protocols, Phase III data recovery accomplished through surface-supplied diver excavation. Level of effort dependent on consultation but could include:

a. Limited excavation and data recovery of selected sections of the archaeological site.

b. Recovery and conservation of select diagnostic artifacts for potential use in exhibit or other public outreach program. This would be based on opportunity determined during excavation and mapping.

c. Alternative mitigation to offset full data recovery (offsite). Examples include a robust archival research project or HRG survey designed to locate vessel loss.

d. Coordination with BOEM on consultation with interested Consulting Parties [these consulting parties will be identified through future consultation on this MOA and associated treatment plan] to develop public outreach component (e.g., digital/media products, education materials, non-technical report, etc.).

e. Technical report for peer review and dissemination of data at professional conferences or for publication.

2. Ocean Wind cannot avoid sixteen ASLFs (Targets 20 through 35). To resolve the adverse effects to the sixteen ASLFs, BOEM will include the following as conditions of approval of

the Ocean Wind 1 COP and require fulfillment of the following as mitigation measures prior to construction. Ocean Wind will fund mitigation measures in accordance with Attachment 4 (Historic Property Treatment Plan for the Ocean Wind 1 Farm Ancient Submerged Landform Features Federal Waters on the Outer Continental Shelf):

i. Preconstruction Geoarchaeology. Ocean Wind will fulfill the following commitments in accordance with Attachment 4: collaborative review of existing geophysical and geotechnical data with Native American Tribes/Tribal Nations; selection of coring locations in consultation with Tribes/Tribal Nations; 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 participating parties; final reporting; complete a NRHP Multiple Property Documentation Form (NPS 10-900-b) form for Targets 20-35; and public or professional presentations summarizing the results of the investigations, developed with the consent of the consulting Tribes/Tribal Nations.

ii. Open-Source GIS and Story Maps. Ocean Wind will fulfill the following commitments in accordance with Attachment 4: consultation with the Tribes/Tribal Nations 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/Tribal Nations to develop Story Map content; training session with Tribes/Tribal Nations to review GIS functionality; review of Draft Story Maps with Tribes/Tribal Nations; delivery of GIS to Tribes/Tribal Nations; and delivery of Final Story Maps.

B. Viewshed 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 to the 5 historic properties that will be visually adversely affected (Riviera Apartments, Atlantic City; Vassar Square Condominiums, Ventnor City; House at 114 South Harvard Avenue, Ventnor City; Charles Fischer House, Ventnor City; and Ocean City Music Pier, Ocean City). Ocean Wind will fund fulfillment mitigation measures in accordance with Attachment 5 (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. Historic American Building Survey (HABS) Level II documentation, Ocean City Music Pier, Riviera Apartments, and Vassar Square Condominiums. Ocean Wind will document the Ocean City Music Pier, Riviera Apartments, and Vassar Square Condominiums to HABS Level II standards to record the historic properties' significance for the Prints and Photographs Division of the Library of Congress, whose holdings illustrate achievements in architecture, engineering, and landscape design in the United States and its territories. This will include: collect and review materials and drawings relating to the construction and history of the property; draft a historical report of the property; photograph the property using large-format photography; compile draft HABS documentation for review

and comment by interested Consulting Parties [these consulting parties will be identified through future consultation on this MOA and associated treatment plan]; develop final HABS documentation, incorporating comments from the Consulting Parties; and upon acceptance of HABS documentation by NPS, distribute HABS documentation packages to the NPS and agreed-upon repositories, such as Library of Congress and state and local repositories, as appropriate.

ii. HABS-like Level II documentation, 114 South Harvard Avenue and Charles Fisher House. Ocean Wind will document the Ventnor City private residences to HABS Level II standards, substituting digital photography for the HABS-standard large-format photography, to record the historic properties' significance for state and local repositories. This will include: collect and review materials and drawings relating to the construction and history of the property; draft a historical report of the property; photograph the property using digital photography; compile draft documentation for review and comment by interested Consulting Parties [these consulting parties will be identified through future consultation on this MOA and associated treatment plan]; develop final documentation, incorporating comments from the Consulting Parties; and upon acceptance of documentation by New Jersey SHPO, distribute documentation packages to the New Jersey SHPO and agreed-upon state and local repositories, as appropriate.

iii. Historic Structure Reports (HSR), Ocean City Music Pier, 114 South Harvard Avenue, and Charles Fisher House. Ocean Wind will prepare HSR, including in-depth history of the building as well as immediate, short-term, and long-range preservation objectives based on the current condition of the building. This will include: review the existing conditions of the property; document and photograph the existing conditions; consult with the property owner to determine physical concerns, possible future plans; compile relevant documentation collected for Mitigation Measures B.1.i-ii; draft an HSR to be distributed to the interested Consulting Parties [these consulting parties will be identified through future consultation on this MOA and associated treatment plan] for review and comment; develop a final HSR, incorporating any comments from the Consulting Parties; and distribute the final HSR to the property owner.

iv. New Jersey Register of Historic Places/NRHP Nomination for Historic Property or Properties based on owner preference. Ocean Wind will prepare nomination for listing in the New Jersey Register of Historic Places and NRHP based on owner preference and consistency with New Jersey SHPO and NPS standards. This will include: compile relevant documentation collected for Mitigation Measures B.1.i-iii; draft an NRHP nomination to be distributed to the interested Consulting Parties [these consulting parties will be identified through future consultation on this MOA and associated treatment plan] for review and comment; develop a final NRHP nomination, incorporating any comments from the Consulting Parties; distribute the NRHP nomination to New Jersey SHPO; and Present NRHP nomination to New Jersey State Review Board for Historic Sites.

v. Educational Content to Interpret the History Property or Properties. Ocean Wind will compile information prepared under Mitigation Measures B.1.i-iv and coordinate with BOEM to consult with New Jersey SHPO, ACHP, interested Consulting Parties [these consulting parties will be identified through future consultation on this MOA and associated treatment plan], and property owners to determine what information is appropriate for creation of educational content to interpret the history of properties. Consultation will also include identification of an existing website to host the educational content. This may include existing property-specific website or local museum website.

Content agreed-upon by New Jersey SHPO. ACHP [if ACHP chooses to participate]. interested Consulting Parties, and property owners will be provided to website administrator identified through consultation.

IV. PROJECT MODIFICATIONS

A. If Ocean Wind 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 the final determinations and findings for this Project, Ocean Wind 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, Ocean Wind 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 as described in Stipulation IV.A and BOEM identifies no additional historic properties or determines that no historic properties are adversely affected due to the modification, Ocean Wind will notify all the signatories, invited signatories, and consulting parties about this proposed modification and BOEM's determination, and allow the signatories, invited signatories, and consulting parties 30 calendar days to review and comment. 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, Ocean Wind will notify and consult with the relevant signatories, invited signatories, and consulting parties regarding BOEM's finding and the resolution of the adverse effect and develop a new HPTP following the consultation process set forth in Stipulation IV. Relevant 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 effects, including a draft HPTP. BOEM, with the assistance of Ocean Wind, will conduct additional consultation meetings, if necessary, during drafting and finalization of the HPTP. The MOA will not need to be amended after the HPTP is finalized.

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

V. 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.

VI. PROFESSIONAL QUALIFICATIONS

A. Secretary's Standards for Archaeology and Historic Preservation. Ocean Wind 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. Ocean Wind 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. Ocean Wind 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. Ocean Wind 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.

VII. DURATION

A. This MOA will expire at (1) the decommissioning of the Project in the lease area, as defined in Ocean Wind'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 XII).

VIII. 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 shall implement the post-review discovery plans found in Attachments 6 (Ocean Wind 01 Terrestrial Unanticipated Discovery Plan) and 7 (Ocean Wind 01 Unanticipated Discoveries Plan for Submerged Archaeological).

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, Ocean Wind 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 Ocean Wind 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 585.802(b)). BOEM will direct Ocean Wind to complete additional investigations, as BOEM deems appropriate, if:

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

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

5. If investigations indicate that the resource is eligible for the NRHP, BOEM, with the assistance of Ocean Wind, 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, Ocean Wind 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 Ocean Wind reasonable costs for carrying out historic preservation responsibilities, pursuant to its delegated authority under the OCS Lands Act (30 CFR 585.802 (c-d)).

IX. 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, Ocean Wind 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. Ocean Wind can satisfy its reporting requirement under this stipulation by providing the relevant portions of the annual compliance certification required under 30 CFR 585.633.

X. 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.

XI. 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.

XII. 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 XII. 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.

XIII. 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 XII).

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 XII 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.

XIV. 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:_____
Amanda Lefton
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, Acting
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

_____ 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 – PROGRAMMATIC AGREEMENT

ATTACHMENT 2 – APE MAPS

ATTACHMENT 3 – LISTS OF INVITED AND PARTICIPATING CONSULTING PARTIES

ATTACHMENT 4 – TREATMENT PLAN ANCIENT SUBMERGED LANDFORM FEATURES

ATTACHMENT 5 – TREATMENT PLAN ABOVE-GROUND HISTORIC PROPERTIES THAT WILL BE VISUALLY ADVERSELY AFFECTED

ATTACHMENT 6 – OCEAN WIND 01 TERRESTRIAL UNANTICIPATED DISCOVERY PLAN

ATTACHMENT 7 – OCEAN WIND 01 UNANTICIPATED DISCOVERIES PLAN FOR SUBMERGED ARCHAEOLOGICAL

ATTACHMENT 1 – PROGRAMMATIC AGREEMENT

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

WHEREAS, the Outer Continental Shelf Lands Act grants the Secretary of the Interior (Secretary) the authority to issue leases, easements, or rights-of-way on the Outer Continental Shelf (OCS) for the purpose of renewable energy development, including wind energy development (*see* 43 U.S.C. §1337(p)(1)(C)), and to promulgate regulations to carry out this authority (*see* 43 U.S.C. §1337(p)(8)); and,

WHEREAS, the Secretary delegated this authority to the former Minerals Management Service, now the Bureau of Ocean Energy Management (BOEM), and promulgated final regulations implementing this authority at 30 CFR §585; and,

WHEREAS, under the renewable energy regulations, the issuance of leases and subsequent approval of wind energy development on the OCS is a staged decision-making process that occurs in distinct phases; and,

WHEREAS, OCS means all submerged lands lying seaward and outside of the area of lands beneath navigable waters, as defined in Section 2 of the Submerged Lands Act (43 U.S.C. §1301), whose subsoil and seabed appertain to the United States and are subject to its jurisdiction and control (see 30 CFR §585.112); and,

WHEREAS, BOEM may issue commercial leases, limited leases, research leases, Right-of-Way (ROW) grants, or Right-of-Use and easement (RUE) grants on the OCS (see Appendix); and,

WHEREAS, Commercial leases, Limited leases, ROW grants, and RUE grants do not authorize the lessee or grantee to construct any facilities; rather, the lease or grant authorizes the lessee or grantee the right to use the leased area to develop plans, which must be submitted to and approved by BOEM before the lessee or grantee implements its plans (*see* 30 CFR §585.600 and §585.601); and,

WHEREAS, under BOEM's renewable energy regulations, BOEM will review and may approve, approve with modifications, or disapprove Site Assessment Plans (SAPs), Construction and Operations Plans (COPs), General Activities Plans (GAPs), or other plans, collectively "Plans" (*see* 30 CFR §585.613(e), §585.628(f), and §585.648(e)); and,

WHEREAS, BOEM determined that issuing leases and grants and approving Plans constitute undertakings subject to Section 106 of the National Historic Preservation Act (NHPA) (16 U.S.C. §470(f)), and its implementing regulations (36 CFR §800); and,

WHEREAS, the issuance of a commercial lease, limited lease, ROW grant, or RUE grant has the potential to affect historic properties insofar as it may lead to the lessee or grantee conducting geophysical survey and geotechnical testing; and,

WHEREAS, BOEM has determined that geophysical survey is not likely to have the potential to affect historic properties; and,

WHEREAS, the issuance of a research lease or approval of a Plan has the potential to affect historic properties insofar as it may lead to the lessee conducting geotechnical testing; constructing and operating site assessment facilities and renewable energy structures; and, placing and operating transmission cables, pipelines, and/or associated facilities that involve the transportation or transmission of electricity or other energy products from renewable energy projects; and,

WHEREAS, BOEM may issue multiple renewable energy leases and grants and approve multiple Plans associated with each lease or grant issued on the OCS; and,

WHEREAS, BOEM's renewable energy regulations also contemplate the development of a lease in multiple phases (*see* 30 CFR §585.629); and

WHEREAS, BOEM determined that the implementation of the Offshore Renewable Energy Program is complex, as the decisions on these undertakings are phased, and the effects on historic properties are regional in scope, pursuant to 36 CFR §800.14(b); and,

WHEREAS, 36 CFR §800.4(b)(2) provides for deferral of final identification and evaluation of historic properties when provided for in a Programmatic Agreement (Agreement) executed pursuant to 36 CFR §800.14(b); and,

WHEREAS, BOEM determined that the identification and evaluation of historic properties shall be conducted through a phased approach, pursuant to 36 CFR §800.4(b)(2), where the final identification of historic properties may occur after the issuance of a lease or grant and before the approval of a Plan because lessees conduct site characterization surveys in preparation for Plan submittal (*see* 30 CFR Part 585); and,

WHEREAS, the deferral of final identification and evaluation of historic properties could result in the discovery of previously unknown historic properties that could significantly impact project planning, siting, and timelines; and,

WHEREAS, 36 CFR §800.14(b)(3) provides for developing programmatic agreements for complex or multiple undertakings and §800.14(b)(1) provides for using such agreements when effects on historic properties cannot be fully determined prior to approval of an undertaking (*see* §800.14(b)(1)(ii)), when effects on historic properties are regional in scope (*see* §800.14(b)(1)(i)), and for other circumstances warranting a departure from the normal Section 106 process (*see* §800.14(b)(1)(v)); and,

WHEREAS, BOEM, the New Jersey State Historic Preservation Officer (SHPO), the New York SHPO, and the Advisory Council on Historic Preservation (ACHP) are consulting parties and signatories to this Agreement, pursuant to 36 CFR §800.14; and,

WHEREAS, the Shinnecock Indian Nation is a Tribe, as defined at 36 CFR §800.16(m), that has chosen to consult with BOEM and participate in development of this Agreement; and

WHEREAS, BOEM shall continue to consult with this and other Tribes, Tribal Historic Preservation Officers (THPO), and/or their designee to identify properties of religious and cultural significance that may be eligible for listing in the National Register of Historic Places (including Traditional Cultural Properties) and that may be affected by these undertakings; and,

WHEREAS, the Section 106 consultations described in this Agreement will be used to establish a process to identify historic properties located within the undertakings' Area(s) of Potential Effects (APE); to assess potential effects; and to avoid, reduce, or resolve any adverse effects; and,

WHEREAS, BOEM involves the public and identifies other consulting parties through notifications, requests for comments, existing renewable energy task forces, contact with the SHPO, and National Environmental Policy Act scoping meetings and communications for these proposed actions;

NOW, THEREFORE, BOEM, the New Jersey SHPO, the New York SHPO, and the ACHP agree that Section 106 review shall be conducted in accordance with the following stipulations:

STIPULATIONS

I. For the undertakings of issuing a commercial lease, limited lease, research lease, ROW grant, or RUE grant, the signatories agree:

A. The APE will be defined as the depth and breadth of the seabed that could potentially be impacted by geotechnical testing.

B. A reasonable and good faith effort to carry out appropriate identification of historic properties within the APE is presented in BOEM's *Guidelines for Providing Geological and Geophysical, Hazards, and Archaeological Information Pursuant to 30 CFR Part 585* (July 2015; *Guidelines*; *see* 36 CFR §800.4(b)(1)). Should BOEM wish to alter any archaeological survey-related information included in the *Guidelines*, BOEM will first consult with the signatories.

C. Prior to lease or grant issuance under this part, BOEM will identify consulting parties, pursuant to 36 CFR §800.3(f). BOEM will consult on existing, non-proprietary information regarding the proposed undertaking and the geographic extent of the APE, as defined in Stipulation I.A. BOEM also will solicit additional information on potential historic properties within the APE from consulting parties and the public.

D. BOEM will administratively treat all identified potential historic properties as eligible for inclusion in the National Register unless BOEM determines, and the SHPOs, or THPO if on tribal lands, agree that a property is ineligible, pursuant to 36 CFR §800.4(c).

E. Where practicable, BOEM will require lessees and grantees to avoid effects to historic properties through lease stipulations, resulting in BOEM recording a finding of *no historic properties affected*, consistent with 36 CFR §800.4(d)(1). If it is determined that there will be effects to historic properties, BOEM will follow 36 CFR §800.5. Any adverse effects will be resolved by following 36 CFR §800.6 and 36 CFR §800.10 for National Historic Landmarks.

II. For the undertakings of approving a Plan, except as described under Stipulation IV below, the signatories agree:

A. The APE will be defined as the depth and breadth of the seabed that could potentially be impacted by seafloor/bottom-disturbing activities associated with the undertakings; the offshore and onshore viewshed from which renewable energy structures would be visible; and, if applicable, the depth, breadth, and viewshed of onshore locations where transmission cables or pipelines come ashore until they connect to existing power grid structures.

B. The following constitute a reasonable and good faith effort to carry out appropriate identification of historic properties (*see* 36 CFR §800.4(b)(1)):

1. For the identification of historic properties within the seabed portion of the APE located on the OCS, historic property identification survey results generated in accordance with BOEM's *Guidelines*.

2. For the identification of historic properties within the seabed portion of the APE located in state submerged lands or within the onshore terrestrial portion of the APE, historic property identification conducted in accordance with state (or tribal, if on tribal lands) guidelines. BOEM will request the developer to coordinate with the SHPO, or THPO if on tribal lands, prior to the initiation of any such identification efforts.

3. For the identification of historic properties within the viewshed portion of the APE, historic property identification conducted in accordance with state (or tribal, if on tribal lands) guidelines. BOEM will request the developer to coordinate with the SHPO, or THPO if on tribal lands, prior to the initiation of any such identification efforts.

C. Prior to approving a Plan, BOEM will identify consulting parties, pursuant to 36 CFR §800.3(f). BOEM will consult on existing, non-proprietary information regarding the proposed undertaking (including the results of historic property identification surveys) and the geographic extent of the APE, as defined in Stipulation II.A. BOEM also will solicit from the consulting parties and the public additional information on potential historic properties within the APE.

D. BOEM will treat all identified potential historic properties as eligible for inclusion in the National Register unless BOEM determines, and the SHPOs, or THPO if on tribal lands, agrees, that a property is ineligible, pursuant to 36 CFR §800.4(c).

E. Where practicable, as a condition of Plan approval, BOEM will require the lessee to relocate elements of the proposed project that may affect potential historic properties, resulting in BOEM recording a finding of *no historic properties affected*, consistent with 36 CFR §800.4(d)(1).

1. If effects to identified properties cannot be avoided, BOEM will evaluate the National Register eligibility of the properties, in accordance with 36 CFR §800.4(c).

a. If BOEM determines all of the properties affected are ineligible for inclusion in the National Register, and the SHPO, or THPO if on tribal lands, agrees, BOEM will make a finding of *no historic properties affected*, consistent with 36 CFR §800.4(d)(1).

b. If BOEM determines any of the properties affected are eligible for inclusion in the National Register, and the SHPO or THPO if on tribal lands, agrees, and if it is determined that there will be effects to historic properties, BOEM will follow 36 CFR §800.5. Any adverse effects will be resolved by following 36 CFR §800.6 and 36 CFR §800.10 for National Historic Landmarks.

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

III. Activities exempt from review. The signatories agree to exempt from Section 106 review the following categories of activities because they have little or no potential to affect a historic property's National Register qualifying characteristics:

A. Archaeological Sampling: Vibracores or other direct samples collected, by or under the supervision of a Qualified Marine Archaeologist, for the purposes—at least in part—of historic property identification or National Register eligibility testing and evaluation.

B. Meteorological Buoys: Proposed installation, operation, and removal of meteorological buoys when the results of geophysical data collected meet the standards established in BOEM's *Guidelines* and either: 1) resulted in the identification of no archaeological site within the seabed portion of the APE for the buoy, or 2) if the project can be relocated so that the APE does not contain an archaeological site, if any such sites are identified during geophysical survey. The signatories agree that offshore meteorological buoys have no effect on onshore historic properties since they are temporary in nature and indistinguishable from lighted vessel traffic.

C. Meteorological Towers: Proposed construction, installation, operation, and removal of meteorological towers when the following conditions are met:

1. The results of archaeological survey within the offshore APE meet the standards established in BOEM's *Guidelines* and either: 1) resulted in the identification of no archaeological site within the seabed portion of the APE for the tower, or 2) if the project can be relocated so that the offshore APE does not contain an archaeological site, if any such sites are identified during geophysical survey, and

2. The applicant documents that there will be no potential for onshore visibility of the meteorological tower and therefore, no onshore APE or the results of historic property identification within the viewshed APE meet the standards outlined by the SHPO, or THPO if on tribal lands, and no historic properties are identified.

IV. Tribal Consultation. BOEM shall continue to consult with affected Tribes throughout the implementation of this Agreement on subjects related to the undertakings in a government-to-government manner consistent with Executive Order 13175, Presidential memoranda, and the Department of the Interior's Policy on Consultation with Indian Tribes.

V. Public Participation

A. Because BOEM and the signatories recognize the importance of public participation in the Section 106 process, BOEM shall continue to provide opportunities for public participation and shall consult with the signatories on possible approaches for keeping the public involved and informed throughout the term of this Agreement.

B. BOEM shall keep the public informed and may produce reports on historic properties and on the Section 106 process that may be made available to the public at BOEM's headquarters, on the BOEM website, and through other reasonable means insofar as the information shared conforms to the confidentiality clause of this Agreement.

VI. Confidentiality. Because BOEM and the signatories agree that it is important to withhold from disclosure sensitive information such as that which is protected by NHPA Section 304 (16 U.S.C. §470w-3) (e.g., the location, character, and ownership of a historic resource, if disclosure would cause a significant invasion of privacy, risk harm to the historic resources, or impede the use of a traditional religious site by practitioners), BOEM shall:

A. Request that each signatory inform the other signatories if, by law, regulation or policy, it is unable to withhold sensitive data from public release.

B. Arrange for the signatories to consult as needed on how to protect such information collected or generated under this Agreement.

C. Follow, as appropriate, 36 CFR §800.11(c) for authorization to withhold information pursuant to NHPA Section 304, and otherwise withhold sensitive information to the extent allowable by laws including the Freedom of Information Act, 5 U.S.C. §552, through the Department of the Interior regulations at 43 CFR Part 2.

D. Request that the signatories agree that materials generated during consultation be treated by the signatories as internal and pre-decisional until they are formally released, although the signatories understand that they may need to be released by one of the signatories if required by law.

VII. Administrative Stipulations

A. In coordinating reviews, BOEM shall follow this process:

1. Standard Review: The signatories shall have a standard review period of thirty (30) calendar days for commenting on all documents which are developed under the terms of this Agreement, from the date they are received by the signatory. This includes technical reports of historic property identification and eligibility determinations, as well as agency findings.

2. Expedited Request for Review: The signatories recognize the time-sensitive nature of this work and shall attempt to expedite comments or concurrence when BOEM so requests. No request for expedited review shall be less than fifteen (15) calendar days.

3. If a signatory cannot meet BOEM's expedited review period request, it shall notify BOEM in writing within fifteen (15) calendar days.

4. If a signatory fails to provide comments or respond within the time frame requested by BOEM (either standard or expedited), then BOEM may proceed as though it received concurrence. BOEM shall consider all comments received within the review period.

5. Unless otherwise indicated below, all signatories will send correspondence and materials for review via electronic media or an alternate method specified by a signatory for a particular review. Should BOEM transmit the review materials by the alternate method, the review period will begin on the date the materials were received by the signatory, as confirmed by delivery receipt. All submissions to NY SHPO must be submitted via Cultural Resources Information System (CRIS) online submission system. All submissions to NJ SHPO must be submitted via hardcopy or, if the document(s) are extremely large, by electronic media.

6. Each signatory shall designate a point of contact for carrying out this Agreement and provide this contact's information to the other signatories, updating it as necessary while this Agreement is in force. Updating a

point of contact alone shall not necessitate an amendment to this Agreement.

B. Dispute Resolution. Should any signatory object in writing to BOEM regarding an action carried out in accordance with this Agreement, or lack of compliance with the terms of this Agreement, the signatories shall consult to resolve the objection. Should the signatories be unable to resolve the disagreement, BOEM shall forward its background information on the dispute as well as its proposed resolution of the dispute to the ACHP. Within forty-five (45) calendar days after receipt of all pertinent documentation, the ACHP shall either: (1) provide BOEM with written recommendations, which BOEM shall take into account in reaching a final decision regarding the dispute; or (2) notify BOEM that it shall comment pursuant to 36 CFR §800.7(c), and proceed to comment. BOEM shall take this ACHP comment into account, in accordance with 36 CFR §800.7(c)(4). Any ACHP recommendation or comment shall be understood to pertain only to the subject matter of the dispute; BOEM's responsibility to carry out all actions under this Agreement that is not subjects of dispute shall remain unchanged.

C. Amendments. Any signatory may propose to BOEM in writing that this Agreement be amended, whereupon BOEM shall consult with the signatories to consider such amendment. This Agreement may then be amended when agreed to in writing by all signatories, becoming effective on the date that the amendment is executed by the ACHP as the last signatory.

D. BOEM shall prepare an annual report that will summarize actions taking place between October 1st and September 30th and make this report available to Signatories and Concurring Parties by December 31st of each year this Agreement is in effect. The annual report will summarize any activities exempted from review under this Section, as well as any other actions taken to implement the terms of this Agreement.

E. Coordination with other Federal agencies. In the event that another Federal agency believes it has Section 106 responsibilities related to the undertakings which are the subject of this Agreement, BOEM will request to coordinate its review with those other agencies. Additionally, that agency may attempt to satisfy its Section 106 responsibilities by agreeing in writing to the terms of this Agreement and notifying and consulting with the SHPO, THPO or tribal designee, and the ACHP. Any modifications to this Agreement that may be necessary for meeting that agency's Section 106 obligations shall be considered in accordance with this Agreement.

F. Adding Concurring Parties. In the event that another party wishes to assert its support of this Agreement, that party may prepare a letter indicating its concurrence, which BOEM will attach to this Agreement and circulate among the signatories.

G. Terms of Agreement.

1. This Agreement shall remain in full force for twenty-five (25) years from the date this Agreement is executed, defined as the date the last signatory signs, unless otherwise extended by amendment in accordance with this Agreement. The term is related to the expected length of operations of commercial leases, which is given at 30 CFR §585.235.

2. The signatories agree to meet every five (5) years, beginning from the date the Agreement is executed, to discuss the Agreement, to determine whether amendment or termination is necessary, and to evaluate the adequacy of information exchange between the parties.

H. Termination.

1. If any signatory determines that the terms of this Agreement cannot be carried out or are not being carried out, that signatory shall notify the other signatories in writing and consult with them to seek amendment of the Agreement. If within sixty (60) calendar days of such notification, an amendment cannot be made, any signatory may terminate the Agreement upon written notice to the other signatories.

2. If termination is occasioned by BOEM's final decision on the last Plan considered under the Renewable Energy Regulations, BOEM shall notify the signatories and the public, in writing.

I. Anti-Deficiency Act. Pursuant to 31 U.S.C. §1341(a)(1), nothing in this Agreement shall 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.

J. Existing Law and Rights. Nothing in this Agreement shall abrogate existing laws or the rights of any consulting party or signatory to this Agreement.

Commercial lease means a lease, issued under the renewable energy regulations, that specifies the terms and conditions under which a person can conduct commercial activities (*see* 30 CFR §585.112);

Commercial activities mean, for renewable energy leases and grants, all activities associated with the generation, storage, or transmission of electricity or other energy products from a renewable energy project on the Outer Continental Shelf (OCS), and for which such electricity or other energy product is intended for distribution, sale, or other commercial use, except for electricity or other energy products distributed or sold pursuant to technology-testing activities on a limited lease. This term also includes activities associated with all stages of development, including initial site characterization and assessment, facility construction, and project decommissioning (*see* 30 CFR §585.112);

Limited lease means a lease, issued under the renewable energy regulations, that specifies the terms and conditions under which a person may conduct activities on the OCS that support the production of energy, but do not result in the production of electricity or other energy products for sale, distribution, or other commercial use exceeding a limit specified in the lease (*see* 30 CFR §585.112);

Research lease means an OCS lease, Right-of-Way (ROW) grant, and/or Right-of-Use (RUE) grant, issued under the renewable energy regulations at 30 CFR §585.238, to a Federal agency or a state for renewable energy research activities that support the future production, transportation, or transmission of renewable energy;

ROW grant means an authorization issued under the renewable energy regulations to use a portion of the OCS for the construction and use of a cable or pipeline for the purpose of gathering, transmitting, distributing, or otherwise transporting electricity or other energy product generated or produced from renewable energy. A ROW grant authorizes the holder to install on the OCS cables, pipelines, and associated facilities that involve the transportation or transmission of electricity or other energy products from renewable energy projects (*see* 30 CFR §585.112);

RUE grant means an easement issued under the renewable energy regulations that authorizes use of a designated portion of the OCS to support activities on a lease or other use authorization for renewable energy activities. A RUE grant authorizes the holder to construct and maintain facilities or other installations on the OCS that support the production, transportation, or

transmission of electricity or other energy products from any renewable energy resource (*see* 30 CFR §585.112);

Geotechnical testing means the process by which site-specific sediment and underlying geologic data are acquired from the seafloor and the sub-bottom and includes, but is not limited to, such methods as borings, vibracores, and cone penetration tests;

Geophysical survey means a marine remote-sensing survey using, but not limited to, such equipment as side-scan sonar, magnetometer, shallow and medium (seismic) penetration sub-bottom profiler systems, narrow beam or multibeam echo sounder, or other such equipment employed for the purposes of providing data on geological conditions, identifying shallow hazards, identifying archaeological resources, charting bathymetry, and gathering other site characterization information;

Historic property means any pre-contact or historic period district, site, building, structure, or object included in, or eligible for inclusion in, the National Register of Historic Places (*see* 36 CFR §800.16(l)(1));

Tribal land means all lands within the exterior boundaries of any Indian reservation and all dependent Indian communities (*see* 36 CFR§800.16(x));

Qualified marine archaeologist means a person who meets the Secretary of the Interior's Professional Qualification Standards for Archaeology (48 FR 44738-44739), and has experience analyzing marine geophysical data;

Qualified architectural historian means a person who meets the Secretary of the Interior's Professional Qualification Standards for architectural history (48 FR 44738-44739), and has experience analyzing structures, historic districts, and landscapes.

AGREED

Execution of this Agreement by BOEM, the SHPOs, and the ACHP, and the implementation of its terms are evidence that BOEM has fulfilled its responsibilities pursuant to Section 106 of the National Historic Preservation Act.

SIGNATORIES

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

By: _____ Date: April 19, 2016

James F. Bennett
Chief, Office of Renewable Energy Programs
Bureau of Ocean Energy Management

State Historic Preservation Office, New York State Parks

By: Ruth Pierpont Date: 5/20/16

Ruth Pierpont
Deputy State Historic Preservation Office
New York State Parks, Recreation and Historic Preservation

State Historic Preservation Office, State of New Jersey

By: _____ Date: 5/6/2016

Daniel D. Saunders
Deputy State Historic Preservation Officer
State Historic Preservation Office
State of New Jersey

Invited Signatory: Shinnecock Indian Nation

By: _____ Date: _____

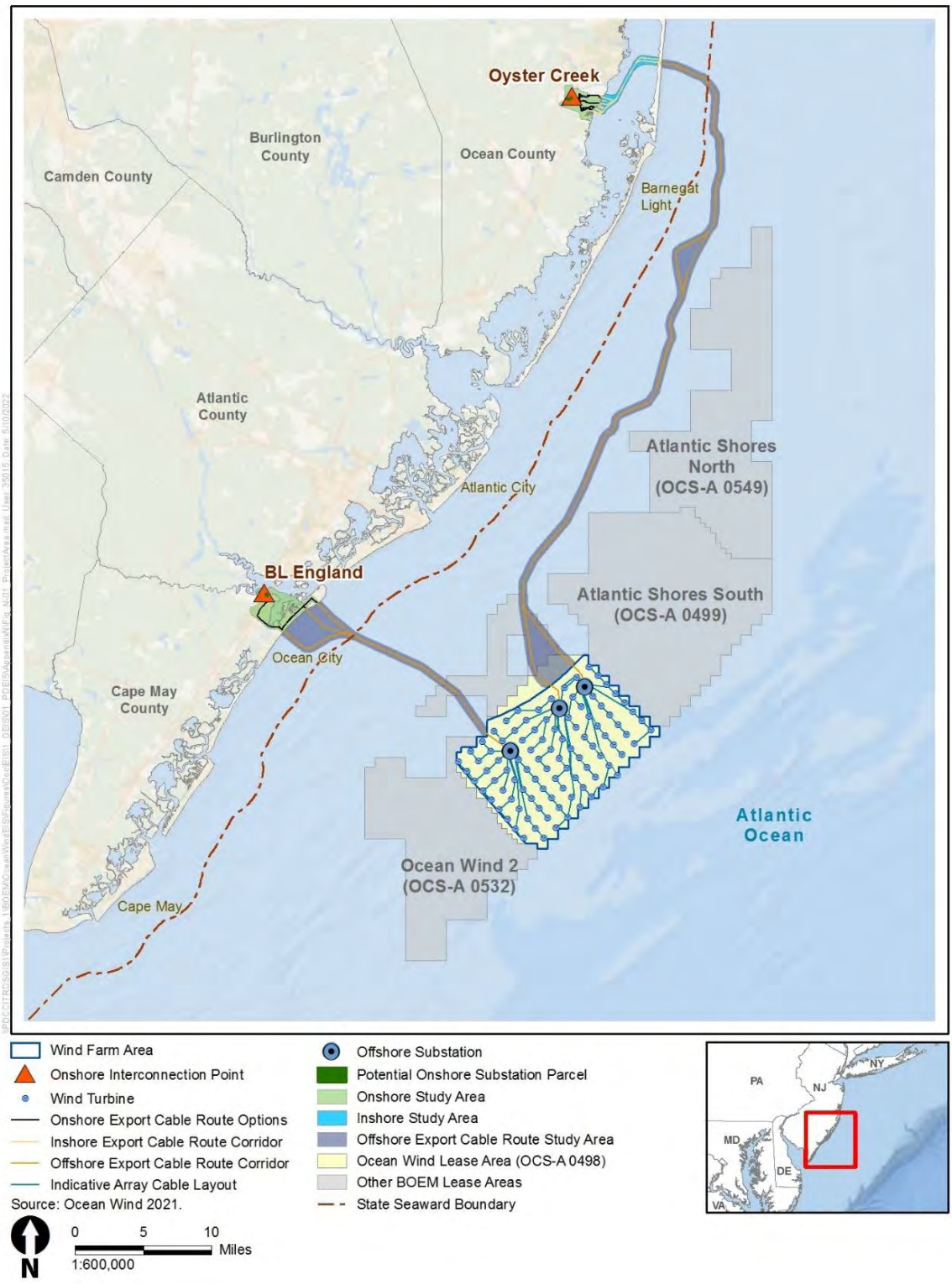
[NAME]
[TITLE]
Shinnecock Indian Nation

Advisory Council on Historic Preservation

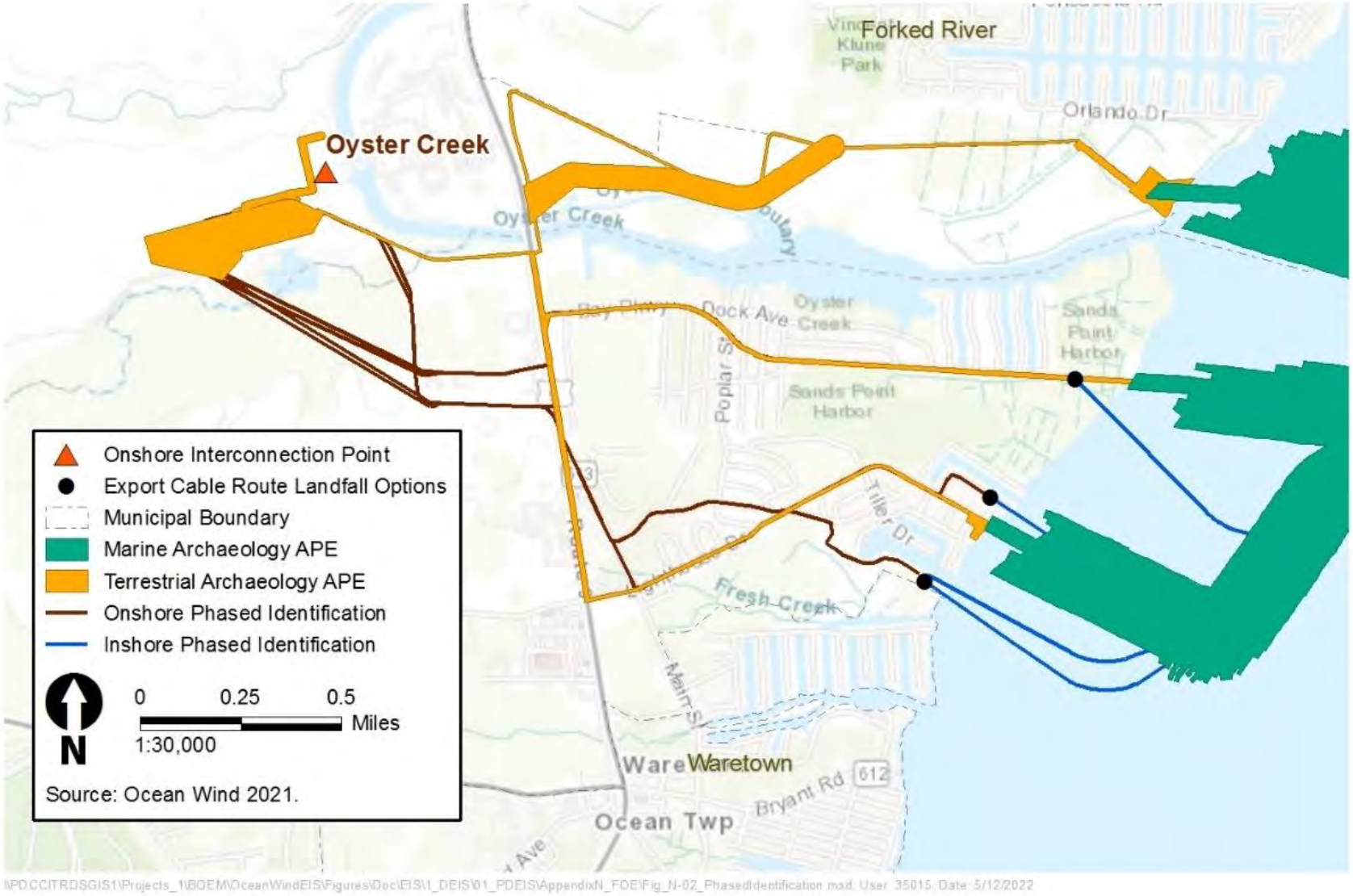
By: John M. Fowler Date: 6/3/16

John M. Fowler
Executive Director
Advisory Council on Historic Preservation

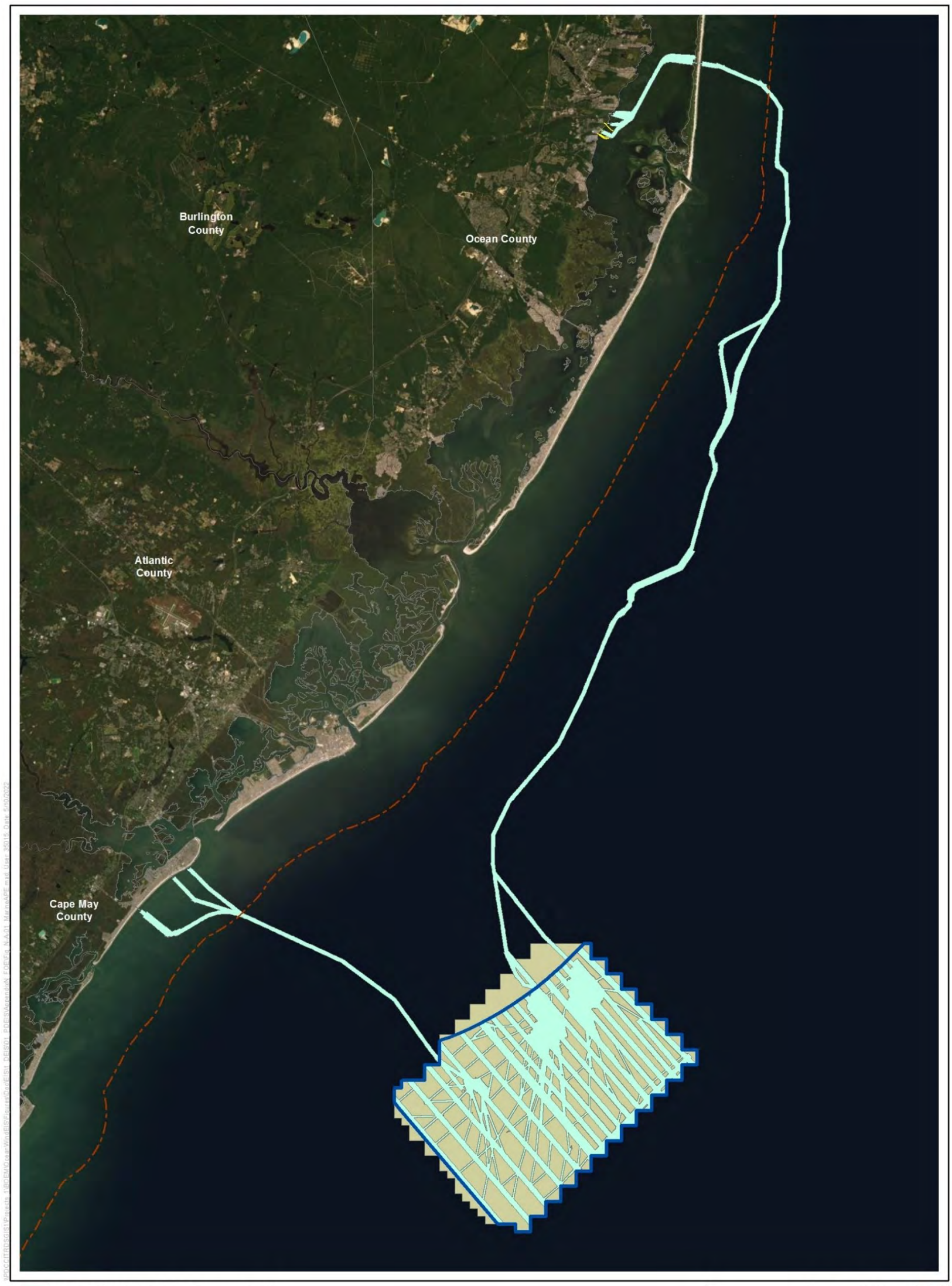
ATTACHMENT 2 – APE MAPS



Ocean Wind 1 COP Proposed Project Elements



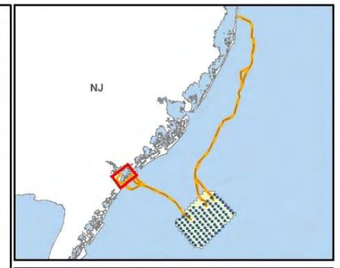
Ocean Wind 1 Oyster Creek Phased Identification Areas



Marine Archaeological Resources APE for Activities within the Lease Area

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

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



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- Onshore Interconnection Point
- Potential Onshore Substation Parcel

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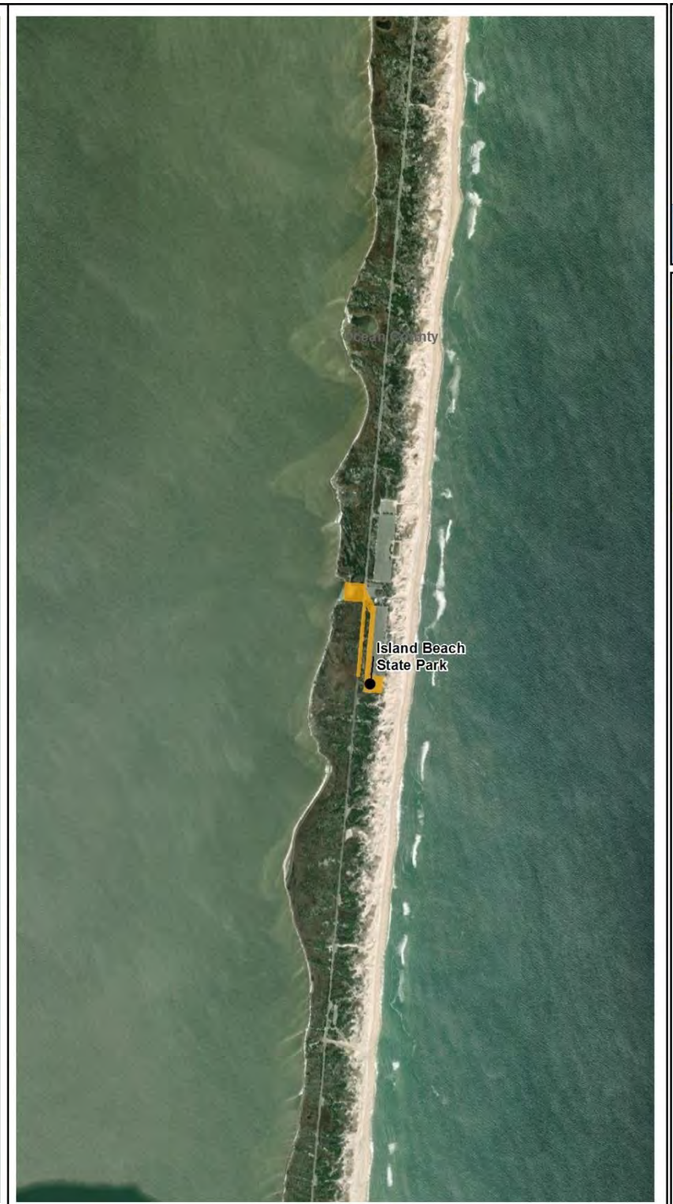
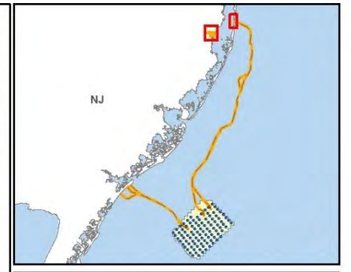
Terrestrial Archaeological Resources APE with Onshore Cable and Landfall Site Alternatives for BL England





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

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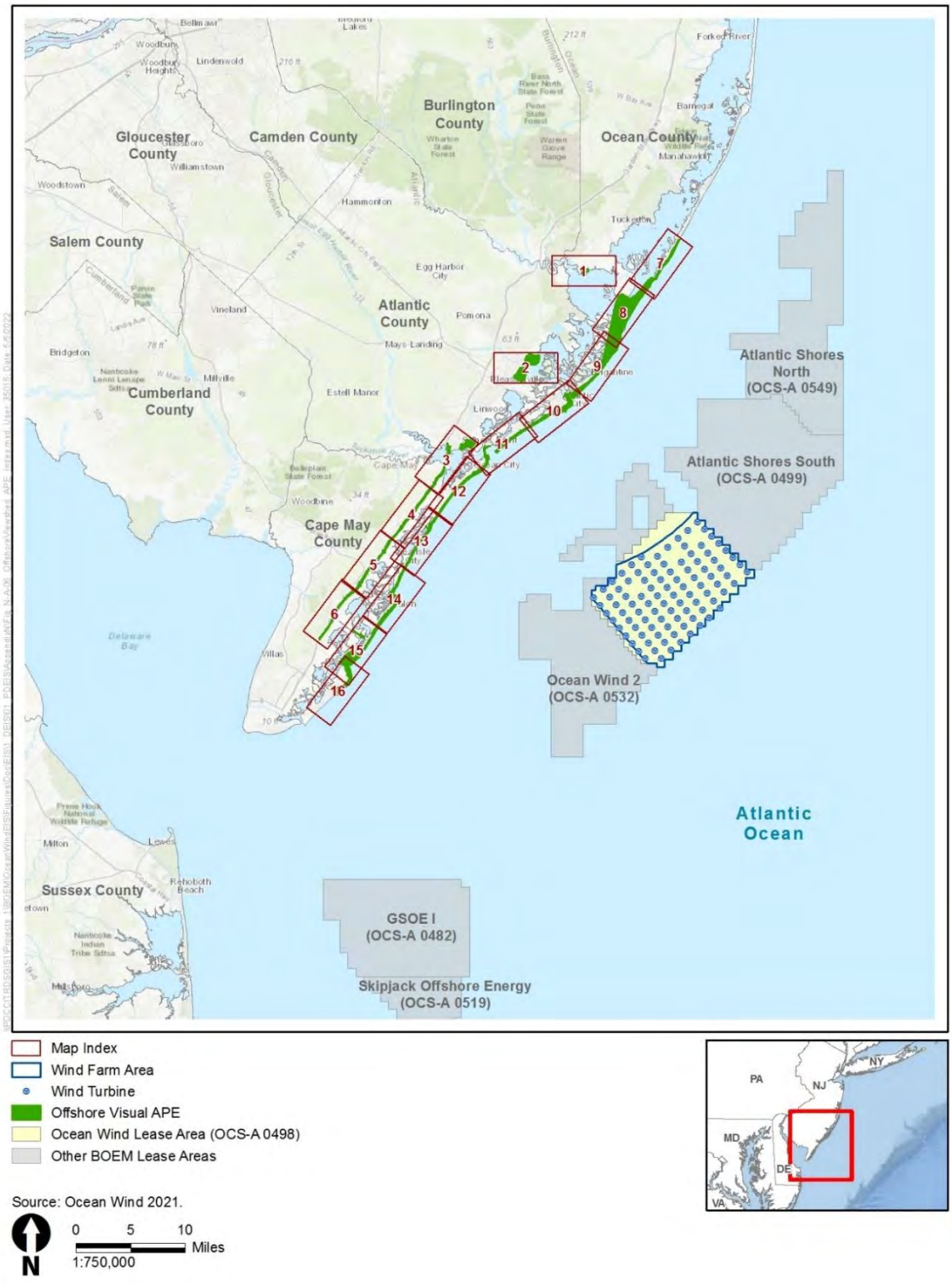

Offshore Visual APE with Historic Properties Adversely Affected and Foreseeable Future Project Areas—Index

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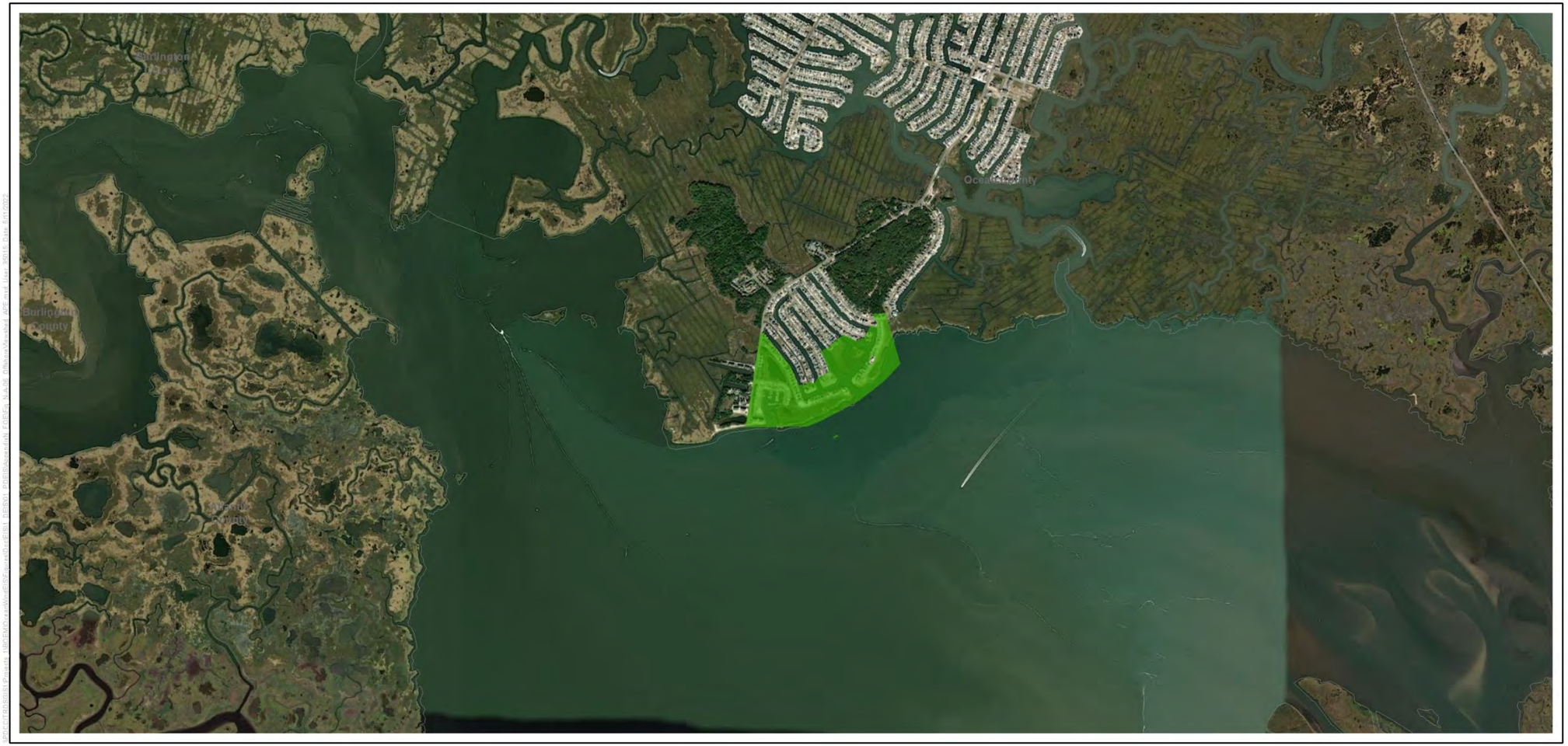

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Sheet: 1 of 16

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

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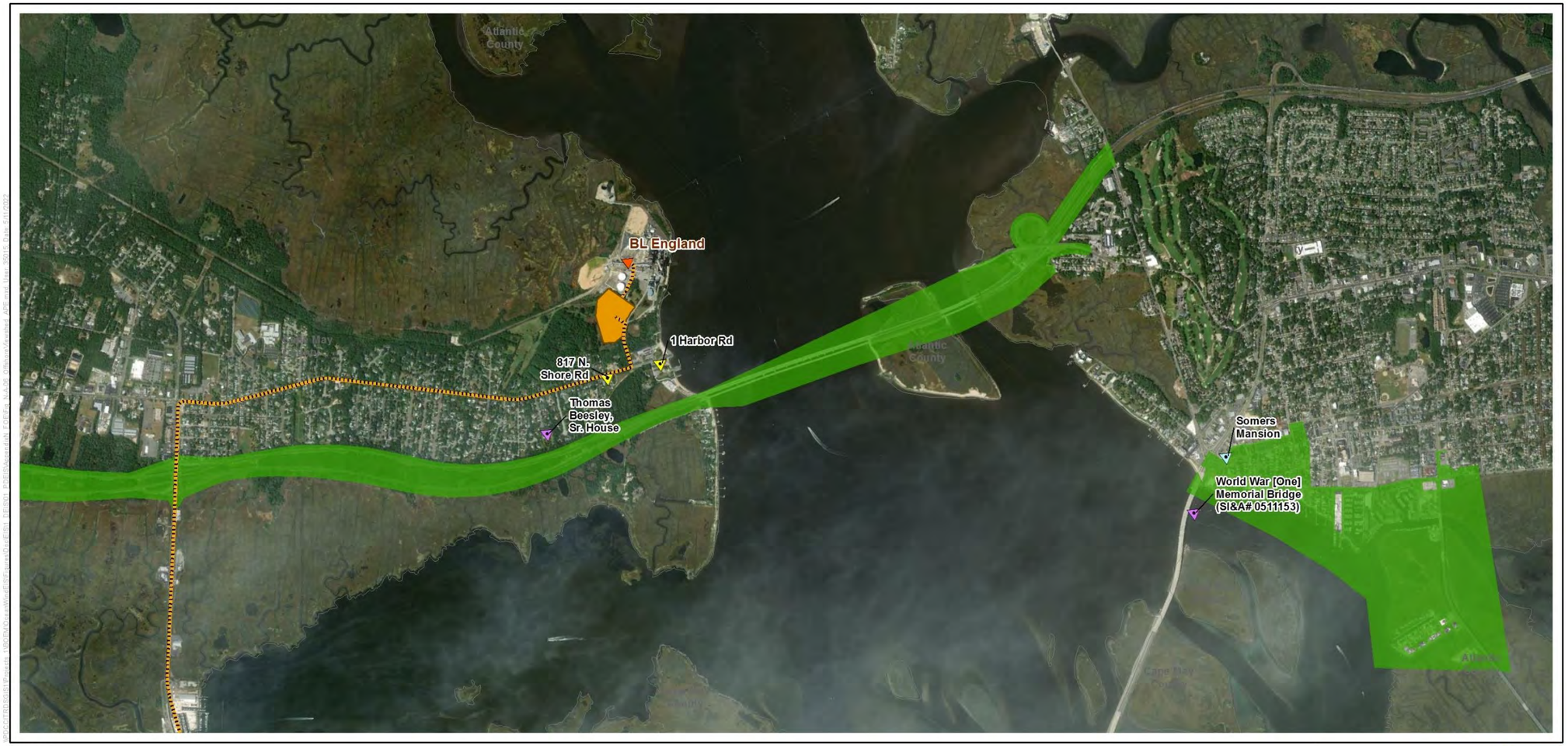
Sheet: 2 of 16

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



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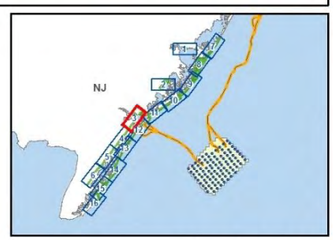
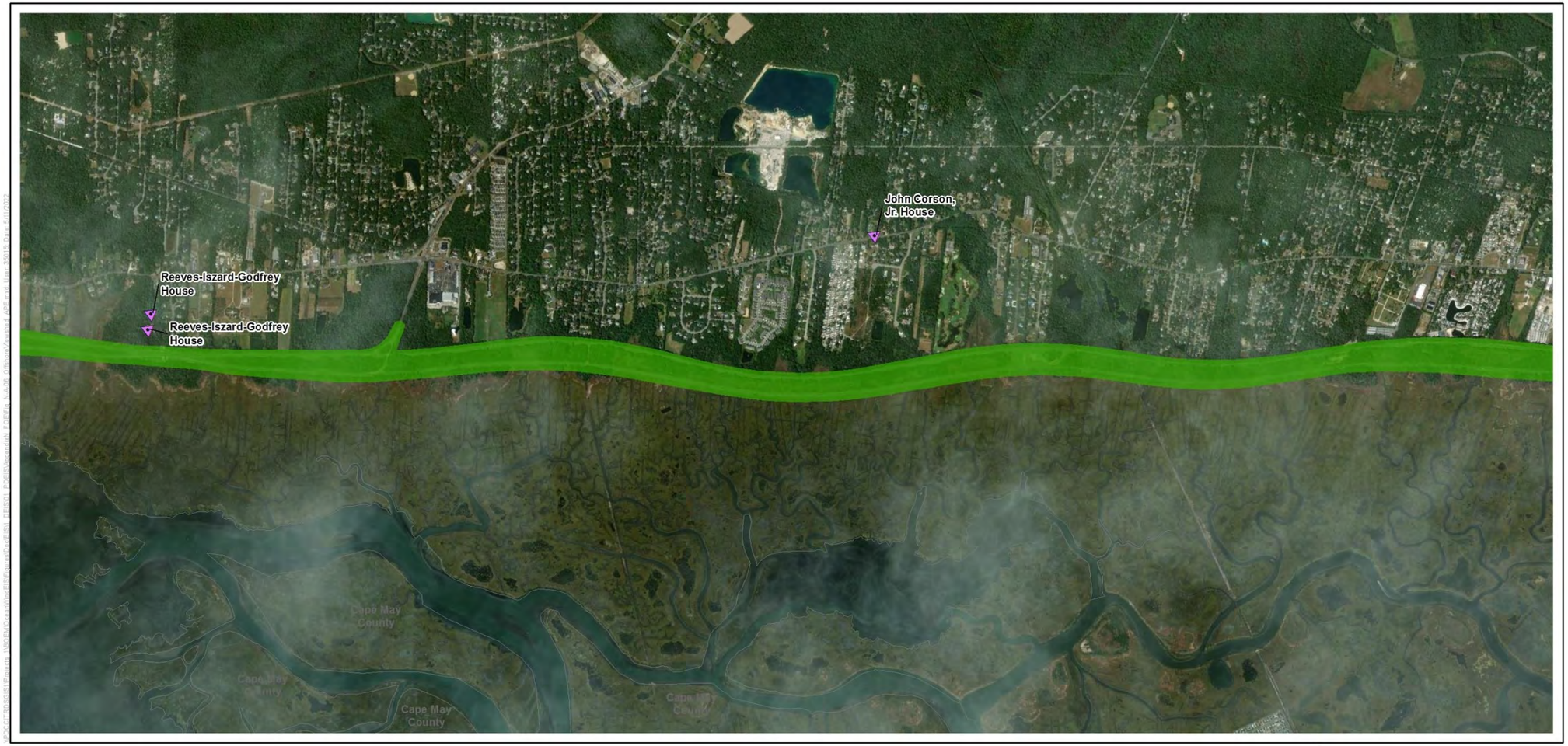


Sheet: 3 of 16

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



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Sheet: 4 of 16

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

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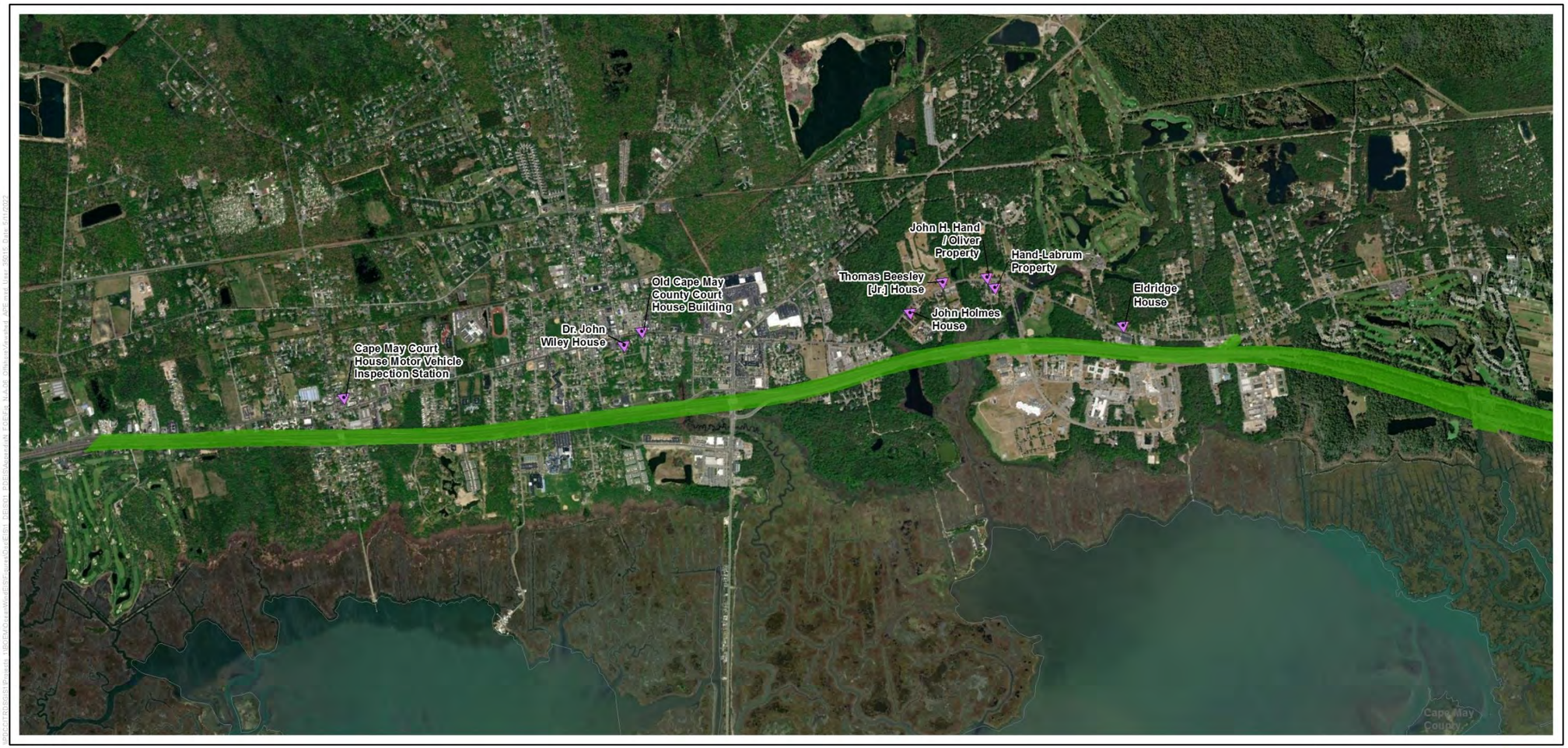
Sheet: 5 of 16

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



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Sheet: 6 of 16

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

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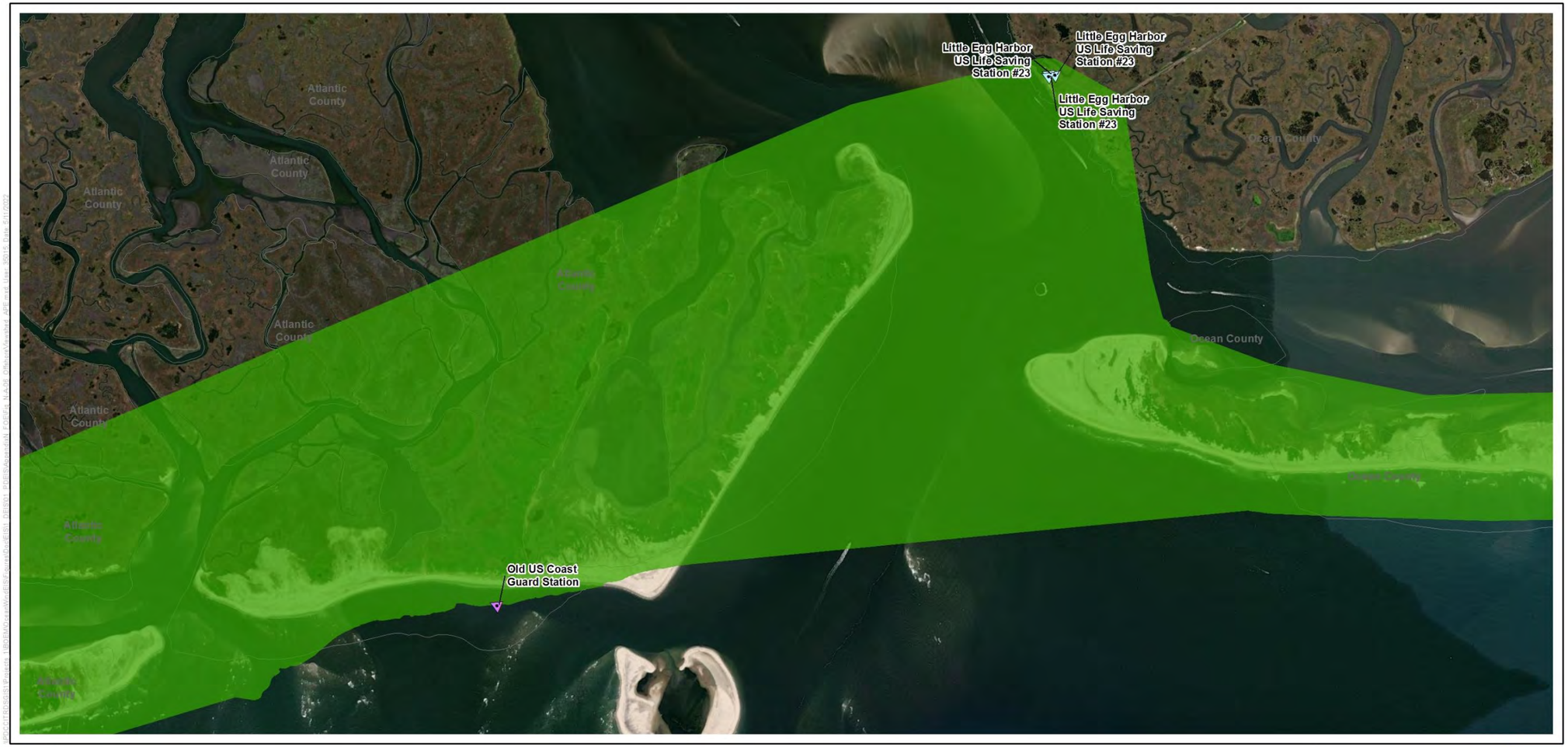
Sheet: 7 of 16

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



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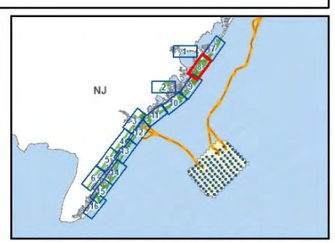

Sheet: 8 of 16

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

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- Wind Turbine
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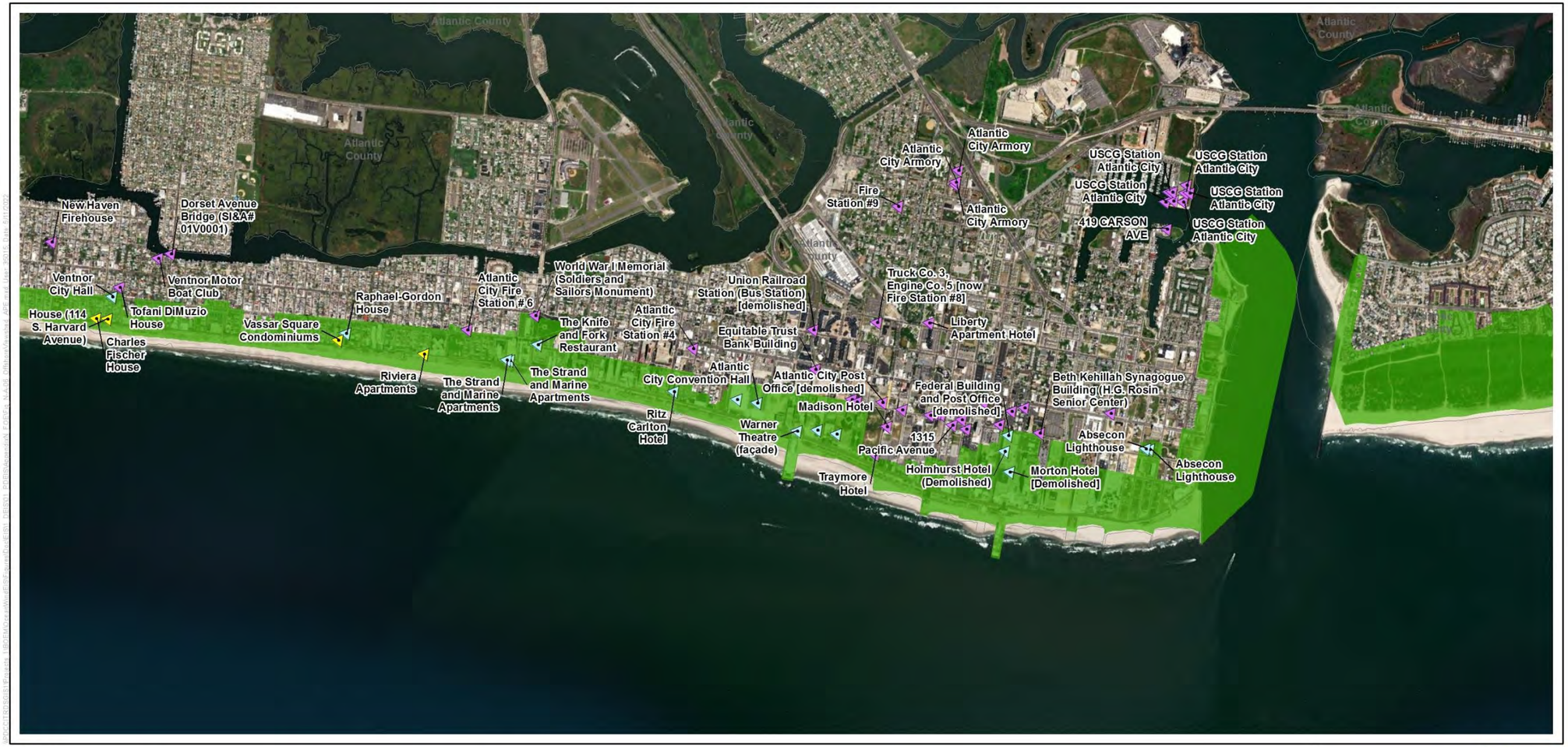
Sheet: 9 of 16

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



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Sheet: 10 of 16

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

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- Offshore Visual APE
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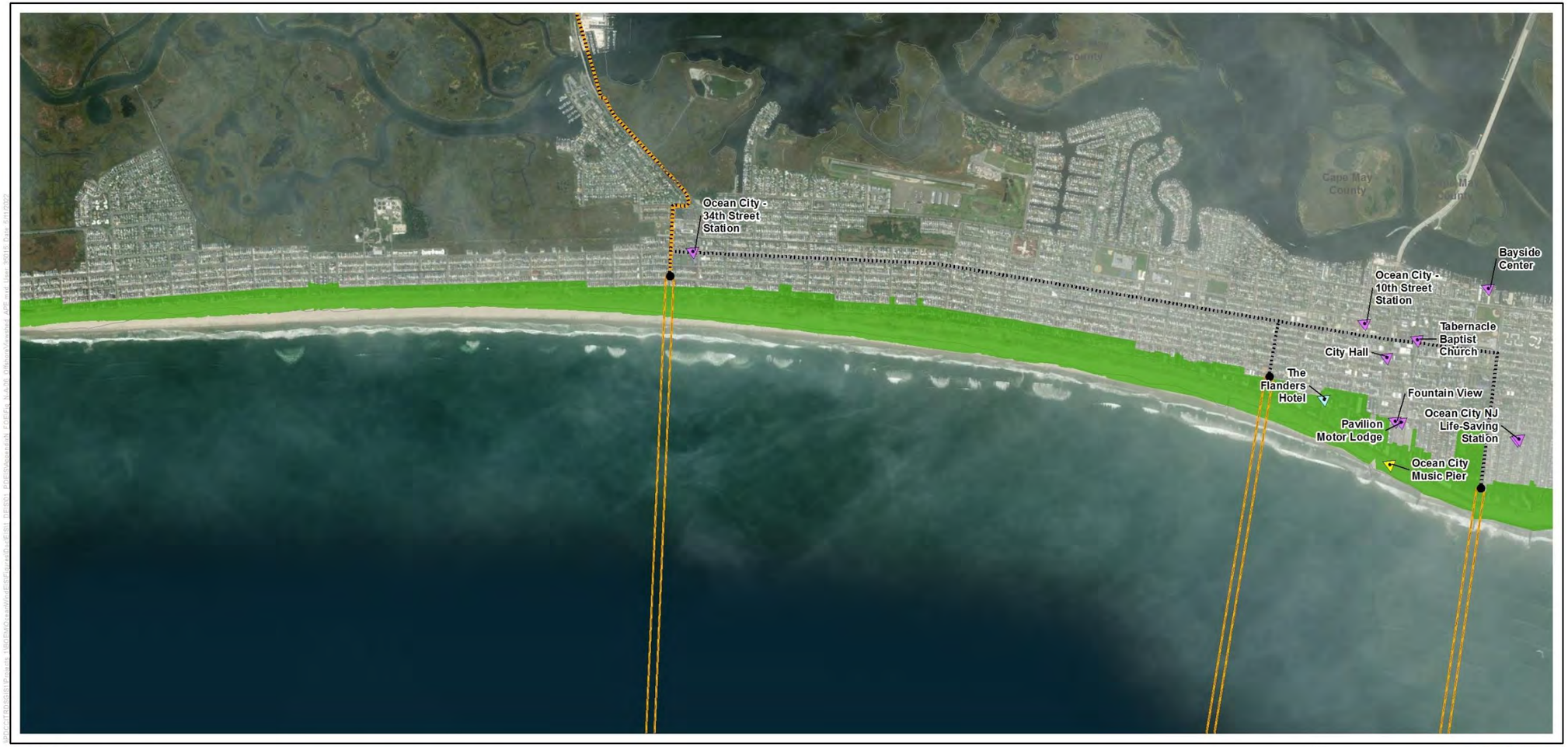
Sheet: 11 of 16

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



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Sheet: 12 of 16

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

Legend

- Offshore Visual APE
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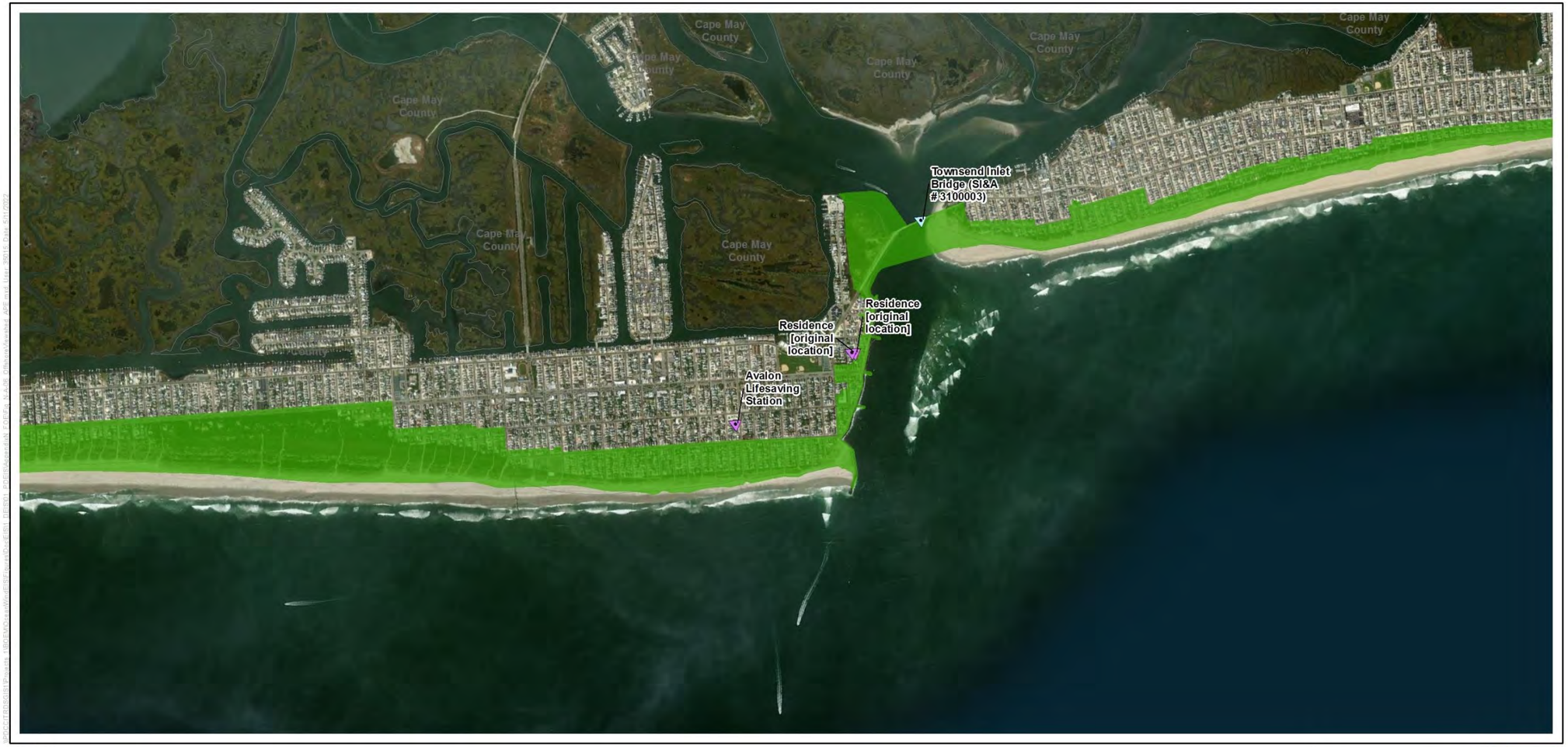
Sheet: 13 of 16

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



Legend

- Offshore Visual APE
- Wind Turbine
- Historic properties recommended adverse visual effects
- Historic properties recommended no adverse visual effects
- Historic properties outside the visual APE
- 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

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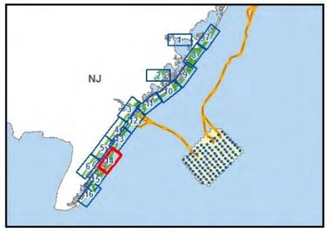
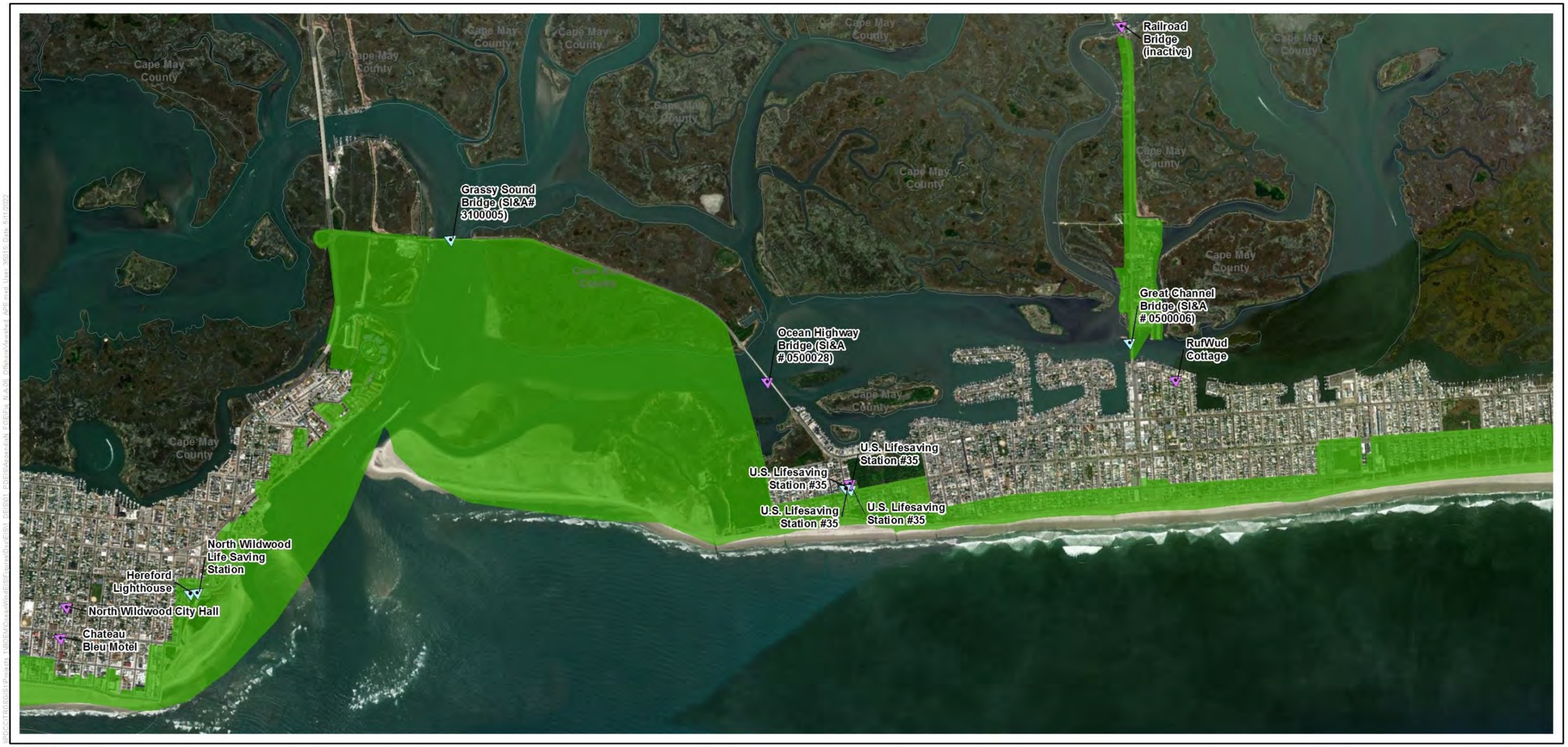


Sheet: 14 of 16

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



Legend

- Offshore Visual APE
- Wind Turbine
- Historic properties recommended adverse visual effects
- Historic properties recommended no adverse visual effects
- Historic properties outside the visual APE
- 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

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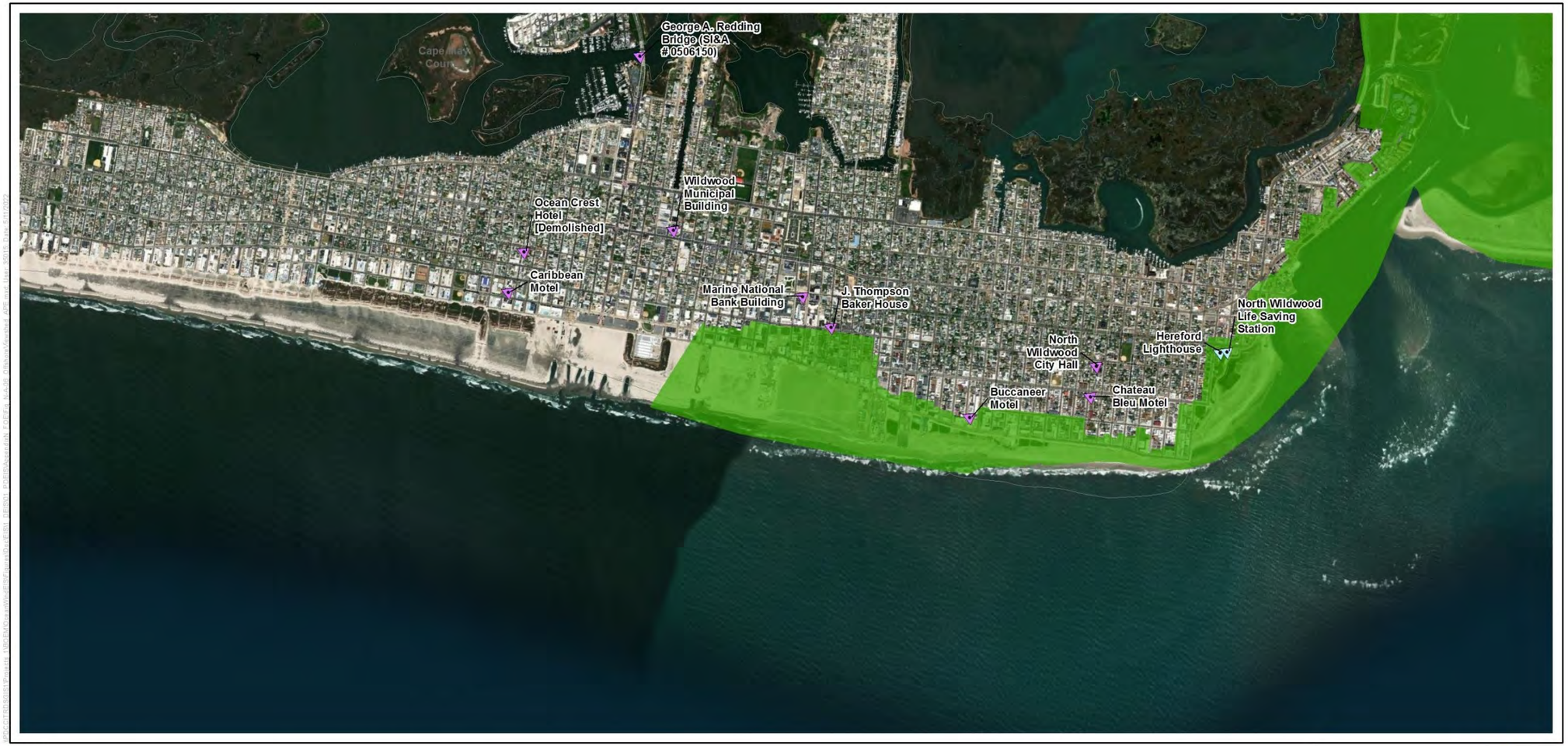
Sheet: 15 of 16

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



Legend

- Offshore Visual APE
- Wind Turbine
- Historic properties recommended adverse visual effects
- Historic properties recommended no adverse visual effects
- Historic properties outside the visual APE
- 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

ICF

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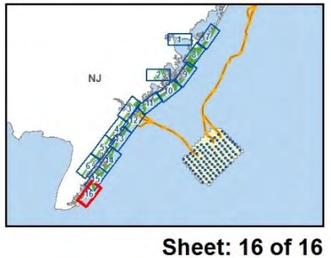
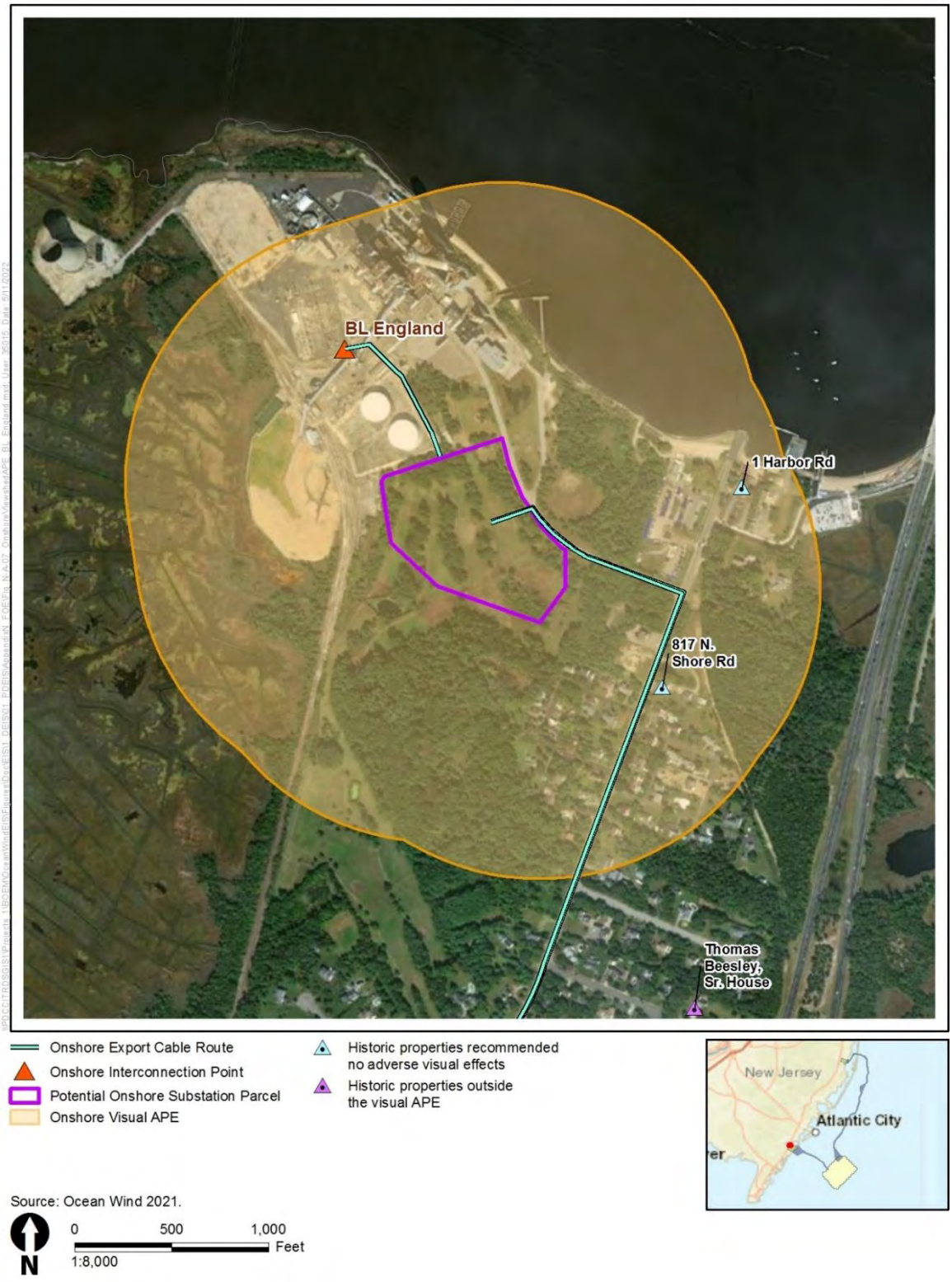
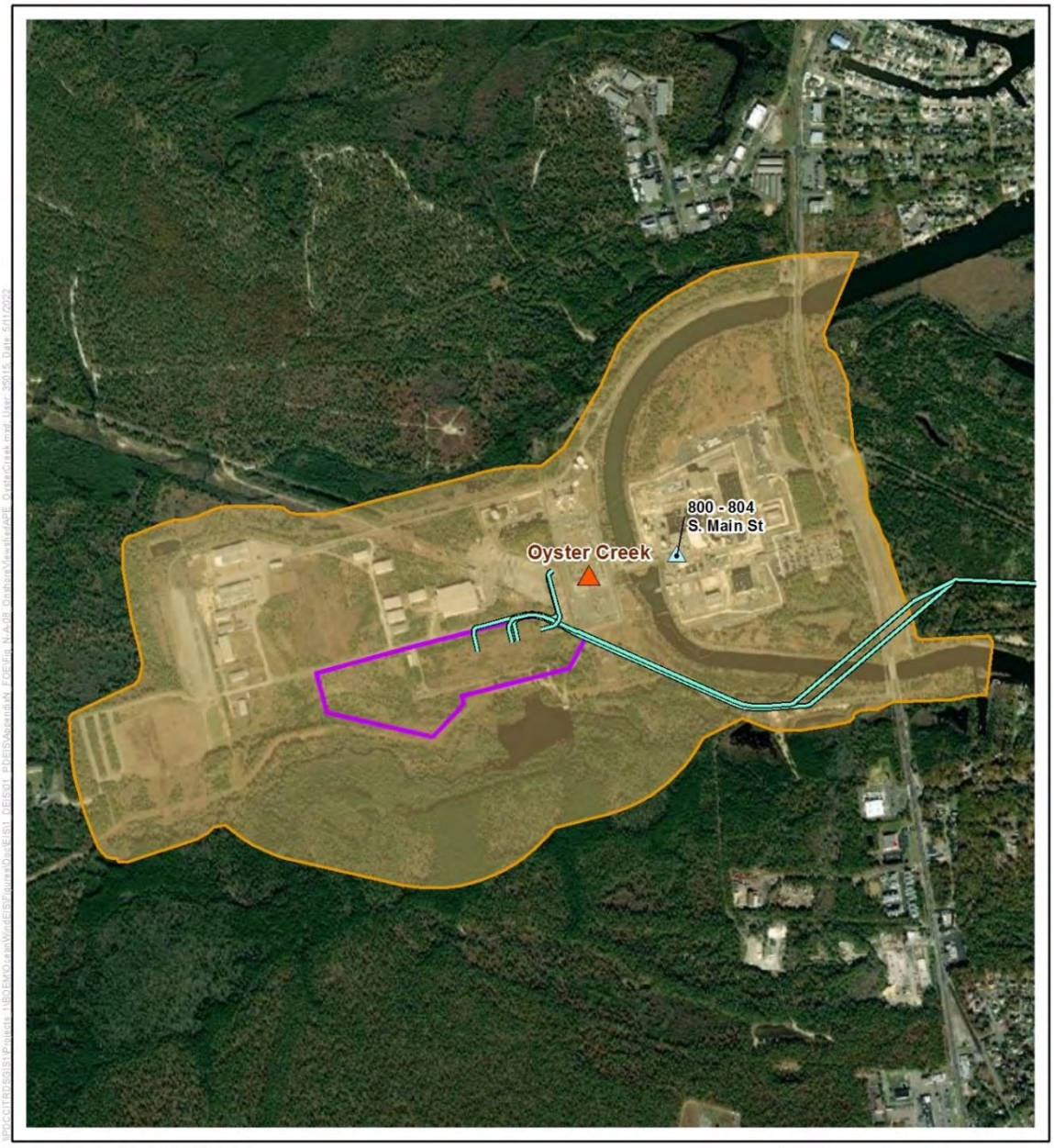


Sheet: 16 of 16

Offshore Visual APE with Historic Properties Adversely Affected and Foreseeable Future Project Areas—Sheet 16



Onshore Visual APE for BL England Substation



Onshore Visual APE for Oyster Creek Substation

ATTACHMENT 3 – LIST OF CONSULTING PARTIES

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

Participants in the Section 106 Process	Participating Consulting Parties
SHPOs and State Agencies	NJDEP, Historic Preservation Office
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 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
	Ramapough Mountain Indians
Local Government	Absecon City
	Atlantic City
	Atlantic County
	Atlantic County, Department of Regional Planning and Development
	Avalon Borough
	Barnegat Light Borough
	Barnegat Township
	Beach Haven Borough

Participants in the Section 106 Process	Participating Consulting Parties
	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	Participating 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
	Dr. Edward H. Williams House
	Eagleswood Historical Society
	Emlen Physick Estate
	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
	Linwood Historical Society
	Long Beach Island Historical Association
	Long Beach Island Historical Association
	Lucy The Margate Elephant
	Madison Hotel
	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
	Ritz Carlton Hotel
	The Flanders Hotel
	The Museum of Cape May County

Participants in the Section 106 Process	Participating Consulting Parties
	The Noyes Museum of Art
	Tuckerton Historical Society
	Wildwood Crest Historical Society
	Wildwood Historical Society

Table 2. Consulting Parties Participating in Section 106 Consultation

Participants in the Section 106 Process	Participating Consulting Parties
SHPOs and State Agencies	NJDEP, Historic Preservation Office
Federal Agencies	ACHP
	USEPA
	USCG
	National Park Service
Federally Recognized Tribes	Delaware Nation
	Delaware Tribe of Indians
	Stockbridge-Munsee Community Band of Mohican Indians
	Wampanoag Tribe of Gay Head (Aquinnah)
Local Government	Atlantic County
	Cape May City
	Cape May County
	Harvey Cedars Borough
	Linwood City
	Margate City
	Ocean City
	Sea Isle City
	Somers Point City
	Stafford Township
Non-governmental Organizations or Groups	Absecon Lighthouse
	Garden State Seafood Association
	Long Beach Island Historical Association
	The Noyes Museum of Art
	Vassar Square Condominiums

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

Participants in the Section 106 Process	Participating Consulting Parties
Federal Agencies	NOAA
	USACE
	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
	The Shinnecock Indian Nation
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
	Ramapough Mountain Indians
Local Government	Absecon City
	Atlantic City
	Atlantic County, Department of Regional Planning and Development
	Avalon Borough
	Barnegat Light Borough
	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
	Little Egg Harbor Township

Participants in the Section 106 Process	Participating Consulting Parties
	Long Beach Township
	Longport Borough
	Lower Township
	Middle Township
	North Wildwood City
	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
Nongovernmental Organizations or Groups	Absecon Historical Society
	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
	Dr. Edward H. Williams House
	Eagleswood Historical Society
	Emlen Physick Estate
	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

Participants in the Section 106 Process	Participating Consulting Parties
	Linwood Historical Society
	Lucy The Margate Elephant
	Madison Hotel
	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
	Ritz Carlton Hotel
	The Flanders Hotel
	The Museum of Cape May County
	Tuckerton Historical Society
	Wildwood Crest Historical Society
	Wildwood Historical Society

ATTACHMENT 4 – TREATMENT PLAN ANCIENT SUBMERGED LANDFORM FEATURES

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

Applicant Proposed Draft Historic Properties Treatment Plan

for the

Ocean Wind 1 Offshore Wind Farm Project

Ancient Submerged Landform Features Subject to Adverse Effect Federal Waters on the Outer Continental Shelf

Submitted to:

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

Prepared for:

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

Prepared by:

www.searchinc.com

June 2022

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 Environmental Protection Agency National Marine Fisheries Service U.S. Army Corps of Engineers New Jersey Department of Environmental Protections/State Historic Preservation Office Advisory Council on Historic Preservation
ACHP Project No.:	016649
HPO Project No.:	18-1184-30
Potential Adverse Effect Finding for:	16 Properties in the Atlantic OCS
Date:	June 2022

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LIST OF ACRONYMS

ACHP	Advisory Council on Historic Preservation
ADLS	Aircraft Detection Lighting System
APE	Area of Potential Effects
ASLF	Ancient Submerged Landscape Feature
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 Preservation Treatment Plan
N/A	Not Applicable
NHL	National Historic Landmark
NHPA	National Historic Preservation Act of 1966
NJ DEP	New Jersey Department of Environmental Protection
NJ HPO	New Jersey State Historic Preservation Office(r)
NPS	National Park Service
NRHP	National Register of Historic Places
OCS	Outer Continental Shelf
OW1	Ocean Wind1 Offshore Wind Farm Project
QMA	Qualified Marine Archaeologist
RFP	Request for Proposals
ROD	Record of Decision
SOI	Secretary of the Interior
TCP	Traditional Cultural Property
UDP	Unanticipated Discoveries Plan
USCG	United States Coast Guard
WTG	Wind Turbine Generator

1.0 INTRODUCTION

This Historic Properties Treatment Plan (HPTP) was prepared to support fulfillment of Stipulation III.A 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 effects to 16 ancient submerged landform features (ASLFs) identified by the Bureau of Ocean Energy Management (BOEM) through Section 106 consultation for the Ocean Wind 1 Offshore Wind Farm (OW1). The mitigation measures and the process for implementation described herein were developed in consultation with the New Jersey Historic Preservation Officer (NJ HPO), federally recognized Tribes, the Advisory Council on Historic Preservation (ACHP) and other consulting parties. This HPTP outlines mitigation measures, implementation steps, and timeline for actions.

Section 1.0 Introduction: Outlines the content of this HPTP.

Section 2.0 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 16 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 measures proposed by OW1 in the 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.

Section 5.0 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.

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

2.0 BACKGROUND INFORMATION

BOEM has determined that approval, approval with modification, or disapproval of the Ocean Wind 1 Offshore Wind Farm 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 Ocean Wind 1 Offshore Wind Farm undertaking (the 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 (**Error! Reference source not found.**).

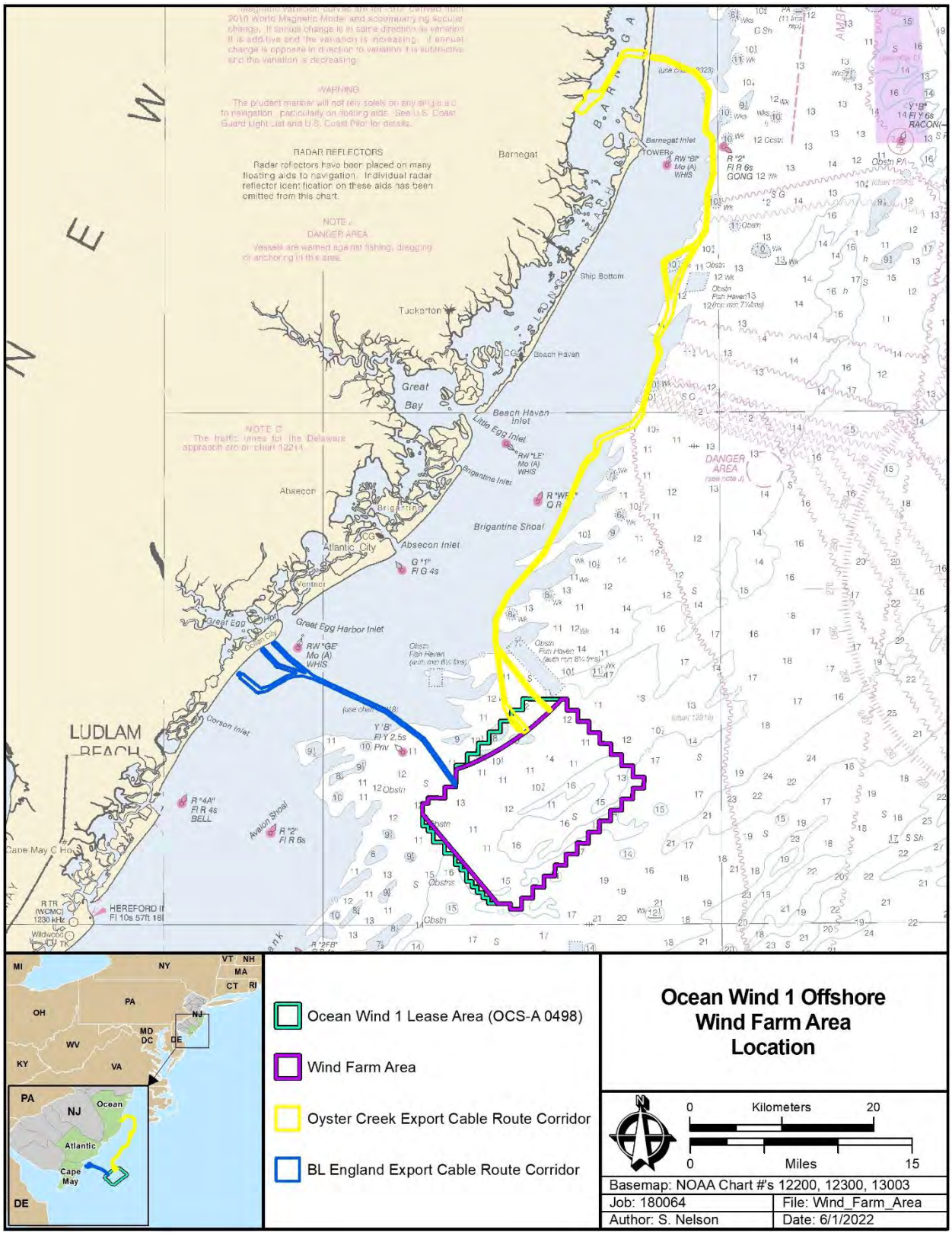
The WTGs, foundations, offshore substations, and inter-array cables will all be in federal waters on the Outer Continental Shelf (OCS), approximately 15 statute miles (mi) (13 nautical miles [nm]) southeast of Atlantic City, New Jersey. Cables will be buried below the seabed. Export cables from the offshore substations will extend along the seabed and connect to buried onshore export cables, which will connect to two interconnection points, at Oyster Creek and BI 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).

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.

To support BOEM's efforts to identify historic properties within the APE, OW1 conducted a terrestrial archaeological resource assessment (TARA), marine archaeological resource assessment (MARA), and historic resources visual effects assessment (HRVEA) within the APE. 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 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.

Figure 1: Project Location



In the FoAE, BOEM determined that the OW1 undertaking will adversely affect 16 ASLFs. BOEM has consulted with the Advisory Council on Historic Preservation (ACHP), New Jersey Historic Preservation Office (NJ HPO), federal 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 (i.e., the approval, approval with modification, or disapproval of the OW1 COP). This HPTP provides background data, historic property information, and detailed steps that will be implemented to carry out the mitigation actions. The measures agreed upon by BOEM, the ACHP, and NJ HPO 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 impacts to marine archaeological resources (see MOA Stipulation I.A) and will implement an Unanticipated Discoveries Plan for Submerged Archaeological (see MOA Attachment 7) in the event of unanticipated discovery). This HPTP was developed by the applicant to fulfill Stipulation III.A of the MOA to resolve adverse effects to 16 ASLFs. 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.

Participating NHPA Section 106 Consulting 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.A 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 include, and the following Section 106 consulting parties:

- ACHP;
- NJ HPO;
- Delaware Nation;
- Delaware Tribe of Indians;
- Stockbridge-Munsee Community Band of Mohican Indians; and
- Wampanoag Tribe of Gay Head (Aquinnah)

No other NHPA Section 106 consulting parties are anticipated to be Participating Parties for the 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.

3.0 EXISTING CONDITIONS AND HISTORIC SIGNIFICANCE

3.1 Historic Properties

This HPTP involves 16 historic properties, as identified below in Table 1. All 16 historic properties are ASLFs identified during geophysical and geotechnical investigations within the OW1 Wind Farm Area (WFA) and within the BL England and Oyster Creek Export Cable Routes (ECRs) Corridors.

Table 1: Historic Properties included in the HPTP

Name	Project Component Area	Project Component Affecting ASLF	Potential Effect Recommendation
Target 20	Wind Farm Area	jack-up barge, inter-array cable	Adverse effect, potential for avoidance during final design.
Target 21	Wind Farm Area	WTG foundation, jack-up barge, inter-array cable	Adverse effect.
Target 22	Wind Farm Area	WTG foundation, jack-up barge, inter-array cable	Adverse effect.
Target 23	Wind Farm Area	WTG foundation, jack-up barge, inter-array cable	Adverse effect.
Target 24	Wind Farm Area	WTG foundation, jack-up barge, inter-array cable	Adverse effect.
Target 25	Wind Farm Area	WTG foundation, jack-up barge, inter-array cable	Adverse effect.
Target 26	Wind Farm Area	WTG foundation, jack-up barge, inter-array cable	Adverse effect.
Target 27	Wind Farm Area	jack-up barge, inter-array cable	Adverse effect, potential for avoidance during final design.
Target 28	Wind Farm Area	WTG foundation, jack-up barge, inter-array cable	Adverse effect.
Target 29	Wind Farm Area	WTG foundation, jack-up barge, inter-array cable	Adverse effect.
Target 30	Wind Farm Area	inter-array cable	Adverse effect.
Target 31	Wind Farm Area	WTG foundation, jack-up barge, inter-array cable	Adverse effect.
Target 32	Wind Farm Area	jack-up barge, inter-array cable	Adverse effect, potential for avoidance during final design.
Target 33	Bl England Export Cable Route Corridor	Export cable	Adverse effect.
Target 34	Oyster Creek Export Cable Route Corridor	Export cable	Adverse effect.
Target 35	Oyster Creek Export Cable Route Corridor	Export cable	Adverse effect.

The undertaking would adversely affect 16 ASLFs (Targets 20-35) due to physical impacts during WTG foundation installation, inter-array cable, and/or export cable installation. Because of the project design plans, vertical and/or horizontal avoidance is not possible.

Avoidance may be accomplished by micro-siting facilities and work zones away from features and/or adjusting the cable burial depth across features. Horizontal avoidance would be accomplished through project installation outside of avoidance buffers and target areas. Vertical avoidance of cable installation would include laying of the cable through portions of the feature with no preservation potential, within areas of the feature not available for human occupation (i.e., paleochannel thalweg), or above the feature in stratigraphic units consisting of marine sediments. If it is determined that adverse effects to an ASLF will be avoided when the project design is finalized, documentation demonstrating avoidance will be provided for concurrence by BOEM and Participating Parties. Otherwise, measures to resolve the adverse effect must be carried out as outlined in the HPTP.

3.2 Adversely Affected Historic Properties

Target 20: Target 20 represents the northern flank of a preserved H30 channel margin along a small branch of the main paleo-channel. Covering approximately 29.4 ha (72.7 ac), the acoustic imagery of Target 20 is similar to other preserved former subaerial landscapes observed throughout the Area of Potential Effect (APE) (i.e., Target 22). The flank is buried 5.8 m (19.0 ft) below seabed (bsb) and is 572.5 m (1,878.3 ft) at its widest. Approximately 92% (27.0 ha [66.7 ac]) of Target 20 is present within the APE around a proposed turbine location and the inter-array cable corridor.

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) 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 (Figure 100) 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, as depicted in Figure 102, 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 around a five proposed turbine location 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 27: Target 27 represents the eastern flank of a meandering paleochannel associated with U30/H30, opposite Targets 26 and 29. To the east of Target 27, another potential paleochannel may have existed, but shows extensive erosion and reworking due to marine transgression. Similar processes removed portions of margin from within Target 27, downcutting into the potential former subaerial landscape. Covering approximately 59.6 ha (147.3 ac), the acoustic imagery of Target 27 is indicative of a slightly eroded, yet preserved paleochannel flank potentially associated with the oldest generation of the channel. The reflector is buried 4.3 m (14.1 ft) bsb and is 847.6 m (2,480.8 ft) at its widest. Approximately 18% (10.7 ha [26.4 ac]) of Target 27 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 32: Target 32 represents 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. Acoustic imagery of Target 32 is like other targets within the WFA (i.e., Target 29). Covering approximately 68.7 ha (169.7 ac), the acoustic imagery of Target 32 suggests a slightly eroded, yet preserved paleochannel flank. The reflector is buried 4.9 m (16.1 ft) bsb and is 1,034.6 m (3,392.4 ft) at its widest. Approximately 47% (32.2 ha [79.5 ac]) of Target 32 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.

3.3 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 and Early Archaic Period. Targets 20-35 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 Native American 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.

3.4 NRHP Criteria

Based on prior BOEM consultations for the South Fork Wind Farm and Vineyard Wind 1 Wind Farm undertakings and OW1's assessments, the identified ASLFs are potentially eligible for listing in the National Register of Historic Places 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 Native American Tribes/Tribal Nations.

4.0 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 met Secretary of the Interior (SOI) Qualifications Standards for Archeology and/or History (62 FR 33708) and is consistent with fulfilling the mitigation measures such that they fully address the nature, scope, size, and magnitude of adverse effects to ancient submerged landform features. Implementation of the mitigation measures described in the following sections will be led by a Qualified Marine Archaeologist (QMA) pursuant to 30 CFR 585 and who meets SOI (Secretary of the Interior) Qualifications Standards for Archeology and Historic Preservation (48 FR 44738-44739).

4.1 Preconstruction Geoarchaeology

4.1.1 Purpose and Intended Outcome

This mitigation measure will consist of the collection vibracores within affected portions of each ASLF that was not previously investigated during the 2020 Geotechnical Survey campaign prior to Project construction. The collected cores, the locations which will be selected in consultation with Native American Tribes/Tribal Nations, BOEM, and the NJ HPO, and will be analyzed in collaboration with the Tribes/Tribal Nations to provide a more detailed understanding of ancient, former terrestrial landscapes within the OW1 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/Tribal Nations, referred to as the Tribal Audience Report, 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, referred to as the Technical Report, will be geared primarily toward technical, Tribal/State Historic Preservation Officer and agency audiences.

4.1.2 Scope of Work

The scope of work will consist of the following:

- Collaborative review of existing geophysical and geotechnical data with Native American Tribes/Tribal Nations;
- Selection of coring locations in consultation with Tribes/Tribal Nations;
- 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 participating parties;
- Final reporting;
- Complete a NRHP Multiple Property Documentation Form (NPS 10-900-b) form for Targets 20-35; and
- Public or professional presentations summarizing the results of the investigations, developed with the consent of the consulting Tribes/Tribal Nations.

4.1.3 Methodology

OW1 will conduct the Preconstruction Geoarchaeology in consultation with the Native American Tribes/Tribal Nations, BOEM, and the NJ HPO. Although BOEM and the NJ HPO will be consulted, the research, analyses, and interpretations are intended to be a collaborative effort between OW1 and the consulting Tribes/Tribal Nations, who will be invited by OW1 to series of working sessions to:

- Review existing data;
- Develop specific research questions addressing the tribes' interests in the ASLF;
- 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 feet (6 meters) 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, OW1 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. OW1 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.

OW1 will prepare a presentation of the preliminary results and interpretations for discussion with the Tribes/Tribal Nations. OW1 will consider the Tribes'/Tribal Nations' comments and suggestions when preparing the draft Tribal Audience and Technical reports and will seek to resolve any disagreements among the parties through supplemental consultations prior to preparing the draft reports. OW1 will submit the draft Technical Report to all Participating Parties for review and comment. OW1 submit the draft Tribal Audience Report to only the participating federally recognized Tribes/Tribal Nations for review and comment. OW1 will consider all comments received when developing the final reports. Final digital copies of the completed Tribal Audience and Technical reports will be provided to all participating parties. Hard copies of the final reports will be submitted to the State Historic Preservation Officers, Tribes/Tribal Nations governments or other parties upon request.

Following the one-year retention period, OW1 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. OW1 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. OW1 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, OW1 will water-screen the retained segments to identify and collect potential physical evidence of ancient Native American activity at the ASLFs. In such circumstances, OW1 will prepare a technical memorandum summarizing the results of the archival core segment processing and analyses and submit that memorandum to the Consulting Parties.

Upon completion of the geoarchaeological analysis and reporting, OW1 will prepare a NRHP Multiple Property Documentation Form (NPS 10-900-b) form for Targets 20-35. As a result of previous and ongoing

consultations with federally recognized Tribes/Tribal Nations, BOEM has determined that ASLFs are eligible for the NRHP as Traditional Cultural Properties. A traditional cultural property is defined generally as a property eligible for inclusion in the NRHP because of its association with cultural practices or beliefs of a living community that (a) are rooted in that community's history, and (b) are important in maintaining the continuing cultural identity of the community. Federally recognized Tribes/Tribal Nations have repeatedly stated to BOEM that ASLF are significant to their members as the lands formerly occupied by their ancestors, likely containing burials and human remains, and as such are an important part of Tribal history and cultural identify. The form will be completed using the information collected during the preconstruction geoarchaeological investigations as well as information collected previous geophysical and geotechnical and drafted in consultation with participating Native American Tribes/Tribal Nations.

The Multiple Property Documentation Form (NPS 10-900-b) is used to nominate groups of related significant properties that share themes, trends, and patterns of history. The form serves as the basis for evaluating the NRHP eligibility of related properties and it may be sued to nominate and register thematically related historic properties simultaneously or establish the registration requirements for properties that may be nominated in the future. Under this proposal, a National Register Registration Form (NPS 10-900) will be completed for each of the 16 identified ASLFs along with a single Multiple Property Documentation Form that incorporates all 16 ASLFs. The Multiple Property Documentation Form will streamline the NRHP nomination process for all 16 ASLFs by allow information that is common to all ASLFs (NRHP evaluation criteria, historic context description, statement of significance, etc.) to be recorded on the Multiple Property Documentation Form while the unique characteristics of each ASLF (location, integrity, etc.) are completed for each individual ASLF.

OW1 will draft the Multiple Property Documentation Form (NPS 10-900-b) and individual National Register Registration Form (NPS 10-900) for Targets 20-35 in consultation with participating Native American Tribes/Tribal Nations and BOEM. OW1 will work with the Tribes/Tribal Nations to develop draft NPS 10-900 forms for each ASLF and the NPS 10-900-b form. OW1 will then submit draft forms to the Tribes/Tribal Nations and BOEM for review and comment. Based on the feedback and comments from BOEM and the Tribes/Tribal Nations, OW1 will finalize the nomination forms and BOEM will submit the forms to the National Park Service in Washington, D.C. for final review and listing by the Keeper of the NRHP.

4.1.4 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.

4.1.5 Deliverables

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

- Draft Tribal Audience Report;

- Draft Technical Report;
- Final Tribal Audience Report;
- Final Technical Report; and
- Draft Public or Professional Presentations.

4.1.6 Schedule

The following is a preliminary schedule for execution of the preconstruction geoarchaeological mitigation study 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 QMA(s) to perform the scope of work described in the HPTP. Once the QMA(s) is identified and under contract, the QMA, OW1, and the Participating Parties will develop and agree upon a final delivery schedule.

Summer 2023	Solicitation/Request for Proposal for QMA and contracting QMA to perform study; collaborative review of existing geophysical and geotechnical data with Native American Tribes/Tribal Nations; and selection of coring locations in consultation with Tribes/Tribal Nations.
Summer-Fall 2023	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.
Winter 2023	Collaborative laboratory analyses at a laboratory located in Rhode Island or New Jersey and screening of recovered sediments for debitage or micro-debitage associated with indigenous land uses and third-party laboratory analyses.
Winter 2023-Spring 2024	Draft reports/deliverables for review by Participating Parties followed by submission of final reports/deliverables.
Spring 2024	Complete a NPS 10-900-b form for Targets 20-35 and public or professional presentations summarizing the results of the investigations developed with the consent of the consulting Tribes/Tribal Nations.

The final mitigation schedule will include opportunities for Participating Parties to review and comment on deliverables. Table 2 provides an overview of each opportunity for Participating Parties to review and comment on deliverables and the length of the associated review and comment periods.

Table 2: Preconstruction Geoarchaeology Mitigation Deliverables and Review & Comment Periods

Activity	Review and Comment Period
Review and comment on final mitigation project schedule	30 days
Review of existing geophysical and geotechnical data	60 days
Comment on preliminary results and interpretations	30 days
BOEM to review, comment, and/or approve written verification that the samples collected are sufficient for the planned analyses and consistent with the agreed scope of work.[1]	30 days
Submit draft Technical Report	60 days
Submit final Technical Report	30 days
Submit draft Tribal Audience Report[2]	60 days
Submit final Tribal Audience Report	30 days
Notify the Participating Parties of its intent to transfer archival core segments to any party	45 days
Submit draft Multiple Property Documentation Form (NPS 10-900-b) and individual National Register Registration Form (NPS 10-900) for Targets 20-35	60 days
Submit final Multiple Property Documentation Form (NPS 10-900-b) and individual National Register Registration Form (NPS 10-900) for Targets 20-35	30 days

4.1.7 Funds and Accounting

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

4.2 Open-Source GIS and Story Maps

4.2.1 Purpose and Intended Outcome

This mitigation measure will consist of the compilation and transfer of relevant geophysical, geotechnical, and geoarchaeological datasets pertaining to the ASLF to a non-proprietary GIS system for use by Native American Tribes/Tribal Nations. The datasets will include sub-bottom (seismic) data used to characterize the seabed and ASLFs, 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 Native American Tribes/Tribal Nations.

[1] BOEM, not all Participating Parties, will be solely responsible for reviewing and approving the written verification that the samples collected are sufficient for the planned analyses and consistent with the agreed scope of work.

[2] Only participating federally recognized Tribes/Tribal Nations will be afforded the opportunity to review and comment on the draft and final Tribal Audience Report.

Incorporation of OW1 datasets into a broader GIS framework will allow the Tribes/Tribal Nations to better understand and protect preserved elements of ASLFs of traditional cultural significance. The intent of this measure is to enhance the Tribes/Tribal Nations 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. OW1 will provide reasonable compensation to tribal representative working with OW1 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.

4.2.2 Scope of Work

The scope of work will consist of the following:

- Consultation with the Tribes/Tribal Nations 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/Tribal Nations to develop Story Map content;
- Training session with Tribes/Tribal Nations to review GIS functionality;
- Review of Draft Story Maps with Tribes/Tribal Nations;
- Delivery of GIS to Tribes/Tribal Nations; and
- Delivery of Final Story Maps.

4.2.3 Methodology

OW1 will develop the Open-Source GIS and Story Maps in consultation with the Participating Parties. At least one work session will be scheduled to refine specific functionality of interest to the Tribes/Tribal Nations. 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. OW1 will request from the Tribes/Tribal Nations 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 OW1 will proceed with development of the GIS, considering the Tribes'/Tribal Nations' comments and suggestions. The draft GIS system will be shared with the Tribes/Tribal Nations 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. OW1 will consider any feedback from the Tribes/Tribal Nations on the draft GIS before proceeding with finalizing the system design and implementation. OW1 will provide the GIS to the Tribes/Tribal Nations by physical storage media or as a secure digital file transfer, as appropriate to each Tribes/Tribal Nations IT infrastructure and preference. OW1 does not intend to be responsible for the upkeep of the GIS database.

Story Map content will be developed with the consulting Tribes/Tribal Nations 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/Tribal Nations. OW1 will consider all comments and feedback provided by the Tribes when preparing the final Story Maps.

4.2.4 Standards

The GIS developed under this measure will be free to use and free to modify by the Tribes/Tribal Nations. 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.

4.2.5 Documentation

OW1 will provide draft descriptions and documentation of the GIS for review by the Participating Parties and will provide a description of the draft Story Maps to the consulting Tribes/Tribal Nations following the initial working sessions.

The following documentation is to be provided for review by Participating 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.

4.2.7 Schedule

The following is a preliminary schedule for execution of the preconstruction geoarchaeological mitigation study 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 GIS developer to perform the scope of work described in the HPTP. Once the GIS developer is identified and under contract, the GIS developer, OW1, and the Participating Parties will develop and agree upon a final delivery schedule.

Summer 2023	Consultation with the Tribes/Tribal Nations to determine the appropriate open-source GIS platform and review of candidate datasets and attributes for inclusion in the GIS.
Fall 2023	Data integration and development of custom reports or queries to assist in future research or Tribal maintenance of the GIS and work sessions with Tribes/Tribal Nations to develop Story Map content.
Winter 2023	Training session with Tribes/Tribal Nations to review GIS functionality; and review of Draft Story Maps with Tribes/Tribal Nations.
Spring 2024	Delivery of GIS and Final Story Maps to Tribes/Tribal Nations.

The final mitigation schedule will include opportunities for Participating Parties to review and comment on deliverables. Table 3 provides an overview of each opportunity for Participating Parties to review and comment on deliverables and the length of the associated review and comment periods.

Table 3: Open-Source GIS and Story Maps Mitigation Deliverables and Review & Comment Periods

Activity	**Review and Comment Period**
Review and comment on final mitigation project schedule	30 days
Draft Description of the GIS with appropriate schema, data organization, and custom reports/queries.	30 days
Draft Story Map descriptions with details on content, formatting, and intended audiences.	60 days
Final Technical Description of the GIS with schema, data organization, and custom reports/queries	30 days

4.2.7 Funds and Accounting

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

5.0 IMPLEMENTATION

5.1 Timeline

It is anticipated that the mitigation measure identified in Section 4.0 will commence after execution of the MOA unless otherwise agreed by the consulting parties and accepted by BOEM. OW1 assumes that the proposed scope of work will be completed within 5 years of MOA execution, unless a different timeline is

agreed upon by Participating Parties and accepted by BOEM. Construction activities that could potentially impact the 16 ASLF historic properties that are the subject of the preconstruction geoarchaeological mitigation will not commence until BOEM has formally accepted the written verification that the vibracore samples collected from the 16 ASLFs are sufficient for the planned analyses and consistent with the agreed scope of work. Once BOEM has provided OW1 with written verification, construction can commence within the boundaries of the 16 ASLFs while OW1 or their designee completes the remaining components of the preconstruction geoarchaeological and open-source GIS and story maps mitigations.

5.2 Reporting

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 IX (Monitoring and Reporting), including the mitigation measures outlined in the final HPTP. This report will be prepared, reviewed, and distributed by January 31, 2024, and summarize the work undertaken during the previous year. OW1 will continue to generate and distribute this yearly report until all activities required under the MOA are completed.

5.3 Organizational Responsibilities

The following sections describe the roles and responsibilities of the various participating parties.

5.3.1 BOEM

- Make all federal decisions and determine compliance with Section 106 of the NHPA;
- Ensure mitigation measures adequately resolve adverse effects, consistent with the NHPA, and in consultation with the Participating Parties;
- Review, comment, and/or approve written verification that the samples collected for preconstruction geoarchaeological study mitigation are sufficient for the planned analyses and consistent with the agreed scope of work.
- Consult with OW1, NJ HPO, federally recognized Tribes/Tribal Nations, and the ACHP; and
- Review and approve the annual summary report prepared and distributed to consulting parties by OW1.

5.3.2 Ocean Wind LLC

- Fund the mitigation measures identified in Stipulation III.A of the MOA and described in Section 4.0 of this HPTP;
- Complete the scope/s of work in Section 4.0;
- Ensure all Standards in Section 4.0 are met;
- Provide the Documentation in Section 4.0 to the Participating Parties for review and comment;
- Prepare annual reporting, submit reporting to BOEM for review and approval, and distribute annual reporting to consulting parties; and
- Ensure all work that requires consultation with Tribal Nations are performed by professionals who have demonstrated professional experience consulting with federally recognized Tribes.

5.3.3 New Jersey HPO

- Participate in all participating party consultation opportunities and deliverable reviews described in Section 4.0 within the review and comment periods outlined in Tables 2 and 3.

5.3.4 Federally recognized Tribes/Tribal Nations

- Participate in all activities outlined in Section 4.0 and complete all associated reviews, comments, requests for feedback/input in the timeframes presented in Tables 2 and 3.

5.3.5 Advisory Council on Historic Preservation

- Participate in all activities outlined in Section 4.0 and complete all associated reviews, comments, requests for feedback/input in the timeframes presented in Tables 2 and 3.

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-1-construction-and-operations-plan
OW1 DEIS: TBD
OW1 FEIS: TBD
OW1 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

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 5 – TREATMENT PLAN ABOVE-GROUND HISTORIC PROPERTIES THAT WILL BE VISUALLY ADVERSELY AFFECTED

Applicant Proposed Draft
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

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

June 2022

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 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:	Five Properties in Cape May, Ocean, and Atlantic Counties
Date:	June 2022

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LIST OF ACRONYMS

ACHP	Advisory Council on Historic Preservation
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 Preservation Treatment Plan
NHPA	National Historic Preservation Act of 1966
NJ SHPO	New Jersey State Historic Preservation Office(r)
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
WFA	Wind Farm Area
WTG	Wind Turbine Generator

1.0 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 five 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), dated March 2021 (HDR 2021). The mitigation measures and the process for implementation described herein were developed in consultation with the New Jersey Historic Preservation Officer (NJ HPO), federally recognized Tribes, the Advisory Council on Historic Preservation (ACHP), and other consulting parties. This HPTP outlines mitigation measures, implementation steps, and timeline for actions.

Section 1.0 Introduction: Outlines the content of this HPTP.

Section 2.0 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 five 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 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 an ocean setting to its significance and integrity.

Section 4.0 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.

Section 5.0 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.

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

2.0 BACKGROUND INFORMATION

BOEM has determined that approval, approval with modification, or disapproval of the Ocean Wind 1 Offshore Wind Farm 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 Ocean Wind 1 Offshore Wind Farm undertaking (the 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).

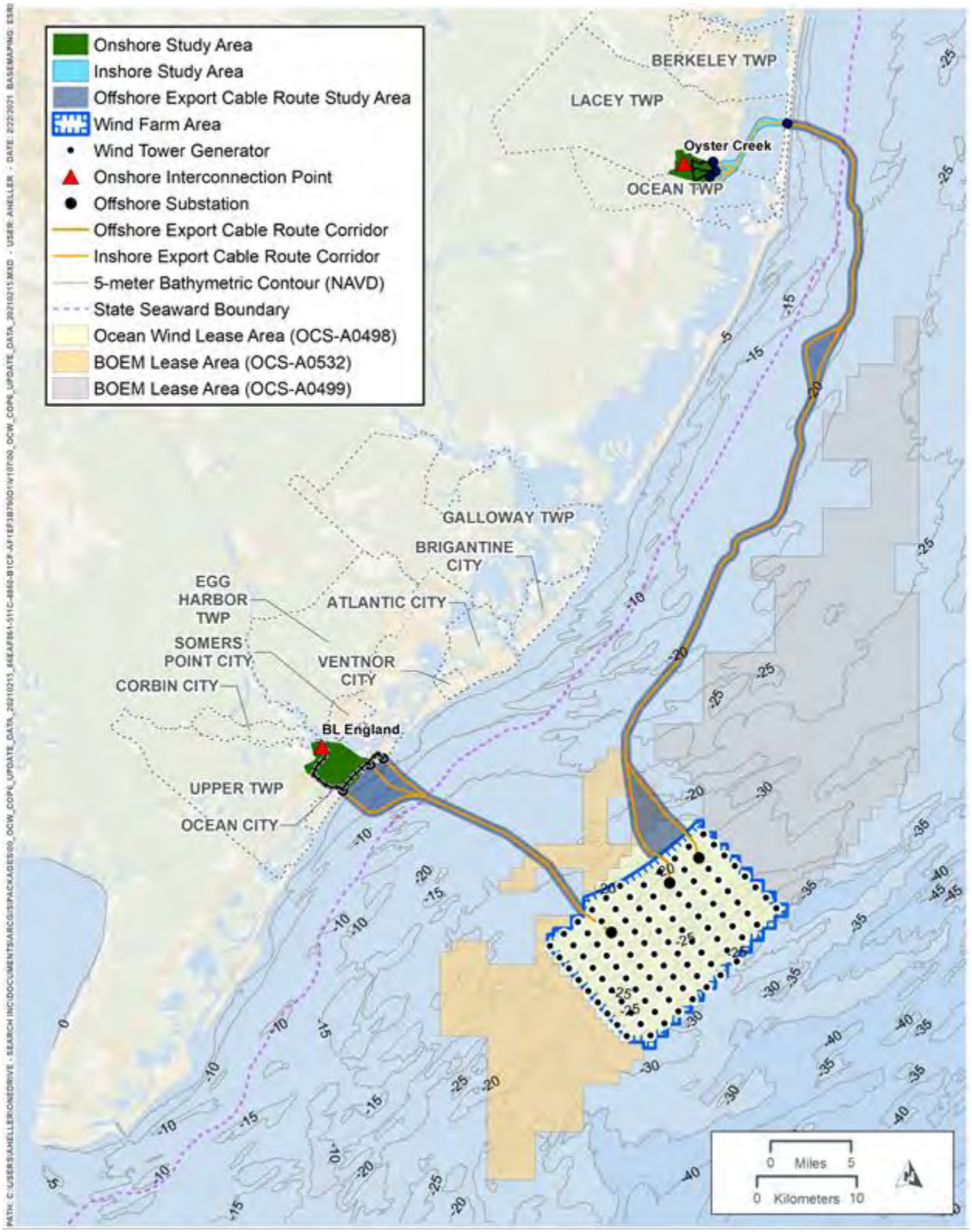
The WTGs, foundations, offshore substations, and inter-array cables will all be in federal waters on the Outer Continental Shelf (OCS), approximately 15 statute miles (mi) (13 nautical miles [nm]) southeast of Atlantic City, New Jersey. Cables will be buried below the seabed. Export cables from the offshore 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 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 2-1, 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 2-1: Project Location



To support BOEM's efforts to identify historic properties within the APE, OW1 conducted a terrestrial archaeological resource assessment (TARA), marine archaeological resource assessment (MARA), and historic resources visual effects assessment (HRVEA) within the APE. 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 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 five historic properties. BOEM has consulted with the Advisory Council on Historic Preservation (ACHP), New Jersey Historic Preservation Office (NJ HPO), federal 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 (i.e., the approval, approval with modification, or disapproval of the OW1 COP). This HPTP provides background data, historic property information, and detailed steps that will be implemented to carry out the mitigation measures. The measures agreed upon by BOEM, the ACHP, and NJ HPO 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 five 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.

2.1 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 2.1-1for 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 2.1-1. Municipal Departments Requiring On-Site Mitigation Coordination

Historic Property	Municipality	Departments
Ocean City Music Pier	Ocean City	Construction Code Division, Planning Board, 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
115 S Princeton Avenue	Ventnor City	Division of Construction Code Enforcement, Planning Board

2.2 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 2.2-1). Additional information regarding compliance with extant preservation legislation appears below in Section 5.0, Implementation.

Table 2.2-1. 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

2.3 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 2.3-1.

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 2.3-1. 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 NJ 08401
Advisory Council on Historic Preservation	Federal Agency	Federal Property Management Section, 401 F St NW, Suite 308, Washington DC 20001
Atlantic County	Local Govt	1333 Atlantic Ave, Atlantic City NJ 08401
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
Environmental Protection Agency	Federal Agency	Region 2, 290 Broadway, 25th Fl, New York NY 10007
Garden State Seafood Association	Interested Party	1636 Delaware Ave, Cape May NJ 08204
Borough of Harvey Cedars	Local Govt	7606 Long Beach Blvd, PO Box 3185, Harvey Cedars NJ 08008
Linwood City	Local Govt	400 Poplar Ave, Linwood NJ 08221
Long Beach Island Historical Museum	Interested Party	129 Engleside Ave, Beach Haven NJ 08008
Margate City	Local Govt	9001 Winchester Ave, Margate NJ 08402
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 Department of Environmental Protection – Historic Preservation Office	State Agency	Mail Code 501-048, NJDEP Historic Preservation Office, PO Box 420, Trenton NJ 08625-0420
Noyes Museum of Art	Interested Party	2200 Fairmount Ave, Atlantic City NJ 08401
Ocean City	Local Govt	861 Asbury Ave, Ocean City NJ 08226
Quality Home Center and Paneling	Interested Party	3300 Route 9 S, Rio Grande NJ 08242
Sea Isle City	Local Govt	233 John F Kennedy Blvd, Sea Isle City NJ 08243
Snyderman, Paul	Property Owner	Vassar Square Condominiums, 4800 Boardwalk, Ventnor City NJ 08406
City of Somers Point	Local Govt	1 W New Jersey Ave, Somers Point NJ 08244
Stafford Township	Local Govt	260 E Bay Ave, Manahawkin NJ 08050
US Coast Guard	Federal Agency	Sector Delaware Bay, 1 Washington Ave, Philadelphia PA 19147
US Coast Guard	Federal Agency	National Offshore Safety Advisory Committee, 2703 Martin Luther King Jr. Ave SE, Stop 7509, Washington DC 20593-7509
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.

3.0 EXISTING CONDITIONS AND HISTORIC SIGNIFICANCE

3.1 Historic Properties

This HPTP involves five resources, as identified below in Table 3.1-1. All five historic properties are located along the New Jersey shoreline within 16 miles of the Wind Farm Area (WFA), and ocean views are a character-defining feature of each property's significance.

Table 3.1-1. Historic Properties included in the Visual Effect HPTP

Name	Property Address	Potential Effect Recommendation
Cape May County		
Ocean City Music Pier	811 Boardwalk, Ocean City	Adverse effect
Atlantic County		
Riviera Apartments	116 S. 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
115 South Princeton Avenue	115 South Princeton Avenue, Ventnor City	Adverse effect

3.2 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.

3.2.1 Physical Description and Existing Conditions

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. NJ HPO 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 ocean 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 project area 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 ocean views are key features of that significance. Given the proximity of the WFA to this property and that open shoreline and ocean 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 has the potential for adverse effect on the Ocean City Music Pier.

Riviera Apartments, Atlantic City

The Riviera Apartments at 116 South Raleigh Avenue in Atlantic City is a nine-story apartment building dating to 1930. The building was originally recorded in 1980 and has an "Identified" status with the NJ SHPO. It was surveyed for OW1 in January 2021 and was recommended eligible under Criterion C for its Spanish-influenced Art Deco style of architecture. NJ SHPO 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." 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 including bay windows to optimize ocean views. The building also includes rooftop balconies with ocean 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. Therefore, the project has the potential for 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 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 ocean 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 ocean 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 ocean views from nearly all units. The building's design maximized ocean 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, the building's design maximized expansive ocean views, the proposed project may alter a characteristic of the property that qualifies it for NRHP-eligibility. Therefore, the project has the potential for 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 water 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 ocean views appear to have been an important consideration in the building's design, as it includes an ocean-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 may alter a characteristic of the property that qualifies it for NRHP eligibility. Therefore, the project has the potential for adverse effect on the house at 114 South Harvard Avenue in Ventnor City.

115 South Princeton Avenue, Ventnor City

The house at 115 South Princeton Avenue in Ventnor City is a two-and-a-half-story Mediterranean-eclectic style building dating to 1915. 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 classic Mediterranean features including stucco walls, tile roof, decorative tile inlay, and a prominent arched door opening with alcoves. The house is immediately adjacent to the beach and Boardwalk and has open views toward the Atlantic Ocean. The building faces southwest toward South Princeton Avenue, with its southeast elevation facing the Boardwalk. The southeast elevation includes an enclosed second-story sun room with arched windows facing the ocean. Views from this location are currently partially obstructed by trees. The WFA is approximately 15.7 miles southeast of the property.

Despite vegetative visual obstructions, the project is expected to be visible on the horizon from this location. The building does not directly face the water, but ocean views appear to have been an important consideration in the building's design, as it includes a ground-level patio and a second-story ocean-facing sun room on its southeast elevation. Under the property's significance for Criterion C for Architecture, 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 may be affected by the project. Unlike the house at 114 South Harvard Avenue, the Charles Fischer House has extensive vegetative growth to mitigate potential visual effects. However, if vegetation is cleared, 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 may alter a characteristic of the property that qualifies it for NRHP eligibility. Therefore, the project has the potential for adverse effect on the house at 115 South Princeton Avenue in Ventnor City.

3.2.2 Historic Context

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 2021d). The national prosperity of the post-World War I period was reflected 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 2021d).

Stone Harbor, Cape May County

The Lenni-Lenape tribe first traveled to Seven Mile Island from the mainland to fish and collect shells they used as currency. Seven Mile Island was sold to Aaron Leaming in 1722. After changing hands several times in the 1850s, the Seven Mile Beach Company purchased the island in 1887 and founded the communities of Avalon and Stone Harbor (VisitNJShore.com 2021b). The first permanent buildings were constructed in 1891, an inn and seven cottages. The community developed rapidly following the arrival of rail service in 1897. Prior to this, the only access to Avalon and Stone Harbor was by boat. In 1907, the local government made improvements including leveling off sand dunes, filling in marshes, and paving streets. The first automobile access to Stone Harbor was via a bridge at 96th Street ca. 1912. The Great Atlantic Hurricane of 1944 destroyed the town's boardwalk, theater building, and fishing pier (TheShoreBlog.com 2019). Stone Harbor was also heavily damaged by the Ash Wednesday Storm of 1962, which flooded and destroyed beachfront properties and caused major coastline loss, though to a lesser extent than experienced in Avalon to the immediate north (NPS 2019). Through conservation efforts, Stone Harbor has been able to combat coastal erosion successfully (VisitNJShore.com 2021b).

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).

4.0 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.

4.1 Mitigation Measure – HABS Level II Documentation Ocean City Music Pier, Riviera Apartments, and Vassar Square Condominiums

4.1.1 Purpose and Intended Outcome

Documentation of the Ocean City Music Pier, Riviera Apartments, and Vassar Square Condominiums to Historic American Buildings Survey Level II standards will serve to record the historic properties' significance for the Prints and Photographs Division of the Library of Congress, whose holdings illustrate achievements in architecture, engineering, and landscape design in the United States and its territories. Upon review and acceptance by the National Park Service (NPS), documentation will be available to the public via the Library of Congress and state and local repositories, as appropriate.

4.1.2 Scope of Work

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

- Collect and review materials and drawings relating to the construction and history of the property;
- Draft a historical report of the property
- Photograph the property using large-format photography;
- Compile draft HABS documentation for review and comment by Participating Parties;
- Develop final HABS documentation, incorporating comments from the Participating Parties; and
- Upon acceptance of HABS documentation by (NPS), distribute HABS documentation packages to the NPS and agreed-upon repositories.

4.1.3 Methodology

OW1 will release a request for proposals (RFP) for consultant services and select a consultant to perform the Scope of Work listed in Section 4.1.2, for each of the three historic properties individually, for the historic properties as a group, or as part of a larger consultancy RFP for additional or all mitigation measures listed in Section 4.0. The chosen consultant should have staff that meet SOI Professional Qualifications for Architecture, Architectural History, or History. The large-format photographer should have experience with HABS-standard photography. A draft of the documents will be provided to the Participating Parties for

review and comment. A final package will be developed incorporating comments from the Participating Parties and will be distributed to the NPS and agreed-upon repositories.

4.1.4 Standards

The project will comply with following standards:

- Historic American Buildings Survey Guidelines for Historic Reports (updated 2020);
- Heritage Documentation Programs Photography Guidelines (updated 2015); and
- Preparing HABS/HAER/HALS Documentation for Transmittal (updated 2021).

4.1.5 Deliverables

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

- Preliminary draft of HABS documentation.

The following documentation is to be provided to the NPS and agreed-upon repositories

- Final HABS documentation.

4.1.6 Schedule

The following is a preliminary schedule for execution of the HABS Level II documentation 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.

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

4.1.7 Funds and Accounting

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

4.2 Mitigation Measure – HABS-like Level II Documentation 114 South Harvard Avenue and Charles Fischer House

4.2.1 Purpose and Intended Outcome

Documentation of the two Ventnor City private residences to Historic American Buildings Survey Level II standards, substituting digital photography for the HABS-standard large-format photography, will serve to record the historic properties' significance for state and local repositories. Upon review and acceptance by the NJHPO, documentation will be available to the public via state and local repositories, as appropriate.

4.2.2 Scope of Work

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

- Collect and review materials and drawings relating to the construction and history of the property;
- Draft a historical report of the property
- Photograph the property using digital photography;
- Compile draft documentation for review and comment by Participating Parties;
- Develop final documentation, incorporating comments from the Participating Parties; and
- Upon acceptance of documentation by NJHPO, distribute documentation packages to the NJHPO and agreed-upon repositories.

4.2.3 Methodology

OW1 will release a RFP for consultant services and select a consultant to perform the Scope of Work listed in Section 4.2.2, for the two historic properties separately, for the two historic properties as a group, or as part of a larger consultancy RFP for additional or all mitigation measures listed in Section 4.0. The chosen consultant should have staff that meet SOI Professional Qualifications for Architecture, Architectural History, or History. The photographer should have experience with HABS-like digital photography. A draft of the documents will be provided to the Participating Parties for review and comment. A final package will be developed incorporating comments from the Participating Parties and will be distributed to the NPS and agreed-upon repositories.

4.2.4 Standards

The project will comply with following standards:

- Historic American Buildings Survey Guidelines for Historic Reports (updated 2020); and
- Preparing HABS/HAER/HALS Documentation for Transmittal (updated 2021).

4.2.5 Deliverables

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

- Preliminary draft of HABS-like documentation

The following documentation is to be provided to the NJHPO and agreed-upon repositories:

- Final HABS-like documentation

4.2.6 Schedule

The following is a preliminary schedule for execution of the HABS-like documentation 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.

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

4.2.7 Funds and Accounting

OW1will be responsible for funding and implementation of this mitigation measure.

4.3 Mitigation Measure – Historic Structure Reports Ocean City Music Pier, 114 South Harvard Avenue, and Charles Fischer House

4.3.1 Purpose and Intended Outcome

A Historic Structure Report (HSR) includes the in-depth history of the building as well as immediate, short-term, and long-range preservation objectives based on the current condition of the building. An HSR helps inform consultation with stakeholders regarding historic property needs, such as repairs or restoration of exterior areas, weatherization and energy efficiency upgrades, or flood protection improvements. For example, the Ocean City Music Pier's location between the boardwalk and shoreline renders it vulnerable to sea level rise and flooding from storm events. Identifying and implementing appropriate flood protection or similar improvements could help preserve the building's integrity and offset potential adverse effects.

4.3.2 Scope of Work

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

- Review the existing conditions of the property;
- Document and photograph the existing conditions;
- Consult with the property owner to determine physical concerns, possible future plans;
- Compile relevant documentation collected for Mitigation Measures 4.1 or 4.2;
- Draft an HSR to be distributed to the Participating Parties for review and comment;

- Develop a final HSR, incorporating any comments from the Participating Parties; and
- Distribute the final HSR to the property owner.

4.3.3 Methodology

OW1 will release a RFP for consultant services and select a consultant to perform the Scope of Work listed in Section 4.3.2, for each of the three historic properties individually, for the historic properties as a group, or as part of a larger consultancy RFP for additional or all mitigation measures listed in Section 4.0. The chosen consultant should have staff that meet SOI Professional Qualifications for Architecture and Architectural History/History. This effort may also include participation from a structural engineer with demonstrated experience assessing historic buildings.. A draft of the documents will be provided to the Participating Parties for review and comment. A final report will be developed incorporating comments from the Participating Parties and will be distributed to the property owner and NJHPO.

4.3.4 Standards

The project will comply with following guidelines:

- National Park Service Preservation Brief 43: The Preparation and Use of Historic Structure Reports (2005).

4.3.5 Deliverables

The following documentation is to be provide for review by OW1 and BOEM:

- Preliminary draft of HSR.

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

- Draft of HSR.

The following documentation is to be provided to the NJHPO and property owner:

- Final HSR.

4.3.6 Schedule

The following is a preliminary schedule for execution of the Ocean City Music Pier HSR 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.

Summer-Fall 2023	Solicitation/Request for Proposal for consultant and contracting consultant to perform documentation.
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.

4.3.7 Funds and Accounting

OW1will be responsible for funding and implementation of this mitigation measure.

4.4 Mitigation Measure – NJ/NRHP Nomination Historic Property/s based on owner preference

4.4.1 Purpose and Intended Outcome

Listing in the New Jersey and National Registers of Historic Places provides recognition of a resource as historically significant and worthy of preservation. Listing provides a degree of review and protection from public encroachment. Section 106 of the National Historic Preservation Act of 1966, as amended, provides for a review of ay federally licensed, financed, or assisted undertaking for properties listed in, or eligible for listing in, the National Register. The New Jersey Register law requires review of any state, county or municipal undertaking involving properties listed in the New Jersey Register.

4.4.2 Scope of Work

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

- Compile relevant documentation collected for Mitigation Measures 4.1, 4.2, and 4.3;
- Draft an NRHP nomination to be distributed to the Participating Parties for review and comment;
- Develop a final NRHP nomination, incorporating any comments from the Participating Parties;
- Distribute the NRHP nomination to NJHPO; and
- Present NRHP nomination to New Jersey State Review Board for Historic Sites.

4.4.3 Methodology

OW1 will release a RFP for consultant services and select a consultant to perform the Scope of Work listed in Section 4.4.2, for each property individually, for historic properties as a group, or as part of a larger consultancy RFP for additional or all mitigation measures listed in Section 4.0. 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 nomination will be developed incorporating comments from the Participating Parties and will be submitted to the NJHPO.

4.4.4 Standards

The project will comply with following standards:

- NPS Bulletin 15: How to Apply the National Register Criteria for Evaluation (revised 1995); and
- NPS Bulletin 16A: How to Complete the National Register Registration Form (1997).

4.4.5 Deliverables

The following documentation is to be provided for review by OW1 and BOEM:

- Preliminary draft of the NRHP nomination

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

- Draft of the NRHP nomination

The following documentation is to be provided to the NJHPO:

- NRHP nomination.

4.4.6 Schedule

The following is a preliminary schedule for execution of one or more National Register Nomination(s) 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 documentation.
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.

4.4.7 Funds and Accounting

OW1will be responsible for funding and implementation of this mitigation measure.

4.5 Mitigation Measure – Interpretive/Educational Content

4.5.1 Purpose and Intended Outcome

Based on input from Participating Parties during consultation, interpretive and educational materials consistent with agreed upon themes, target audiences, and objectives will be developed to disseminate the historic and architectural significance of the historic properties. Specific themes to be presented may include the history of the property; the architect of the property, and/or the role of the property/property type in the development of the municipality. Dissemination could take place in a variety of formats, including onsite interpretive materials, onsite signage, and/or web-based media. In each case, content would draw largely on HABS documentation, historic and present-day photographs, oral histories, and additional research materials uncovered during the course of previously conducted mitigation measures. Materials could be packaged or presented to reach not only passersby, but school audiences, local residents, and local history groups.

4.5.2 Scope of Work

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

- Compile relevant documentation collected for Mitigation Measures 4.1–4.4;
- Determine and organize appropriate materials for presentation in collaboration with Participating Parties, property owners, and website manager;
- Deliver agreed upon interpretive and educational materials for review by OW1, BOEM, and Participating Parties;
- Deliver final signage content, as appropriate, for fabrication by OW1/contracted consultant; and
- Deliver final electronic materials, as appropriate, to property owners and agreed-upon website managers.

4.5.3 Methodology

OW1 will release a RFP for consultant services and select a consultant to perform the Scope of Work listed in Section 4.5.2, for each property individually, for historic properties as a group, or as part of a larger consultancy RFP for additional or all mitigation measures listed in Section 4.0. 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, property owner, and website manager, as appropriate, for review and comment. The final interpretive and educational packages will be developed incorporating comments from the Participating Parties and will be submitted for fabrication by OW1 for interpretive signage, as appropriate, and to the property owners and agreed-upon website managers for electronic content.

4.5.4 Standards

The project will comply with following standards:

- Website standards, as determined by the property owner and website manager.
- Signage standards, as determined by the property owner and appropriate municipality.

4.5.5 Deliverables

The following preliminary draft documentation is to be provided for review by the OW1 and BOEM:

- Compilation of selected materials from Mitigation Measures 4.1–4.4.
- Any Interpretive signage, as appropriate.

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

- Compilation of selected materials from Mitigation Measures 4.1–4.4.
- Any Interpretive signage, as appropriate.

The following documentation is to be provided to the property owner and website manager:

- Final electronic materials for website.

The following materials are to be provided to the property owner:

- Interpretive signage, as appropriate, upon fabrication by OW1.

4.5.6 Schedule

The following is a preliminary schedule for execution of interpretive and educational materials 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.

4.5.7 Funds and Accounting

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

5.0 IMPLEMENTATION

5.1 Timeline

This section of the HPTP identifies which mitigation measures identified within this HPTP must be implemented prior to the commencement of construction activities for the Undertaking. HABS Photography must be completed prior to construction. All other tasks can occur during and/or after construction. Mitigation measures within this HPTP are to be implemented within one year of its finalization, unless a different timeline is agreed upon by Participating Parties and accepted by BOEM and may be completed simultaneously, as applicable.

The proposed scope of work (see Section 4.0) must be completed within one year unless a different timeline is agreed upon by Participating Parties and accepted by BOEM. Documentation as outlined in Section 4.0 must be provided to Participating Parties for their review (see Section 5.2) no less than 30 days prior to commencement of project construction unless a different timeline is agreed upon by Participating Parties and accepted by BOEM. OW1must issue RFPs within 4 months of commencing mitigation measures pursuant to this HPTP.

5.2 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 IX (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.

5.3 Organizational Responsibilities

5.3.1 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, NJ SHPO, 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.

5.3.2 Ocean Wind LLC

- Fund and implement the mitigation measures Stipulated in III.B of the MOA and described in Section 4.0 of this HPTP;

- Prepare Annual Reporting, submit reporting to BOEM for review and approval, and distribute to Consulting Parties per Section [4.0];
- Submit information for Participating Party review per Section 5.3;
- 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. .

5.3.3 New Jersey SHPO

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

5.3.4 Advisory Council on Historic Preservation

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

6.0 REFERENCES

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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).

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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
https://www.boem.gov/ocean-wind-1-construction-and-operations-plan
[Ocean Wind1 Final Environmental Impact Statement (FEIS)]
[Ocean Wind1 Record of Decision (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 6 – OCEAN WIND 01 TERRESTRIAL UNANTICIPATED DISCOVERY PLAN

Unanticipated Discoveries Plan for Terrestrial Resources for the Ocean Wind 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

JUNE 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 Error! Reference source not found.. 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 Unanticipated Discoveries Plan (UDP) 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).

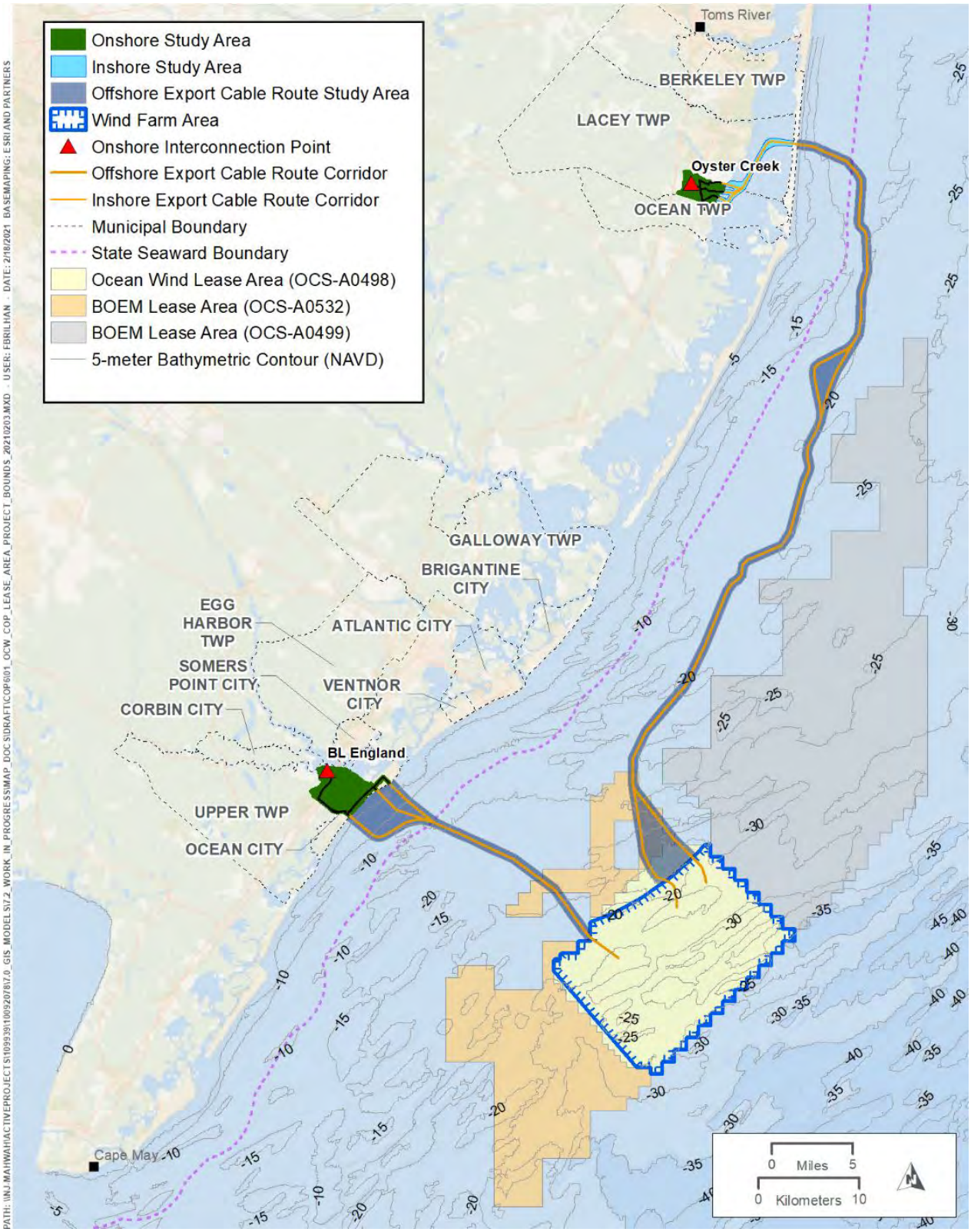


Figure 1-1. Lease Area and Project boundaries

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 UDP, 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 UDP 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 UDP, 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 UDP and will have authority to stop work as needed to comply with the UDP.

[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 UDP, 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. Erin Paden Historic Preservation Director P.O. Box 825 Anadarko, OK 73005 Phone: (405).247-2448 Ext. 1403 epaden@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

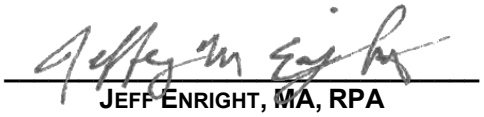
ATTACHMENT 7 – OCEAN WIND 01 UNANTICIPATED DISCOVERIES PLAN FOR SUBMERGED ARCHAEOLOGICAL

Unanticipated Discoveries Plan for Submerged Cultural Resources for the Ocean Wind 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

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JUNE 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 Unanticipated Discoveries Plan (UDP) 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 UDP 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 UDP 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 UDP 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 UDP 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 UDP and UDP training materials are implemented;
- Identifying a responsible party within Ocean Wind tasked with overseeing implementation of the UDP during all project and contractor activities;
- Developing cultural resource and UDP awareness training programs for all project staff and contractors;
- Requiring all project and contractor staff complete cultural resource and UDP 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 UDP. The QMA will be responsible for the following:

- Assist Ocean Wind with the development and implementation of the procedures outlined in the UDP;
- Assist Ocean Wind in developing a cultural resource and UDP 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 UDP 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 UDP 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 UDP 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 UDP and the materials discussed in the cultural resources and UDP awareness training program. The informational graphic will include:

- Images of common types of submerged cultural resources and materials;
- A flow chart depicting the UDP 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 UDP 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 20-35 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 UDP 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.

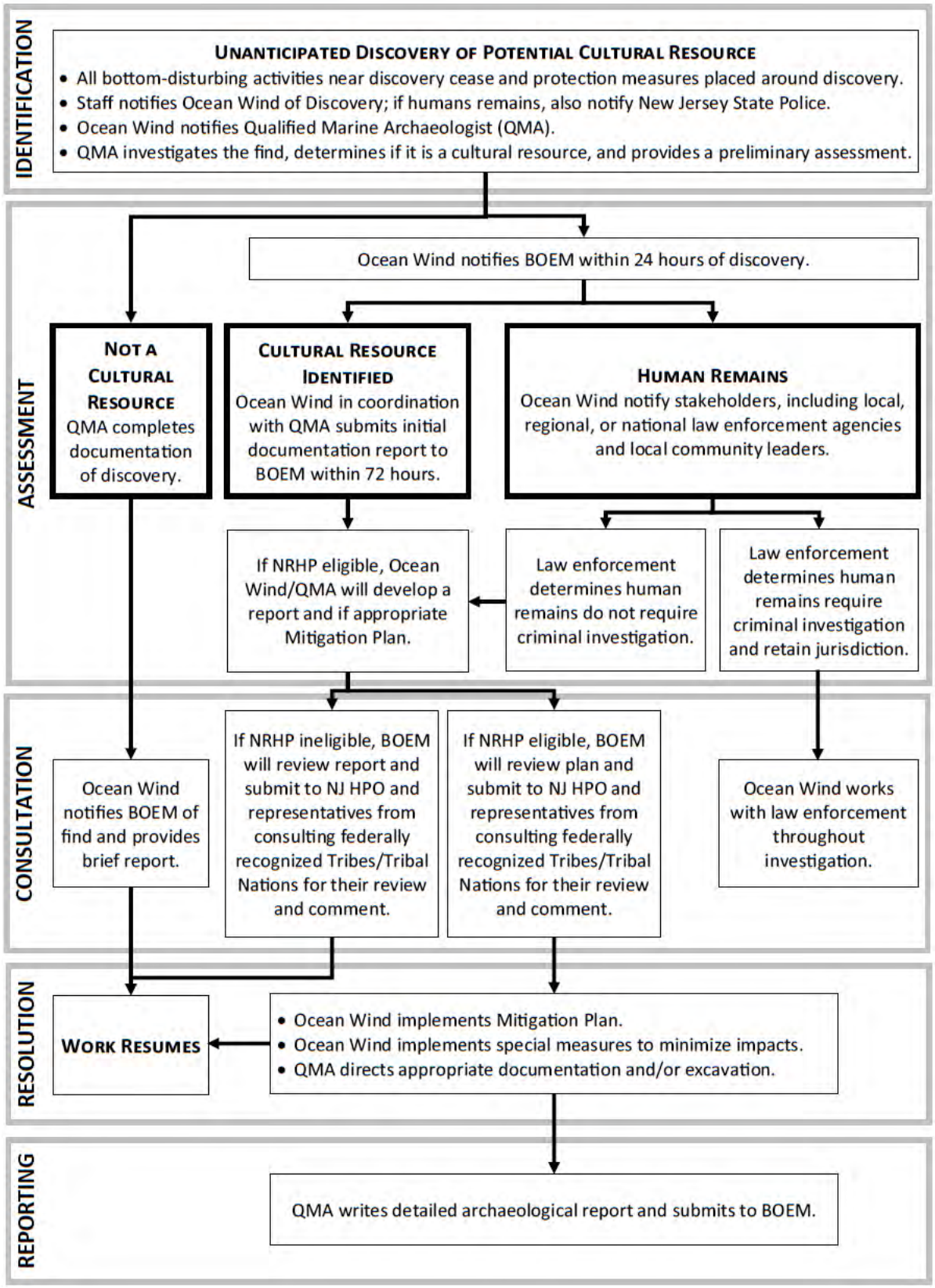

Figure 1. Communications and notification plan for unanticipated discoveries.

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 UDP 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. Erin Paden Historic Preservation Director P.O. Box 825 Anadarko, OK 73005 Phone: (405).247-2448 Ext. 1403 epaden@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 B
FIGURES

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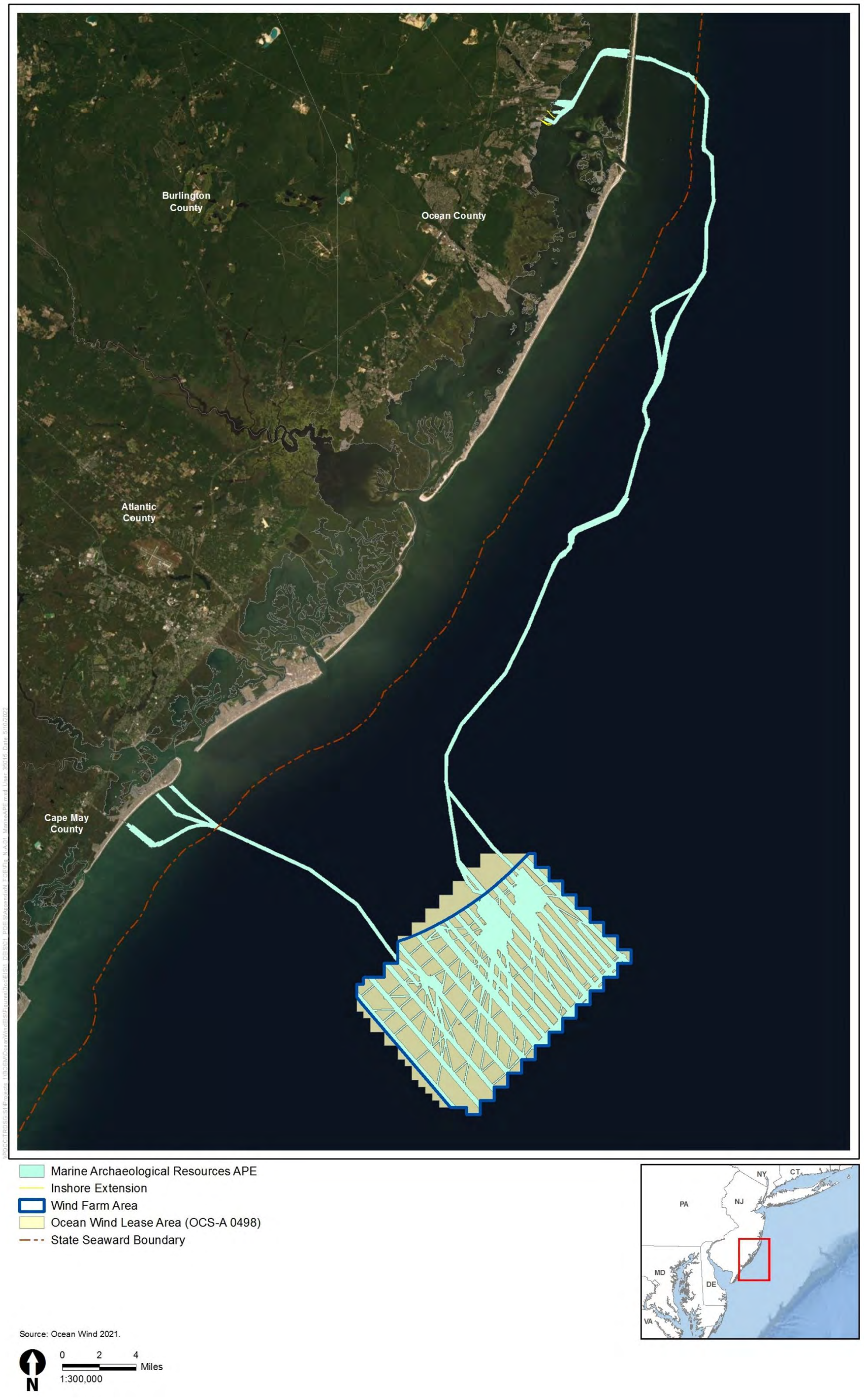

Figure 1 Marine Archaeological Resources APE for Activities within the Lease Area

Figure 2 Marine Archaeological Resources APE for Activities within the BL England Export Cable Route Corridor

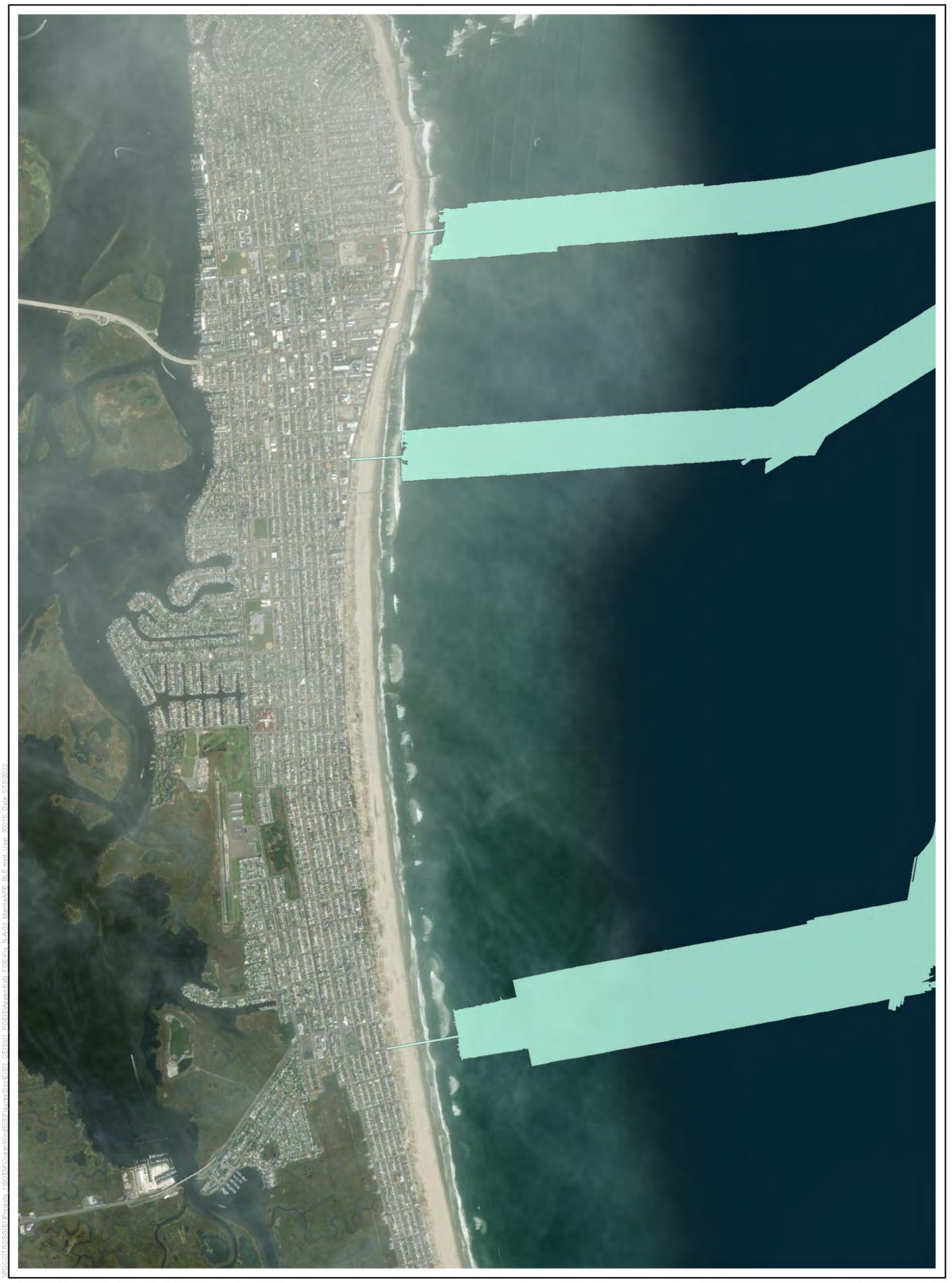

Figure 3 Marine Archaeological Resources APE for Activities within the Oyster Creek Export Cable Route Corridor

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

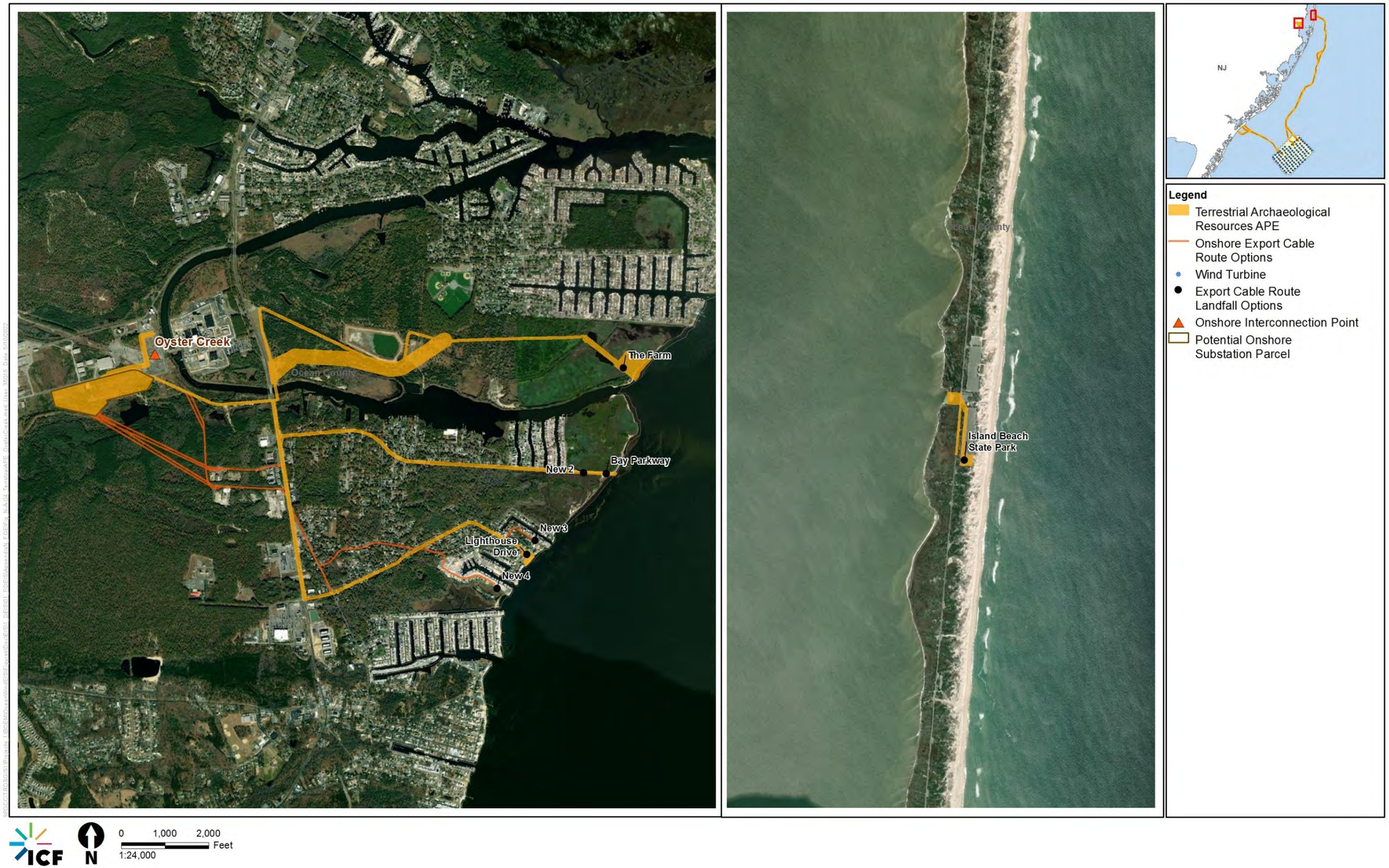

Figure 5 Terrestrial Archaeological Resources APE with Onshore Cable and Landfall Site Alternatives for Oyster Creek

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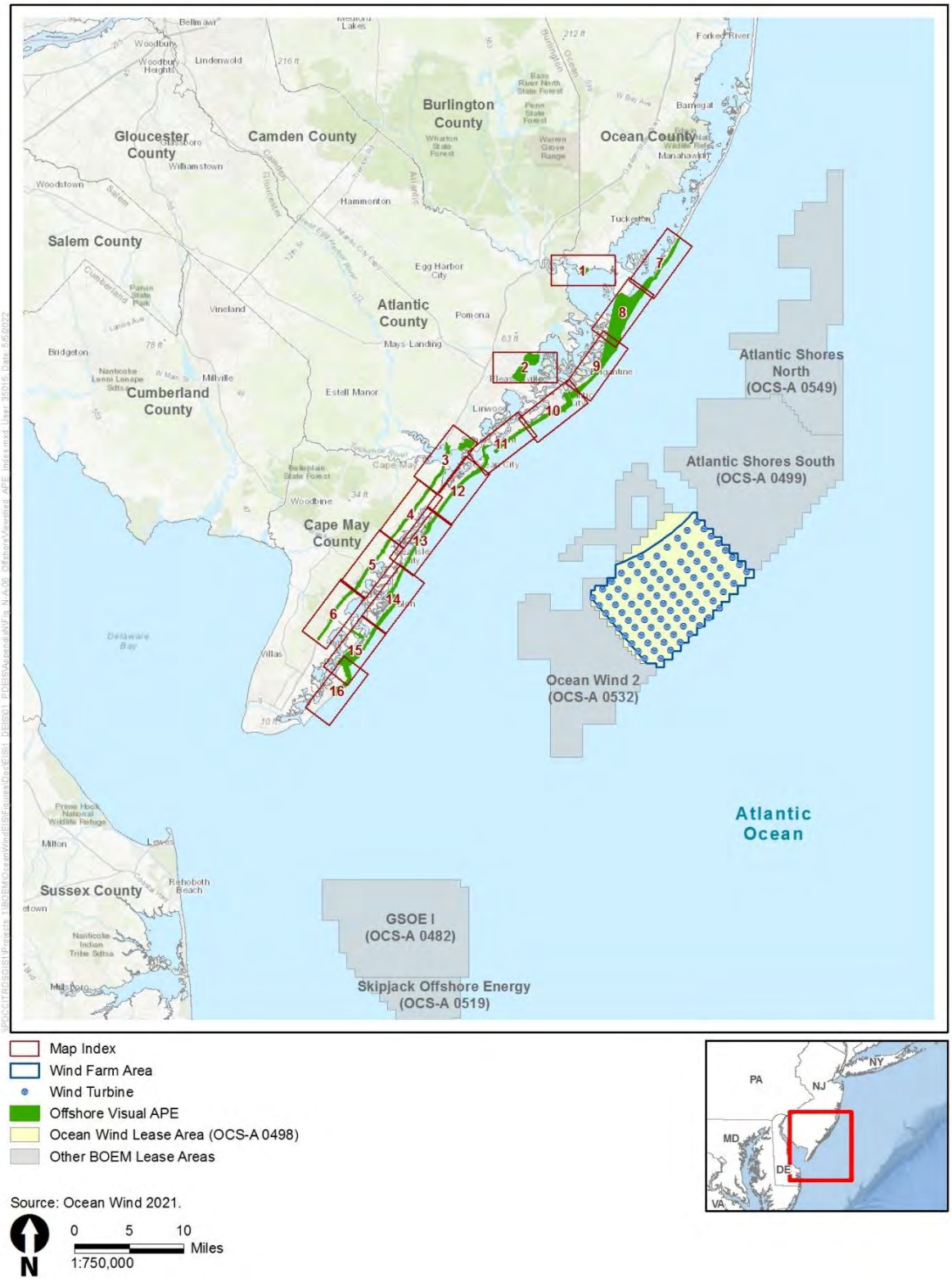

Figure 6 Offshore Visual APE with Historic Properties Adversely Affected and Foreseeable Future Project Areas—Index

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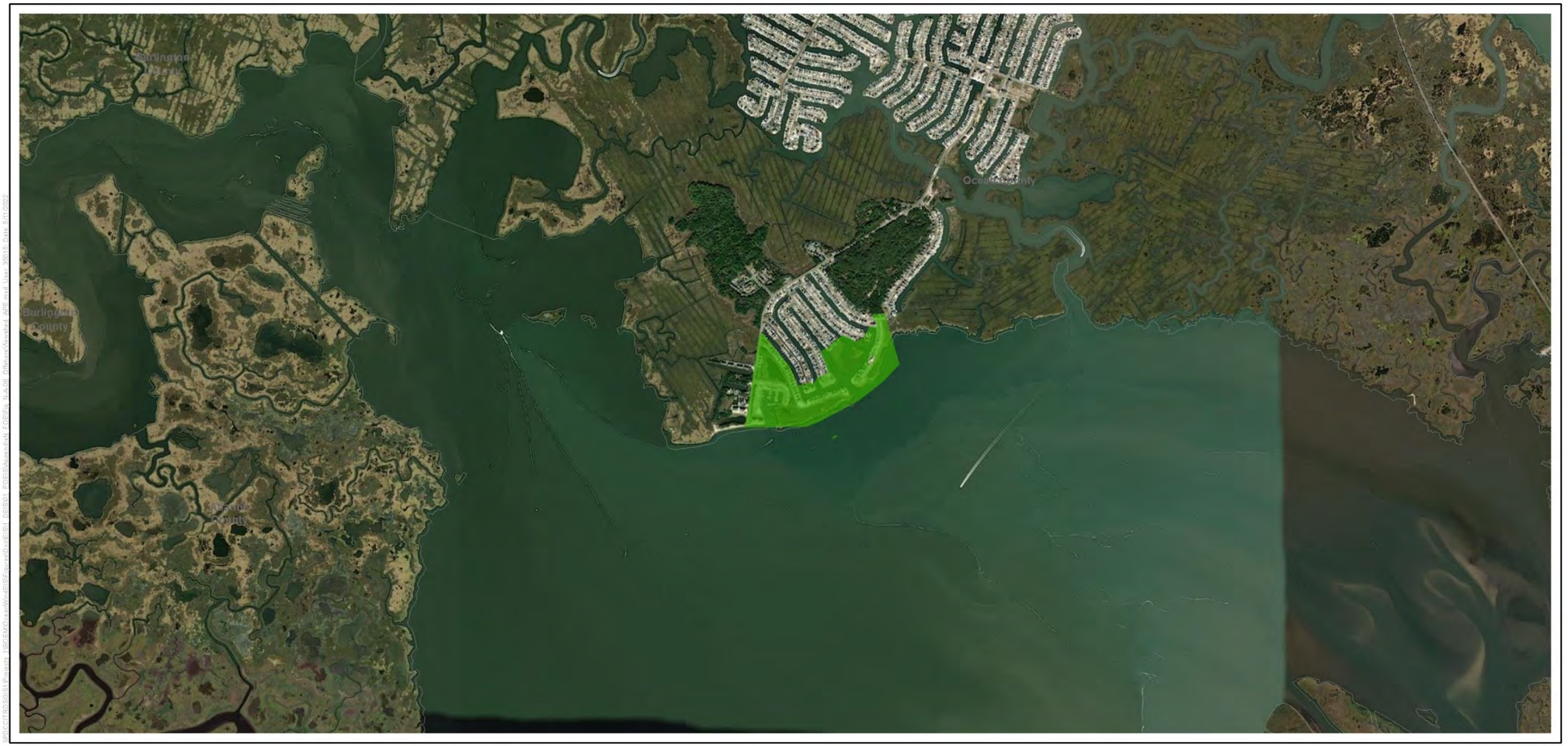


Figure 6 Offshore Visual APE with Historic Properties Adversely Affected and Foreseeable Future Project Areas—Sheet 1

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

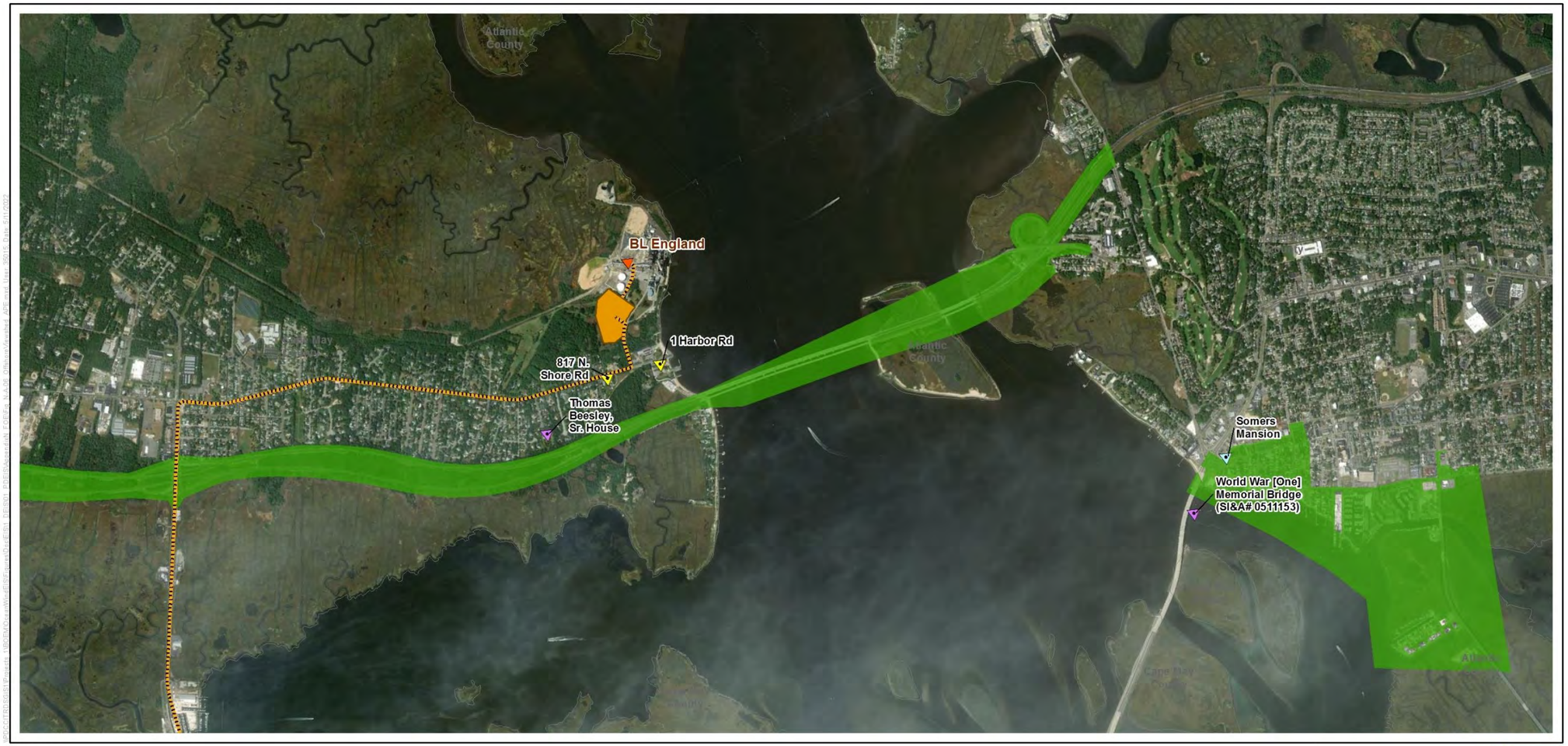


Figure 6 **Offshore Visual APE with Historic Properties Adversely Affected and Foreseeable Future Project Areas—Sheet 3**

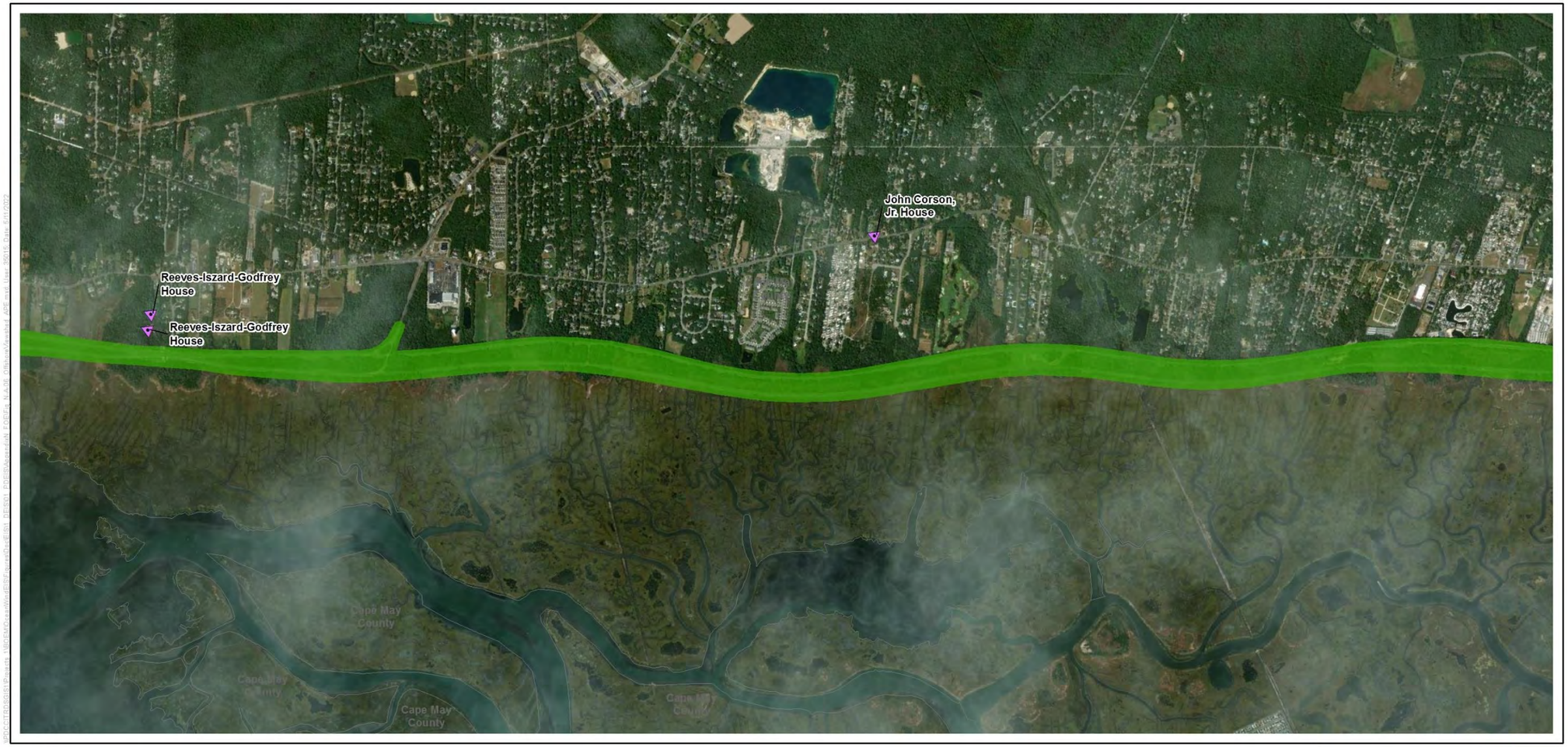
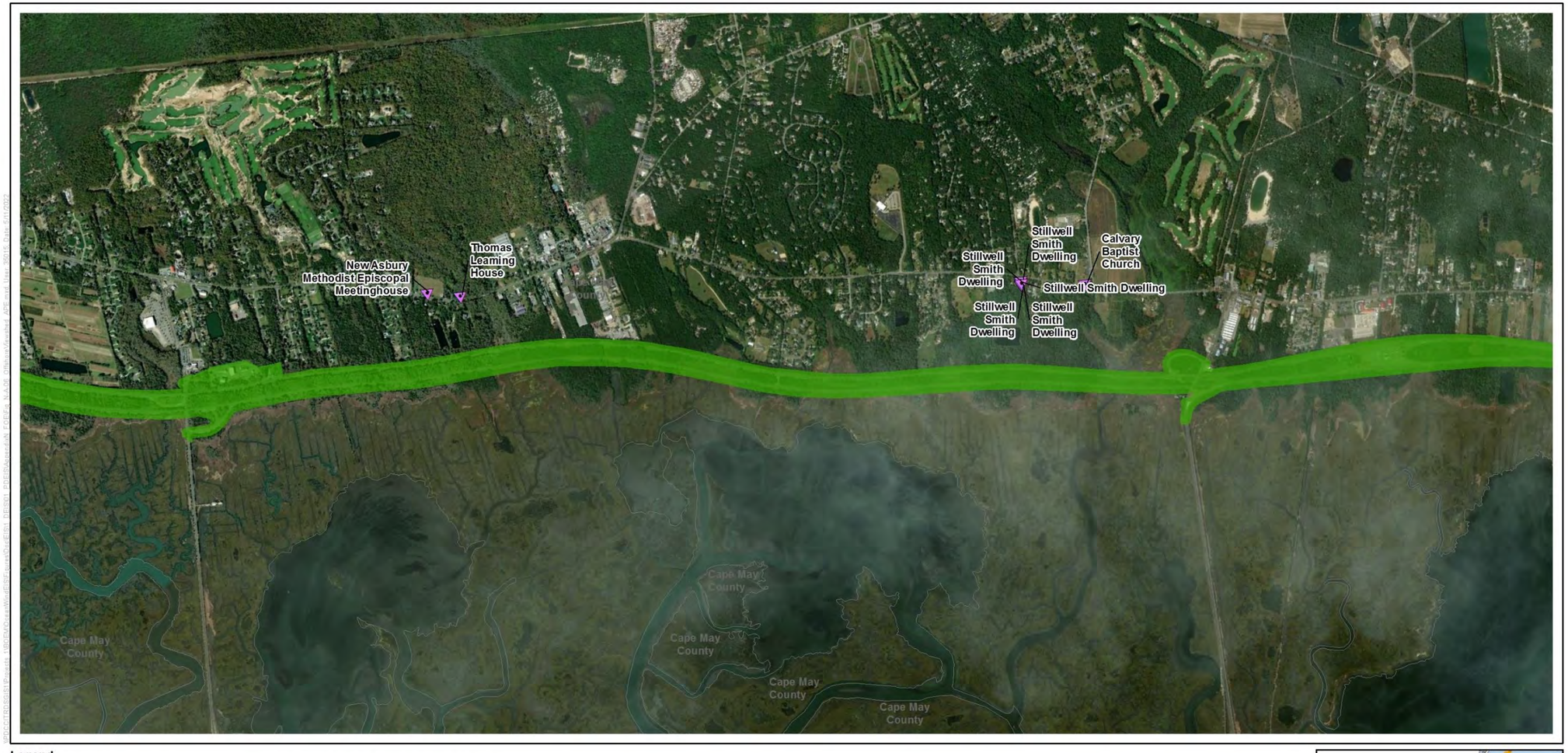


Figure 6 Offshore Visual APE with Historic Properties Adversely Affected and Foreseeable Future Project Areas—Sheet 4



Legend

- Offshore Visual APE
- Wind Turbine
- Historic properties recommended adverse visual effects
- Historic properties recommended no adverse visual effects
- Historic properties outside the visual APE
- 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

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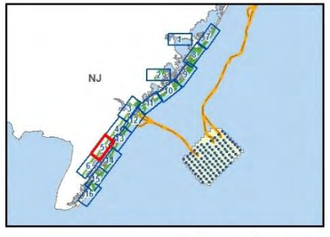
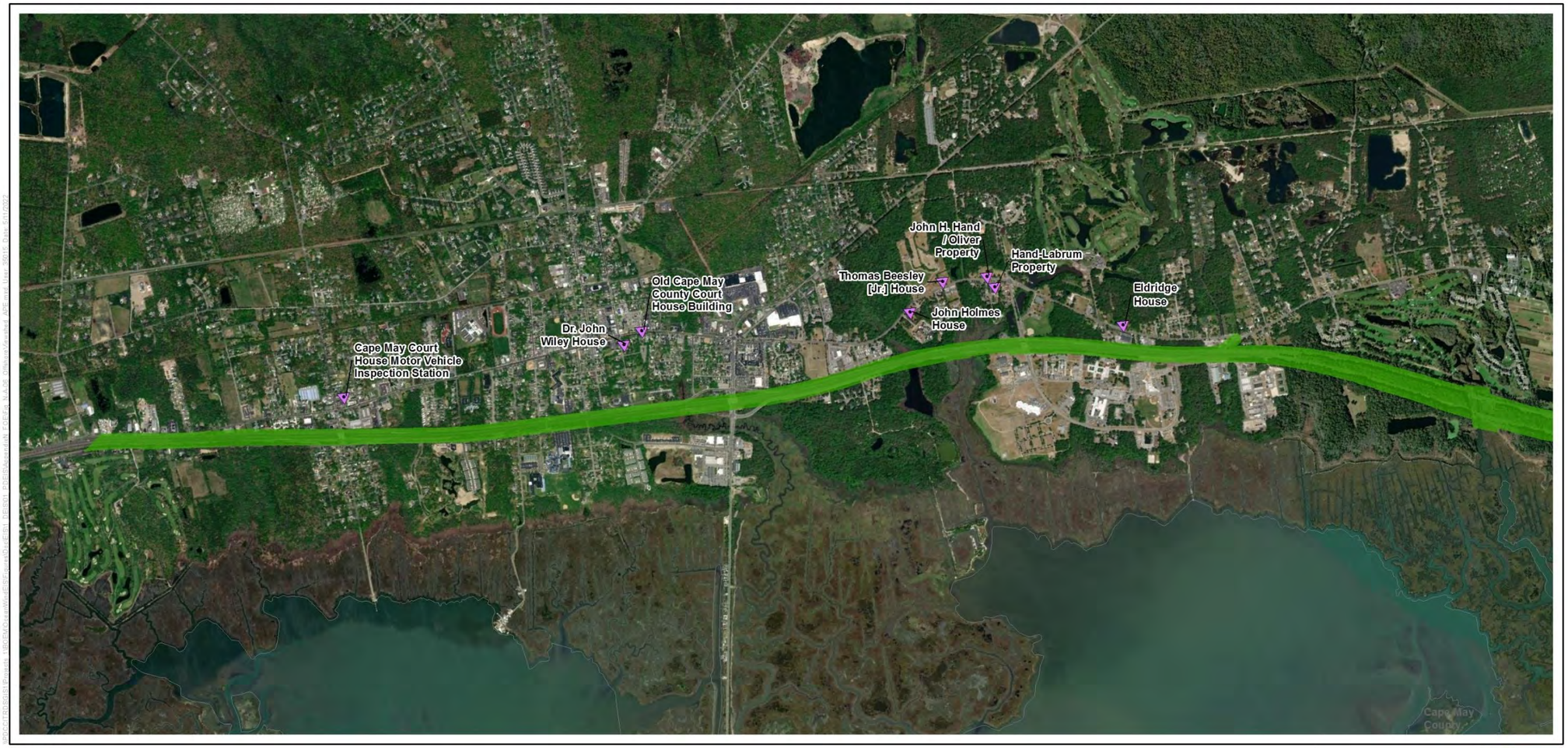


Sheet: 5 of 16

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



Legend

- Offshore Visual APE
- Wind Turbine
- Historic properties recommended adverse visual effects
- Historic properties recommended no adverse visual effects
- Historic properties outside the visual APE
- 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

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Sheet: 6 of 16

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

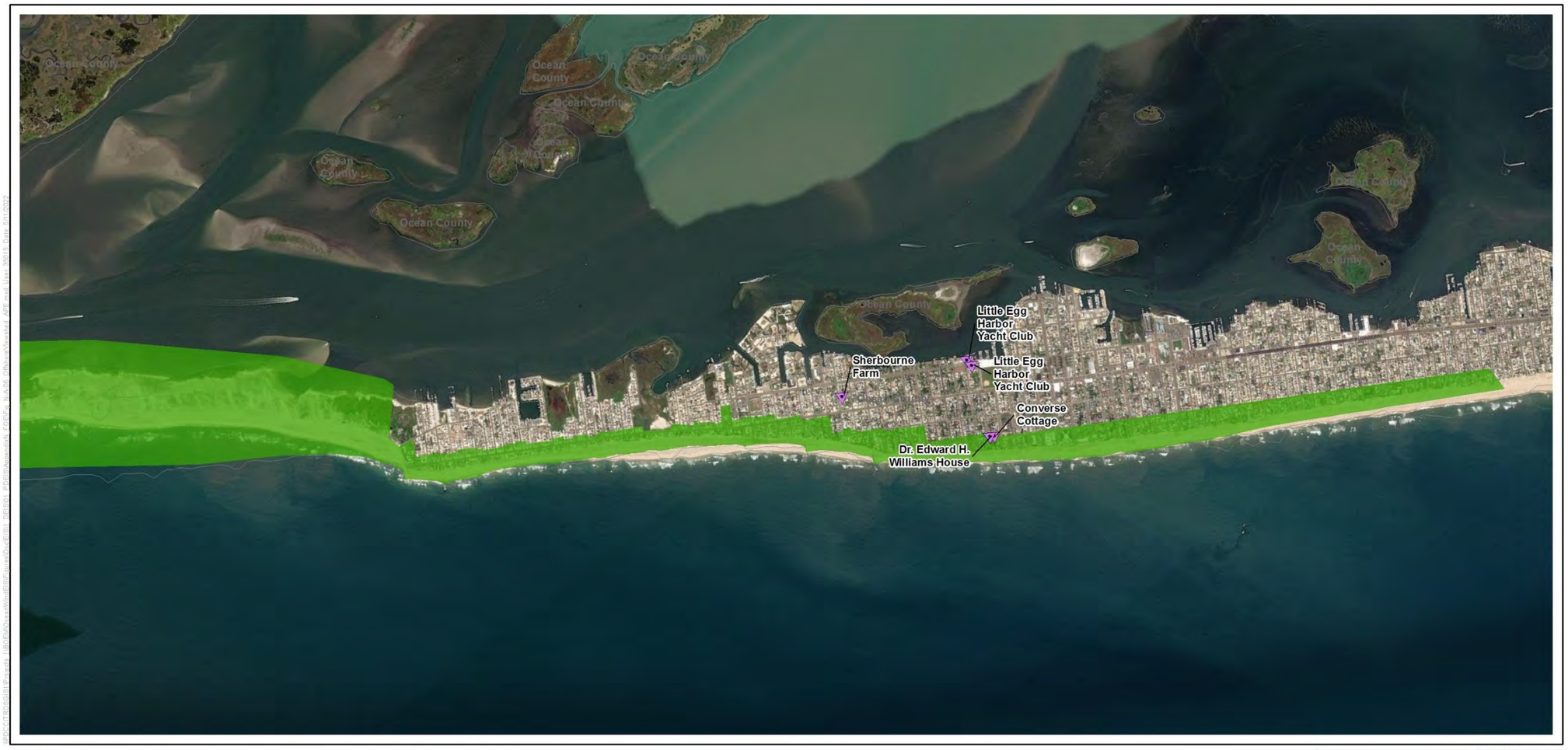


Figure 6 Offshore Visual APE with Historic Properties Adversely Affected and Foreseeable Future Project Areas—Sheet 7

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

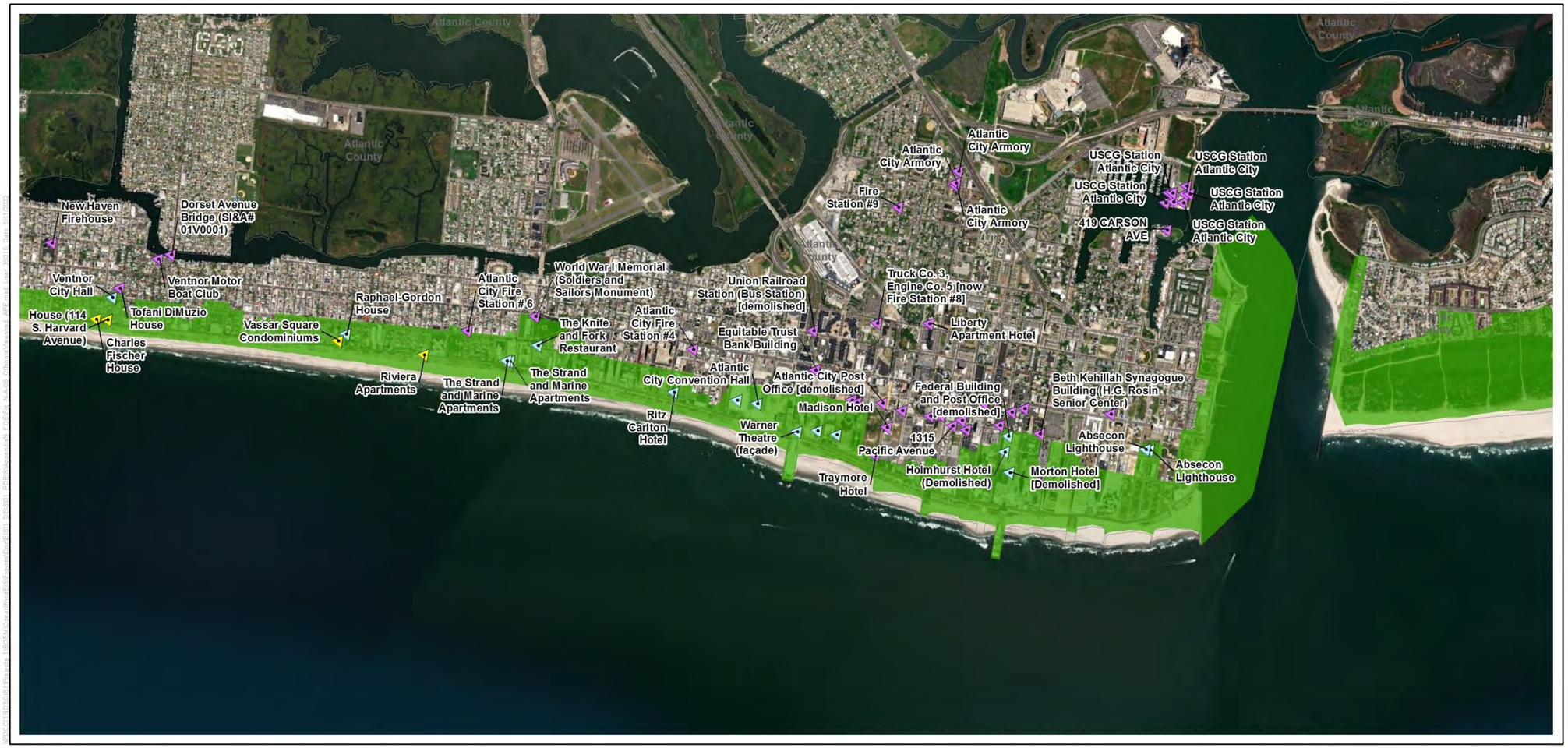


Figure 6 Offshore Visual APE with Historic Properties Adversely Affected and Foreseeable Future Project Areas—Sheet 10

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

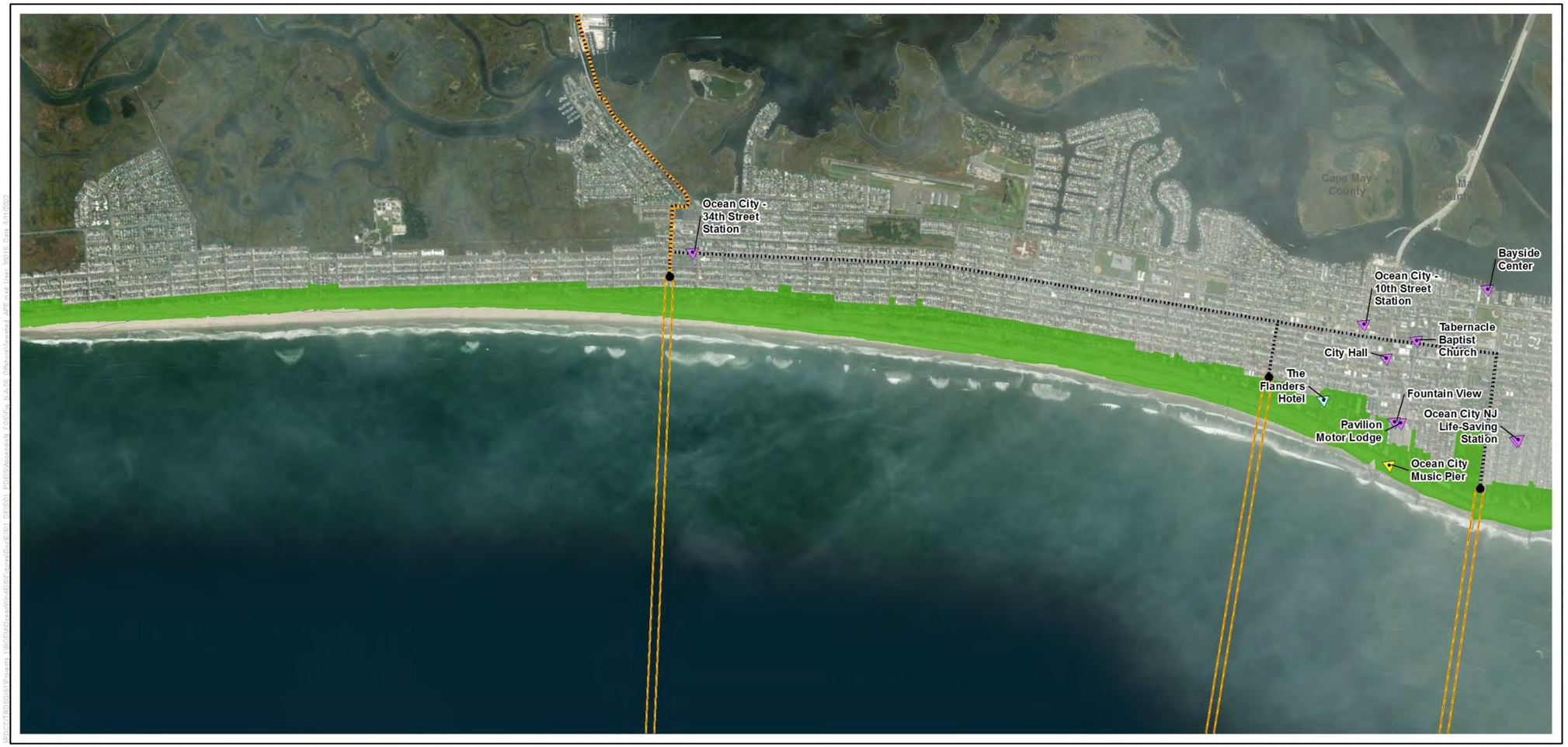


Figure 6 Offshore Visual APE with Historic Properties Adversely Affected and Foreseeable Future Project Areas—Sheet 12

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

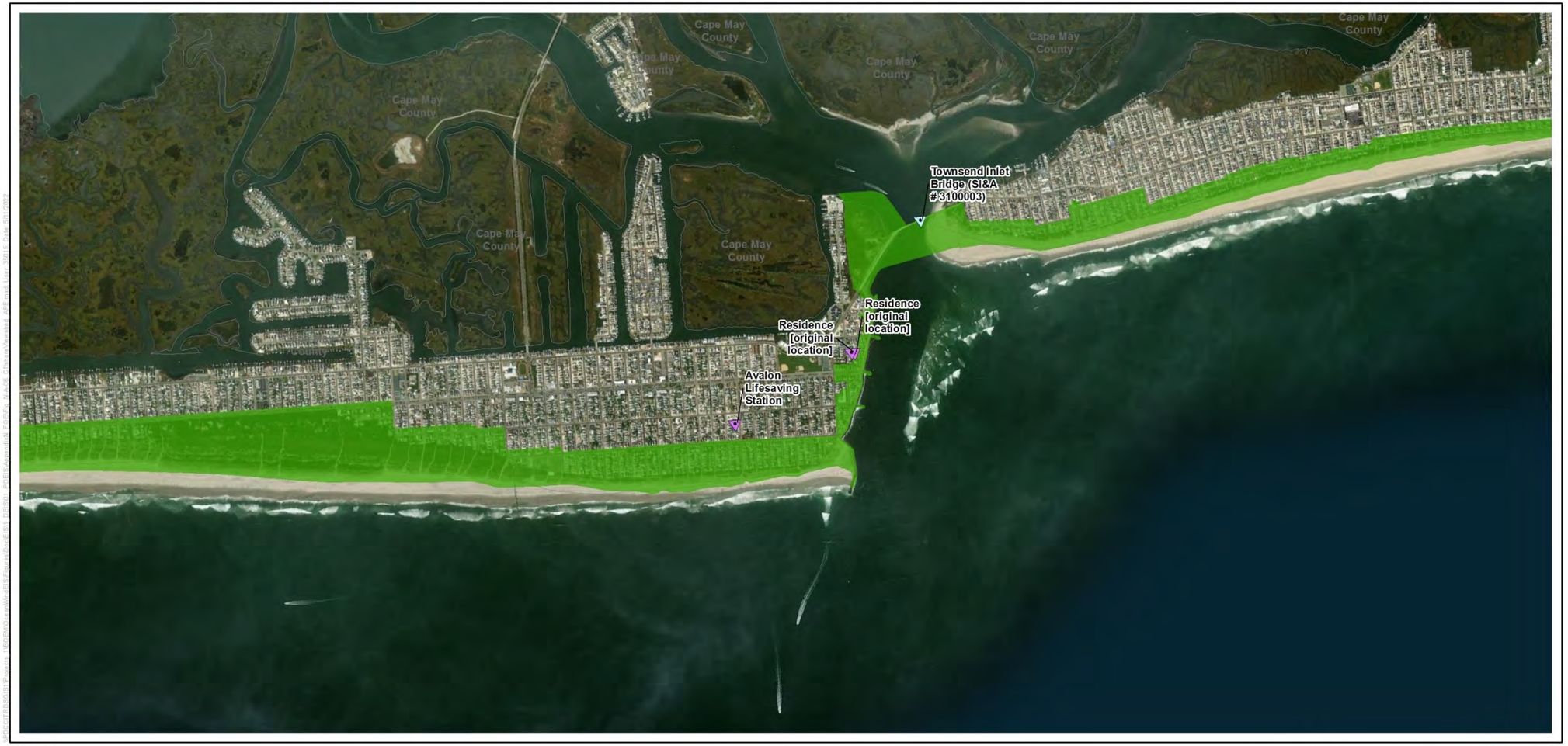
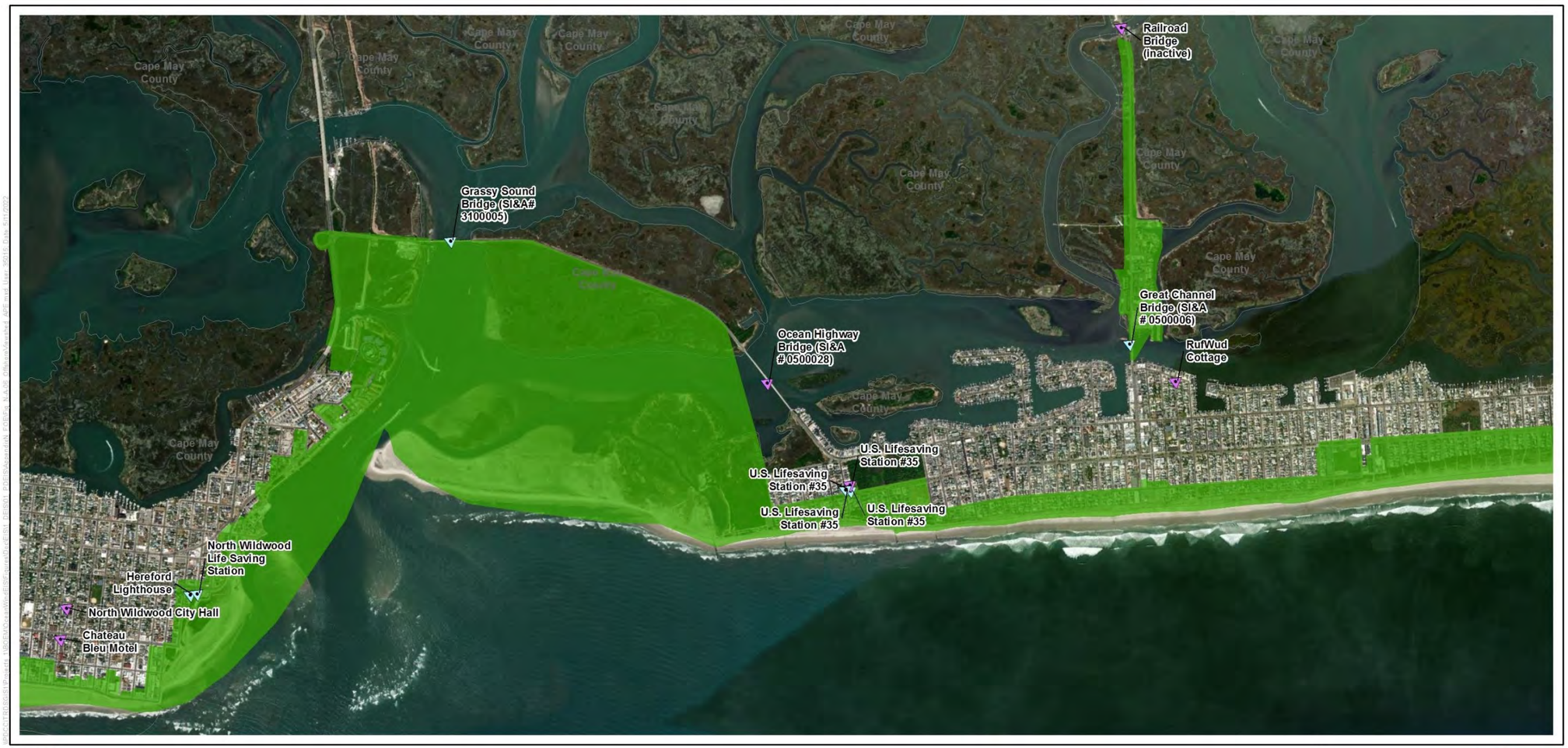


Figure 6 Offshore Visual APE with Historic Properties Adversely Affected and Foreseeable Future Project Areas—Sheet 14



Legend

- Offshore Visual APE
- Wind Turbine
- Historic properties recommended adverse visual effects
- Historic properties recommended no adverse visual effects
- Historic properties outside the visual APE
- 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

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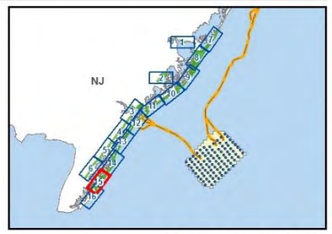

Sheet: 15 of 16

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

Figure 6 Offshore Visual APE with Historic Properties Adversely Affected and Foreseeable Future Project Areas—Sheet 16

Figure 7 Onshore Visual APE for BL England Substation

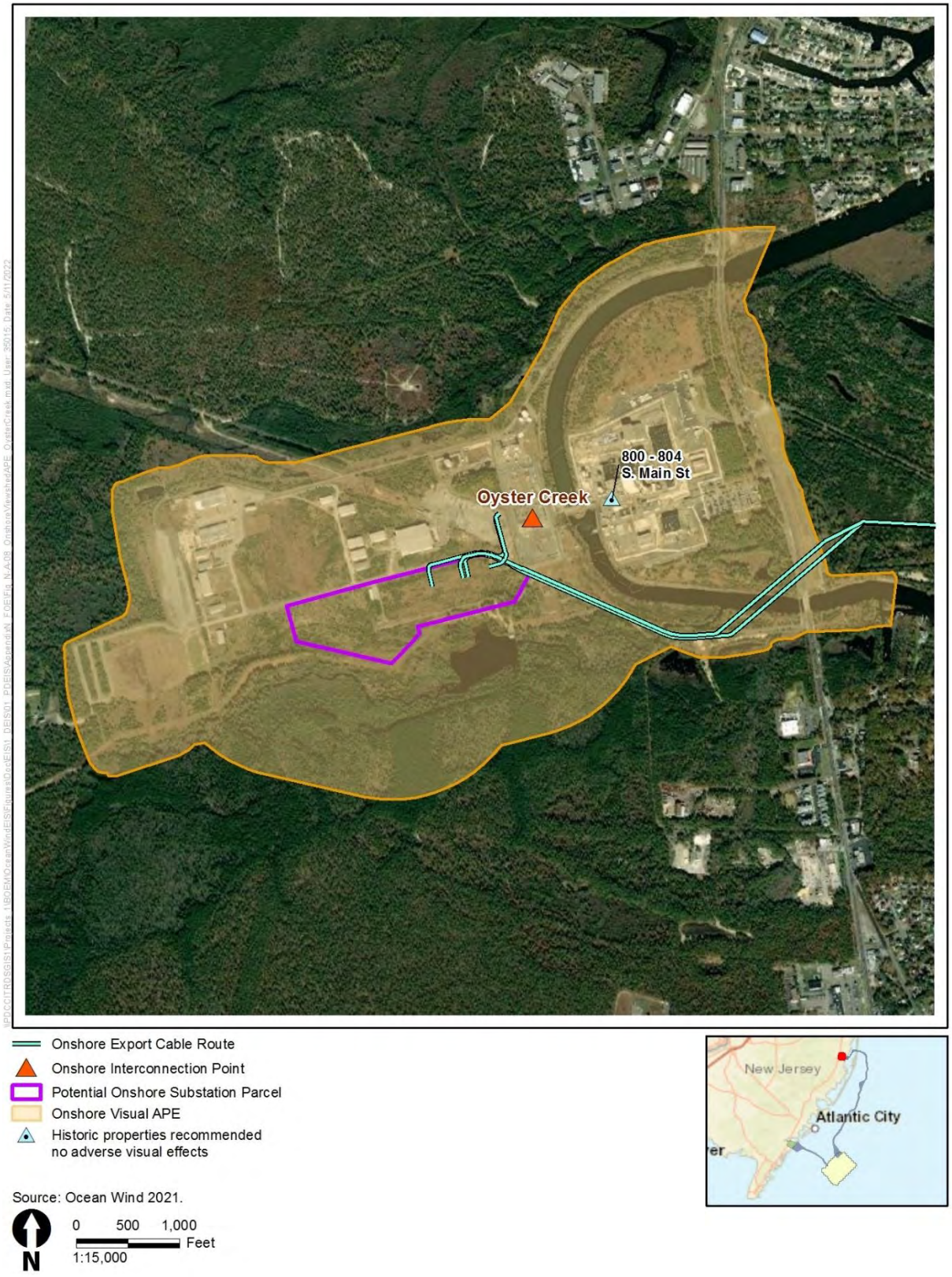

Figure 8 Onshore Visual APE for Oyster Creek Substation

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, in March 2021. During the consultations, additional parties were made known to BOEM and were added as they were identified.

Participants in the Section 106 Process	Participating Consulting Parties
SHPOs and State Agencies	NJDEP, Historic Preservation Office
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
	The Narragansett Indian Tribe
	The Rappahannock Tribe
	The Shinnecock Indian Nation
	Wampanoag Tribe of Gay Head (Aquinnah)
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
	Ramapough Mountain Indians
Local Government	Absecon City
	Atlantic City
	Atlantic County
	Atlantic County, Department of Regional Planning and Development
	Avalon Borough
	Barnegat Light Borough
	Barnegat Township
	Beach Haven Borough

Participants in the Section 106 Process	Participating Consulting Parties
	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
Nongovernmental Organizations or Groups	Absecon Historical Society
	Absecon Lighthouse
	Atlantic City Convention Center

Participants in the Section 106 Process	Participating Consulting Parties
	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
	Dr. Edward H. Williams House
	Eagleswood Historical Society
	Emlen Physick Estate
	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
	Linwood Historical Society
	Long Beach Island Historical Association
	Long Beach Island Historical Association
	Lucy The Margate Elephant
	Madison Hotel
	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
	Ritz Carlton Hotel
	The Flanders Hotel
	The Museum of Cape May County
	The Noyes Museum of Art
	Tuckerton Historical Society
	Wildwood Crest Historical Society
	Wildwood Historical Society

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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 March 28, 2022.

Government or Organization	Participating Consulting Parties	Contact
SHPOs and State Agencies	NJDEP, Historic Preservation Office	Katherine Marcopul, Administrator and Deputy Historic Preservation Officer
Federal Agencies	ACHP	Christopher Daniel, Federal Property Management Section, Program Analyst Chris Koeppel, Federal Property Management Section, Assistant Director
	USEPA	Abbey States, Human Health Risk Assessor Mark Austin, Team Leader, Environmental Reviews
	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
	National Park Service	Mary Krueger, Energy Specialist for the Northeast Region Kathy Schlegel, Historical Landscape Architect Sarah Quinn, External Renewable Energy Program Manager
Federally Recognized Tribes	Delaware Nation	Erin Thompson-Paden, Historic Preservation Director
	Delaware Tribe of Indians	Susan Bachor, Archaeologist, Delaware Tribe Historic Preservation Office Representative
	Stockbridge-Munsee Community Band of Mohican Indians	Nathan Allison, Tribal Historic Preservation Officer
	Wampanoag Tribe of Gay Head (Aquinnah)	Cheryl Andrews-Maltais, Chairwoman Bettina Washington, Tribal Historic Preservation Officer Lael Echo-Hawk, General Counsel
Local Government	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

Government or Organization	Participating Consulting Parties	Contact
	Linwood City	Mary Cole, Deputy Municipal Clerk Leigh Ann, Napoli Municipal Clerk, Registrar of Vital Statistics
	Margate City	Roger McLarnon, Planner, Zoning Officer
	Ocean City	George Savastano, Business Administrator Doug Bergen, Public Information Officer
	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 Justin Riggs, Assistant to the Administrator
Nongovernmental Organizations or Groups	Absecon Lighthouse	Jean Muchanic, Executive Director
	Garden State Seafood Association	Scot Mackey, Trenton Representative
	Long Beach Island Historical Association	Ronald Marr, President
	The Noyes Museum of Art	Michael Cagno, Executive Director
	Vassar Square Condominiums	Paul Snyderman, President, Board of Trustees