Appendix I

Finding of Adverse Effect for the Atlantic Shores Offshore Wind South Project Construction and Operations Plan

Appendix I: Finding of Adverse Effect for the Atlantic Shores Offshore Wind South Project Construction and Operations Plan

The Bureau of Ocean Energy Management (BOEM) has made a Finding of Adverse Effect under Section 106 of the National Historic Preservation Act (NHPA) pursuant to 36 Code of Federal Regulations (CFR) 800.5 for the undertaking, defined as the construction and installation, operations and maintenance (O&M), and conceptual decommissioning of the Atlantic Shores Offshore Wind South Project (Project), as described in the Atlantic Shores Offshore Wind Project 1, LLC (Atlantic Shores Project 1 Company) and Atlantic Shores Offshore Wind Project 2, LLC (Atlantic Shores Project 2 Company) Construction and Operations Plan (COP) (Atlantic Shores 2024). As Atlantic Shores (Atlantic Shores Offshore Wind, LLC) is the owner and an affiliate of both the Atlantic Shores Project 1 Company and the Atlantic Shores Project 2 Company, for ease of reference, the term *Atlantic Shores* is used to refer collectively to the Project Companies. The Project would have adverse effects on historic properties. As defined in 36 CFR 800.16(l)(1), the term *historic property* means "any prehistoric or historic district, site, building, structure, or object included in, or eligible for inclusion in, the National Register of Historic Places [NRHP; National Register] maintained by the Secretary of the Interior." The term *historic property* also includes National Historic Landmarks (NHLs) as well as resources of traditional religious and cultural importance to Tribal Nations that meet National Register criteria.

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

- 59 ancient submerged landform features (ASLFs) with potential archaeological or traditional cultural property (TCP) significance (Table I-5; Section I.3.1.1, *Assessment of Effects on Historic Properties in the Marine APE*); and
- 29 historic aboveground resources in the visual portion of the APE, including two NHLs (Table I-8; Section I.3.1.3, *Assessment of Effects on Historic Properties in the Visual APE*).

Per 36 CFR 800.5(a)(1), the Project would cause adverse effects on a historic property by altering, directly or indirectly, characteristics that qualify the historic property for inclusion in the National Register (see Section I.3, *Application of the Criteria of Adverse Effect*). Construction of the Project would cause physical adverse effects on historic properties that are ASLFs in the marine portion of the APE, as Project components and/or associated work zones are proposed for locations within the defined areas of these resources (COP Volume II, Appendices II-Q1, II-Q3, II-P1, and II-N1; Atlantic Shores 2024). While no known terrestrial archaeological resources are anticipated to be adversely affected by the Project, terrestrial archaeological resources subject to adverse effects from the Project may be identified during Atlantic Shores' process of phased identification and evaluation of historic properties as defined in 36 CFR 800.4(b)(2) (see Section I.5, *Phased Identification and Evaluation*).

The Project would also cause visual adverse effects and contribute to cumulative visual adverse effects from Offshore Project component visibility on 29 historic aboveground resources that are historic

properties in the visual portion of the APE (COP Volume II, Appendix II-O; Atlantic Shores 2024; BOEM 2024). These resources have ocean views that are character-defining features contributing to their NRHP eligibility; these ocean views are subject to adverse effects by the Project. For compliance with NHPA Section 110(f) at 36 CFR 800.10, which applies specifically to NHLs, BOEM has determined that two NHLs (i.e., Atlantic City Convention Hall [Jim Whelan Boardwalk Hall] and Lucy, The Margate Elephant) would be adversely affected by the Project, and as such, BOEM, to the maximum extent possible, has undertaken planning and actions as necessary to minimize harm to the NHLs (COP Volume II, Appendix II-O; Atlantic Shores 2024; BOEM 2024).

BOEM elected to use the National Environmental Policy Act (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 https://www.achp.gov/integrating_nepa_106. Both NEPA and Section 106 allow participation of consulting parties. Consistent with use of the NEPA substitution process to fulfill Section 106 requirements, BOEM has stipulated mitigation measures to resolve the adverse effects in the Memorandum of Agreement (MOA) pursuant to 36 CFR 800.8(c)(4)(i)(B). Simultaneous to the publication of the Final EIS, BOEM is coordinating with signatories to the MOA to have the MOA fully signed and executed by June 28, 2024. The version of the MOA attached to this document as Attachment A reflects the draft of the MOA as of April 10, 2024. The executed MOA will be posted on BOEM's website following issuance of the Record of Decision (ROD) at: https://www.boem.gov/renewable-energy/state-activities/atlantic-shores-south.

I.1 Project Overview

In March 2021, BOEM received a COP from Atlantic Shores proposing an offshore wind energy facility within part of Renewable Energy Lease Number OCS-A 0499 (Lease Area), offshore New Jersey. In addition, Atlantic Shores submitted updates to the COP or supplemental materials in August, September, October, and December of 2021; in January, March, April, August, September, October, November, and December of 2022; in January, February, March, April, May, August, September, October, November, and December of 2023; and January, February, March, and May of 2024. In its COP, Atlantic Shores proposes construction and installation, O&M, and conceptual decommissioning of two offshore wind energy facilities (Project 1 and Project 2) consisting of up to 200 offshore wind turbine generators (WTGs) and their foundations; up to 10 offshore substations (OSSs) and their foundations; one meteorological (met) tower and its foundation; scour protection for foundations; interarray or interlink cables linking the individual turbines to the OSSs; offshore export cables and an onshore export cable system; two landfall locations in Sea Girt, New Jersey, and Atlantic City, New Jersey; two onshore substations and/or converter stations (i.e., at the Fire Road Site and one of three site options at Lanes Pond Road, Brook Road, or Randolph Road); connections to the existing electrical grid in New Jersey; and an O&M facility in Atlantic City, New Jersey (see Figure I-1). Project 1 and Project 2 are known collectively as the Atlantic Shores South Project and will occupy Lease Area OCS-A 0499.

Though Atlantic Shores may connect to the proposed substation and/or converter station at the Brook Road Site, following publication of the Draft EIS, the COP was updated to remove *development* of the Brook Road Site option for the Larrabee Facilities by Atlantic Shores. The Brook Road Site is now expected to be prepared and developed as part of the State of New Jersey's Board of Public Utility (BPU) State Agreement Approach (SAA) for coordinated transmission to support multiple offshore wind generation projects that New Jersey will procure as part of the New Jersey BPU's Third Offshore Wind Solicitation (COP Volume II; Atlantic Shores 2024). If the Lessee receives the Offshore Renewable Energy Credit (OREC) award on behalf of the Project, the Lessee will route to the SAA-awardee's prepared site (the Brook Road Site). All siting, environmental review, permitting, and other preparation activities at the Brook Road Site are to be completed by the SAA-awardee (or the designated lead state or federal agency, as appropriate) and are thereby not included in BOEM's environmental analysis in the Final EIS, except as part of the cumulative impacts analysis. If the Lessee does not receive the award to route the Brook Road Site, the Lessee will develop either the Lanes Pond Road Site or the Randolph Road Site. Per 40 CFR 1501.9(e)(1), actions are connected if they automatically trigger other actions that may require EISs; cannot or will not proceed unless other actions are taken previously or simultaneously; or are interdependent parts of a larger action and depend on the larger action for their justification. The development of the Brook Road Site by the SAA-awardee does not meet those criteria; therefore, BOEM does not consider it to be a part of the NHPA Section 106 undertaking or a connected action. However, as the Brook Road Site option had been previously considered a part of the undertaking, it is still reflected in some supporting documentation in the COP and EIS pertaining to this location.

At its nearest point, WTG and OSS components of the Project would be approximately 8.7 miles (14 kilometers) from the New Jersey shoreline. Offshore Project components would be on the Outer Continental Shelf (OCS) with the exception of portions of the offshore export cables within New Jersey state waters. Atlantic Shores is utilizing a Project Design Envelope (PDE) in its COP, which represents a reasonable range of design parameters that may be used for the Project. In reviewing the PDE, BOEM is analyzing the maximum design scenario that could occur from key project components, including the type and number of WTGs, foundation types, OSS types, cable types, and installation techniques. 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. Additional information on design envelopes is found in the draft guidance document at https://www.boem.gov/sites/default/files/renewable-energy-program/Draft-Design-Envelope-Guidance.pdf.

Separately from, but in part to facilitate, the Proposed Action, a connected action has been proposed for an approximately 20.6-acre (8.3-hectare) site within Atlantic City's Inlet Marina area. These activities are proposed to include the repair and/or replacement of an existing bulkhead to be conducted by Atlantic Shores under a U.S. Army Corps of Engineers (USACE) Nationwide Permit 13 and implementation of a maintenance dredging program to be conducted in coordination with the City of Atlantic City under a USACE Department of the Army (DA) Permit (CENAP-OPR-2021-00573-95) and a New Jersey Department of Environmental Protection (NJDEP) Dredge Permit (No. 0102.20.0001.1 LUP 210001). Activities associated with the connected action would be conducted regardless of the construction and installation of the Proposed Action. However, the bulkhead repair and/or replacement and dredging are

necessary for the use of the O&M facility included in the Proposed Action. Therefore, the bulkhead and dredging activities are considered to be a connected action under NEPA. The maintenance dredging program has undergone Section 106 review under the aforementioned USACE DA Permit and NJDEP Dredge Permit and resulted in a finding of no effect on historic properties. Subsequently, activities related to the repair and/or replacement of the existing bulkhead under the connected action will require Section 106 review, with USACE serving as the lead federal agency and BOEM participating in the Section 106 review. BOEM will ensure consulting parties for this undertaking will be able to review and consult on final determinations and findings associated with the connected action if those findings change BOEM's final determinations and finding of effects for this undertaking. See Sections I.1.2, *Undertaking,* and I.1.3.4, *O&M Facility APE,* for additional details on the Proposed Action and connected action activities proposed at the O&M facility.

If approved by BOEM and other agencies with authority to approve Project components outside of BOEM's jurisdiction, Atlantic Shores 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 has conducted its environmental and technical reviews of the COP and connected action under NEPA; its decision regarding approval of the plan is provided in the EIS.

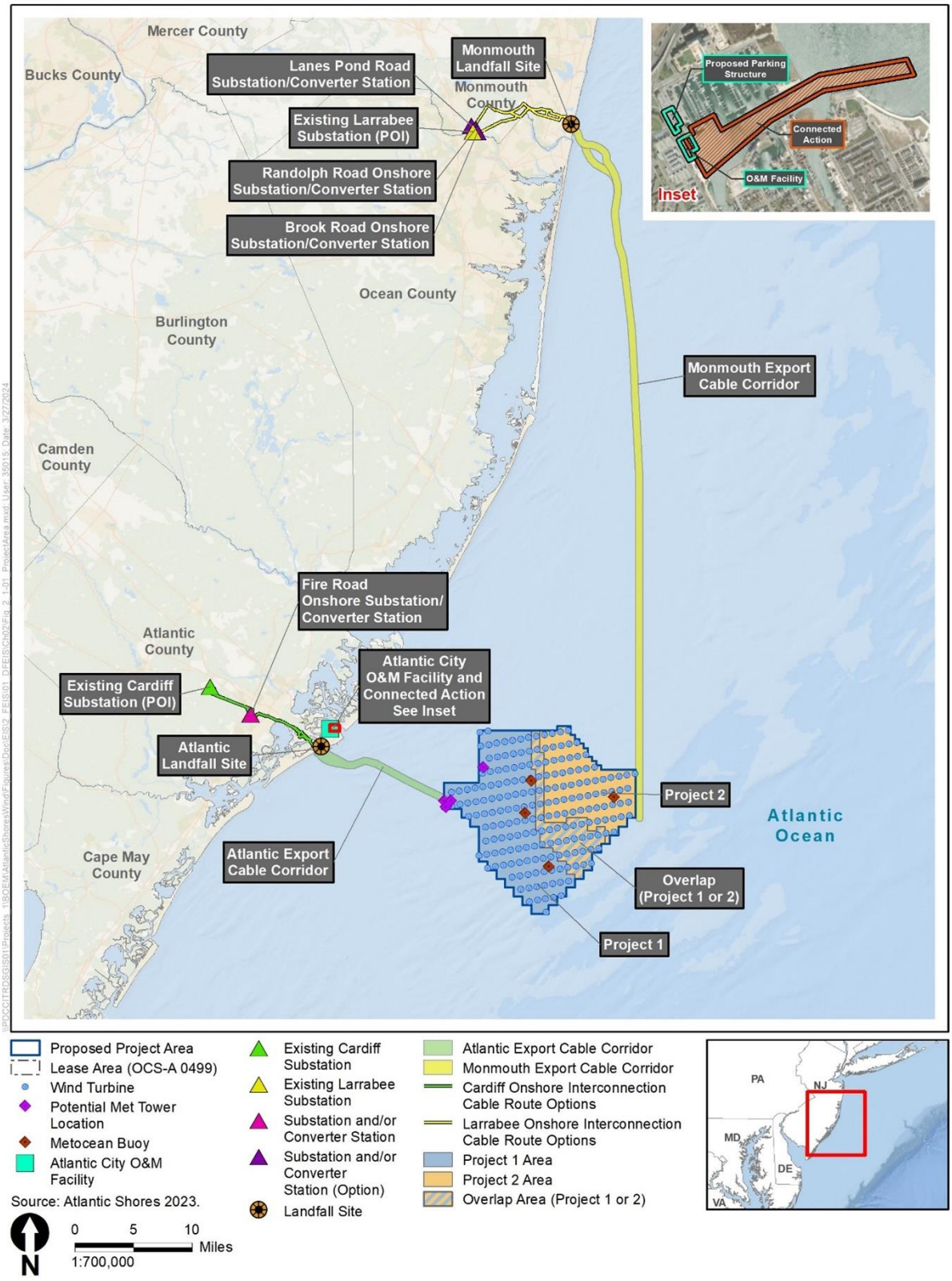

Figure I-1. Atlantic Shores South Project Components

I.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 State Historic Preservation Officers (SHPOs) of Delaware, Maryland, New Jersey, and Virginia; the Advisory Council on Historic Preservation (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). This Programmatic Agreement expired in 2022 but was in effect for issuance of the commercial lease and approval of site assessment activities for the Project. 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).

On February 3, 2012, BOEM published in the Federal Register a Notice of Availability (NOA) of an Environmental Assessment (EA) and Finding of No Significant Impact (FONSI) for commercial wind lease issuance and site assessment activities on the Atlantic OCS offshore New Jersey, Delaware, Maryland, and Virginia. Consultations ran concurrently with preparation of the EA and included consultations under the Endangered Species Act, Magnuson-Stevens Fishery Conservation and Management Act, Section 106 of the NHPA, and the Coastal Zone Management Act. On July 11, 2012, BOEM issued a "Finding of No Historic Properties Affected for the Issuance of Commercial Leases within the New Jersey Wind Energy Area." On April 29, 2019, BOEM received an application from EDF Renewables Development, Inc. to assign 100 percent of commercial lease OCS-A 0499 to Atlantic Shores Offshore Wind, LLC. BOEM approved the lease assignment on August 13, 2019. Pursuant to the *Programmatic Agreement Among The U.S. Department of the Interior, Bureau of Ocean Energy Management, The State Historic Preservation Officers of New Jersey and New York, The Shinnecock Indian Nation, and The Advisory Council on Historic Preservation Regarding Review of Outer Continental Shelf Renewable Energy Activities Offshore New Jersey and New York Under Section 106 of the National Historic Preservation Act* (New York-New Jersey PA), BOEM conducted Section 106 review and determined that activities proposed under the site assessment plan for Lease Area OCS-A 0499 have little or no potential to affect historic properties. BOEM approved the site assessment plan (SAP) for Lease Area OCS-A 0499 on April 8, 2021. Under the terms of the lease, Atlantic Shores has the exclusive right to submit a COP for activities within the Lease Area, and it has submitted a COP to BOEM proposing the construction and installation, O&M, and conceptual decommissioning of two offshore wind energy facilities in Lease Area OCS-A-0499 (the Atlantic Shores South Project) in accordance with BOEM's COP regulations under 30 CFR 585.626, et seq.

The Atlantic Shores South Project COP proposed to develop two offshore wind energy generation facilities in the Lease Area, including up to 200 WTGs (between 105 and 136 WTGs for Project 1 and between 64 and 95 WTGs for Project 2), up to 10 OSSs (up to 5 in each Project), up to 1 permanent met tower, up to 4 temporary meteorological and oceanographic (metocean) buoys (up to 1 met tower and 3 metocean buoys in Project 1 and 1 metocean buoy in Project 2), interarray and interlink cables,

2 offshore export cable corridors (ECCs; Monmouth and Atlantic), up to 2 onshore substations and/or converter stations, 1 O&M facility, and up to 8 transmission cables making landfall at two New Jersey locations. The Monmouth offshore ECC is proposed for landfall in Sea Girt, New Jersey, with an onshore route to the existing Larrabee substation point of interconnection (POI). The Atlantic offshore ECC is proposed for landfall in Atlantic City, New Jersey, with an onshore route to the existing Cardiff substation. Project 1 would have a capacity of 1,510 megawatts (MW); Project 2's capacity is not yet determined, but Atlantic Shores has a goal of 1,327 MW.

The Atlantic Shores South Project would be in an approximately 102,124-acre (167-hectare) Wind Turbine Area (WTA) in Lease Area OCS-A 0499. Project 1 would be in the western 54,175 acres (21,924 hectares) of the WTA and Project 2 would be in the eastern 31,847 acres (12,888 hectares) of the WTA, with a 16,102-acre (6,516-hectare) Overlap Area that could be used by either Project 1 or Project 2. The Overlap Area is included in the event engineering or technical challenges arise at certain locations in the WTA, to provide flexibility for final selection of a WTG supplier for the Atlantic Shores South Project (which would determine the final number of WTG positions needed for Project 1 and Project 2), and for environmental or other considerations. The WTGs would be placed in a uniform grid along east-northeast/west-southwest rows spaced 1.0 nautical mile (1.9 kilometers) apart and north/south columns spaced 0.6 nautical mile (1.1 kilometers) apart. The OSSs and met tower would be placed outside of the gridded WTG layout. They would be along the same east-northeast/ west-southwest rows as the WTGs, but sited between the WTGs' north/south columns; small OSSs would be no closer than 12 miles (19.3 kilometers) from shore, whereas medium and large OSSs would be at least 13.5 miles (21.7 kilometers) from shore.

The proposed Project has a designed life span of up to 30 years; some installations and components may remain fit for continued service after this time. Atlantic Shores is proposing a new O&M facility in Atlantic City, New Jersey, to support the Project's operations. The O&M facility would be used solely by Atlantic Shores as the primary location for O&M operations including material storage, day-to-day management of inspection and maintenance activities, vehicle parking, marine coordination, vessel docking, and dispatching of technicians. Construction of the O&M facility would involve construction of a new building and potentially an associated parking structure, repairs to the existing docks, and installation of new dock facilities. The O&M facility may utilize the parking lot on South California Avenue at the Atlantic Landfall Site or other existing surface lots in Atlantic City supported by shuttles to and from the O&M facility. The O&M facility may also be supported with the use of existing warehouse or office space within an industrial, commercial, or waterfront area. Atlantic Shores may use other ports to support O&M activities such as some crew transfer, bunkering, spare part storage, load-out of spares to vessels, and refueling and supply replenishment.

O&M activities would include inspections, preventative maintenance, and, as needed, corrective maintenance for onshore substations, onshore export cables, and grid connections. Atlantic Shores would conduct annual maintenance of WTGs, including cleaning, safety surveys, blade maintenance, painting, and replacement of consumable components (e.g., lubrication, oil) as needed. Atlantic Shores would also conduct annual OSS maintenance of medium-voltage and high-voltage systems, auxiliary systems, and safety systems, topside structural inspections, diesel generator maintenance and refueling,

and reapplication of corrosion-resistant coating, as needed. Foundation inspections both above and underwater would occur at regular intervals to check for corrosion, cracking, and marine growth. The offshore export cables and interarray or interlink cables would use a monitoring system, and cable surveys would be performed at regular intervals, including annual surveys in the first two to five years of operation and less frequent surveys for the rest of the service life provided that no abnormal conditions are detected in the initial surveys. Atlantic Shores would need to use vessels, vehicles, and aircraft during O&M activities described above.

Once installed and commissioned, the proposed Project is designed to operate for up to 30 years. Atlantic Shores would remove or decommission all facilities, projects, cables, pipelines, and obstructions and clear the seabed of all obstructions created by activities within the leased area. Absent permission from BOEM, removal or decommissioning activities must be completed within 2 years after lease termination (whether by expiration, cancellation, contraction, or relinquishment), and all offshore facilities must be removed to 15 feet (4.5 meters) below the mudline, unless otherwise authorized by BOEM (30 CFR 585.910(a)). Atlantic Shores would either reuse, recycle, scrap, or responsibly dispose of all materials removed. Section 106 review would be conducted at the decommissioning stage.

I.1.2 Undertaking

BOEM has determined that the Project constitutes an undertaking subject to Section 106 of the NHPA as amended (54 United States Code [USC] 306108) and its implementing regulations (36 CFR Part 800), and the Project activities proposed under the COP have the potential to affect historic properties. The connected action and its associated activities also constitute an undertaking with the potential to affect historic properties. The portion of the connected action involving the maintenance dredging program has undergone Section 106 review for the City of Atlantic City's DA Permit, with USACE serving as the lead federal agency and resulting in a finding of no effect on historic properties.[1] The portion of the connected action involving repair and/or replacement of the existing bulkhead under Atlantic Shores' USACE Nationwide Permit 13 application will undergo Section 106 review with USACE serving as the lead federal agency and BOEM participating in the Section 106 review. BOEM will ensure consulting parties for this undertaking will be able to review and consult on final determinations and findings associated with the connected action if those findings change BOEM's final determinations and findings of effects for this undertaking (see Sections I.1, *Project Overview,* and Section I.1.3.4, *O&M Facility APE,* for additional details). Confidential Section 106 appendices to the COP referenced in this document, along with other Section 106 documents and associated information, were sent electronically to all consulting parties on May 4, 2023. The COP, including its public and confidential appendices, is hereby incorporated by reference (see Section I.2.1, *Technical Studies and Reports*, for additional information).

As described in Section 2.1.2 of the Final EIS, the Proposed Action would include the construction and installation, O&M, and conceptual decommissioning of two wind energy facilities on the OCS offshore

[1] BOEM verified this finding of no effect on historic properties through a review of USACE's statement of findings for the City of Atlantic City's DA Permit Application CENAP-OPR-2021-00573-95. Attachment E is the USACE Public Notice for DA Permit Application CENAP OPR 2021-00573-95.

New Jersey, occurring within the range of design parameters outlined in the COP (Atlantic Shores 2024), subject to applicable mitigation measures. BOEM's election to use NEPA substitution for the Section 106 review of the Project includes the identification and evaluation of historic properties for the undertaking and assessment of effects for all the action alternatives identified during the NEPA review and as presented in the Final EIS. For BOEM's assessment of the action alternatives, see Section I.4.1, *Alternatives Considered*.

I.1.3 Area of Potential Effects

Per 36 CFR 800.16(d), the APE is defined as "the geographic area or areas within which an undertaking may directly or indirectly cause alterations in the character or use of historic properties, if any such properties exist." BOEM (2020) defines the APE for the undertaking to include the following areas:

- The depth and breadth of the seabed potentially impacted by any bottom-disturbing activities, constituting the marine portion of the APE;
- The depth and breadth of terrestrial areas potentially impacted by any ground-disturbing activities, constituting the terrestrial portion of the APE;
- The viewshed from which renewable energy structures, whether offshore or onshore, would be visible, constituting the visual 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). See Attachment B, Figure I.B-1 for an overview map of the Project APE.

I.1.3.1 Marine Portion of the APE

The marine portion of the APE (hereafter *marine APE*) for the Project is the depth and breadth of the seabed potentially impacted 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 piled, suction bucket, or gravity-based foundations are used and installed by jack-up vessels as well as support vessels and barges. The marine APE (Figure I.B-2) encompasses activities within the Lease Area (Figure I.B-3), Atlantic offshore ECC (Figure I.B-4), and Monmouth offshore ECC (Figure I.B-5). Following publication of the Draft EIS, the marine APE was expanded to include areas previously not expected to be subject to bottom-disturbing activities; a figure comparing the previous and updated marine APE delineations can be found in Attachment B, Figure I.B-6. See Table I-3 for information regarding the Marine Archaeological Resources Assessment (MARA) Addendum report (COP Volume II, Appendix II-Q3; Atlantic Shores 2024) which informed the expansion of the marine APE delineation and Section I.1.3.4 for a description of the APE at the proposed O&M facility.

The Project would occur within the approximately 102,124-acre (41,328-hectare) Lease Area. Atlantic Shores proposes a combined maximum of up to 200 WTGs, up to 10 OSSs, up to 1 permanent met tower, and up to 4 temporary metocean buoys within the extent of the WTA. WTGs and OSSs would be connected by a system of interarray cables. Up to 8 export cables would be installed within the Atlantic and Monmouth ECCs. The Atlantic ECC measures approximately 12 miles (19 kilometers) long and travels from the western tip of the WTA westward to the Atlantic Landfall Site in Atlantic City, New Jersey. The Monmouth ECC measures approximately 61 miles (98 kilometers) long and travels from the eastern corner of the WTA along the eastern edge of the Lease Area to the Monmouth Landfall Site in Sea Girt, New Jersey. The width of each ECC corresponds to the width of the marine survey corridors and ranges from approximately 3,300 to 4,200 feet (1,000 to 1,280 meters) for all of the Monmouth ECC and most of the Atlantic ECC, though the Atlantic ECC widens to approximately 5,900 feet (1,800 meters) near the Atlantic Landfall Site.

The approximate maximum horizontal area and vertical depth of seabed disturbance associated with the construction or installation each of these aforementioned Offshore Project components are considered in the delineation of the marine APE (Table I-1).

Table I-1. Summary of marine APE based on approximate maximum horizontal and vertical extents of seabed disturbance for construction of Offshore Project components

Project Component		Seabed Disturbance	
		Maximum Horizontal Area	Maximum Vertical Depth
Per WTG foundation		1,969 ft (600 m) diameter centered on foundation	262.5 ft (80 m)
Per OSS foundation		1,969 ft (600 m) diameter centered on foundation	229.7 ft (70 m)
Met tower		Same as WTG foundation	
Metocean buoys		0.005 mi^2 (0.013 km^2)	3.3 ft (1.0 m)
Interarray and interlink cables		3.36 mi^2 (8.70 km^2)	9.8 ft (3.0 m)
Offshore ECC	Atlantic ECC	1.20 mi^2 (3.11 km^2)	9.8 ft (3.0 m)
	Monmouth ECC	2.87 mi^2 (7.44 km^2)	

Source: COP Volume I, Chapter 4.0 and Table 4.11-1; Atlantic Shores 2024.
ft = feet; km^2 = square kilometers; m = meters; mi^2 = square miles

I.1.3.2 Terrestrial Portion of the APE

The terrestrial portion of the APE (hereafter *terrestrial APE*) includes the depth and breadth of terrestrial areas potentially impacted by any ground-disturbing activities and temporary or permanent onshore construction or staging areas. It includes a conservative PDE that includes the proposed Cardiff and Larrabee Project facilities, including Atlantic and Monmouth Landfall Sites, interconnection cables, POIs, and substations and/or converter stations. The APE at the proposed O&M facility is discussed separately in Section I.1.3.4. Attachment B contains figures depicting the terrestrial APE for Cardiff Facilities (Figure I.B-7) and Larrabee Facilities (Figure I.B-8). The defined vertical extents of the terrestrial APE, as discussed below, vary based on the type of Onshore Project component and account for the maximum burial depth and vertical ground disturbance identified for each of those Project components and their installation.

As part of the Cardiff Project facilities, offshore export cables in the Atlantic ECC would connect to onshore interconnection cables at the sea-to-shore transition Atlantic Landfall Site. From the Atlantic Landfall Site, cables would be installed underground via open trenching and specialty trenchless techniques (i.e., horizontal directional drilling, pipe jacking, and/or jack-and-bore) within a 20-foot (6-meter) wide corridor, along the approximately 12- to 14-mile (19- to 23-kilometer) long Cardiff Onshore Interconnection Cable Route and connect to the proposed onshore substation and/or converter station at the Fire Road Site. Atlantic Shores has proposed several route options for the Cardiff Onshore Interconnection Cable Route in the PDE; these are all considered in the delineation of the terrestrial APE.

As part of the Larrabee Project facilities, offshore export cables in the Monmouth ECC would connect to onshore interconnection cables at the Monmouth Landfall Site. From the Monmouth Landfall Site, cables would be installed underground via open trenching and specialty trenchless techniques (i.e., horizontal directional drilling, pipe jacking, and/or jack-and-bore) within a 20-foot (6-meter) wide corridor, along an approximately 12-mile (19.5-kilometer) long Larrabee Onshore Interconnection Cable Route and connect to an onshore substation and/or converter station at two potential locations that would be developed as part of the undertaking: the Lanes Pond Road or Randolph Road Sites. Following BOEM's delineation of the APE with the publication of its initial Finding of Adverse Effect in the Draft EIS, the COP was updated to remove *development* of the Brook Road Site option for the Larrabee Facilities by Atlantic Shores. The Brook Road Site is now expected to be prepared and developed as part of the New Jersey BPU SAA for coordinated transmission to support multiple offshore wind generation projects that New Jersey will procure as part of the New Jersey BPU's Third Offshore Wind Solicitation (COP Volume II; Atlantic Shores 2024). Therefore, BOEM does not consider the development of the Brook Road Site to be a part of the NHPA Section 106 undertaking or a connected action. As such, BOEM has revised the delineation of the terrestrial APE to reflect the removal of the Brook Road Site option; however, because Atlantic Shores' investigations of the APE were largely completed before the publication of the Draft EIS, the Brook Road Site option is still reflected in some supporting documentation pertaining to this location. Atlantic Shores has proposed several route options for the Larrabee Onshore Interconnection Cable Route in the PDE; these are all considered in the delineation of the terrestrial APE.

The approximate maximum horizontal area and vertical depth of ground disturbance associated with the construction or installation each of these aforementioned Onshore Project components are considered in the delineation of the terrestrial APE (Table I-2).

Table I-2. Summary of terrestrial APE based on approximate maximum horizontal and vertical extents of ground disturbance for construction of Onshore Project components

Project Component			Ground Disturbance	
			Maximum Horizontal Area	Maximum Vertical Depth
Cardiff Facilities	Atlantic Landfall Site		2.90 ac (1.17 ha)	16.8 ft (5.12 m)
	Cardiff Onshore Interconnection Cable Route		Trenching: 20 ft (6 m); 319.56 ac (129.31 ha)	Open trenching: 11.5 ft (3.5 m); Specialty installation: 30 ft (9 m)
	Onshore Substation/ Converter Station	Fire Road Site	19.71 ac (7.98 ha)	60 ft (18.3 m)
Larrabee Facilities	Monmouth Landfall Site		3.06 ac (1.24 ha)	16.8 ft (5.12 m)
	Larrabee Onshore Interconnection Cable Route		Trenching: 20 ft (6 m) 187.94 ac (76.06 ha)	Open trenching: 11.5 ft (3.5 m); Specialty installation: 30 ft (9 m)
	Onshore Substation/ Converter Station	Lanes Pond Road	16.27 ac (6.58 ha)	60 ft (18.3 m)
		Randolph Road	24.64 ac (9.98 ha)	60 ft (18.3 m)

Source: COP Volume II, Table 6.2-1; Atlantic Shores 2024.
Ac = acres; ft = feet; ha = hectare; m = meters

I.1.3.3 Visual Portion of the APE

The visual portion of the APE (hereafter *visual APE*) includes the viewshed from which renewable energy structures—whether offshore or onshore—would be visible. The proposed Cardiff and Larrabee onshore interconnection cables would be underground and would not cause potential visual adverse effects on aboveground historic properties. A 40-mile (64.4-kilometer) viewshed buffer is a conservative distance for the purpose of evaluating visual effects of offshore WTGs. Atlantic Shores elected to extend the viewshed buffer to 45.1 miles (72.6 kilometers) to assess the Project's potential visual effects on aboveground historic properties located in Cape May, New Jersey. The visual APE for Offshore Project components includes a boundary of 45.1 miles (72.6 kilometers) radial distance from the WTA, which is the approximate maximum theoretical distance at which the WTGs could be visible based on the maximum height of the WTGs and OSSs, their location, curvature of the Earth, atmospheric conditions, and human visual acuity (COP Volume II, Appendix II-O; Atlantic Shores 2024). See Attachment B, Figure I.B-9 through Figure I.B-11, which depict the visual APE for Offshore Project components.

The visual APE for Onshore Project components includes all areas within 1 mile (1.6 kilometers) from the property boundaries of the proposed onshore substation and/or converter sites, including the Fire Road Site for the proposed Cardiff Facilities (Figure I.B-12) and Lanes Pond Road (Figure I.B-13), and Randolph Road (Figure I.B-14) options for the Larrabee Facilities with potential visibility of these components as determined through viewshed analysis. Following BOEM's delineation of the APE with the publication of its initial Finding of Adverse Effect in the Draft EIS, the COP was updated to remove development of the Brook Road Site option for the Larrabee Facilities by Atlantic Shores. The Brook Road Site is now

expected to be prepared and developed as part of the New Jersey BPU SAA for coordinated transmission to support multiple offshore wind generation projects that New Jersey will procure as part of the New Jersey BPU's Third Offshore Wind Solicitation (COP Volume II; Atlantic Shores 2024). Therefore, BOEM does not consider the development of the Brook Road Site to be a part of the NHPA Section 106 undertaking or a connected action. As such, BOEM has revised the delineation of the visual APE to reflect the removal of the Brook Road Site option; however, because Atlantic Shores' investigations of the APE were largely completed before the publication of the Draft EIS, the Brook Road Site option is still reflected in some supporting documentation pertaining to this location. The APE at the proposed O&M facility is discussed separately in Section I.1.3.4 below. A 1-mile (1.6-kilometer) area is considered the maximum limit within which aboveground historic properties could be subject to visual adverse effects given the size of the proposed O&M facility and the screening provided by existing topography, building/structures and/or adjacent developed areas, and vegetation (COP Volume II, Appendix II-N1; Atlantic Shores 2024).

I.1.3.4 O&M Facility APE

Once operational, the Project would be supported by a new O&M facility that Atlantic Shores is proposing in Atlantic City, New Jersey, on a site previously used for vessel docking or other port activities. Separately from, but in part to facilitate, the Proposed Action (the undertaking), a connected action has been proposed within an approximately 20.6-acre (8.3-hectare) site within Atlantic City's Inlet Marina area. The connected action activities are proposed to include the repair and/or replacement of an existing bulkhead to be conducted by Atlantic Shores under a USACE Nationwide Permit 13 and implementation of a maintenance dredging program to be conducted in coordination with the City of Atlantic City under a USACE DA Permit (CENAP-OPR-2021-00573-95) and a NJDEP Dredge Permit (No. 0102.20.0001.1 LUP 210001). The area of the connected action activities overlaps with portions of the APE for the O&M facility. USACE's NHPA Section 106 finding of no effect in DA Permit CENAP-OPR-2021-00573-95 applies to a permit area encompassing but larger than the marine area of the physical APE for the O&M facility. The area of repair and/or replacement of the existing bulkhead is also encompassed by the APE for the O&M facility. The repair and/or replacement of the existing bulkhead under Atlantic Shores' USACE Nationwide Permit 13 application will undergo Section 106 review with USACE serving as the lead federal agency and BOEM participating in the Section 106 review. BOEM will ensure consulting parties for this undertaking will be able to review and consult on final determinations and findings associated with the connected action if these findings change BOEM's final determinations and findings of effects for this undertaking.

The O&M facility APE includes all areas subject to physical and visual effects from the undertaking as described in Section I.1.3. The physical APE for the O&M facility encompasses both marine and terrestrial areas and includes the depth and breadth of seabed and terrestrial areas potentially impacted by bottom- or ground-disturbing activities in an approximate maximum area of 3.22 acres (1.3 hectares) and vertical depth of 60 feet (18.3 meters) (Figure I.B-15; COP Volume II, Table 6.2-1 and Appendix II-P2; Atlantic Shores 2024). The visual APE for the O&M facility includes all areas within 1 mile (1.6 kilometers) of the proposed O&M facility with potential visibility (based on a viewshed analysis) of the facility. A 1-mile (1.6-kilometer) area is considered the maximum limit within which aboveground

historic properties could be subject to visual adverse effects given the size of the proposed O&M facility and the screening provided by existing topography, building/structures and/or adjacent developed areas, and vegetation (Figure I.B-16; COP Volume II, Appendix II-N2; Atlantic Shores 2024).

I.2 Steps Taken to Identify Historic Properties

I.2.1 Technical Studies and Reports

To support the identification of and assessment of effects on historic properties in the APE, Atlantic Shores has provided technical reports detailing the results of cultural resource investigations in the marine, terrestrial, visual, and O&M facility portions of the APE. Table I-3 provides a summary of these efforts to identify historic properties and the results and key findings of each investigation. Collectively, BOEM finds that these reports represent a good-faith effort to identify and assess Project effects on historic properties in portions of the Project APE that are not subject to the phased identification process and are consistent with BOEM's *Guidelines for Providing Archaeological and Historic Property Information Pursuant to 30 CFR Part 585* (BOEM 2020). BOEM also finds the reports sufficient for conducting NHPA Section 106 consultations and reached the following conclusions:

- The MARA is sufficient for identifying and assessing effects on historic properties in the marine APE.
- The Terrestrial Archaeological Resources Assessment (TARA) and Phased Identification Plan (PIP) summarize the completed and planned investigations that are or will be sufficient for identifying and assessing effects on historic properties in the terrestrial APE. Efforts conducted for the TARA thus far are sufficient for assessing effects on identified historic properties, but given logistical limitations related to landowner permissions and land access, not all of the terrestrial APE has been fully investigated. BOEM, with the assistance of Atlantic Shores, will use phased identification of historic properties, as defined in 36 CFR 800.4(b)(2), for completion of remaining archaeological investigations in the terrestrial APE, a process specifically provided for in the MOA pursuant to 36 CFR 800.8(c)(4)(i)(B). See Section I.5, *Phased Identification and Evaluation* for additional details on the phased process, and Attachment A for the draft MOA as of April 10, 2024 (Draft 4).
- The Historic Resource Visual Effects Assessment (HRVEA) and Historic Resource Effects Assessment (HREA) are sufficient for identifying and assessing effects on historic properties in the visual APE. BOEM finds that the APE for potential visual effects analyzed is appropriate for the scale and scope of the undertaking.

In addition to these conclusions, BOEM has found the assessment of effects on historic properties in the marine, terrestrial, visual, and O&M facility APEs contained in these reports is sufficient to apply the Criteria of Adverse Effect (see Section I.3, *Application of the Criteria of Adverse Effect*) and complete consultations with consulting parties for resolving adverse effects on historic properties. The documents summarized in Table I-3 have been shared with consulting parties and are hereby incorporated by reference.

Table I-3. Summary of cultural resources investigations performed by Atlantic Shores in the Project APE

Portion of APE	Report	Description	Key Findings/Recommendations
Marine	*Marine Archaeological Resources Assessment, Atlantic Shores Offshore Wind Project, Construction and Operations Plan* (COP Volume II, Appendix II-Q1; Atlantic Shores 2024)	MARA prepared by SEARCH, Inc. Assessment of HRG survey data collected during non-intrusive survey campaign conducted by marine survey contractors and geotechnical investigations in marine APE representing the extent of anticipated seabed effects associated with the Project.	SEARCH identified 21 targets, consisting of magnetic anomalies, acoustic contacts, or buried reflectors within the HRG survey data that could represent potential marine archaeological resources (Targets 01–21): 8 within the WTA (i.e., 6 in the Project 1 area, 2 in the Project 2 area, and none in the Overlap Area); 4 within the Atlantic offshore ECC; and 9 within the offshore Monmouth ECC. SEARCH recommends avoidance of each marine archaeological resource. SEARCH also identified 37 ASLFs in the marine APE (Targets 22–58). SEARCH recommends effect avoidance or minimization measures for identified ASLFs. SEARCH also recommends that additional archaeological surveys or analyses may enable refining targets or further delimiting landform extents within the target areas to assess integrity, significance, and NRHP eligibility.
Marine	*Marine Archaeological Resources Assessment Addendum, Atlantic Shores Offshore Wind Project, Lease Area OCS-A 0499* (COP Volume II, Appendix II-Q3; Atlantic Shores 2024)	MARA Addendum prepared by SEARCH, Inc. Assessment of additional HRG data acquired in 2022 across sections of Lease Area to expand data coverage. Supplement to original MARA report (COP Volume II, Appendix II-Q1; Atlantic Shores 2024).	Beyond the targets identified in the original MARA report (COP Volume II, Appendix II-Q1; Atlantic Shores 2024), SEARCH identified one additional target that could represent a potential marine archaeological resource (Target 232) within the Lease Area. SEARCH recommends avoidance of this resource. SEARCH also identified 28 additional ASLFs in the Lease Area (Targets 204–231) and expanded the vertical and/or horizontal extents of nine of the 37 ASLFs previously identified in the original MARA report (Targets 40, 45, 46, 48, 50–52, 54, and 57). In some cases, the expansion of ASLF extents led to the combination of previously individual, noncontiguous ASLFs, resulting in six fewer ASLFs overall (see Section I.3.1.1 for details). SEARCH recommends avoidance or minimization measures for identified ASLFs.
Marine	*Marine Archaeological Resources Sensitivity Assessment (MARSA)* (COP Volume II, Appendix II-Q1, Appendix K; Atlantic Shores 2024)	Prepared by RCG&A, who initially served as the QMA at the beginning of the Project. Background research, site file searches, and descriptions of the preliminary HRG surveys performed for the Project.	This assessment demonstrated that the potential exists within the Project area for pre-Contact archaeological deposits. Additionally, as a result of the intensive historical use of shipping lanes in the region and as evidenced by the density of charted wrecks, the Project area was determined to have a moderate to high probability of containing charted maritime cultural resources.

Portion of APE	Report	Description	Key Findings/Recommendations
Marine	*Technical Memorandum. Atlantic Shores Offshore Wind Project Geoarchaeological Analyses* (COP Volume II, Appendix II-Q1, Appendix K; Atlantic Shores 2024)	Prepared by RCG&A, who initially served as the QMA at the beginning of the Project. Results of the geoarchaeological campaign and vibracore analysis conducted to assess Project area for archaeological potential.	RCG&A cut nine VC cores, photographed the core sections, and retrieved 81 subsamples for later radiocarbon sampling refinement in the first phase. SEARCH (COP Volume II, Appendix II-Q1; Atlantic Shores 2024) processed the subsamples for radiocarbon material. In total, 10 VC and 9 borehole core locations were assessed. RCG&A subsampled 10 VC locations, and the subsamples were processed by SEARCH (COP Volume II, Appendix II-Q1; Atlantic Shores 2024). RCG&A's findings were incorporated into the MARSA (COP Volume II, Appendix II-Q1, Appendix K; Atlantic Shores 2024) and MARA (COP Volume II, Appendix II-Q1; Atlantic Shores 2024).
Terrestrial	*Terrestrial Archaeological Resources Assessment, Atlantic Shores South Offshore Wind Project - Onshore Interconnection Facilities, Monmouth and Atlantic County, New Jersey* (COP Volume II, Appendix II-P1; Atlantic Shores 2024)	TARA: Onshore Interconnection Facilities. Prepared by EDR. Background research of known cultural resources, assessment of archaeological sensitivity, reconnaissance-level (Phase IA) field assessment of existing field conditions, and subsurface archaeological surveys (Phase IB) within the portion of the terrestrial APE for proposed onshore interconnection facilities in Monmouth and Atlantic Counties, New Jersey. Initial submission February 2021; updates December 2021, August 2022, February 2023, October 2023, and February 2024.	Results from Phase IA/IB archaeological survey are provided in this report. Additional Phase IB archaeological surveys will be conducted as phased identification in accordance with Section 106 regulations (36 CFR § 800.4 (b)(2). This assessment found one previously identified terrestrial archaeological resource (i.e., 28-Mo-283) and the West Jersey and Atlantic Railroad Historic District in the terrestrial PAPE. Based on a review of previous surveys conducted in the area of resource 28-Mo-283, EDR concludes there is very little likelihood for intact or potentially significant archaeological resources to be in this portion of the terrestrial APE. Phase IB surveys identified no intact, contributing archaeological elements of the West Jersey and Atlantic Railroad Historic District; as such, no further archaeological work related to this historic property was recommended. The TARA was updated in December 2023 to reflect changes to onshore components of the Project PDE (see row below for additional details).
Terrestrial	*Atlantic Shores South Offshore Wind Project Memorandum of Changes made to Updated Report Terrestrial Archaeological*	Memo report summarizing changes in the TARA report based on changes to onshore components of the Project PDE at the Atlantic Landfall Site and with the Cardiff Onshore Route. Prepared by EDR.	Changes to the Project PDE did not result in major divergences from what had been included in the COP and analyzed in the Draft EIS. The terrestrial PAPE was updated to reflect the onshore route changes. Limited additional areas were recommended for potential Phase IB survey, which would be completed as part of the phased identification process.

Portion of APE	Report	Description	Key Findings/Recommendations
	Resources Assessment (TARA)		
Terrestrial	*Terrestrial Archaeological Resources Assessment (TARA) – Addendum 1, Atlantic Shores South Offshore Wind Project - Onshore Interconnection Facilities, Monmouth and Atlantic County, New Jersey*	Addendum report to TARA: Onshore Interconnection Facilities. Prepared by EDR. Developed in response to consulting party feedback.	Refines the limit of disturbance near the Greenwood Cemetery per NJHPO comments and expands the buffer for previously recorded site background research to 2 miles (3.2 kilometers) of the terrestrial APE per comments from the Mashpee Wampanoag Tribe.
Visual	*Offshore Historic Resources Visual Effects Assessment (HRVEA)* (COP Volume II, Appendix II-O; Atlantic Shores 2024)	HRVEA: Offshore Project components. Prepared by EDR. Background research of known aboveground historic properties and TCPs in the visual APE for Offshore Project components.	This assessment included a desktop review of records of state and federal agencies, geographic information system databases, previous cultural resource surveys, and historical collections to develop an inventory of previously identified historic properties (i.e., historic aboveground resources). A viewshed analysis was completed to determine which of these properties were in the visual PAPE for Offshore Project components. Field surveys were completed to document the setting of newly identified and previously identified aboveground historic properties, assess property eligibility, and evaluate the potential views of the Project. As a result of field verification of Project views and an evaluation of significance, a total of 102 aboveground historic properties were identified and surveyed in this portion of the visual PAPE. Of these 102 properties, a total of 29 aboveground historic properties, including 2 NHLs, have potential to experience an adverse effect.

Portion of APE	Report	Description	Key Findings/Recommendations
Visual	*Historic Resources Effects Assessment (HREA), Atlantic Shores Offshore Wind Onshore Interconnection Facilities* (COP Volume II, Appendix II-N1; Atlantic Shores 2024)	Prepared by EDR. Background research of known aboveground historic properties and identification of potential aboveground historic properties in the visual APE for the onshore interconnection facilities.	This assessment focused on potential effects on historic aboveground resources in the visual APE for the proposed onshore substation and/or converter facilities (i.e., the Fire Road Site, Lanes Pond Road, Brook Road, and Randolph Road). The report includes a brief history of each site and previous cultural resource investigations. A total of three previously identified historic districts were identified in this portion of the visual PAPE for Onshore Project components: the New Jersey Southern Railroad Historic District; the West Jersey and Atlantic Railroad Historic District; and the Garden State Parkway Historic District. The report recommends that no adverse effects on historic properties would occur.
Visual	*Intensive-Level Architectural Survey Report* (COP Volume II, Appendix II-W; Atlantic Shores 2024)	Prepared by EDR. Summary of aboveground historic properties in the visual APE and survey forms.	This report includes a summary of the HRVEA and HREA reports and includes the survey forms for aboveground historic properties as required by the NJHPO.
O&M (Physical)	*Phase IA Terrestrial Archaeological Resources Assessment, Atlantic Shores Offshore Wind Project, Operations and Maintenance Facility, Atlantic City, Atlantic County, New Jersey* (COP Volume II, Appendix II-P2; Atlantic Shores 2024)	Prepared by EDR. Background research of known cultural resources, assessment of archaeological sensitivity, and reconnaissance-level field assessment of existing field conditions within the portion of the terrestrial APE for the proposed O&M facility in Atlantic City, Atlantic County, New Jersey.	This assessment found that no previously identified archaeological resources are within this portion of the terrestrial PAPE. Background research and field reconnaissance indicated that the onshore portions of this portion of the terrestrial APE have likely been significantly disturbed by land reclamation and construction throughout the 20th century. Therefore, in the opinion of EDR, there is low potential for intact or potentially significant archaeological resources to be within this portion of the terrestrial APE, and no further archaeological investigation was recommended.

Portion of APE	Report	Description	Key Findings/Recommendations
O&M (Visual)	*Historic Resources Effects Assessment (HREA) – O&M Facility* (COP Volume II, Appendix II-N2; Atlantic Shores 2024)	Prepared by EDR. Background research of known aboveground historic properties in the visual APE for the onshore O&M facility.	This assessment focused on potential effects on aboveground historic properties in the visual APE for the onshore O&M facility in Atlantic City, New Jersey. A total of seven previously identified aboveground historic properties were identified in the visual APE for the O&M facility, all of which are NRHP-listed or NRHP-eligible. None of the seven historic properties are anticipated to experience an adverse effect.

Source: COP Volume II, Appendices II-N, II-O, II-P, and II-Q; Atlantic Shores 2024.
EDR = Environment Design & Research, Landscape Architecture, Engineering, & Environmental Services, D.P.C.; HRG = high-resolution geophysical; NJHPO = New Jersey Historic Preservation Office; PAPE = preliminary area of potential effects; QMA = Qualified Marine Archaeologist; RCG&A = R.C. Goodwin and Associates, Inc.; VC = culture vibracores

Consequent to the reports prepared for the COP submittal, BOEM prepared a technical report to support its cumulative effects analysis: the *Cumulative Historic Resources Visual Effects Analysis – Atlantic Shores Offshore Wind South Project* (BOEM 2024). This Cumulative Historic Resources Visual Effects Analysis (CHRVEA) presents the analysis of cumulative visual effects where BOEM has determined, in review of the HRVEA (COP Volume II, Appendix II-O; Atlantic Shores 2024), that historic properties would be visually adversely affected by the Offshore Project components. The effects of ongoing and planned wind energy development activities are additive to those adverse effects from the Project, resulting in cumulative visual adverse effects. Twenty-nine historic properties within the viewshed of WTGs for the Project and other ongoing and planned offshore wind energy development activities would be adversely affected by cumulative visual effects (Table I-8; BOEM 2024).

I.2.2 Consultation and Coordination with the Parties and Public

I.2.2.1 Early Coordination

Since 2009, BOEM has coordinated OCS renewable energy activities offshore New Jersey with its federal, Tribal, state, and local 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 available at https://www.boem.gov/renewable-energy/state-activities/new-jersey-public-information-meetings.

I.2.2.2 NEPA Scoping and Public Hearing

On September 30, 2021, BOEM announced its Notice of Intent (NOI) to prepare an EIS for the proposed Project. The purpose of the NOI was to solicit input on issues and potential alternatives for consideration in the EIS. Throughout the scoping process, federal agencies; Tribal, state, and local governments; and the general public had the opportunity to help BOEM determine significant resources and issues, impact-producing factors (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 (54 USC 300101 et seq.), 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 COP.

Additionally, BOEM held virtual public scoping meetings, which included specific opportunities for engaging on issues relative to NHPA Section 106 for the COP, on October 19, 21, and 25, 2021. Virtual

public scoping meeting materials and records are available at https://www.boem.gov/renewable-energy/state-activities/atlantic-shores-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 2022) and are summarized as follows:

- BOEM should ensure compliance with Section 106 of the NHPA including adequate consultation with SHPOs and other stakeholders throughout the EIS process.
- USACE commented that collective federal responsibilities under Section 106 of the NHPA and related statutes should accommodate requirements specified at 33 CFR 325 Appendix C.
- The U.S. Environmental Protection Agency (USEPA) recommended that Tribes be invited to participate in the development of an unanticipated (post-review) discovery plan for offshore and onshore construction activities.
- Commenters requested that BOEM ensure compliance with NEPA by assessing all potential effects from the proposed Project on historic properties in the EIS, including visual effects, physical and experiential effects on a landscape or seascape scale, and night sky effects on the historic setting of a historic property.
- Commenters also requested that the effects analysis for cultural resources in the EIS include an analysis of intangible cultural resources such as maritime heritage and occupational traditions.
- Commenters identified cultural sites that they recommended BOEM consider in its effects analysis, including NHLs and historic lighthouses.
- A commenter related that they felt the visual impact analysis in the COP is too limited in scope and does not provide adequate information to assess potential impacts on historic properties, including visual and lighting impacts.

On May 19, 2023, BOEM published an NOA for the Draft EIS, which commenced a 45-day public comment period. During this public comment period, BOEM held four public hearings: two held in-person on June 21 and 22, 2023, and two held virtually on June 26 and 28, 2023. The input received via this process was used to inform the preparation of the Final EIS.

I.2.2.3 NHPA Section 106 Consultations

On October 15, 2021, BOEM contacted the New Jersey Historic Preservation Office (NJHPO) and ACHP to provide Project information and notify of BOEM's intention to use the NEPA substitution process to fulfill Section 106 obligations under 36 CFR 800.8(c) in lieu of the procedures set forth in 36 CFR 800.3 through 800.6. ACHP responded with acknowledgement on October 20, 2021.

On November 5 and 8, 2021, BOEM contacted 11 federally recognized Tribes with information about the Project and an invitation to be a consulting party to the NHPA Section 106 review of the COP. The Tribes contacted include: the Absentee-Shawnee Tribe of Indians of Oklahoma, Delaware Tribe of Indians, Eastern Shawnee Tribe of Oklahoma, Mashantucket (Western) Pequot Tribal Nation, Mashpee Wampanoag Tribe, Shawnee Tribe, Stockbridge-Munsee Community Band of Mohican Indians, The Delaware Nation, The Narragansett Indian Tribe, The Shinnecock Indian Nation, and Wampanoag Tribe of Gay Head (Aquinnah). 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.

The Stockbridge-Munsee Community Band of Mohican Indians initially declined to participate as a consulting party for the Project on November 12, 2021; however, on May 31, 2023, they indicated the Project is in their area of interest and therefore requested to consult on the Project. As a result, BOEM added the Stockbridge-Munsee Community Band of Mohican Indians as a consulting party for the Project on June 1, 2023. The Mashantucket (Western) Pequot Tribal Nation initially declined to participate in consultations for the Project on November 22, 2021; however, on April 19, 2023, they indicated the Project is in their revised area of interest and therefore requested to receive notifications for the Project. As a result, BOEM added the Mashantucket (Western) Pequot Tribal Nation as a consulting party for the Project. The Absentee-Shawnee Tribe of Indians of Oklahoma indicated that the Project area is not in their area of interest on January 30, 2023. The Shawnee Tribe indicated that the Project area is not in their area of interest on June 8, 2023. As a result, BOEM removed the Absentee-Shawnee Tribe of Indians of Oklahoma and Shawnee Tribe as consulting parties for the Project.

BOEM has included any Tribe that did not respond to the invitation to consult in all consulting party communications and considers them consulting parties for the Project. The Eastern Shawnee Tribe of Oklahoma and The Narragansett Indian Tribe did not respond to BOEM's invitation to consult. The Delaware Tribe of Indians, Mashpee Wampanoag Tribe, The Delaware Nation, The Shinnecock Indian Nation, and the Wampanoag Tribe of Gay Head (Aquinnah) did not respond to BOEM's initiation of consultation but have participated in consultation on the Project. BOEM considers these Tribes as consulting parties for the Project.

Between November 5 and December 20, 2021, BOEM corresponded with a total of 259 points of contact from governments and organizations by mail and email, providing information about the Project, an invitation to be a consulting party to the NHPA Section 106 review of the undertaking, and the NOI 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 *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-Guide.pdf), which was included as an attachment to this correspondence. BOEM initially included any government and organization that did not respond to the invitation to consult in all consulting party communications; BOEM continued to provide correspondence regarding the Project to such governments and organizations through the NHPA Section 106 Consultation Meeting #1.

During the period of November 19 to 23 and December 13 to 15, 2021, additional follow-up outreach was conducted by phone and email to confirm receipt of correspondence among the governments and organizations that had not responded to the invitation to consult and to provide the aforementioned materials. The list of all governments and organizations invited to consult on the Project is included in Attachment C. Entities that are consulting parties on the Project are listed in Attachment D.

On August 30, 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 a question-and-answer session with discussion.

On May 4, 2023, BOEM shared with consulting parties the cultural resource technical reports prepared by Atlantic Shores (see Table I-3) and CHRVEA report prepared by BOEM. At that time, BOEM also shared with consulting parties the technical memorandum delineating the APE for the Project, BOEM's Finding of Adverse Effect for the Project, a draft of the MOA (Draft 1), and the Visual Impacts Assessment (VIA) and associated visual simulations (COP Volume II, Appendix II-M; Atlantic Shores 2024). BOEM requested consulting party comments on these documents within 60 days of distribution, by July 3, 2023. BOEM also extended invitations to consult on the Project to property owners and other representatives of adversely affected aboveground historic properties on May 4, 2023.

On May 19, 2023, BOEM distributed an NOA to notify the consulting parties that the Draft EIS was available for public review and comment for the period of May 19 to July 3, 2023.

On June 8, 2023, BOEM held virtual NHPA Section 106 Consultation Meeting #2. The presentation included an overview of the cultural resources reports prepared by Atlantic Shores for the Project and distributed for consulting party review on May 4, 2023, and question-and-answer sessions.

On September 13, 2023, BOEM extended invitations to consult on the Project to additional identified property owners and representatives of adversely affected aboveground historic properties.

On November 28, 2023, BOEM shared with consulting parties revised cultural resource technical reports, including those prepared by Atlantic Shores (see Table I-3) and the revised CHRVEA report prepared by BOEM. At that time, BOEM also shared responses to NHPA Section 106 comments received on the Draft EIS and documents distributed to consulting parties on May 4, 2023; a revised Finding of Adverse Effect; and revised draft of the MOA (Draft 2). BOEM requested consulting party comments on these documents by January 5, 2024.

On December 4, 2023, BOEM held virtual NHPA Section 106 Consultation Meeting #3. The presentation included an overview of Project updates, Atlantic Shores' revised cultural resources reports, BOEM's revised CHRVEA report, Finding of Adverse Effect on historic properties, and draft MOA (Draft 2), and was held to solicit input on avoidance, minimization, mitigation, and monitoring measures to be stipulated in the MOA.

On February 20, 2024, BOEM shared with consulting parties revised cultural resource technical reports, including those prepared by Atlantic Shores (see Table I-3) and the revised CHRVEA report prepared by BOEM (BOEM 2024). At that time, BOEM also shared responses to NHPA Section 106 comments received on documents distributed to consulting parties on November 28, 2023; the MARA Addendum report; a revised Finding of Adverse Effect; and revised draft of the MOA (Draft 3). BOEM requested consulting party comments on these documents by March 21, 2024.

On February 27, 2024, BOEM held virtual NHPA Section 106 Consultation Meeting #4. The presentation included an overview of Project updates, Atlantic Shores' new and revised cultural resource reports, BOEM's revised CHRVEA report, Finding of Adverse Effect on historic properties, and draft MOA (Draft 3), and was held to consult on measures to avoid, minimize, and mitigate adverse effects on historic properties as stipulated in the MOA.

On March 20, 2024, BOEM held a Tribal consultation meeting with the Delaware Tribe of Indians, The Delaware Nation, and Stockbridge-Munsee Community Band of Mohican Indians to discuss BOEM's offshore wind energy projects, including the Atlantic Shores South Project.

On March 25, 2024, BOEM held a Tribal consultation meeting with the Stockbridge-Munsee Community Band of Mohican Indians to discuss the Project and mitigation to be stipulated in the MOA.

On April 5, 2024, BOEM held a Tribal consultation meeting with the Mashpee Wampanoag Tribe to discuss the Project and mitigation to be stipulated in the MOA.

On April 23, 2024, BOEM held a Tribal consultation meeting with the Delaware Tribe of Indians, The Delaware Nation, and the Stockbridge-Munsee Community Band of Mohican Indians to discuss the Project and mitigation to be stipulated in the MOA.

On April 10, 2024, BOEM shared with consulting parties the revised TARA Addendum report (see Table I-3), responses to NHPA Section 106 comments received on documents distributed to consulting parties on February 20, 2024, and a revised draft of the MOA (Draft Final/Draft 4). BOEM requested consulting parties' comments on these documents by May 10, 2024. See Attachment A for the distributed draft version of the MOA, dated April 10, 2024.

On April 25, 2024, BOEM held virtual NHPA Section 106 Consultation Meeting #5. The presentation included an overview of Project updates and was held to consult on and finalize measures to avoid, minimize, and mitigate adverse effects on historic properties as stipulated in the MOA.

On May 29, 2024, BOEM distributed the final MOA for a 30-day signing period ending on June 28, 2024. Additional consultation meetings may be scheduled after publication of the Final EIS and prior to issuance of the ROD if further consultation is needed to resolve adverse effects via the MOA. Additional consultation will also occur for the process of phased identification and evaluation of historic properties to be completed in remaining unsurveyed portions of the terrestrial APE as stipulated in the MOA (see Section I.5, *Phased Identification and Evaluation*). Simultaneous to the publication of the Final EIS, BOEM is coordinating with signatories to the MOA to have the MOA fully signed and executed by June 28,

2024. The version of the MOA attached to this document as Attachment A reflects the draft of the MOA as of April 10, 2024. The fully executed MOA will be posted on BOEM's website at: https://www.boem.gov/renewable-energy/state-activities/atlantic-shores-south.

The list of federally recognized Tribes, governments, and organizations invited to participate as consulting parties is included in Attachment C. Entities that accepted BOEM's invitation to consult or were subsequently made known to BOEM and added as consulting parties are listed in Attachment D.

I.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 if the following occurs:

> 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 regulation, 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 that 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.

I.3.1 Assessment of Effects on Historic Properties

This section documents the assessment of effects for the affected historic properties in the marine, terrestrial, visual, and O&M facility portions of the APE.

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

This section assesses effects on marine cultural resources (i.e., marine archaeological resources and ASLFs) in the marine APE. Based on the information presented below, BOEM finds that historic properties would be adversely affected in the marine APE.

Marine Archaeological Resources

Marine geophysical archaeological surveys performed for the Proposed Action identified a total of 22 magnetic anomalies, acoustic contacts, and buried reflectors representing potential marine archaeological resources in the marine APE (Table I-4). Nine resources are within the WTA: six in the Project 1 area (i.e., Targets 08–11, 20, and 21), two in the Project 2 area (i.e., Targets 12 and 13), and one in the Overlap Area (i.e., Target 232). The other resources are in the offshore ECCs: four within the Atlantic ECC (i.e., Targets 14–17) and nine within the Monmouth ECC (i.e., Targets 01–07, 18, and 19). Because the ages and NRHP eligibility of these resources cannot be confirmed through the current marine cultural investigations, these resources are all assumed to be archaeological and potentially eligible for listing in the NRHP; as such, they are considered historic properties. Additional archaeological surveys or analyses, if completed, may enable more refined assessments of integrity, significance, and eligibility for listing these resources in the NRHP. The majority of potential marine archaeological resources likely relate to recent debris, industrial objects, and non-cultural geological features, although many may represent known and potential shipwrecks and related debris fields from the post-Contact period (COP Volume II, Appendix II-Q; Atlantic Shores 2024).

Table I-4. Marine archaeological resources in the marine APE

Resource ID	Possible Source	Location	Location in Marine APE	Finding of Effect
Target 01	Possible *Harry Rush* shipwreck	OCS	Monmouth ECC	No effect
Target 02	Possible *Valparaiso* shipwreck	New Jersey State	Monmouth ECC	No effect
Target 03	Unknown debris	New Jersey State	Monmouth ECC	No effect
Target 04	Unknown debris	OCS	Monmouth ECC	No effect
Target 05	Unknown shipwreck	OCS	Monmouth ECC	No effect
Target 06	Unknown shipwreck	OCS	Monmouth ECC	No effect
Target 07	Possible *F.F. Clain* shipwreck	OCS	Monmouth ECC	No effect
Target 08	Possible *Astra* shipwreck	OCS	WTA (Project 1 Area)	No effect
Target 09	Possible *Slabs* shipwreck	OCS	WTA (Project 1 Area)	No effect
Target 10	Possible *San Jose* shipwreck	OCS	WTA (Project 1 Area)	No effect
Target 11	Unknown debris	OCS	WTA (Project 1 Area)	No effect
Target 12	Historic anchor	OCS	WTA (Project 2 Area)	No effect
Target 13	*Ballast Stones* shipwreck per BOEM 2560	OCS	WTA (Project 2 Area)	No effect
Target 14	Unknown shipwreck per AWOIS 13229	New Jersey State	Atlantic ECC	No effect
Target 15	Unknown debris	New Jersey State	Atlantic ECC	No effect

Resource ID	Possible Source	Location	Location in Marine APE	Finding of Effect
Target 16	Possible unknown debris per AWOIS 11209	New Jersey State	Atlantic ECC	No effect
Target 17	Unknown debris	New Jersey State	Atlantic ECC	No effect
Target 18	Unknown debris	OCS	Monmouth ECC	No effect
Target 19	Unknown debris	New Jersey State	Monmouth ECC	No effect
Target 20	Unknown debris	OCS	WTA (Project 1 Area)	No effect
Target 21	Unknown debris	OCS	WTA (Project 1 Area)	No effect
Target 232	Unknown shipwreck	OCS	WTA (Overlap Area)	No effect

Source: COP Volume II, Appendix II-Q, Atlantic Shores 2024.
AWOIS = Automated Wreck and Obstruction Information System; ID = identification

The severity of effects would depend on the extent to which integral or significant components of the affected marine archaeological resource are disturbed, damaged, or destroyed, resulting in the loss of contributing elements to the historic property's eligibility or potential eligibility for listing in the NRHP. Avoidance buffers for marine archaeological resources in the marine APE will be stipulated in the MOA as a result of consultations. The avoidance buffers for these historic properties were determined using several factors in a process developed by Atlantic Shores' Qualified Marine Archaeologist (QMA). Avoidance of Targets 01–21 and 232 entails that Atlantic Shores maintain a minimum vertical distance of 3.2 feet (1 meter) and a minimum horizontal distance of 164 feet (50 meters) from the extent of the outer edge of the magnetic anomalies or acoustic contacts. In instances where the QMA is confident that a defined acoustic contact is the source, the target avoidance buffer has been developed to originate from the contact, rather than the anomaly perimeter, but still encompasses the entirety of the anomaly. Due to Atlantic Shores' commitment to avoidance of marine archaeological resources and avoidance stipulations in the MOA (Stipulation I), the Project would have no effect on these historic properties. See Attachment A for the draft MOA as of April 10, 2024 (Draft 4).

Ancient Submerged Landform Features

ASLFs may be individually eligible for listing in the NRHP or considered contributing elements to a TCP eligible for listing in the NRHP. ASLFs 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 represent a good-faith effort to identify submerged historic properties in the APE potentially affected by the undertaking, as defined at 36 CFR 800.4. If undiscovered archaeological resources are present within the identified ASLFs and they retain sufficient integrity, these resources could be eligible for listing in the NRHP under Criterion D. Furthermore, ASLFs 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 landforms are similar to features previously determined to be TCPs and that are presumed to be eligible for listing in the NRHP under Criterion A.

Atlantic Shores' marine geophysical archaeological surveys in the marine APE identified a total of 59 geomorphic features representing potential ASLFs (Table I-5).[2] Of these landforms, 36 are within the WTA, 4 are within the Atlantic ECC, 18 are within the Monmouth ECC, and 1 is within both the WTA and Monmouth ECC. The extent of marine cultural investigations performed for the Proposed Action does not enable conclusive determinations of eligibility for listing identified resources in the NRHP; as such, all identified ASLFs are considered eligible for the purposes of this assessment, and therefore, considered historic properties. Additional archaeological surveys or analyses, if completed, may enable more refined assessments of integrity, significance, and eligibility for listing these resources in the NRHP.

Table I-5. ASLFs in the marine APE

Resource Identification	Location	Location in Marine APE	Finding of Effect
Target 22	New Jersey State	Monmouth ECC	Adverse effect
Target 23	New Jersey State	Monmouth ECC	Adverse effect
Target 24	New Jersey State	Monmouth ECC	Adverse effect
Target 25	New Jersey State	Monmouth ECC	Adverse effect
Target 26	New Jersey State	Monmouth ECC	Adverse effect
Target 27	New Jersey State	Monmouth ECC	Adverse effect
Target 28	New Jersey State	Monmouth ECC	Adverse effect
Target 29	New Jersey State	Monmouth ECC	Adverse effect
Target 30	New Jersey State	Monmouth ECC	Adverse effect
Target 31	New Jersey State	Monmouth ECC	Adverse effect
Target 32	New Jersey State	Monmouth ECC	Adverse effect
Target 33	New Jersey State	Monmouth ECC	Adverse effect
Target 34	New Jersey State	Monmouth ECC	Adverse effect
Target 35	New Jersey State	Monmouth ECC	Adverse effect
Target 36	New Jersey State	Monmouth ECC	Adverse effect
Target 37	New Jersey State	Monmouth ECC	Adverse effect
Target 38	New Jersey State	Monmouth ECC	Adverse effect
Target 39	New Jersey State	Monmouth ECC	Adverse effect
Target 40[a]	OCS	WTA and Monmouth ECC	Adverse effect
Target 41	New Jersey State	Atlantic ECC	Adverse effect
Target 42	New Jersey State	Atlantic ECC	Adverse effect
Target 43	OCS	Atlantic ECC	Adverse effect
Target 44	OCS	Atlantic ECC	Adverse effect
Target 45	OCS	WTA	Adverse effect
Target 46[a]	OCS	WTA	Adverse effect
Target 48[a]	OCS	WTA	Adverse effect

[2] A total of 37 ASLFs were identified in the original MARA report (COP Volume II, Appendix II-Q1; Atlantic Shores 2024). The assessment of expanded data coverage of the Lease Area in the MARA Addendum report (COP, Volume II, Appendix II-Q3; Atlantic Shores 2024), occurring since the publication of the Draft EIS, led to the identification of 28 additional ASLFs in the Lease Area (Targets 204–231) and expanded the vertical and/or horizontal extents of some of the 37 ASLFs previously identified in the original MARA report. In some cases, the expansion of ASLF extents led to the combination of previously individual, noncontiguous ASLFs, resulting in six fewer ASLFs overall. The result of this assessment is a total of 59 ASLFs in the marine APE (see Table I-3 for more information on the MARA reports and Table I-5 for the list of ASLFs).

Resource Identification	Location	Location in Marine APE	Finding of Effect
Target 50	OCS	WTA	Adverse effect
Target 51	OCS	WTA	Adverse effect
Target 52[a]	OCS	WTA	Adverse effect
Target 54	OCS	WTA	Adverse effect
Target 57	OCS	WTA	Adverse effect
Target 204	OCS	WTA	Adverse effect
Target 205	OCS	WTA	Adverse effect
Target 206	OCS	WTA	Adverse effect
Target 207	OCS	WTA	Adverse effect
Target 208	OCS	WTA	Adverse effect
Target 209	OCS	WTA	Adverse effect
Target 210	OCS	WTA	Adverse effect
Target 211	OCS	WTA	Adverse effect
Target 212	OCS	WTA	Adverse effect
Target 213	OCS	WTA	Adverse effect
Target 214	OCS	WTA	Adverse effect
Target 215	OCS	WTA	Adverse effect
Target 216	OCS	WTA	Adverse effect
Target 217	OCS	WTA	Adverse effect
Target 218	OCS	WTA	Adverse effect
Target 219	OCS	WTA	Adverse effect
Target 220	OCS	WTA	Adverse effect
Target 221	OCS	WTA	Adverse effect
Target 222	OCS	WTA	Adverse effect
Target 223	OCS	WTA	Adverse effect
Target 224	OCS	WTA	Adverse effect
Target 225	OCS	WTA	Adverse effect
Target 226	OCS	WTA	Adverse effect
Target 227	OCS	WTA	Adverse effect
Target 228	OCS	WTA	Adverse effect
Target 229	OCS	WTA	Adverse effect
Target 230	OCS	WTA	Adverse effect
Target 231	OCS	WTA	Adverse effect

Source: COP Volume II, Appendix II-Q; Atlantic Shores 2024.

[a] Based on assessments occurring since the publication of the Draft EIS, four ASLFs (Targets 40, 46, 48, and 52) now encompass one or more previously separate ASLFs identified in the original MARA report (COP Volume II, Appendix II-Q; Atlantic Shores 2024) as follows: Target 40 encompasses the previous Target 58 area, Target 46 encompasses the previous Target 47 area, Target 48 encompasses the previous Target 49, 55, and 56 areas, and Target 52 encompasses the previous Target 53 area. As a result, Targets 47, 49, 53, 55, 56, and 58 are no longer identified as individual ASLFs listed in this table.

Atlantic Shores is unable to implement the QMA-recommended avoidance buffers for ASLFs (COP Volume II, Appendix II-Q, Atlantic Shores 2024) which would allow for the Project to have no effect on these historic properties. As such, the undertaking is anticipated to have adverse effects on 59 ASLFs identified in the marine APE. Resource-specific mitigation measures for the identified ASLFs have been determined through consultations and will be stipulated in the MOA. See Attachment A for the draft MOA as of April 10, 2024 (Draft 4). If, as a result of Project design development, Atlantic Shores finds

that some of the ASLFs may be avoided during construction, BOEM may consult with Tribal Nations and NJHPO, if applicable, on the potential to focus the mitigation measures on the ASLFs that will be disturbed, as stipulated in the MOA.

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

Cultural resource investigations completed for the Proposed Action identified historic properties in the terrestrial APE (COP Volume II, Appendices II-P1 and II-N1; Atlantic Shores 2024). Based on the information presented below, BOEM finds the Project would have no adverse effects on historic properties in the terrestrial APE.

Terrestrial Archaeological Resources

Terrestrial archaeological background research and investigations performed for the Proposed Action have identified one previously recorded terrestrial archaeological resource in the terrestrial APE (i.e., 23-Mo-282; Table I-6; COP Volume II, Appendix II-P1; Atlantic Shores 2024). Additionally, one historic aboveground resource (i.e., West Jersey and Atlantic Railroad Historic District) was identified in the terrestrial APE; further discussion of this historic district is provided in the *Historic Aboveground Resources* section below. Investigations conducted in 2023 were not able to relocate 23-Mo-283 in the terrestrial APE, suggesting this resource is no longer extant and therefore not eligible for listing in the NRHP. The severity of effects would depend on the extent to which integral or significant components of the affected terrestrial archaeological resource are disturbed, damaged, or destroyed, resulting in the loss of contributing elements to the historic property's eligibility for listing in the NRHP. As 23-Mo-283 appears to be no longer extant, BOEM finds the undertaking would have no effect on terrestrial archaeological resources that are historic properties identified in the terrestrial APE. Any post-review discoveries of terrestrial archaeological resources during construction monitoring would follow procedures stipulated in the MOA per the Terrestrial Archaeology Monitoring and PRDP.

Table I-6. Terrestrial archaeological resources in the terrestrial APE

Resource ID	Cultural Component	Location in Terrestrial APE	Finding of Effect
23-Mo-283	Indeterminate pre-Contact Native American	Monmouth Landfall Site	No effect (site no longer extant)

Source: COP Volume II, Appendix II-P1; Atlantic Shores 2024.
ID = identification.

Terrestrial archaeological investigations have not been fully completed in the terrestrial APE. As such, potential, presently undiscovered terrestrial archaeological resources may be present in the terrestrial APE and subject to adverse effects from the Proposed Action; these may be identified during Atlantic Shores' process of phased identification and evaluation of historic properties (see Section I.5, *Phased Identification and Evaluation*). Completion of the remaining archaeological surveys during the phased process may lead to the identification of additional archaeological resources in the terrestrial APE, of which all or some may be subject to adverse effects. The phased identification process and related Section 106 consultations will be conducted as stipulated in the MOA (Stipulation IV). BOEM will use the MOA to establish commitments for reviewing the sufficiency of any supplemental terrestrial

archaeological investigations as phased identification; assessing effects on historic properties; and implementing measures to avoid, minimize, or mitigate effects in these areas prior to construction. For additional details, refer to Section I.5, *Phased Identification and Evaluation*, and Attachment A for the draft of the MOA as of April 10, 2024. The fully executed MOA will be posted on BOEM's website at: https://www.boem.gov/renewable-energy/state-activities/atlantic-shores-south.

Cemeteries

Two post-Contact period cemeteries have been identified outside of but near the terrestrial APE and have been considered for potential effects from the Proposed Action due to their proximity to ground-disturbing activities that may occur within the terrestrial APE (Table I-7; COP Volume II, Appendix II-P1; Atlantic Shores 2024).

Table I-7. Cemeteries near the terrestrial APE and considered for potential adverse effects

Resource Name	Cultural Component	Location in Terrestrial APE	Finding of Effect
Allenwood Church Cemetery	Post-Contact (19th century to present)	Outside but near Larrabee Onshore Interconnection Cable Route	No effect
Greenwood Cemetery	Post-Contact (19th century)	Outside but near Cardiff Onshore Interconnection Cable Route	No effect

Source: COP Volume II, Appendix II-P1; Atlantic Shores 2024.

The severity of Project effects would depend on the extent to which a cemetery is disturbed, damaged, or destroyed. However, based on Atlantic Shores' cultural resource investigations, neither cemetery is anticipated to be subject to adverse effects due to distance from the terrestrial APE and existing road rights-of-way located between the cemeteries and the terrestrial APE. New Jersey State Law prohibits the unlawful disturbance, movement, or concealment of human remains (per New Jersey Statutes Annotated 2C:22-1(a)(1) as cited by COP Volume II, Appendix II-P1; Atlantic Shores 2024). As such, Atlantic Shores intends for all construction and installation activities associated with the Project to avoid all cemeteries and burials. Based on Atlantic Shores' background research, archaeological monitoring of ground-disturbing activities near the Greenwood Cemetery has been recommended as a precaution for avoiding effects on this cemetery (COP Volume II, Appendix II-P1; Atlantic Shores 2024). Additionally, Atlantic Shores' Terrestrial Archaeology Monitoring and Post-Review Discovery Plan (MPRDP) will be in effect for all ground-disturbing activities occurring in the terrestrial APE to provide guidance and instructions to all contractors on how to proceed in the unlikely event of encountering unanticipated cultural resources, grave shafts, or burials during work in areas near these cemeteries (MOA, Attachment 5). See Attachment A for the draft MOA as of April 10, 2024 (Draft 4).

At this time, BOEM anticipates that the Project would have no effect on these cemeteries. BOEM has used the MOA to establish commitments for implementing measures for avoiding effects on these resources prior to construction.

Historic Aboveground Resources

One historic aboveground resource has been identified in the terrestrial APE: the West Jersey and Atlantic Railroad Historic District (COP Volume II, Appendix II-N1; Atlantic Shores 2024). This historic district has been previously determined eligible by NJHPO for listing in the NRHP and is therefore considered a historic property. Investigations completed for the Proposed Action identified no intact, contributing archaeological elements of the West Jersey and Atlantic Railroad Historic District in the APE. As such, BOEM finds the undertaking would have no adverse effects on the West Jersey and Atlantic Railroad Historic District.

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

Cultural resource investigations completed for the Proposed Action have identified a total of 112 aboveground historic properties in the visual APE overall. Cultural resource investigations completed for the Proposed Action have identified 102 aboveground historic properties, including 2 NHLs (i.e., Atlantic City Convention Hall [Jim Whelan Boardwalk Hall] and Lucy, The Margate Elephant), in the visual APE for Offshore Project components (COP Volume II, Appendix II-O; Atlantic Shores 2024); 3 aboveground historic properties in the visual APE for Onshore Project components (COP Volume II, Appendices II-N1 and II-N2; Atlantic Shores 2024); and 7 aboveground historic properties identified in the visual APE at the O&M facility, which are discussed separately in Section I.3.1.4. Atlantic Shores included tall buildings in Atlantic City, including hotels, that offer commanding views of the ocean and the Project in its assessment of potential effects. In addition, Atlantic Shores evaluated the potential effects of the Project on lighthouses, including the Absecon Lighthouse, Barnegat Lighthouse, Brigantine Lighthouse, Hereford Lighthouse, and Cape May Lighthouse (COP Volume II, Appendices II-N1 and II-O; Atlantic Shores 2024). Based on the information presented below, BOEM finds historic properties would be adversely affected in the visual APE.

Of the 112 aboveground historic properties identified in the visual APE overall, 29 that are located in the visual APE for Offshore Project components, including both NHLs (i.e., Atlantic City Convention Hall [Jim Whelan Boardwalk Hall] and Lucy, The Margate Elephant), would be adversely affected by visual effects from Offshore Project components (Table I-8; Figure I-2). The Project would introduce new human-made features to the seascape horizon, which includes few existing, fixed, modern, visual elements. The introduction of the WTGs would likely constitute a change in the physical environment of these 29 aboveground historic properties within the APE for which open views of the ocean are integral. In some cases, the potential visual effects on aboveground historic properties may be mitigated by the presence of modern infrastructure, which diminishes the existing integrity of setting; the presence of commercial shipping vessels on the ocean; and the effect of distance on visibility (COP Volume II, Appendix II-O; Atlantic Shores 2024). As described in the COP (COP Volume II, Appendix II-U; Atlantic Shores 2024) and analyzed in the Final EIS (Section 3.6.2), noise generated by Offshore Project components, including WTGs, is not expected to be audible at the nearest shorelines. Therefore, BOEM anticipates no effect on historic properties from audible noise or atmospheric changes due to WTG operations.

Table I-8. Adversely affected aboveground historic properties in the visual APE for Offshore Project components

Resource Name	Location (New Jersey)	Distance to Nearest WTG[1] (miles)	NRHP Status
Absecon Lighthouse	31 S. Rhode Island Avenue, Atlantic City	10.65	Listed
Atlantic City Boardwalk Historic District	Atlantic City	10.47	Eligible (Determined by NJHPO)
Atlantic City Convention Hall (Jim Whelan Boardwalk Hall)	2301 Boardwalk, Atlantic City	11.40	Listed; National Historic Landmark
Barnegat Lighthouse	Barnegat Light, Long Beach Island	27.31	Listed
Brigantine Hotel	1400 Ocean Avenue, Brigantine City	9.91	Potentially eligible
Central Pier	1400 Boardwalk, Atlantic City	10.85	Eligible (Determined by NJHPO)
The Flanders Hotel	719 East 11th Street, Ocean City	17.52	Listed
Forked River Coast Guard Station No. 112	Central Avenue, Berkeley Township	30.10	Eligible (Determined by NJHPO)
Great Egg Coast Guard Station	2301 Atlantic Avenue, Longport Borough	15.13	Listed
Haddon Hall (Resorts Casino Hotel)	1121 Boardwalk, Atlantic City	10.80	Eligible (Determined by NJHPO)
Island Beach State Park Historic District	2401 Central Avenue, Berkeley Township	27.30	Eligible (Determined by NJHPO)
John Stafford Historic District	Ventnor City	12.47	Listed
Little Egg Harbor U.S. Life Saving Station #23	800 Great Bay Boulevard, Little Egg Harbor Township	11.95	Eligible (Determined by NJHPO)
Lucy, The Margate Elephant	Decatur and Atlantic Avenues, Margate City	14.40	Listed; National Historic Landmark
Margate Fishing Pier	121 S. Exeter Avenue, Margate City	13.60	Potentially eligible
Missouri Avenue Beach (Chicken Bone Beach)	Atlantic City	11.20	Eligible (Determined by NJHPO)
Music Pier	825 Boardwalk, Ocean City	17.20	Eligible (Determined by NJHPO)
Ocean City Boardwalk	Ocean City	16.90	Eligible (Determined by NJHPO)
Ritz Carlton Hotel	2715 Boardwalk, Atlantic City	11.66	Eligible (Determined by NJHPO)
Riviera Apartments	116 S. Raleigh Avenue, Atlantic City	12.30	Eligible (Determined by NJHPO)
Saint Leonard's Tract Historic District	Ventnor City	12.69	Eligible (Determined by NJHPO)

Resource Name	Location (New Jersey)	Distance to Nearest WTG[1] (miles)	NRHP Status
Seaview Golf Club, Clarence Geist Pavilion	401 South New York Road, Galloway Township	15.60	Potentially eligible
U.S. Coast Guard Station	900 Beach Thorofare, Atlantic City	11.46	Eligible (Determined by NJHPO)
Vassar Square Condominiums	4800 Boardwalk, Ventnor City	12.45	Eligible (Determined by BOEM)
Ventnor City Fishing Pier	Cambridge Avenue at the Ventnor City Boardwalk, Ventnor City	12.83	Potentially eligible
108 South Gladstone Avenue	108 South Gladstone Avenue, Margate City	13.82	Eligible (Determined by NJHPO)
114 South Harvard Avenue	114 South Harvard Avenue, Ventnor City	13.01	Eligible (Determined by NJHPO)
114 South Osborne Avenue	114 South Osborne Avenue, Margate City	14.11	Eligible (Determined by BOEM)
120 Atlantic Avenue	120 Atlantic Avenue, Atlantic City	10.65	Potentially eligible

Source: COP Volume II, Appendix II-O; Atlantic Shores 2024.

[1] For the Proposed Action.

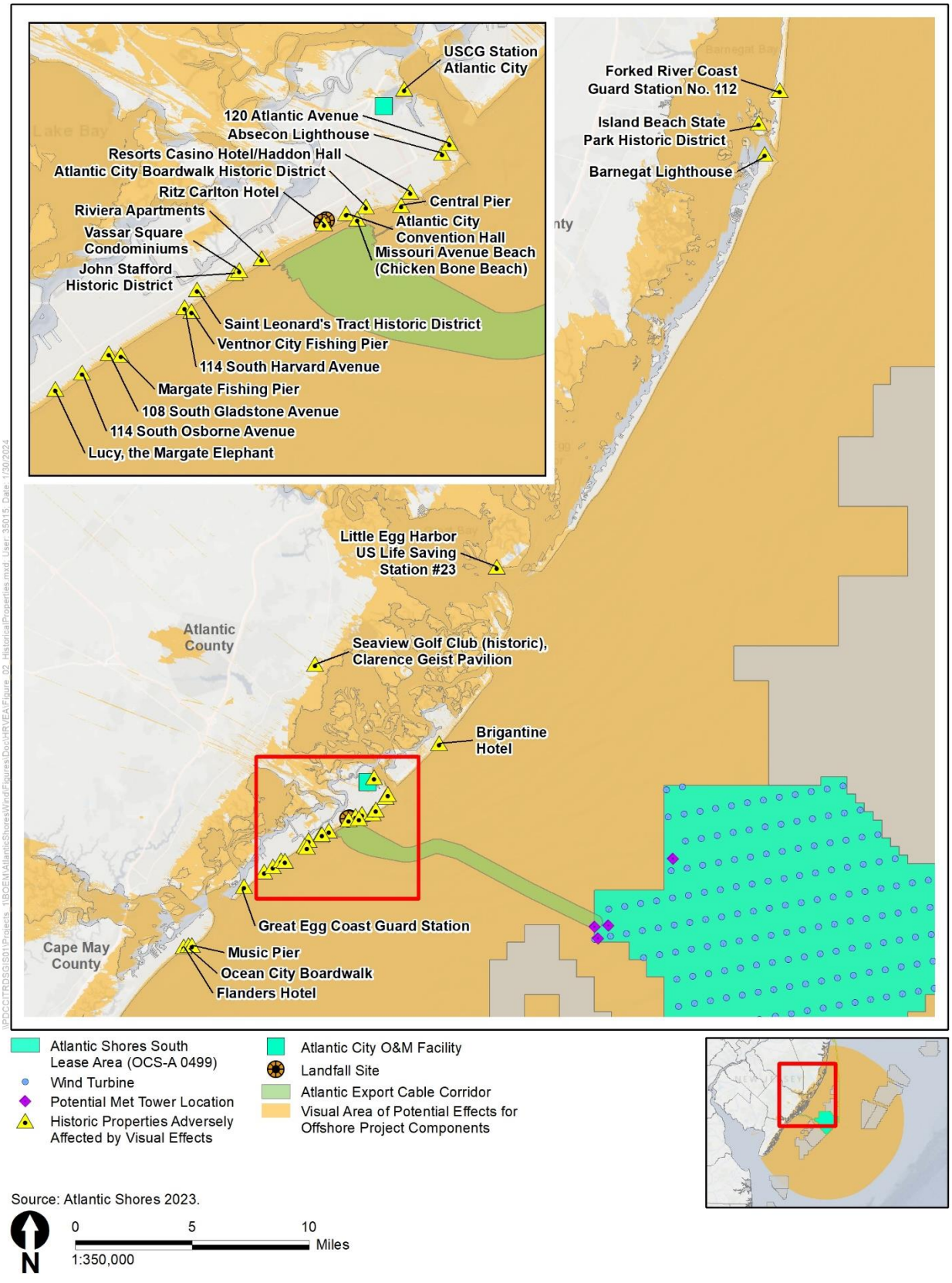

Figure I-2. Locations of aboveground historic properties adversely affected by the Project

Absecon Lighthouse (Atlantic City, New Jersey)

The Absecon Lighthouse was constructed in 1856 under the direction of Lt. George Meade, who later commanded Union forces at the Battle of Gettysburg. Constructed of iron and brick, the lighthouse is 171 feet (52 meters) in height, 27 feet (8 meters) in diameter at its base, and 13 feet and 7.5 inches (4 meters and 9 centimeters) at its lens chamber. The roof is pyramidal and caps rectangular glass panes with iron frames. The lighthouse was decommissioned in 1933 and moved from its original site closer to the inlet to its current location. The current keeper's house serves as a museum and was constructed after the lighthouse was moved to its current location. The lighthouse is listed in the NRHP and is significant for its architecture and association with navigational history (COP Volume II, Appendix II-O, Attachment C; Atlantic Shores 2024).

The Absecon Lighthouse has a clear maritime setting and is located adjacent to the Atlantic Ocean. The lighthouse was sited at its original location to guide vessels to and around Absecon Inlet and is currently located approximately 0.2 mile (0.3 kilometer) west of Absecon Inlet and approximately 0.3 mile (0.5 kilometer) north of the Atlantic Ocean. While the lighthouse's integrity of setting has been diminished due to its relocation and unsympathetic development in the immediate surroundings, unobstructed ocean views contribute to the lighthouse's historic significance and integrity of feeling and association. Based on the proximity of surrounding high-rise buildings, visibility of the Project would be limited but possible from the lighthouse (COP Volume II, Appendix II-O, Attachment C; Atlantic Shores 2024). The introduction of the intrusive, modern offshore elements associated with the Project would, therefore, result in an adverse effect on the lighthouse.

This property is approximately 10.65 miles (17.14 kilometers) from the nearest WTG associated with the Project and approximately 9.0 miles (14.5 kilometers) from the nearest potential WTG location for other offshore wind energy development activities (BOEM 2024; COP Volume II, Appendix II-O; Atlantic Shores 2024). The total number of theoretically visible WTGs (up to blade tip) from this property is up to 780. Of these, 200 theoretically visible WTGs (25.6 percent) would be from the proposed Project. As such, BOEM determined the Project would add to the cumulative visual effects on this property when combined with the effects of other past, ongoing, or planned actions (BOEM 2024).

Atlantic City Boardwalk Historic District (Atlantic City, New Jersey)

The Atlantic City Boardwalk Historic District encompasses approximately 1.4 miles (2.3 kilometers) of boardwalk in Atlantic City, stretching from the Atlantic City Convention Hall in the south to the Garden Pier in the north, and contains many of the iconic Atlantic City resorts along the boardwalk. Originally constructed in 1870, the Atlantic City Boardwalk is one of the most famous attractions on the New Jersey shore and boasts the typical attractions seen on boardwalks, including amusement park rides, entertainment piers, food and drinks, and the iconic tram cars, in addition to renowned hotels and

resorts. Brighton Park is a contributing resource to the district.[3] The Atlantic City Boardwalk Historic District retains sufficient integrity to convey its significance under Criterion A for its association with Entertainment/Recreation and Community Planning and Development in Atlantic City. Despite its fluid construction history, its significance as an enduring vacation destination provides the District with sufficient integrity to convey its eligibility to the NRHP under Criterion A (Entertainment/Recreation) (COP Volume II, Appendix II-O, Attachment B; Atlantic Shores 2024).

The Atlantic City Boardwalk Historic District has a clear maritime setting and is located adjacent to the Atlantic Ocean, overlooking the beaches at Atlantic City. There would be unobstructed views of the Project due to the historic district's location on the boardwalk. Although the immediate shoreline and waters in proximity to the beaches along the district are critical elements of the historic setting, distant ocean views contribute to the district's integrity of feeling and association. Based on the proximity and the expansive ocean views available from within the district, the Project would be a significant focus of attention (COP Volume II, Appendix II-O, Attachment B; Atlantic Shores 2024). The introduction of the intrusive, modern offshore elements associated with the Project would, therefore, result in an adverse effect on the district.

This district is approximately 10.47 miles (16.85 kilometers) from the nearest WTG associated with the Project and approximately 8.6 miles (13.9 kilometers) from the nearest potential WTG location for other offshore wind energy development activities (BOEM 2024; COP Volume II, Appendix II-O; Atlantic Shores 2024). The total number of theoretically visible WTGs (up to blade tip) from this property is up to 886. Of these, 200 theoretically visible WTGs (22.6 percent) would be from the proposed Project. As such, BOEM determined the Project would add to the cumulative visual effects on this property when combined with the effects of other past, ongoing, or planned actions (BOEM 2024).

Atlantic City Convention Hall (Jim Whelan Boardwalk Hall; National Historic Landmark in Atlantic City, New Jersey)

The Atlantic City Convention Hall (Jim Whelan Boardwalk Hall) NHL is located on the Atlantic City Boardwalk, with the building's primary orientation toward the Atlantic Ocean. The building's arcade is constructed to provide views of the beach and is anchored by public bath houses adjacent to the beach. The Atlantic City Convention Hall was constructed in 1926–1929 by Lockwood-Greene and Co. and exhibits Beaux Arts and Romanesque style elements and features a cut limestone façade and curved arcade fronting the beach. The arcade features a covered double row of columns anchored by public bath houses on each end. The façade of the building features massive columns supporting Romanesque arches, and the recessed entrances feature large arched windows. Decorative motifs include elements popular on the Atlantic City Boardwalk in the 1920s and include cut stone ocean flora and fauna. The massive auditorium behind the public entrance façade is clad in brick with an arched roof. The Atlantic City Convention Hall has been designated as an NHL with significance in architecture, engineering, and

[3] Brighton Park was originally indicated in the HRVEA to be a historic property *individually eligible* for listing in the NRHP. Through consultation with the NJHPO, BOEM determined Brighton Park is a *contributing resource* to the Atlantic City Boardwalk Historic District and not individually eligible. The version of the HRVEA distributed to NJHPO and consulting parties on November 28, 2023 reflected this revision.

recreation. It is significant for its monumental architecture and represents significant engineering feats, containing at the time of its construction, the largest room with an unobstructed view ever built. The building is also significant for its role in the recreation of Atlantic City and the nation, becoming one of America's most popular venues for shows and events (COP Volume II, Appendix II-O; Atlantic Shores 2024).

The building's location on the Atlantic Coast lends to its historic significance as a beachside attraction within Atlantic City. A visual simulation from the Atlantic City Convention Hall is included in the COP (see KOP AC02; COP Volume II, Appendix II-T; Atlantic Shores 2024). The KOP is located on the Boardwalk between Pacific, Mississippi, and Florida Avenues in Atlantic City, approximately 11.4 miles (18.3 kilometers) from the nearest proposed WTG. Viewshed analysis suggests that Project visibility from this general area would be largely limited to the open beach and boardwalk, and a few small parcels of open land that extend inland from there. Ground-level view of the Project would be completely blocked by the first inland row of built structures as one moves into the city. As shown in the visual simulation from KOP AC02, with the Project in place, numerous WTGs would be visible above the horizon line. The number and mass of the WTGs interrupt the horizon and dominate the view, despite being softened by their light color and distance from the viewer. The towers are not evenly spaced in this view, with the WTGs clustered densely at the center of the view. When clustered together, the WTGs appear as larger shapes than a single WTG. The WTGs are less clustered and more widely spaced at the edges of the view. The slightly hazy conditions soften the edges of the WTGs somewhat, but the proposed WTGs would dominate the viewer’s attention from this view (COP Volume II, Appendix II-O; Atlantic Shores 2024).

The Project would have a visual adverse effect on the Atlantic City Convention Hall. The property would have unobstructed views of the Project due to its location on the boardwalk. The Convention Hall and boardwalk both have a historic relationship with views of the ocean and the high level of sensitivity to visual effects, as publicly accessible recreation venues specifically designed for access to the beach and enjoyment of the ocean horizon. Although the primary association with historic recreation pertains to events held inside the Hall, and the critical association of the property to the Atlantic City Boardwalk would be unaffected by the Project, the property's design elements, siting, and orientation underscore the significance of the beach and ocean views to the Hall's historic setting. The proximity of the Project to this property suggests the WTGs would be a significant focus of visitor attention when the property is experienced from the boardwalk or other exterior vantages (COP Volume II, Appendix II-O; Atlantic Shores 2024).

The Atlantic City Convention Hall is approximately 11.40 miles (18.34 kilometers) from the nearest WTG associated with the Project and approximately 9.1 miles (14.7 kilometers) from the nearest potential WTG location for other wind energy development activities (BOEM 2024; COP Volume II, Appendix II-O; Atlantic Shores 2024). The total number of potentially visible WTGs (up to blade tip) from the Atlantic City Convention Hall is up to 761. Of these, 200 theoretically visible WTGs (26.3 percent) would be from the proposed Project. As such, BOEM determined the Project would add to the cumulative visual effects on the Atlantic City Convention Hall when combined with the effects of other past, present, or reasonably foreseeable future actions (BOEM 2024).

Barnegat Lighthouse (Atlantic City, New Jersey)

The Barnegat Lighthouse was built between 1855 and 1857 by Lt. George Meade, an Army engineer and future Civil War General. The lighthouse is 163 feet (50 meters) in height and was built to replace a much shorter structure that was destroyed by coastal erosion. The lighthouse operated with its original 12-foot-tall (3.7-meter-tall) Fresnel lens from 1859 to 1927, after which other lighting apparatuses were used until the light was decommissioned in 1944. The property was given to the State of New Jersey, and shortly thereafter, the surrounding municipality changed its name to Barnegat Light. The Barnegat Lighthouse is listed in the NRHP (COP Volume II, Appendix II-O, Attachment C; Atlantic Shores 2024).

The Barnegat Lighthouse has a clear maritime setting as it was built on the northwestern tip of Long Beach Island to guide ships navigating Barnegat Inlet. Partial views of the ocean are possible from the ground and broad ocean views are possible from the top of the lighthouse, where four cameras live stream the vistas for visitors to the Interpretive Center. Unobstructed ocean views contribute to the lighthouse's historic significance and integrity of location, setting, feeling, and association. Due to its location on the bay side of Long Beach Island, as well as the intervening land and structures, the Project would not be visible from the ground-level vantages at the lighthouse (COP Volume II, Appendix II-O, Attachment C; Atlantic Shores 2024). However, the Project would be visible from elevated viewpoints at lantern level and may be a significant focus of visitor attention when viewing the Atlantic Ocean. The introduction of the intrusive, modern offshore elements associated with the Project would, therefore, result in an adverse effect on the lighthouse.

This property is approximately 27.31 miles (43.95 kilometers) from the nearest WTG associated with the Project and approximately 9.9 miles (15.9 kilometers) from the nearest potential WTG location for other offshore wind energy development activities (BOEM 2024; COP Volume II, Appendix II-O; Atlantic Shores 2024). The total number of theoretically visible WTGs (up to blade tip) from this property is up to 511. Of these, 200 theoretically visible WTGs (39.1 percent) would be from the proposed Project. As such, BOEM determined the Project would add to the cumulative visual effects on this property when combined with the effects of other past, ongoing, or planned actions (BOEM 2024).

Brigantine Hotel (Brigantine City, New Jersey)

The Brigantine Hotel was previously identified by NJHPO but was not evaluated for listing in the NRHP. The Art Deco style hotel was built in 1927 as a 10-story high-rise hotel situated on the southeast side of Ocean Avenue between 14th Street South and 15th Street South, bordering the beach. It is considered the first desegregated hotel of its type in New Jersey, starting with the purchase of the hotel by the International Peace Mission Movement in 1941. The movement consisted of followers of spiritual leader Reverend M.J. Divine (also known as Father Divine) and his economic plan. The hotel was purchased by African American entrepreneur, civil rights leader, and philanthropist Sarah Spencer Washington, and the beach in front of the hotel was one of the area's first integrated beach areas. The historical association with racially integrated beach recreation on the New Jersey shore is an integral element of the property's significance. The building currently functions as a beach resort with a beachfront restaurant and bar. The Brigantine Hotel is potentially eligible under NRHP Criterion A for its association

with Entertainment/Recreation, African American Heritage, and Community Planning and Development. The resource retains architectural integrity and is also eligible under Criterion C as an example of an Art Deco hotel (COP Volume II, Appendix II-O, Attachment C; Atlantic Shores 2024).

The Brigantine Hotel was constructed as a seaside hotel with an associated beach area. The hotel has unobstructed views of Brigantine Beach and the Atlantic Ocean and is an imposing building that can be seen from most areas of Brigantine Beach. There would be unobstructed views of the Project due to the historic property's location on the shoreline. The Project would be a major focus of attention when viewed from the property due to proximity and expansive views of the affected ocean horizon from the hotel and associated shoreline (COP Volume II, Appendix II-O, Attachment C; Atlantic Shores 2024). The introduction of the intrusive, modern offshore elements associated with the Project would, therefore, result in an adverse effect on the property.

This property is approximately 9.91 miles (15.94 kilometers) from the nearest WTG associated with the Project and approximately 9.6 miles (15.4 kilometers) from the nearest potential WTG location for other offshore wind energy development activities (BOEM 2024; COP Volume II, Appendix II-O; Atlantic Shores 2024). The total number of potentially visible WTGs (up to blade tip) from this property is up to 731. Of these, 200 theoretically visible WTGs (27.4 percent) would be from the proposed Project. As such, BOEM determined the Project would add to the cumulative visual effects on this property when combined with the effects of other past, present, or reasonably foreseeable future actions (BOEM 2024).

Central Pier (Atlantic City, New Jersey)

The Central Pier is a two-story, seven-bay building located on the Atlantic City beach adjacent to the boardwalk. The pier is significant for its association with recreation and entertainment on the Atlantic City boardwalk under Criterion A and for its architecture under Criterion C (COP Volume II, Appendix II-O, Attachment C; Atlantic Shores 2024).

The Central Pier has a maritime setting on the Atlantic City beach adjacent to the boardwalk with unobstructed views of the ocean (COP Volume II, Appendix II-O, Attachment C; Atlantic Shores 2024). The introduction of the intrusive, modern offshore elements associated with the Project would, therefore, result in an adverse effect on the property.

This property is approximately 10.85 miles (17.46 kilometers) from the nearest WTG associated with the Project and approximately 8.8 miles (14.2 kilometers) from the nearest potential WTG location for other wind energy development activities (BOEM 2024; COP Volume II, Appendix II-O; Atlantic Shores 2024). The total number of potentially visible WTGs from the property is up to 644. Of these, 200 theoretically visible WTGs (31.1 percent) would be from the proposed Project. As such, BOEM determined the Project would incrementally add to the cumulative visual effects on the Atlantic City Convention Hall when combined with the effects of other past, present, or reasonably foreseeable future actions (BOEM 2024).

The Flanders Hotel (Ocean City, New Jersey)

The Flanders Hotel was designed by Vivian B. Smith, a local architect who designed multiple hotels as well as the Ocean City City Hall (along with Earle M. Henderder). The hotel was constructed between 1922 and 1923 in the Spanish Eclectic-style and comprises a nine-story hotel tower and a connected two-story annex. The hotel is significant locally for its role in the development of Ocean City as a resort destination and its architecture and association with Vivian B. Smith (COP Volume II, Appendix II-O, Attachment C; Atlantic Shores 2024).

The Flanders Hotel has a clear maritime setting as a resort hotel constructed adjacent to the boardwalk, with views of the Atlantic Ocean from the upper stories on three elevations. While ground-level views of the Project would be obstructed by surrounding development, there would be unobstructed views of the Project from the upper stories of the hotel on the southern and eastern elevations. The Project would be a significant focus of attention when viewed from these areas of the property (COP Volume II, Appendix II-O, Attachment C; Atlantic Shores 2024). The introduction of the intrusive, modern offshore elements associated with the Project would, therefore, result in an adverse effect on the property.

This property is approximately 17.52 miles (28.19 kilometers) from the nearest WTG associated with the Project and approximately 11.2 miles (18.0 kilometers) from the nearest potential WTG location for other offshore wind energy development activities (BOEM 2024; COP Volume II, Appendix II-O; Atlantic Shores 2024). The total number of theoretically visible WTGs (up to blade tip) from this property is up to 660. Of these, 200 theoretically visible WTGs (30.3 percent) would be from the proposed Project. As such, BOEM determined the Project would add to the cumulative visual effects on this property when combined with the effects of other past, ongoing, or planned actions (BOEM 2024).

Forked River Coast Guard Station No. 112 (Berkeley Township, New Jersey)

The extant Forked River Coast Guard Station No. 112 is a c. 1932 two-and-one-half-story frame building with a cross-gable roof and clapboard siding; it rests upon a high basement. The previous and current Station buildings on this site functioned as a lifesaving station from 1854 to 1915 and then a Coast Guard station from 1915 to 1945. The Station building is currently used as a nature center for Island Beach State Park and was determined individually eligible for the NRHP by the NJHPO in 1996. There is also a current residence and boat house on the site completed c. 1937. The Station is a contributing resource to the NRHP-eligible Island Beach State Park Historic District (COP Volume II, Appendix II-O, Attachment C; Atlantic Shores 2024).

Located on the Atlantic Ocean on a barrier island, the Forked River Coast Guard Station No. 112 has a clear maritime setting and function and views of the Atlantic Ocean. While ground-level views of the Project would be obstructed by surrounding vegetation, there would be unobstructed views of the Project from the upper stories of the building (COP Volume II, Appendix II-O, Attachment C; Atlantic Shores 2024). The introduction of the intrusive, modern offshore elements associated with the Project would, therefore, result in an adverse effect on the property.

This property is approximately 30.10 miles (48.44 kilometers) from the nearest WTG associated with the Project and approximately 11.5 miles (18.5 kilometers) from the nearest potential WTG location for other offshore wind energy development activities (BOEM 2024; COP Volume II, Appendix II-O; Atlantic Shores 2024). The total number of theoretically visible WTGs (up to blade tip) from this property is up to 512. Of these, 200 theoretically visible WTGs (39.1 percent) would be from the Project. As such, BOEM determined the Project would add to the cumulative visual effects on this property when combined with the effects of other past, ongoing, or planned actions (BOEM 2024).

Great Egg Coast Guard Station (Longport Borough, New Jersey)

The Great Egg Coast Guard Station was constructed in 1939 and is a two-and-a-half-story building with a central lookout tower and one-story wings on either side of the main block. The Colonial Revival-style building was an active Coast Guard station from 1939 to 1948 and was the Borough Hall from 1948 to 1990. The Great Egg Coast Guard Station is eligible under Criterion C for its architecture as an extant example of a Roosevelt-era Coast Guard station (COP Volume II, Appendix II-O, Attachment C; Atlantic Shores 2024).

The Great Egg Coast Guard Station has a clear maritime setting and views of the Atlantic Ocean from the tower. While ground-level views of the Project would be obstructed by surrounding development, there would be unobstructed views of the Project from the upper stories of the building (COP Volume II, Appendix II-O, Attachment C; Atlantic Shores 2024). The introduction of the intrusive, modern offshore elements associated with the Project would, therefore, result in an adverse effect on the property.

This property is approximately 15.13 miles (24.34 kilometers) from the nearest WTG associated with the Project and approximately 10.9 miles (17.5 kilometers) from the nearest potential WTG location for other offshore wind energy development activities (BOEM 2024; COP Volume II, Appendix II-O; Atlantic Shores 2024). The total number of theoretically visible WTGs (up to blade tip) from this property is up to 597. Of these, 200 theoretically visible WTGs (33.5 percent) would be from the proposed Project. As such, BOEM determined the Project would add to the cumulative visual effects on this property when combined with the effects of other past, ongoing, or planned actions (BOEM 2024).

Haddon Hall (Resorts Casino Hotel) (Atlantic City, New Jersey)

Haddon Hall (Resorts Casino Hotel) includes two hotel towers set back from the Atlantic City boardwalk and a two-story arcade fronting the boardwalk. The complex has undergone multiple additions, demolitions, and alterations since the late nineteenth century. Two original boardinghouses along North Carolina Avenue, the Chalfonte (b. 1868) and Haddon Hall (b. 1869), flourished for several decades and were eventually moved 400 feet (122 meters) closer to the ocean and boardwalk in 1889. The hotels were merged under new ownership the following year, becoming the Chalfonte-Haddon Hall (The Atlantic City Experience 2023). These original wooden structures were replaced by the extant twentieth-century components that were constructed over many decades. The two-story arcade that runs along the boardwalk was built c. 1921 in a Mediterranean style. The Haddon Hall building is now called the Ocean Tower; the Hall is a 15-story E-plan hotel designed by the firm of Rankin and Kellogg in the Italian Renaissance style and completed in 1929. The Chalfonte Hotel building was demolished in 1980. Finally,

the Rendezvous tower is a 27-story structure built in 2004 and with a Post-Modern form. Resorts International purchased the complex in 1976 and reopened it as the Resorts Casino Hotel in 1978, making it the first casino in Atlantic City. Haddon Hall appears to retain sufficient integrity under Criterion C as an example of an early twentieth-century resort hotel in Atlantic City and restrained example of the Italian Renaissance style. The property may also be significant under Criterion A for its early association with gambling in Atlantic City, but this association requires further research. Haddon Hall is also a contributing resource to the Atlantic City Boardwalk Historic District (COP Volume II, Appendix II-O, Attachment C; Atlantic Shores 2024).

Haddon Hall is located along but set back from the Atlantic City Boardwalk, with the primary elevation facing away from the boardwalk and ocean. The structures currently surrounding the property would block views of the Project from the ground level. However, windows on the southern, eastern, and western elevations allow for views of the Atlantic Ocean, with mostly unobstructed views from the upper stories. The Project would be visible from the upper stories of the building on the southern and eastern elevations and would be a significant focus of viewer attention when looking to the Atlantic Ocean (COP Volume II, Appendix II-O, Attachment C; Atlantic Shores 2024). The introduction of the intrusive, modern offshore elements associated with the Project would, therefore, result in an adverse effect on the property.

This property is approximately 10.80 miles (17.38 kilometers) from the nearest WTG associated with the Project and approximately 8.8 miles (14.2 kilometers) from the nearest potential WTG location for other offshore wind energy development activities. The total number of theoretically visible WTGs (up to blade tip) from this property is up to 877. Of these, 200 theoretically visible WTGs (22.8 percent) would be from the proposed Project. As such, BOEM determined the Project would add to the cumulative visual effects on this property when combined with the effects of other past, ongoing, or planned actions (BOEM 2024).

Island Beach State Park Historic District (Berkeley Township, New Jersey)

The Island Beach State Park Historic District encompasses the barrier island and State Park from its northern boundary south of 24th Avenue to Barnegat Inlet. Contributing resources to the District include the following: the Judge's Shack; Henry Phipps House; Francis P. & Augusta H.S. Freeman House; Bay House; Island Beach Borough Hall (formerly Aeolium Nature Center); Caretaker's Cottage (currently State Park Police Station); Ocean Swimming Beach Pavilion 1; Ocean Swimming Beach Pavilion 2; Park Office; Gatehouse; and six remaining Beach Shacks. The barrier island was purchased by Henry Phipps to develop a resort community for the upper class. However, the resort was not developed and the majority of the island's natural landscape was preserved. The resource retains sufficient integrity to convey its significance under NRHP Criteria A and C (COP Volume II, Appendix II-O, Attachment C; Atlantic Shores 2024).

The Island Beach State Park Historic District has a clear maritime setting and views of the Atlantic Ocean from the tower. While ground-level views of the Project would be obstructed by surrounding vegetation in some areas, there would be unobstructed views of the Project from many areas in the District (COP

Volume II, Appendix II-O, Attachment C; Atlantic Shores 2024). The introduction of the intrusive, modern offshore elements associated with the Project would, therefore, result in an adverse effect on the property.

This district is approximately 27.30 miles (43.93 kilometers) from the nearest WTG associated with the Project and approximately 9.6 miles (15.4 kilometers) from the nearest potential WTG location for other offshore wind energy development activities (BOEM 2024; COP Volume II, Appendix II-O; Atlantic Shores 2024). The total number of theoretically visible WTGs (up to blade tip) from this property is up to 609. Of these, 200 theoretically visible WTGs (32.8 percent) would be from the proposed Project. As such, BOEM determined the Project would add to the cumulative visual effects on this property when combined with the effects of other past, ongoing, or planned actions (BOEM 2024).

John Stafford Historic District (Ventnor City, New Jersey)

The John Stafford Historic District is significant under Criterion A as a planned community associated with important figures of the area, including prominent turn-of-the-twentieth-century real estate developer John Stafford and Philadelphia-based architect Frank Seeburger. It is also significant under Criterion C for its early twentieth-century Colonial Revival architecture. The development included early examples of zoning-type restrictions to ensure consistency and coherence of the neighborhood. Several contributing resources were commissioned works of prominent architects built for local hoteliers. The district was developed as a seaside resort that, unlike other places on the shore, was easily accessible by automobile. The periods of significance span 1900 to 1924 and 1925 to 1949 (COP Volume II, Appendix II-O, Attachment B; Atlantic Shores 2024).

The John Stafford Historic District was designed as a resort planned community located on the shoreline of the Atlantic Ocean. The district shares some parallels with other oceanside residential neighborhoods that developed in response to the late nineteenth-century expansion of passenger rail service along the New Jersey shore, but it reflects a greater emphasis on roadways designed to accommodate automobiles. The district's relationship to the shoreline and ocean is integral to its planned design. There would be unobstructed views of the Project from contributing resources along shoreline. The WTGs are expected to be a significant focus of viewers' attention from shoreline locations within the district's boundaries (COP Volume II, Appendix II-O, Attachment B; Atlantic Shores 2024). The introduction of the intrusive, modern offshore elements associated with the Project would, therefore, result in an adverse effect on the property.

This district is approximately 12.47 miles (20.06 kilometers) from the nearest WTG associated with the Project and approximately 9.6 miles (15.4 kilometers) from the nearest potential WTG location for other offshore wind energy development activities (BOEM 2024; COP Volume II, Appendix II-O; Atlantic Shores 2024). The total number of potentially visible WTGs (up to blade tip) from this property is up to 582. Of these, 200 theoretically visible WTGs (34.4 percent) would be from the proposed Project. As such, BOEM determined the Project would add to the cumulative visual effects on this property when combined with the effects of other past, present, or reasonably foreseeable future actions (BOEM 2024).

Little Egg Harbor U.S. Life Saving Station #23 (Little Egg Harbor Township, New Jersey)

The Little Egg Harbor U.S. Life Saving Station #23 is located at the end of a private wooden boardwalk approximately 0.25 mile (0.4 kilometer) to the southwest of the terminus of Great Bay Boulevard within the Great Bay Boulevard Wildlife Management Area. The Station overlooks Great Bay and is located to the northwest of the Little Egg Inlet between Long Beach and North Brigantine. The Station was initially constructed as a lifesaving station in 1937, and its location in proximity to the ocean was imperative in order for rescuers to reach nearby shipwrecks on the Atlantic Ocean. The Little Egg Harbor U.S. Life Saving Station #23 was previously determined to be eligible for listing in the NRHP by NJHPO. It retains sufficient integrity to convey its significance under Criterion A for its association with Maritime History. The facility currently houses the Rutgers University Mullica River Field Station (COP Volume II, Appendix II-O, Attachment C; Atlantic Shores 2024).

There would be unobstructed views of the Project due to the location of the Station. Although some screening of the Project would be provided by the barrier islands, expansive views of the Project would alter the historic viewshed and maritime setting of the lifesaving station (COP Volume II, Appendix II-O, Attachment C; Atlantic Shores 2024). The introduction of the intrusive, modern offshore elements associated with the Project would, therefore, result in an adverse effect on the property.

This property is approximately 11.95 miles (19.23 kilometers) from the nearest WTG associated with the Project and approximately 11.2 miles (18.0 kilometers) from the nearest potential WTG location for other offshore wind energy development activities (BOEM 2024; COP Volume II, Appendix II-O; Atlantic Shores 2024). The total number of potentially visible WTGs (up to blade tip) from this property is up to 669. Of these, 200 theoretically visible WTGs (29.9 percent) would be from the proposed Project. As such, BOEM determined the Project would add to the cumulative visual effects on this property when combined with the effects of other past, present, or reasonably foreseeable future actions (BOEM 2024).

Lucy, the Margate Elephant (National Historic Landmark in Margate City, New Jersey)

Lucy, the Margate Elephant NHL is located at the corner of South Decatur and Atlantic Avenues in Margate City, one block west of the beach overlooking the Atlantic Ocean. The NHL was built in 1881 as a real estate marketing gimmick by James Lafferty, who patented zoomorphic architecture. His "Elephant Bazaar" (dubbed "Lucy" by subsequent owners) had a wood frame and tin-clad wood sheathing; the frame has since been reinforced with steel. At 65 feet (20 meters) tall and 60 feet (18.3 meters) long, it is one of the largest statue-like structures in America and the oldest roadside tourist attraction. In 1970, after threats of demolition, Lucy was moved to a nearby city-owned lot and restored. It was designated as a NHL in 1976 (Pitts, 1976b as cited in COP Volume II, Appendix II-O; Atlantic Shores 2024).

A visual simulation taken from Lucy, the Margate Elephant NHL (KOP MC02; COP Volume II, Appendix II-T; Atlantic Shores 2024) is included in the COP (COP Volume II, Appendix II-O, Attachment E; Atlantic Shores 2024). The NHL is approximately 14.4 miles (23.2 kilometers) from the nearest proposed WTG. The photograph used for the simulation is taken from the vantage point of Lucy, the Margate Elephant's

howdah, elevated approximately 60 feet (18.3 meters) above the ground. To the east from this viewpoint there are numerous, tall (multi-story), modern buildings and other structures in the immediate foreground, backed by a fenced and planted dune restoration area. Due to the elevated location of this viewpoint, the sky is unbroken by features like overhead utility poles and lines, but a high-rise apartment building is visible on the left side of the view (COP Volume II, Appendix II-O; Atlantic Shores 2024).

As shown in the visual simulation from KOP MC02, with the proposed Project in place, the WTGs would be visible with nacelles and rotors in full view above the horizon, occupying nearly the full field of view. Some of the Project's WTGs are concealed behind the apartment building on the left side of the view. The Project would have a visual adverse effect on Lucy, the Margate Elephant. Due to the proximity of the Project to this NHL, views from within Lucy will allow for direct lines of site to the WTGs and would be a significant focus of visitor attention when viewing the ocean from the howdah or the portal windows (COP Volume II, Appendix II-O; Atlantic Shores 2024).

Lucy, the Margate Elephant is approximately 14.40 miles (23.17 kilometers) from the nearest WTG associated with the Project and approximately 10.7 miles (17.2 kilometers) from the nearest potential WTG location for other wind energy development activities (BOEM 2024; COP Volume II, Appendix II-O; Atlantic Shores 2024). The total number of potentially visible WTGs from Lucy is up to 570. Of these, 200 theoretically visible WTGs (35.1 percent) would be from the proposed Project. As such, BOEM determined the Project would incrementally add to the cumulative visual effects on Lucy, the Margate Elephant when combined with the effects of other past, present, or reasonably foreseeable future actions (BOEM 2024).

Margate Fishing Pier (Margate City, New Jersey)

The Margate Fishing Pier was built in 1923 by the Anglers Club of Absecon Island, a members-only nonprofit club. The Pier extends approximately 733 feet (223 meters) into the Atlantic Ocean from Margate Beach. The Pier was constructed exclusively for the purpose of fishing by the Anglers Club, and, as a result, it has full and unobstructed views of the ocean. The repair and replacement of historic materials is an inherent characteristic of wood piers. Although the pier has undergone various repairs over the course of the twentieth century and after Super Storm Sandy in 2013, the pier retains sufficient integrity to convey its significance under NRHP Criterion A for its association with the Maritime History of Margate and Absecon Island (COP Volume II, Appendix II-O, Attachment C; Atlantic Shores 2024).

There would be unobstructed views of the Project due to the pier's location on the beach over the ocean. Views of the ocean horizon are characteristic of historic piers projecting into the Atlantic Ocean and are intimately associated with the historic setting and feeling of this property (COP Volume II, Appendix II-O, Attachment C; Atlantic Shores 2024). The introduction of the intrusive, modern offshore elements associated with the Project would, therefore, result in an adverse effect on the property.

This property is approximately 13.60 miles (21.88 kilometers) from the nearest WTG associated with the Project and approximately 10.2 miles (16.4 kilometers) from the nearest potential WTG location for other offshore wind energy development activities (BOEM 2024; COP Volume II, Appendix II-O; Atlantic

Shores 2024). The total number of potentially visible WTGs (up to blade tip) from this property is up to 568. Of these, 200 theoretically visible WTGs (35.2 percent) would be from the proposed Project. As such, BOEM determined the Project would add to the cumulative visual effects on this property when combined with the effects of other past, present, or reasonably foreseeable future actions (BOEM 2024).

Missouri Avenue Beach (Chicken Bone Beach) (Atlantic City, New Jersey)

From the end of the 1920s to the 1960s, Missouri Avenue Beach was effectively Atlantic City's official black beach. African American members of the Atlantic City Beach Patrol were assigned exclusively to what locals came to call Chicken Bone Beach. Missouri Avenue Beach (Chicken Bone Beach) is significant under NRHP Criterion A for its association with the African American history of Atlantic City. The significance of the Missouri Avenue Beach (Chicken Bone Beach) is directly related to its maritime setting as a beach for the African American community from the end of the 1920s to the 1960s (COP Volume II, Appendix II-O, Attachment C; Atlantic Shores 2024).

There would be unobstructed views of the Project due to the location of the beach. Unobstructed ocean views are characteristic of the beach setting both historically and currently. The introduction of the intrusive, modern offshore elements associated with the Project would, therefore, result in an adverse effect on the property.

This property is approximately 11.20 miles (18.02 kilometers) from the nearest WTG associated with the Project and approximately 9.0 miles (14.5 kilometers) from the nearest potential WTG location for other offshore wind energy development activities (BOEM 2024; COP Volume II, Appendix II-O; Atlantic Shores 2024). The total number of potentially visible WTGs (up to blade tips) from this property is up to 566. Of these, 200 theoretically visible WTGs (35.3 percent) would be from the proposed Project. As such, BOEM determined the Project would add to the cumulative visual effects on this property when combined with the effects of other past, present, or reasonably foreseeable future actions (BOEM 2024).

Music Pier (Ocean City, New Jersey)

The Music Pier at Ocean City was opened in the summer of 1929. It was constructed after a fire destroyed a large portion of the boardwalk, including businesses and nearby homes. The Spanish Colonial style pier included a large concert hall and was used for conventions, bazaars, dances, and free summer concerts. At the onset of American involvement in World War II, a lookout tower was constructed on top of the pier to watch for submarines and U-boats on the Atlantic Ocean. Volunteers, ranging in age from teenagers to retirees, kept watch in the tower during the duration the war, and eventually the tower was used to spot aircrafts. Volunteers were recruited and trained by the local American Legion. The tower was dismantled in 1968. The Music Pier retains sufficient integrity to convey its significance under NRHP Criterion A for its association with Entertainment/Recreation and Maritime History in Ocean City (COP Volume II, Appendix II-O, Attachment C; Atlantic Shores 2024).

The Music Pier is located on the southeast side of the Ocean City boardwalk at Moorlyn Terrace. The pier extends approximately 218 feet (66 meters) over the beach and provides expansive views of the

ocean from inside and outside of the building. The location of the property on the beach and off the boardwalk is one of the character-defining features of the pier. There would be unobstructed views to the Project from the Pier (COP Volume II, Appendix II-O, Attachment C; Atlantic Shores 2024). The introduction of the intrusive, modern offshore elements associated with the Project would, therefore, result in an adverse effect on the property.

This property is approximately 17.20 miles (27.68 kilometers) from the nearest WTG associated with the Project and approximately 11.0 miles (17.7 kilometers) from the nearest potential WTG location for other offshore wind energy development activities (BOEM 2024; COP Volume II, Appendix II-O; Atlantic Shores 2024). The total number of potentially visible WTGs (up to blade tips) from this property is up to 623. Of these, 200 theoretically visible WTGs (32.1 percent) would be from the proposed Project. As such, BOEM determined the Project would add to the cumulative visual effects on this property when combined with the effects of other past, present, or reasonably foreseeable future actions (BOEM 2024).

Ocean City Boardwalk (Ocean City, New Jersey)

The Ocean City Boardwalk was originally constructed in 1905, replacing a wooden walkway that was constructed in 1880. Hotels, recreational, and entertainment venues were constructed in the early twentieth century. In 1927, the boardwalk and many surrounding buildings were destroyed by fire. When the boardwalk was reconstructed in 1928, it was moved closer to the Atlantic Ocean. Although portions of the boardwalk have been replaced, the Ocean City Boardwalk retains sufficient integrity to convey its significance under Criterion A for its association with Entertainment/Recreation and Community Planning and Development in Ocean City (COP Volume II, Appendix II-O, Attachment D; Atlantic Shores 2024).

The Ocean City Boardwalk has a clear maritime setting and is located adjacent to the Atlantic Ocean and overlooks the beaches at Ocean City (COP Volume II, Appendix II-O, Attachment D; Atlantic Shores 2024). There would be unobstructed views of the Project from multiple areas along the boardwalk. Unobstructed ocean views are characteristic of the boardwalk's historic setting. The introduction of the intrusive, modern offshore elements associated with the Project would, therefore, result in an adverse effect on the property.

This property is approximately 16.90 miles (27.19 kilometers) from the nearest WTG associated with the Project and approximately 10.8 miles (17.4 kilometers) from the nearest potential WTG location for other offshore wind energy development activities (BOEM 2024; COP Volume II, Appendix II-O; Atlantic Shores 2024). The total number of potentially visible WTGs (up to blade tips) from this property is up to 660. Of these, 200 theoretically visible WTGs (30.3 percent) would be from the proposed Project. As such, BOEM determined the Project would add to the cumulative visual effects on this property when combined with the effects of other past, present, or reasonably foreseeable future actions (BOEM 2024).

Ritz Carlton Hotel (Atlantic City, New Jersey)

The Ritz Carlton Hotel is an 18-story building clad in brick that opened in June of 1921. Constructed with elements of the Beaux Arts style, the building was a prominent hotel in Atlantic City in the 1920s and housed prominent guests such as Calvin Coolidge, Warren G. Harding, and Al Capone. The hotel was converted to army barracks during World War II, and in 1969 was converted into apartments. In 1982 the building was converted into condominiums. Today the building survives as a rare representation of 1920s hotel architecture on the Atlantic City Boardwalk. It has been determined eligible for NRHP listing under Criteria A and C by NJHPO (COP Volume II, Appendix II-O, Attachment C; Atlantic Shores 2024).

The Ritz Carlton Hotel is located on the Atlantic City Boardwalk. The building's primary orientation is toward the ocean, and the building is designed to provide views toward the sea. The building's location on the coast lends to its historic significance as a beachside resort hotel. Demolition and redevelopment of surrounding parcels has diminished the integrity of setting for the property, but the critical relationship of the historic hotel to the boardwalk and adjacent shoreline has been retained. Due to the surrounding modern structures and infrastructure, the historic property would have unobstructed views of the Project. The Project would affect the most intact surviving elements of the property's historic setting (COP Volume II, Appendix II-O, Attachment C; Atlantic Shores 2024). The introduction of the intrusive, modern offshore elements associated with the Project would, therefore, result in an adverse effect on the property.

This property is approximately 11.66 miles (18.76 kilometers) from the nearest WTG associated with the Project and approximately 9.3 miles (15.0 kilometers) from the nearest potential WTG location for other offshore wind energy development activities (BOEM 2024; COP Volume II, Appendix II-O; Atlantic Shores 2024). The total number of potentially visible WTGs (up to blade tips) from this property is up to 818. Of these, 200 theoretically visible WTGs (24.4 percent) would be from the proposed Project. As such, BOEM determined the Project would add to the cumulative visual effects on this property when combined with the effects of other past, present, or reasonably foreseeable future actions (BOEM 2024).

Riviera Apartments (Atlantic City, New Jersey)

The Riviera Apartments building was designed by architect Henry Sternfeld and was constructed between 1929 and 1930. The building has been determined eligible for the NRHP by NJHPO under Criterion C for its Spanish and Art Deco-style architecture (COP Volume II, Appendix II-O, Attachment C; Atlantic Shores 2024).

The Riviera Apartments building is located on the Atlantic City boardwalk with clear ocean views from the main façade and partial views from the northern and southern elevations (COP Volume II, Appendix II-O, Attachment C; Atlantic Shores 2024). The introduction of the intrusive, modern offshore elements associated with the Project would, therefore, result in an adverse effect on the property.

This property is approximately 12.30 miles (19.79 kilometers) from the nearest WTG associated with the Project and approximately 9.5 miles (15.3 kilometers) from the nearest potential WTG location for other offshore wind energy development activities (BOEM 2024; COP Volume II, Appendix II-O; Atlantic Shores

2024). The total number of potentially visible WTGs (up to blade tips) from this property is up to 712. Of these, 200 theoretically visible WTGs (28.1 percent) would be from the proposed Project. As such, BOEM determined the Project would add to the cumulative visual effects on this property when combined with the effects of other past, present, or reasonably foreseeable future actions (BOEM 2024).

Saint Leonard's Tract Historic District (Ventnor City, New Jersey)

The Saint Leonard's Tract Historic District is a grouping of approximately 250 residences constructed between 1906 and 1930. The buildings are eligible for the NRHP under Criterion A and C for as a designed community with strict building requirements for its architecture. The St. Leonard's Land Company purchased the land in 1896 and designed the district in a grid pattern (COP Volume II, Appendix II-O, Attachment B; Atlantic Shores 2024).

The Saint Leonard's Tract Historic District is located between the Atlantic Ocean and the Intercoastal Waterway with many residences having views of one or both bodies of water. The setting of the district on a coastal barrier and the presence of water views along the perimeter of the neighborhood are integral to its character and feeling. There would be unobstructed views of the Project from contributing resources along the shoreline (COP Volume II, Appendix II-O, Attachment B; Atlantic Shores 2024). The introduction of the intrusive, modern offshore elements associated with the Project would, therefore, result in an adverse effect on the property.

This district is approximately 12.69 miles (20.42 kilometers) from the nearest WTG associated with the Project and approximately 9.7 miles (15.6 kilometers) from the nearest potential WTG location for other offshore wind energy development activities (BOEM 2024; COP Volume II, Appendix II-O; Atlantic Shores 2024). The total number of potentially visible WTGs (up to blade tips) from this property is up to 742. Of these, 200 theoretically visible WTGs (27.0 percent) would be from the proposed Project. As such, BOEM determined the Project would add to the cumulative visual effects on this property when combined with the effects of other past, present, or reasonably foreseeable future actions (BOEM 2024).

Seaview Golf Club, Clarence Geist Pavilion (Galloway Township, New Jersey)

The Seaview Golf Club consists of a 296-room hotel and a Colonial Revival-style clubhouse set on 697 acres (282 hectares) in Galloway Township. The property features two 18-hole golf courses. The Bay Course was opened in 1914 and was designed by Hugh Wilson and Donald Ross. This course is situated along the bay and provides bayside views and distant views of Brigantine on the barrier island. The Pines Course was opened in 1929 and was designed by William Flynn and Howard Toomey. This course is located to the west of the clubhouse and hotels and winds through New Jersey pinelands. The golf club is currently the site of the ShopRite LPGA Classic and hosted nine holes in the 1942 PGA Championship. This resource is recommended eligible for the NRHP under Criteria A and C under Recreation and Architecture (COP Volume II, Appendix II-O, Attachment C; Atlantic Shores 2024).

The Seaview Golf Club is located approximately 6 miles (9.7 kilometers) northwest of the Atlantic Ocean and borders Reeds Bay with views of the bay from the Bay Course. Ocean views are an important component of the setting reflected in the course design and layout. The Project would be visible from

the Bay Course on the eastern portion of the historic property, as well as in small areas of the property to the west of S. New York Road including the hotel and clubhouse (COP Volume II, Appendix II-O, Attachment C; Atlantic Shores 2024). The introduction of the intrusive, modern offshore elements associated with the Project would, therefore, result in an adverse effect on the property.

This property is approximately 15.60 miles (25.10 kilometers) from the nearest WTG associated with the Project and approximately 14.9 miles (24.0 kilometers) from the nearest potential WTG location for other offshore wind energy development activities (BOEM 2024; COP Volume II, Appendix II-O; Atlantic Shores 2024). The total number of potentially visible WTGs (up to blade tips) from this property is up to 658. Of these, 200 theoretically visible WTGs (30.4 percent) would be from the proposed Project. As such, BOEM determined the Project would add to the cumulative visual effects on this property when combined with the effects of other past, present, or reasonably foreseeable future actions (BOEM 2024).

U.S. Coast Guard Station (Atlantic City, New Jersey)

The U.S. Coast Guard (USCG) Station at Atlantic City was constructed in 1939 and was at that time the largest lifeboat station in the Guard. It replaced a series of earlier stations that had served the area. Though renovated in 1988, it retains sufficient integrity to convey its eligibility to the NRHP under Criterion A (Military), as determined by NJHPO (COP Volume II, Appendix II-O, Attachment C; Atlantic Shores 2024).

The USCG Station is located at the junction of Clam Creek and Absecon Inlet, where the moorings are protected but are only 1 mile (1.6 kilometers) from the open ocean. The setting and function of the property are maritime in character, and the property has partial views of the ocean. The majority of the proposed WTGs would be visible from the property and could be a significant focus of viewer attention based on proximity (COP Volume II, Appendix II-O, Attachment C; Atlantic Shores 2024). The introduction of the intrusive, modern offshore elements associated with the Project would, therefore, result in an adverse effect on the property.

This property is approximately 11.46 miles (18.44 kilometers) from the nearest WTG associated with the Project and approximately 9.9 miles (15.9 kilometers) from the nearest potential WTG location for other offshore wind energy development activities (BOEM 2024; COP Volume II, Appendix II-O; Atlantic Shores 2024). The total number of potentially visible WTGs (up to blade tips) from this property is up to 613. Of these, 200 theoretically visible WTGs (32.6 percent) would be from the proposed Project. As such, BOEM determined the Project would add to the cumulative visual effects on this property when combined with the effects of other past, present, or reasonably foreseeable future actions (BOEM 2024).

Vassar Square Condominiums (Ventnor City, New Jersey)

The Vassar Square Condominiums are sited in a high-rise brick and glass-clad 20-story building located directly on the Boardwalk. Construction on the building began in 1968, and it originally contained apartments. Following the real estate boom in the region in the 1970s, the building was converted into condominiums, the first high-rise building to make that conversion on the Ventnor Boardwalk. The

building is recommended eligible for the NRHP under Criterion C for its architecture. The building exhibits elements of Modern architecture including the cantilevered curved balconies with glass railings and curved columns (COP Volume II, Appendix II-O, Attachment C; Atlantic Shores 2024).

The Vassar Square Condominiums are located on the Boardwalk, and the building was designed for views toward the ocean. There would be unobstructed views of the Project from the property (COP Volume II, Appendix II-O, Attachment C; Atlantic Shores 2024). The introduction of the intrusive, modern offshore elements associated with the Project would, therefore, result in an adverse effect on the property.

This property is approximately 12.45 miles (20.03 kilometers) from the nearest WTG associated with the Project and approximately 9.6 miles (15.4 kilometers) from the nearest potential WTG location for other offshore wind energy development activities (BOEM 2024; COP Volume II, Appendix II-O; Atlantic Shores 2024). The total number of potentially visible WTGs (up to blade tips) from this property is up to 810. Of these, 200 theoretically visible WTGs (24.7 percent) would be from the proposed Project. As such, BOEM determined the Project would add to the cumulative visual effects on this property when combined with the effects of other past, present, or reasonably foreseeable future actions (BOEM 2024).

Ventnor City Fishing Pier (Ventnor City, New Jersey)

The Ventnor City Pier was constructed in 1963 and was the fourth pier built at this site and is the longest fishing pier in New Jersey. The repair and replacement of historic materials is an inherent characteristic of wood piers. The Ventnor City Pier retains its integrity of design, location, association, and feeling despite the loss of historic fabric. Although the pier underwent extensive renovations in 2017, it retains sufficient integrity to convey its significance under Criterion A for its association with the Maritime History of Ventnor City (COP Volume II, Appendix II-O, Attachment C; Atlantic Shores 2024).

The Ventnor City Fishing Pier extends approximately 990 feet (302 meters) from the boardwalk into the Atlantic Ocean. As the pier was constructed primarily for fishing, there are full and unobstructed views to the Atlantic Ocean from the pier (COP Volume II, Appendix II-O, Attachment C; Atlantic Shores 2024). The introduction of the intrusive, modern offshore elements associated with the Project would, therefore, result in an adverse effect on the property.

This property is approximately 12.83 miles (20.64 kilometers) from the nearest WTG associated with the Project and approximately 9.7 miles (15.6 kilometers) from the nearest potential WTG location for other offshore wind energy development activities (BOEM 2024; COP Volume II, Appendix II-O; Atlantic Shores 2024). The total number of potentially visible WTGs (up to blade tips) from this property is up to 570. Of these, 200 theoretically visible WTGs (35.1 percent) would be from the proposed Project. As such, BOEM determined the Project would add to the cumulative visual effects on this property when combined with the effects of other past, present, or reasonably foreseeable future actions (BOEM 2024).

108 South Gladstone Avenue (Margate City, New Jersey)

The residence at 108 South Gladstone Avenue is a two-story French Eclectic built ca. 1930 of stone. It has a hipped roof with flaring eaves, a stone chimney, a centered tower entry, and a one-story side porch with arched openings. A Juliet balcony in the tower and dormer balconies over the side porch have wrought iron rails. The property has sufficient integrity to convey its eligibility to the NRHP under Criterion C (COP Volume II, Appendix II-O, Attachment C; Atlantic Shores 2024).

Though the façade is oriented to face the street, this residence is a beachfront property, and the side porch and upper windows face the ocean (COP Volume II, Appendix II-O, Attachment C; Atlantic Shores 2024). The introduction of the intrusive, modern offshore elements associated with the Project would, therefore, result in an adverse effect on the property.

This property is approximately 13.82 miles (22.24 kilometers) from the nearest WTG associated with the Project and approximately 10.4 miles (16.7 kilometers) from the nearest potential WTG location for other offshore wind energy development activities (BOEM 2024; COP Volume II, Appendix II-O; Atlantic Shores 2024). The total number of potentially visible WTGs (up to blade tips) from this property is up to 576. Of these, 200 theoretically visible WTGs (34.7 percent) would be from the proposed Project. As such, BOEM determined the Project would add to the cumulative visual effects on this property when combined with the effects of other past, present, or reasonably foreseeable future actions (BOEM 2024).

114 South Harvard Avenue (Ventnor City, New Jersey)

The residence at 114 South Harvard Avenue is a two-and-a-half story French Eclectic Style structure with a side porch, an attached garage, and a short stair turret tucked into the ell. The house is stuccoed with colored asphalt shingles on the roof. The entry porch is arched and has a small balustrade on the roof. This resource has sufficient integrity to convey its eligibility for the NRHP under Criterion C (COP Volume II, Appendix II-O, Attachment C; Atlantic Shores 2024).

The property is a beachfront home. Its primary orientation is to the street, but the second-floor side porch and windows have unobstructed views of the Atlantic Ocean. The property would have unobstructed views to the Project from these elevated vantage points (COP Volume II, Appendix II-O, Attachment C; Atlantic Shores 2024). The introduction of the intrusive, modern offshore elements associated with the Project would, therefore, result in an adverse effect on the property.

This property is approximately 13.01 miles (20.93 kilometers) from the nearest WTG associated with the Project and approximately 9.9 miles (15.9 kilometers) from the nearest potential WTG location for other offshore wind energy development activities. The total number of potentially visible WTGs (up to blade tips) from this property is up to 570 (BOEM 2024; COP Volume II, Appendix II-O; Atlantic Shores 2024). Of these, 200 theoretically visible WTGs (35.1 percent) would be from the proposed Project. As such, BOEM determined the Project would add to the cumulative visual effects on this property when combined with the effects of other past, present, or reasonably foreseeable future actions (BOEM 2024).

114 South Osborne Avenue (Margate City, New Jersey)

The residence at 114 South Osborne Avenue is a Colonial Revival structure with brick walls laid in Flemish bond. It has chimneys on the side gables, keystones over the windows, a fan light and sidelights at the entry, and modillions under the front eave and in the porch entablature. Though some alterations in the windows have been made, the house retains sufficient integrity to convey its eligibility to the NRHP under Criterion C (COP Volume II, Appendix II-O, Attachment C; Atlantic Shores 2024).

From the street level, the sand dune topography limits views of the water. Though the façade is oriented to face the street, this residence is a beachfront property and the windows on the south elevation appear to have clear unobstructed views of the ocean (COP Volume II, Appendix II-O, Attachment C; Atlantic Shores 2024). The introduction of the intrusive, modern offshore elements associated with the Project would, therefore, result in an adverse effect on the property.

This property is approximately 14.11 miles (22.70 kilometers) from the nearest WTG associated with the Project and approximately 10.6 miles (17.1 kilometers) from the nearest potential WTG location for other offshore wind energy development activities (BOEM 2024; COP Volume II, Appendix II-O; Atlantic Shores 2024). The total number of potentially visible WTGs (up to blade tips) from this property is up to 576. Of these, 200 theoretically visible WTGs (34.7 percent) would be from the proposed Project. As such, BOEM determined the Project would add to the cumulative visual effects on this property when combined with the effects of other past, present, or reasonably foreseeable future actions (BOEM 2024).

120 Atlantic Avenue (Atlantic City, New Jersey)

The property at 120 Atlantic Avenue is a two-and-a-half story Colonial Revival style residence resting on a raised foundation. The building is clad in brick and capped by a side gable roof covered in asphalt shingles. The symmetrical full-width first floor porch with Doric columns supports a heavy entablature featuring brackets and dentils and second-story balcony with a balustrade interrupted by wide, squared piers. Three triangular pedimented dormers pierce the roof on the façade, and two-story projecting bays are located on the side elevations. The fenestration consists of nine-over-nine, twelve-over-twelve, windows with stone lintels and keystones. The main entrance is surrounded by multi-pane sidelights and transom. The building represents an excellent surviving example of the Colonial Revival style in Atlantic City and is potentially eligible for the NRHP under Criterion C for Architecture (COP Volume II, Appendix II-O, Attachment C; Atlantic Shores 2024).

The property at 120 Atlantic Avenue is located approximately 365 feet (111 meters) west of the Absecon Inlet and approximately 0.3 mile (0.5 kilometer) north of the Atlantic Ocean. The façade and associated porches are oriented towards Atlantic Avenue, roughly 90 degrees from the Project, but demolition of intervening buildings once located to the east of the house has substantially increased the ocean views. Therefore, the property would have unobstructed views of the Project due to the surrounding vacant land. The proximity of the property to the Project suggests the WTGs would be a major focus of attention and may detract from the historic shoreline setting and integrity of feeling associated with the property (COP Volume II, Appendix II-O, Attachment C; Atlantic Shores 2024). The introduction of the

intrusive, modern offshore elements associated with the Project would, therefore, result in an adverse effect on the property.

This property is approximately 10.65 miles (17.13 kilometers) from the nearest WTG associated with the Project and approximately 9.0 miles (14.5 kilometers) from the nearest potential WTG location for other offshore wind energy development activities (BOEM 2024; COP Volume II, Appendix II-O; Atlantic Shores 2024). The total number of potentially visible WTGs (up to blade tip) from this property is up to 596. Of these, 200 theoretically visible WTGs (33.6 percent) would be from the proposed Project. As such, BOEM determined the Project would add to the cumulative visual effects on this property when combined with the effects of other past, present, or reasonably foreseeable future actions (BOEM 2024).

I.3.1.4 Assessment of Effects on Historic Properties in the O&M Facility APE

Cultural resource investigations completed for the Proposed Action identified seven historic properties in the visual portion of the O&M facility APE (COP Volume II, Appendices II-P2 and II-N2; Atlantic Shores 2024). Based on the information presented below, BOEM finds that historic properties would not be adversely affected in the O&M facility APE.

Physical Effects in the O&M Facility APE

No cultural resources have been identified in the physical APE for the O&M facility. Atlantic Shores' Phase IA reconnaissance investigations found no marine or terrestrial archaeological or historic aboveground resources in the physical APE for the O&M facility (COP Volume II, Appendix II-P2; Atlantic Shores 2024). Cultural resource investigations completed for the Proposed Action have found that the bulkhead subject to repair or replacement under the connected action is not itself a historic property eligible for listing in the NRHP and subject to adverse effects. The terrestrial area of the physical APE is paved, and therefore no Phase IB subsurface archaeological investigations could be performed. However, Atlantic Shores found this area has been significantly disturbed and thus has a low likelihood to contain intact or potentially significant archaeological resources. Additionally, the marine area of the physical APE coincides with an area proposed for a maintenance dredging program under the connected action (see Figure I.B-15); USACE's statement of findings for this program's DA Permit found no effect on historic properties within the area overlapping with the O&M facility APE.[4] Based on this information, BOEM finds that no historic properties are subject to physical adverse effects in the O&M facility APE.

Atlantic Shores' Marine and Terrestrial Archaeology MPRDPs will be in effect for all bottom- or ground-disturbing activities occurring in the O&M facility APE; these plans would provide guidance and instructions to all contractors on how to proceed in the unlikely event of encountering unanticipated cultural resources, grave shafts, or burials during work. BOEM has used the MOA to establish commitments for implementing these MPRDPs and measures to minimize or mitigate effects in these

[4] USACE's NHPA Section 106 finding of no effect in DA Permit CENAP-OPR-2021-00573-95 applies to a permit area encompassing but larger than the marine area of the physical APE. See the draft MOA as of April 10, 2024, (Draft 4) in Attachment A for BOEM's formal incorporation of USACE's finding of no effect for this permit area into BOEM's finding of effect for this undertaking where relevant.

areas if unanticipated discoveries are encountered (MOA, Attachments 4 and 5). See Attachment A for the draft MOA as of April 10, 2024 (Draft 4). The executed MOA will be posted on BOEM's website following issuance of the ROD at: https://www.boem.gov/renewable-energy/state-activities/atlantic-shores-south.

Visual Effects in the O&M Facility APE

Seven aboveground historic properties were identified within the visual APE for the O&M facility. All seven properties are listed in or eligible for listing in the NRHP. The setting of the proposed O&M facility is urban and developed and is characterized by modern marinas and residential and commercial development. Due to the intervening development and vegetation, the visibility of the O&M facility from the historic properties identified within the APE would be limited. The O&M facility would not adversely affect the historic and architectural characteristics and significance or the setting of any of the seven properties. Finally, the construction and operation of the O&M facility would not result in physical effects on any of the seven properties (COP Volume II, Appendix II-N2; Atlantic Shores 2024).

I.3.2 Summary of Adversely Affected Historic Properties

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

The Project would have no effect on the 22 marine archaeological resources in the marine APE due to Atlantic Shores' commitment to avoidance of these historic properties. However, the Project would have adverse effects on the 59 ASLFs that are historic properties in the marine APE. Mitigation measures to resolve adverse effects on these resources have been determined through consultations and will be stipulated in the MOA. See Attachment A for the draft MOA as of April 10, 2024 (Draft 4).

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

The Project would have no effect on terrestrial archaeological resources and no adverse effects on the West Jersey and Atlantic Railroad Historic District (COP Volume II, Appendices II-N1 and II-P1; Atlantic Shores 2024).

Additional terrestrial archaeological resources, of which all or some may be subject to adverse effects from the Project, may be identified during Atlantic Shores' process of phased identification and evaluation of historic properties as defined in 36 CFR 800.4(b)(2) (Section I.5, *Phased Identification and Evaluation*). BOEM has used the MOA to establish commitments for reviewing the sufficiency of any supplemental terrestrial archaeological investigations as phased identification; assessing effects on historic properties; and implementing measures to avoid, minimize, or mitigate effects in these areas prior to construction. See Section I.5, *Phased Identification and Evaluation*, and Attachment A, for the draft MOA as of April 10, 2024 (Draft 4).

I.3.2.3 Adverse Effects on Historic Properties in the Visual APE

Based on the information BOEM has available from the studies conducted to identify historic properties in 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 Proposed Action would have direct visual adverse effects on a total of 29 aboveground historic properties, including 2 NHLs (the Atlantic City Convention Hall [Jim Whelan Boardwalk Hall] and Lucy, The Margate Elephant) within the visual APE for Offshore Project components (see Table I-8). BOEM found that no historic properties within the visual APE for Onshore Project components would be adversely affected. The undertaking would introduce visual elements that are out of character with the historic setting that contributes to the historic property's significance. However, BOEM has determined that, due to the distance and open viewshed between the historic properties and affecting Project components, the integrity of the historic properties would not be so diminished as to *disqualify* any of them from NRHP eligibility. The adverse effects on the viewshed of the aboveground historic properties would occupy the space for approximately 30 years, but they are unavoidable for reasons discussed in Section I.3.1.3, *Assessment of Effects on Historic Properties in the Visual APE*. 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 ACHP and the National Park Service (NPS), and other documentation, including professionally prepared viewshed assessments and computer-simulated photographs.

Where BOEM determined adverse effects would occur from Offshore Project actions on historic properties, BOEM then assessed whether those effects would add to the potential adverse effects of other reasonably foreseeable actions and thereby result in cumulative effects, which are additive effects. Where BOEM found visual adverse effects on historic properties in the visual APE for Offshore Project components (see Table I-8), BOEM also determined that the undertaking would contribute to cumulative visual adverse effects (BOEM 2024).

I.3.2.4 Adverse Effects on Historic Properties in the O&M Facility APE

BOEM finds the undertaking would have no effect on historic properties in the O&M facility APE. BOEM has used the MOA to establish commitments for implementing the Marine and Terrestrial Archaeology MPRDPs and measures to minimize or mitigate effects in these areas if unanticipated discoveries are encountered. Attachment A reflects the draft MOA as of April 10, 2024 (Draft 4).

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

As a requirement of COP approval, BOEM has developed avoidance, minimization, mitigation, and monitoring measures that would be implemented to avoid and resolve adverse effects on historic properties, including cumulative visual adverse effects to which the Project would be additive. These measures were developed through consultations and would be implemented through the execution of the MOA by BOEM and the required signatories in accordance with the NHPA Section 106 regulations (36 CFR 800) and in compliance with Section 110(f). This process has considered all prudent and feasible alternatives to avoid adverse effects as discussed in Section I.4.1, *Alternatives Considered*, and included,

to the maximum extent possible, taking such planning actions as may be necessary to minimize harm to any NHL that may be directly and adversely affected by an undertaking.

Simultaneous to the publication of the Final EIS, BOEM is coordinating with signatories to the MOA to have the MOA fully signed and executed by June 28, 2024. The version of the MOA attached to this document as Attachment A reflects the draft MOA as of April 10, 2024 (Draft 4). The fully executed MOA will be posted on BOEM's website at: https://www.boem.gov/renewable-energy/state-activities/atlantic-shores-south.

I.4.1 Alternatives Considered

BOEM's election to use NEPA substitution for the Section 106 review of the Project included the identification and evaluation of historic properties for the undertaking and assessment of effects for all the action alternatives identified during the NEPA review. BOEM's NEPA EIS and Section 106 reviews have analyzed six action alternatives (i.e., A through F; Table I-9) for impacts on cultural resources (see Final EIS, Chapter 3, Section 3.6.2, *Cultural Resources*) and effects on historic properties as presented in this section. Table I-9 also provides the description of BOEM's Preferred Alternative as identified in the Final EIS. Additional details on the action alternatives and Preferred Alternative can be found in Chapter 2 of the Final EIS.

Table I-9. Summary of alternatives analyzed in the EIS and Section 106 review

Alternative	Description
Alternative A – No Action	Under Alternative A, BOEM would not approve the COP; the Project's construction and installation, O&M, and eventual decommissioning would not occur; and no additional permits or authorizations for the Project would be required. Any potential environmental and socioeconomic impacts, including benefits, associated with the Project as described under the Proposed Action would not occur. Under the No Action Alternative, impacts on marine mammals incidental to construction activities would not occur. Therefore, the National Marine Fisheries Service (NMFS) would not issue the requested authorization to the applicant under the Marine Mammal Protection Act (MMPA). The current resource conditions, trends, and effects from ongoing activities under the No Action Alternative serve as the existing baseline against which all action alternatives are evaluated. Over the life of the proposed Project, other reasonably foreseeable future impact-producing offshore wind and non-offshore wind activities are expected to occur, which would cause changes to the existing baseline conditions even in the absence of the Proposed Action. The continuation of all other existing and reasonably foreseeable future activities described in Appendix D, *Ongoing and Planned Activities Scenario,* without the Proposed Action, serves as the baseline for the evaluation of cumulative impacts.
Alternative B – Proposed Action	Under Alternative B (see Figure 2.1-1 in Chapter 2), the construction and installation, O&M, and eventual decommissioning of the Atlantic Shores South Project, which consists of two wind energy facilities (Project 1 and Project 2) on the OCS offshore of New Jersey, would be built within the range of the design parameters outlined in the Atlantic Shores South COP (Atlantic Shores 2024), subject to applicable mitigation measures. The Atlantic Shores South Project would include up to 200 total WTGs (between 105 and 136 WTGs for Project 1, and between 64 and 95 WTGs for Project 2), up to 10 OSSs (up to 5 in each Project), up to 1 permanent met tower, and up to 4 temporary metocean buoys (up to 1 met tower and 3 metocean buoys in Project 1, and 1 metocean buoy in Project 2), interarray and interlink cables, 2 onshore substations, 1 O&M facility, and up to 8 transmission cables making landfall

Alternative	Description
	at two New Jersey locations. The proposed landfall locations are the Monmouth landfall in Sea Girt, New Jersey, with an onshore route to the existing Larrabee Substation POI and the Atlantic landfall in Atlantic City, New Jersey, with an onshore route to the existing Cardiff Substation, which would be upgraded to accommodate the Project's POI. Project 1 would have a capacity of 1,510 MW. Project 2's capacity is not yet determined, but Atlantic Shores has a goal of 1,327 MW, which would align with the interconnection service agreement Atlantic Shores intends to execute for both projects with the regional transmission organization (RTO), PJM.[1]
Alternative C – Habitat Impact Minimization/ Fisheries Habitat Impact Minimization[2]	Under Alternative C, the construction and installation, O&M, and eventual decommissioning of two wind energy facilities (Project 1 and Project 2) on the OCS offshore New Jersey would occur within the range of the design parameters outlined in the COP, subject to applicable mitigation measures. However, the layout and maximum number of WTGs and OSSs would be adjusted to avoid and minimize potential impacts on important habitats. NMFS identified two areas of concern (AOCs) within the Lease Area that have pronounced bottom features and produce habitat value. AOC 1 is part of a designated recreational fishing area called "Lobster Hole." AOC 2 is part of a sand ridge (ridge and trough) complex. • **Alternative C1: Lobster Hole Avoidance** (Figure 2.1-8) Up to 16 WTGs, 1 OSS, and associated interarray cables within the Lobster Hole designated area as identified by NMFS would be removed. • **Alternative C2: Sand Ridge Complex Avoidance** (Figure 2.1-9) Up to 13 WTGs and associated interarray cables within the NMFS-identified sand ridge complex would be removed. • **Alternative C3: Demarcated Sand Ridge Complex Avoidance** (Figure 2.1-10) Up to 6 WTGs and associated interarray cables within 1,000 feet (305 meters) of the sand ridge complex area identified by NMFS, but further demarcated through the use of the National Oceanic and Atmospheric Administration's (NOAA's) Benthic Terrain Modeler and bathymetry data provided by Atlantic Shores, would be removed. • **Alternative C4: Micrositing** This alternative consists of micrositing 29 WTGs, 1 OSS, and associated interarray cables outside of 1,000-foot (305-meter) buffers of ridges and swales within AOC 1 and AOC 2.
Alternative D – No Surface Occupancy at Select Locations to Reduce Visual Impacts	Under Alternative D, the construction and installation, O&M, and eventual decommissioning of two wind energy facilities (Project 1 and Project 2) on the OCS offshore New Jersey would occur within the range of the design parameters outlined in the COP, subject to applicable mitigation measures. However, the no surface occupancy would occur at select WTG positions to reduce the visual impacts of the proposed Project. • **Alternative D1: No Surface Occupancy of Up to 12 Miles (19.3 Kilometers) from Shore: Removal of Up to 21 Turbines** (Figure 2.1-11) This alternative would exclude placement of WTGs up to 12 miles (19.3 kilometers) from shore, resulting in the removal of up to 21 WTGs from Project 1 and associated interarray cables. The remaining turbines in Project 1 would be restricted to a maximum hub height of 522 feet (159 meters) above mean sea level (AMSL) and maximum blade tip height of 932 feet (284 meters) AMSL. • **Alternative D2: No Surface Occupancy of Up to 12.75 Miles (20.5 Kilometers) from Shore: Removal of Up to 31 Turbines** (Figure 2.1-12) The up to 31 WTGs sited closest to shore would be removed, as well as the associated interarray cables. The remaining WTGs in Project 1 would be restricted to a maximum hub height of 522 feet (159 meters) AMSL and maximum blade tip height of 932 feet (284 meters) AMSL. • **Alternative D3: No Surface Occupancy of Up to 10.8 Miles (17.4 Kilometers) from Shore: Removal of Up to 6 Turbines** (Figure 2.1-13)

Alternative	Description
	The up to 6 WTGs sited closest to shore would be removed, as well as the associated interarray cables. The remaining WTGs in Project 1 would be restricted to a maximum hub height of 522 feet (159 meters) AMSL and maximum blade tip height of 932 feet (284 meters) AMSL.
Alternative E – Wind Turbine Layout Modification to Establish a Setback between Atlantic Shores South and Ocean Wind 1	Under Alternative E (Figure 2.1-14), the construction and installation, O&M, and eventual decommissioning of two wind energy facilities (Project 1 and Project 2) on the OCS offshore New Jersey would occur within the range of the design parameters outlined in the COP, subject to applicable mitigation measures. However, modifications would be made to the wind turbine array layout to create a 0.81-nautical-mile (1,500-meter) to 1.08-nautical-mile (2,000-meter) setback range between WTGs in the Atlantic Shores South Lease Area (OCS-A 0499) and WTGs in the Ocean Wind 1 Lease Area (OCS-A 0498) to reduce impacts on existing ocean uses, such as commercial and recreational fishing and marine (surface and aerial) navigation. There would be no surface occupancy along the southern boundary of the Atlantic Shores South Lease Area through the exclusion or micrositing of up to four to five WTG positions to allow for a 0.81-nautical-mile (1,500-meter) to 1.08-nautical-mile (2,000-meter) separation between WTGs in the Atlantic Shores South Lease Area and WTGs in the Ocean Wind 1 Lease Area.
Alternative F – Foundation Structures	Under Alternative F, the construction and installation, O&M, and eventual decommissioning of two wind energy facilities (Project 1 and Project 2) on the OCS offshore New Jersey would occur within the range of the design parameters outlined in the COP, subject to applicable mitigation measures. This includes a range of foundation types (of monopile and piled jacket, suction bucket, and gravity-based). To assess the extent of potential impacts of each foundation type for up to 211 foundations (inclusive of WTGs, OSSs, and 1 permanent met tower [Project 1]), this Final EIS analyzes the following: • **Alternative F1: Piled Foundations** The use of monopile and piled jacket foundations only is analyzed for the maximum extent of impacts. • **Alternative F2: Suction Bucket Foundations** The use of the mono-bucket, suction bucket jacket, and suction bucket tetrahedron base foundations only is analyzed for the maximum extent of impacts. • **Alternative F3: Gravity-Based Foundations** The use of gravity-pad tetrahedron and gravity-based structure foundations only is analyzed for the maximum extent of impacts.
Preferred Alternative	Under the Preferred Alternative, the construction and installation, O&M, and eventual decommissioning of two wind energy facilities (Project 1 and Project 2) on the OCS offshore New Jersey would occur within the range of design parameters outlined in the COP, subject to applicable mitigation measures. However, modifications would be made to the wind turbine array layout to require the proposed OSSs, met tower, and WTGs to be aligned in a uniform grid with rows in an east-northeast to west-southwest direction spaced 1.0 nautical mile (1.9 kilometers) apart and rows in an approximately north to south direction spaced 0.6 nautical mile (1.1 kilometers) apart (per BOEM-Proposed Mitigation Measure #5; refer to Final EIS, Appendix G, Table G-3); remove a single turbine approximately 150 to 200 feet (45.8 to 61 meters) from the observed Fish Haven (Atlantic City Artificial Reef Site) (per NOAA/NMFS-Proposed Mitigation Measure #1; refer to Final EIS, Appendix G, Table G-3); microsite 29 WTGs, 1 OSS, and associated interarray cables outside of the 1,000-foot (305-meter) buffer of the ridge and swale features within the NMFS-identified AOC 1 and AOC 2 (per Alternative C4), restrict the height of WTGs in Project 1 to a maximum hub height of 522 feet (159 meters) AMSL and maximum blade tip height of 932 feet (284 meters) AMSL (per Alternative D3), and provide a minimum 0.81-nautical mile (1,500-meter) setback between the WTGs in Atlantic

Alternative	Description
	Shores South and the WTGs in Ocean Wind 1 (Lease Area OCS-A 0498) by removing two WTGs and micrositing one WTG from Project 1 (per Alternative E).

[1] Atlantic Shores plans to enter into interconnection service agreements and interconnection construction service agreements with PJM to fund improvements to the onshore Cardiff and Larrabee substations, along with required grid updates. These agreements are distinct from purchase power agreements (PPAs) (applicable in Connecticut, Massachusetts, and Rhode Island) and Offshore Wind Renewable Energy Certificates (ORECs) (applicable in Maryland, New Jersey, and New York). An OREC represents the environmental attributes of 1 megawatt hour (MWh) of electric generation from an offshore wind project. The New Jersey Board of Public Utilities (BPU) awards ORECs through a competitive bidding process and they represent a long-term contract with the State of New Jersey.

[2] The number of WTGs that could be removed may be reduced if this alternative is selected and combined with another alternative that requires removal of additional WTG positions, and if that combination of alternatives would fail to meet the purpose and need, including any awarded offtake agreement(s).

I.4.1.1 Action Alternatives that Would Minimize the Adverse Effect of the Project

While some of the action alternatives and sub-alternatives identified for the Project may avoid, minimize, or mitigate adverse effects on some historic properties, no alternative that meets the purpose and need of Project development in the Lease Area would fully avoid adverse effects on historic properties, including from visual effects on NHLs. BOEM's Preferred Alternative would include at least five fewer WTGs, in addition to a WTG height restriction in Project 1, compared to the Proposed Action and would modify the layout of offshore structures (refer to Table I-9 for a full description for BOEM's Preferred Alternative). This would lessen the overall severity of physical and visual effects on a limited proportion of identified historic properties; however, the adoption of the Preferred Alternative would result in the same adverse effects on historic properties as the Proposed Action.

The following sections compare the other action alternatives to the Proposed Action and discuss which would avoid or minimize the adverse effect of the Project on historic properties. See Chapter 3, Section 3.6.2, *Cultural Resources,* of the Final EIS for additional details on each alternative as applicable to cultural resources and historic properties and for NEPA analyses of the potential impacts of these alternatives on cultural resources, including BOEM's Preferred Alternative.

Minimization of Physical Effects on Historic Properties

The Proposed Action (Alternative B) would have physical adverse effects on historic properties; specifically, these include 59 ASLFs in the marine APE (see Section I.3.1.1 for details).

Alternatives C, D, E, and F all involve a potential reduction in the number of Offshore Project components that would be built for the Project or a change in foundation type, thereby potentially reducing seabed-disturbing activities that could cause physical adverse effects on historic properties. The reduction in number of WTGs, OSSs, and associated interlink cables may minimize effects on ASLFs depending on the locations of the removed components in relation to the specific locations of these historic properties. ASLFs located within the area from which Offshore Project components would be removed would experience no or minimized effects from the Project. Additionally, removal of Offshore Project components under these alternatives would avoid potential physical adverse effects on presently undiscovered marine archaeological resources in these areas. However, while these

alternatives may minimize adverse effects on some specific historic properties, they may also introduce adverse effects on others. A discussion of each alternative and sub-alternative is provided below.

Alternative C includes four sub-alternatives (C1, C2, C3, and C4) that would involve the adjustment of layout or maximum number of WTGs and OSSs (i.e., removal of WTGs, OSSs, and associated interlink cables). Alternative C1 would minimize adverse effects on one ASLF (i.e., Target 48). Alternative C2 would minimize adverse effects on two ASLFs (i.e., Targets 51 and 52). Alternative C3 would minimize adverse effects on one ASLF (i.e., Target 52). In addition to the potential to minimize adverse effects on the aforementioned ASLFs, fully avoiding adverse effects on other ASLFs in the larger vicinity of the removed Offshore Project components under Alternative C could be possible, depending on the adjusted interlink cable layout and Atlantic Shores' implementation of avoidance buffers around the defined resource boundaries. Alternative C4 would result in the same adverse effects on ASLFs as the Proposed Action.

Alternative D includes three sub-alternatives (D1, D2, and D3) that would involve adjustments to the layout and maximum number of WTGs (i.e., removal of WTGs, and associated interlink cables and reduction of height of remaining WTGs in the Lease Area). Alternative D1 would minimize adverse effects on one ASLF (i.e., Target 40) and could fully avoid adverse effects on seven other ASLFs (i.e., Targets 219–225). Alternative D2 would minimize adverse effects on two ASLFs (i.e., Targets 40 and 45) and could fully avoid adverse effects on seven other ASLFs (i.e., Targets 219–225). Alternative D3 would not minimize adverse effects on any ASLFs but could fully avoid adverse effects on two ASLFs (i.e., Targets 219 and 220). Fully avoiding adverse effects on the specific aforementioned ASLFs could be possible, depending on the adjusted interlink cable layout and Atlantic Shores' implementation of avoidance buffers around the defined resource boundaries.

Alternative E would involve modifications to the wind turbine array layout to create a setback between the WTGs in the lease areas of Atlantic Shores South (OCS-A 0499) and Ocean Wind 1 (OCS-A 0498) (i.e., removal or micrositing of WTGs and associated interlink cables). A setback of 0.81 to 1.08 nautical miles (1,500 to 2,000 meters) would occur along the southern boundary of the Lease Area through the exclusion or relocation of up to four to five WTG positions proposed under the Proposed Action. Alternative E would result in a reduction but not full avoidance of adverse effects on four ASLFs (i.e., Targets 51, 52, 226, and 227).

Alternative F includes three sub-alternatives (F1, F2, and F3) to analyze the maximum design scenario for each of the three different foundation categories that could be used for WTGs, OSSs, and met tower. Alternative F1 involves the use of piled foundations for all foundations. Alternative F2 involves the use of suction bucket foundations for all foundations. Lastly, Alternative F3 involves the use of gravity foundations for all foundations. Effects on ASLFs may be reduced, the same, similar, or increased compared to those under the Proposed Action depending on the final foundation type(s) selected under the Proposed Action and specific locations of ASLFs in relation to the proposed WTGs, OSSs, and met tower. The severity of effect on these historic properties increases with the size of the foundation type and anticipated seabed disturbance. However, overall, the nature and physical extent of proposed activities under this alternative would be largely comparable to those of the Proposed Action.

Overall, the potential reduced scale of Alternatives C, D, E, and F may minimize physical adverse effects on historic properties. However, and despite the relatively substantial area that would not be disturbed under Alternatives D1 and D2, the majority of ASLFs subject to effect under the Proposed Action are located in other areas of the marine APE that are unchanged under Alternatives C, D, E, and F. As a result, these alternatives may reduce adverse effects on specific individual ASLFs but would not avoid or substantially minimize adverse effects on ASLFs in general. Because of all these factors, the only alternative that BOEM was able to identify that avoids any Project effects on this type of historic property in general was the No Action Alternative.

Minimization of Visual and Cumulative Visual Effects on Historic Properties

The Proposed Action (Alternative B) would have visual adverse effects on historic properties; specifically, these are 29 historic aboveground resources, including 2 NHLs, that would experience adverse effects in the visual APE for Offshore Project components (see Section I.3.1.3, *Assessment of Effects on Historic Properties in the Visual APE* for a list of these historic properties). A discussion specific to NHLs is provided in *Minimization of Adverse Effects on National Historic Landmarks* below.

Alternatives C, D, and E all involve the reduction in Offshore Project components that would be built for the Project, thereby reducing Project visibility that could cause visual adverse effects on historic properties. Alternative F would not reduce Project visibility and therefore would have the same visual adverse effects as the Proposed Action.

Alternative C includes four sub-alternatives (C1, C2, C3, and C4) that involve the adjustment of layout or maximum number of WTGs and OSSs (i.e., removal of WTGs, OSSs, and associated interlink cables). Three of these alternatives would result in the reduction of WTGs from up to 200 to up to: 184 WTGs (8 percent reduction in WTGs) under Alternative C1; 187 WTGs (6.5 percent reduction in WTGs) under Alternative C2; and 194 WTGs (3 percent reduction in WTGs) under Alternative C3. Given the size, locations, and number of WTGs unaffected by removal under this alternative and its sub-alternatives, Alternative C would not result in substantial minimization of visual adverse effects of the Project on historic aboveground resources in the visual APE for Offshore Project components.

Alternative D includes three sub-alternatives (D1, D2, and D3) that involve adjustments to the layout and maximum number of WTGs (i.e., removal of WTGs and associated interlink cables, and reduction of height of remaining WTGs in the Lease Area). Alternative D1 would remove up to 21 WTGs closest to shore (a 10.5 percent reduction), Alternative D2 would remove up to 31 WTGs closest to shore (a 15.5 percent reduction), and Alternative D3 would remove up to 6 WTGs closest to shore (a 3 percent reduction). Analysis of viewshed modeling indicates that adoption of Alternative D, or any of its sub-alternatives, would not avoid adverse effects on any of the aboveground historic properties that would otherwise be adversely affected by the Proposed Action (see Figures I-3 and I-4 for the viewshed of Alternative D2, which is the sub-alternative that would remove the most turbines). This is due to the proximity of the adversely affected historic properties to the coastline; even with the removal or height restrictions under any of the Alternative D sub-alternatives, the views of the Project from these historic properties would still result in an adverse effect. However, BOEM found that the removal of WTGs and

WTG height restrictions may allow for a reduction in the severity of these visual adverse effects. While each of these sub-alternatives would reduce Project visibility from historic aboveground resources, only Alternatives D1 and D2 may involve a substantial enough reduction in visibility as to minimize adverse effects on specific individual historic properties.

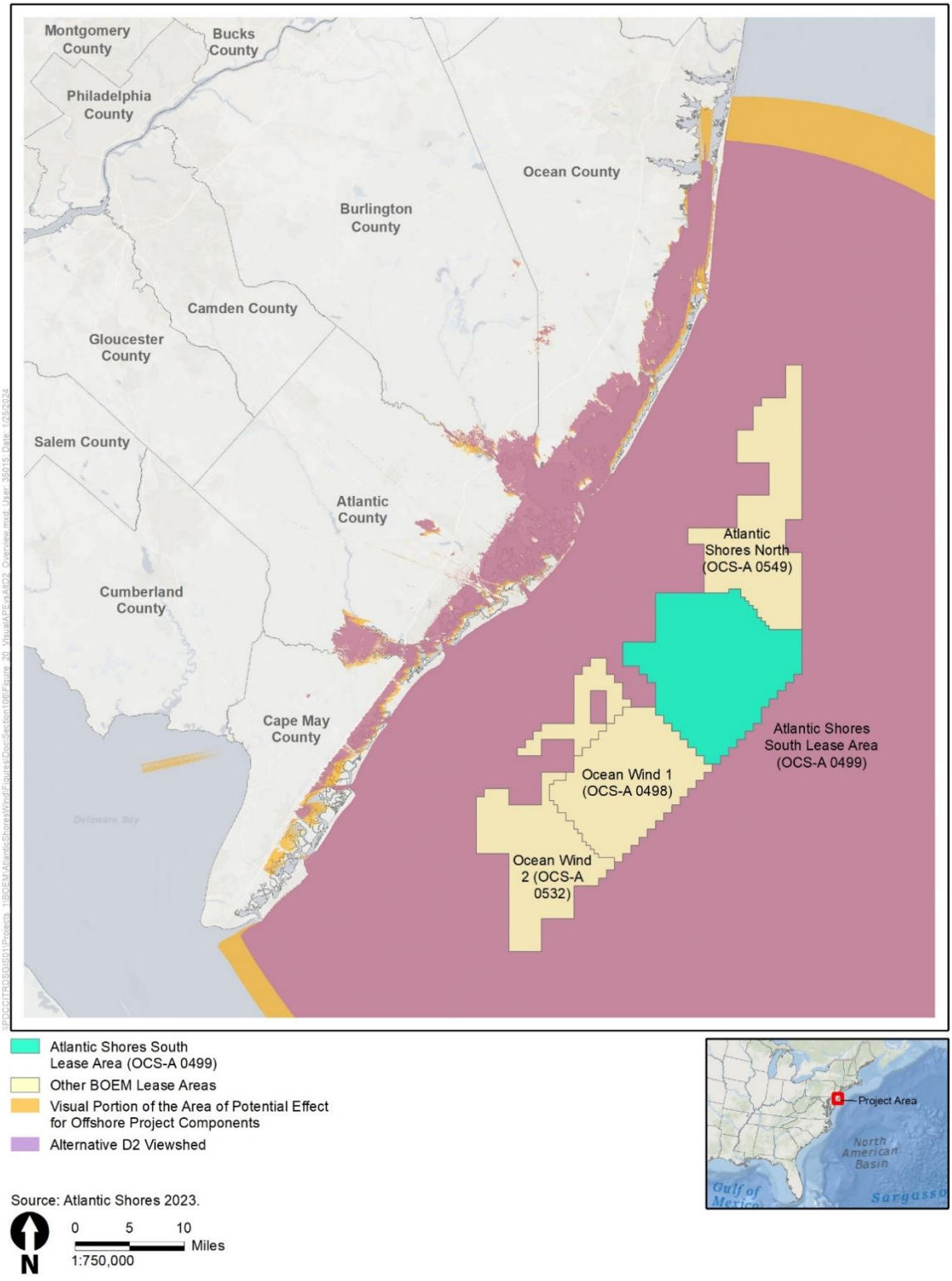

Figure I-3. Comparison of Alternative D2 Viewshed and Project Visual APE[5]

[5] The layer for Alternative D2 viewshed appears as a pinkish color rather than purple per the map legend, indicating areas where the Alternative D2 viewshed overlaps with the visual APE for Offshore Project components.

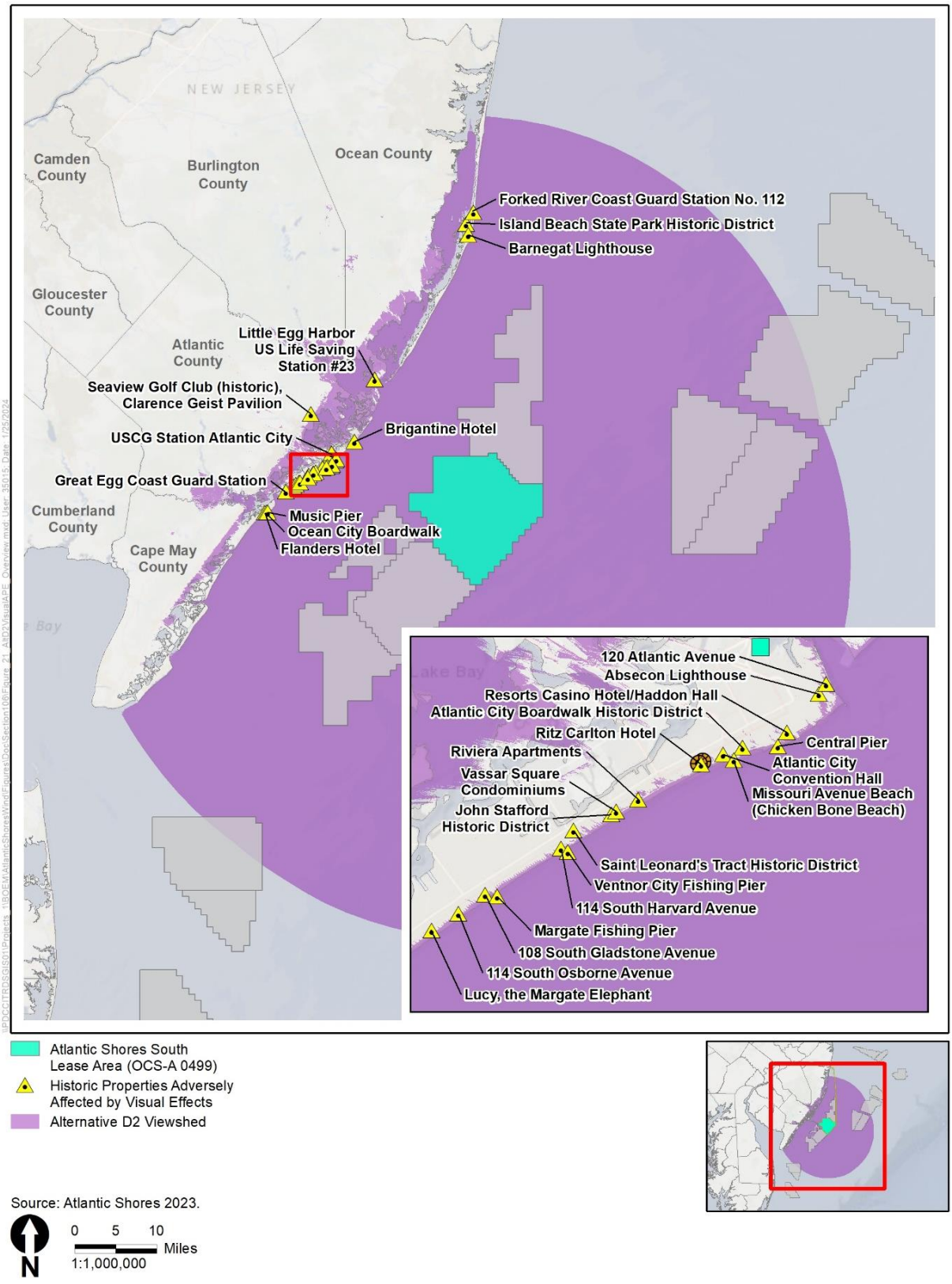

Figure I-4. Locations of the Historic Properties Adversely Affected by the Project in Relation to Alternative D2 Viewshed

Alternative E would involve modifications to the wind turbine array layout to create a setback between the WTGs in the lease areas of Atlantic Shores South (OCS-A 0499) and Ocean Wind 1 (OCS-A 0498) (i.e., removal or micrositing of WTGs and associated interlink cables). A setback of 0.81 to 1.08 nautical miles (1,500 to 2,000 meters) would occur along the southern boundary of the Lease Area through the exclusion or relocation of up to four to five WTG positions proposed under the Proposed Action (if excluded, this Alternative would represent a 2 to 2.5 percent reduction in WTGs). Similar to Alternative C, Alternative E would not result in substantial minimization of visual adverse effects of the Project on historic aboveground resources in the visual APE for Offshore Project components given the size, locations, and number of WTGs unaffected by removal or relocation under this alternative.

Overall, Alternatives C, D, and E would reduce Project visibility from aboveground historic properties; however, Alternatives C, D3, and E are unlikely to result in a substantial minimization of visual adverse effects. Alternatives D1 and D2, which involve the removal of 21 and 31 WTGs closest to shore, respectively, may reduce the severity of visual adverse effects on historic properties. The No Action Alternative would fully avoid any Project effects on these historic properties.

Contributing to the potential 1,021 WTGs modeled in a maximum-case scenario for other future offshore wind activities, all the action alternatives (B through F) would result in visual adverse effects from offshore WTG structure visibility and lighting, including from navigational and aviation hazard lighting systems. Due to cumulative effects from other offshore wind activities, the same 29 historic properties in the visual APE for Offshore Project components would continue to be adversely affected by offshore structure and lighting visibility under Alternatives C through F as under the Proposed Action. The cumulative visual effects on historic properties in the visual APE associated with Alternatives C through F, when combined with past, present, and reasonably foreseeable activities, would be long-term and adverse, until decommissioning of the Project.

Minimization of Adverse Effects on National Historic Landmarks

The implementing regulations for Section 106 of the NHPA at 36 CFR 800.10 provide special requirements for protecting NHLs and complying with the NHPA Section 110(f). NHPA Section 110(f) applies specifically to NHLs. NPS, which administers the NHL program for the Secretary of the Interior, describes NHLs and requirements for NHLs as follows:

> 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.

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.

BOEM has planned and is taking action to avoid adverse effects on NHLs in accordance with NHPA 110(f) and pursuant to *The Secretary of the Interior's Standards and Guidelines for Federal Agency Historic Preservation Programs Pursuant to the National Historic Preservation Act* (NPS 2021). BOEM has determined that two NHLs (i.e., the Atlantic City Convention Hall [Jim Whelan Boardwalk Hall] and Lucy, The Margate Elephant) would be adversely affected by the Proposed Action. BOEM has notified NPS (as the delegate of the Secretary of the Interior) and ACHP of this determination with distribution of this Finding. ACHP and NPS have been active consulting parties on the Project since BOEM invited them to consult at the initiation of the NHPA Section 106 process on the Project on October 14 and October 18, 2021, respectively. BOEM is fulfilling its responsibilities to give a higher level of consideration to minimizing harm to NHLs, as required by NHPA Section 110(f), through implementation of the special requirements outlined at 36 CFR 800.10.

In the EIS and as described herein (Table I-9), BOEM has identified alternatives that could reduce the number of WTGs from the maximum-case scenario of the Proposed Action (i.e., Alternatives C, D, and E). While the differences between alternatives may be variable, all alternatives under which a reduction in WTGs is proposed would reduce the visibility of the Project from the NHLs. However, under Alternatives C, D, E, and F, BOEM has determined that the Atlantic City Convention Hall (Jim Whelan Boardwalk Hall) and Lucy, The Margate Elephant would still be adversely affected by the Project given the size, location, and number of proposed WTGs and distance of the WTA to the shoreline of Atlantic City under these alternatives. Alternatives D1 and D2, which involve the removal of 21 and 31 WTGs closest to shore, respectively, may reduce the severity of visual adverse effects on these NHLs. The No Action Alternative would fully avoid any Project effects on these historic properties.

When prudent and feasible alternatives "appear to require undue cost or to compromise the undertaking's goals and objectives, the agency must balance those goals and objectives with the intent of Section 110(f)" (NPS 2021). In this balancing, NPS suggests that agencies should consider "(1) the magnitude of the undertaking's harm to the historical, archaeological and cultural qualities of the NHL; (2) the public interest in the NHL and in the undertaking as proposed, and (3) the effect a mitigation action would have on meeting the goals and objectives of the undertaking" (NPS 2021). For the Project, the magnitude of the visual effects on the Atlantic City Convention Hall (Jim Whelan Boardwalk Hall) and Lucy, The Margate Elephant would be minimized by the distance between proposed offshore WTGs and NHLs and through environmental factors, including weather and atmospheric conditions, that limit

views of the Project WTGs from the NHLs. Moreover, while the undertaking would affect the historic setting of the NHLs, it would not affect other character-defining features or aspects of the NHLs' integrity. The Atlantic City Convention Hall (Jim Whelan Boardwalk Hall) and Lucy, The Margate Elephant, should the undertaking proceed, would still illustrate their regional and national significance, and continue to exemplify their national importance.

Through consultation, BOEM has refined minimization measures to the maximum extent feasible and developed mitigation measures to resolve adverse effects the Project would have on the Atlantic City Convention Hall (Jim Whelan Boardwalk Hall) and Lucy, The Margate Elephant despite implementation of minimization measures. BOEM has identified and finalized mitigation measures specific to the NHLs with the consulting parties through development of the MOA (see Attachment A for the draft MOA as of April 10, 2024 [Draft 4]). Mitigation measures for resolving adverse effects on the NHLs are reasonable in cost and have not been determined using inflexible criteria, as described by NPS (2021). Mitigation of adverse effects on the NHLs meet the following requirements:

- Reflect the heightened, national importance of the property and be appropriate in magnitude, extent, nature, and location of the adverse effect;
- Focus on replacing lost historic resource values with outcomes that are in the public interest, such as through development of products that convey the important history of the property;
- Comply with The Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring and Reconstructing Historic Buildings (NPS 2017).

I.4.2 Avoidance, Minimization, Mitigation, and Monitoring Measures

BOEM has consulted with federally recognized Tribes, SHPOs, ACHP, and consulting parties to develop avoidance, minimization, mitigation, and monitoring measures for addressing the Project's adverse effects on historic properties. Specifically, BOEM's consultation has developed measures to avoid physical effects and minimize visual effects on historic properties in the APE. BOEM has also consulted to develop mitigation measures that would be triggered in cases where avoidance of adverse effects on historic properties is not feasible. The Project's MPRDPs include a consultation process to determine appropriate mitigation in cases where there is unanticipated discovery of a previously unknown marine or terrestrial archaeological resource that is not currently found to be subject to adverse effects from the Project.

The NHPA Section 106 consultation process has culminated in an MOA detailing avoidance, minimization, mitigation, and monitoring measures to avoid and resolve adverse effects on historic properties, including cumulative visual adverse effects to which the Project would be additive. These measures, including the aforementioned MPRDPs, will be stipulated in the MOA and are summarized in Appendix G of the Final EIS. Attachment A reflects the draft MOA as of April 10, 2024 (Draft 4).

I.5 Phased Identification and Evaluation

In consultation with BOEM and NJHPO, Atlantic Shores will be using a process of phased identification and evaluation of historic properties as defined in 36 CFR 800.4(b)(2). This includes any remaining unsurveyed areas of the terrestrial APE that would require phased identification of historic properties.

Atlantic Shores had developed a Section 106 PIP for the process of completing additional required terrestrial archaeological investigations prior to completion of the Final EIS. This version of the PIP was distributed to consulting parties for review and comment on May 4, 2023, as Attachment 12 of a draft of the MOA (Draft 1). Since this first version of the PIP was shared with consulting parties, BOEM determined additional phased identification and evaluation would be necessary for Atlantic Shores to complete after issuance of the ROD due to logistical limitations related to landowner permissions and land access. A revised TARA report for the Onshore Interconnection Facilities (COP Volume II, Appendix II-P1) reflecting archaeological surveys completed to date as well as a revised PIP was distributed to consulting parties on November 28, 2023, and on February 20, 2024. A final version of the PIP, developed based on BOEM's consultations with consulting parties, will be included in the final MOA.

Archaeological surveys conducted during the phased process may lead to the identification of additional archaeological resources and historic properties in the terrestrial APE. Additionally, if there are any changes to the current Project design for either onshore or Offshore Project components that result in Project components falling outside of the previously assessed APE, updated technical studies and reports will be required.

BOEM has used the MOA to establish commitments for reviewing the sufficiency of any supplemental terrestrial archaeological investigations as phased identification and evaluation of historic properties in the APE; amending the APE per the final Project design, as necessary; and assessing and consulting on effects on historic properties. Simultaneous to the publication of the Final EIS, BOEM is coordinating with signatories to the MOA to have the MOA fully signed and executed by June 28, 2024. The version of the MOA attached to this document as Attachment A reflects the draft MOA as of April 10, 2024 (Draft 4). The fully executed MOA will be posted on BOEM's website at: https://www.boem.gov/renewable-energy/state-activities/atlantic-shores-south; MOA Stipulation IV describes the process for phased identification and evaluation of historic properties. The stipulated process is 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 will ensure potential historic properties are identified, effects are assessed, and adverse effects are resolved prior to construction.

I.6 References Cited

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ATTACHMENT A. DRAFT MEMORANDUM OF AGREEMENT (AS OF APRIL 10, 2024)

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DRAFT FINAL (DRAFT 4)

MEMORANDUM OF AGREEMENT AMONG THE BUREAU OF OCEAN ENERGY MANAGEMENT, THE DELAWARE NATION, THE DELAWARE TRIBE OF INDIANS, THE MASHANTUCKET (WESTERN) PEQUOT TRIBAL NATION, THE MASHPEE WAMPANOAG TRIBE, THE SHINNECOCK INDIAN NATION, THE STOCKBRIDGE-MUNSEE COMMUNITY BAND OF MOHICAN INDIANS, THE WAMPANOAG TRIBE OF GAY HEAD (AQUINNAH) THE STATE HISTORIC PRESERVATION OFFICER OF NEW JERSEY, THE NEW JERSEY HISTORIC TRUST, ATLANTIC SHORES OFFSHORE WIND PROJECT 1, LLC, ATLANTIC SHORES OFFSHORE WIND PROJECT 2, LLC, AND THE ADVISORY COUNCIL ON HISTORIC PRESERVATION REGARDING THE ATLANTIC SHORES OFFSHORE WIND SOUTH PROJECT (LEASE NUMBER OCS-A 0499)

WHEREAS, the Bureau of Ocean Energy Management (BOEM) is considering whether to authorize construction and operation of the Atlantic Shores Offshore Wind South Project (Project) pursuant to subsection 8(p)(1)(C) of the Outer Continental Shelf (OCS) Lands Act (43 United States Code [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 aft 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 U.S.C. 306108), and its implementing regulations (36 CFR 800), consistent with the Programmatic Agreement (New Jersey-New York PA) regarding the review of OCS renewable energy activities offshore New Jersey and New York (*Programmatic Agreement Among The U.S. Department of the Interior, Bureau of Ocean Energy Management, The State Historic Preservation Officers of New Jersey and New York, The Shinnecock Indian Nation, and The Advisory Council on Historic Preservation Regarding Review of Outer Continental Shelf Renewable Energy Activities Offshore New Jersey and New York Under Section 106 of the National Historic Preservation Act*); and

WHEREAS, BOEM is considering whether to approve with conditions the Project Construction and Operations Plan (COP) submitted by Atlantic Shores Offshore Wind Project 1, LLC (Atlantic Shores Project 1 Company) and Atlantic Shores Offshore Wind Project 2, LLC (Atlantic Shores Project 2 Company) (Project Companies) of which Atlantic Shores Offshore Wind, LLC (hereafter *Lessee*) is the owner and an affiliate of both Project Companies; and

WHEREAS, BOEM determined that the construction, installation, operations and maintenance (O&M), and conceptual decommissioning of two offshore wind energy facilities (Project 1 and Project 2), known collectively as the Atlantic Shores Offshore Wind South Project (Project), planned for Lease Area OCS-A 0499 and to include up to 200 offshore wind turbine generators (WTGs) and their foundations, up to 10 offshore substations (OSSs) and their foundations, one meteorological (met) tower and its foundation, scour protection for foundations, interarray or interlink cables linking the individual turbines to the OSSs, offshore export cables and an onshore export cable system, two landfall locations in Sea Girt, New Jersey and Atlantic City, New Jersey, two onshore substations and/or converter stations (i.e., at the Fire Road Site and one of three site options at Lanes Pond Road, Brook Road, or Randolph Road), connections to the existing electrical grid in New Jersey, and an O&M facility in Atlantic City, New Jersey, has the potential to adversely affect historic properties as defined under 36 CFR 800.16(l); and

WHEREAS, BOEM prepared an Environmental Impact Statement (EIS) for the Project pursuant to the National Environmental Policy Act (42 U.S.C. 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, in accordance with 36 CFR 800.3, on October 15, 2021, BOEM invited the New Jersey State Historic Preservation Officer (SHPO) and Advisory Council on Historic Preservation (ACHP) to consult on the Project and notified New Jersey SHPO and ACHP of its decision to use NEPA substitution and follow the standards for developing environmental documents to comply with the Section 106 consultation for this Project pursuant to 36 CFR 800.8(c), and New Jersey SHPO accepted through participation in consultation after that date, and ACHP responded with acknowledgement on October 20, 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 pursuant to the *Programmatic Agreement Among the U.S. Department of the Interior, Bureau of Ocean Energy Management; the State Historic Preservation Officers of Delaware, Maryland, New Jersey, and Virginia; the Advisory Council on Historic Preservation; the Narragansett Indian Tribe; and the Shinnecock Indian Nation Regarding the "Smart from the Start" Atlantic Wind Energy Initiative: Leasing and Site Assessment Activities within the Wind Energy Areas offshore Delaware, Maryland, New Jersey, and Virginia*, and BOEM issued a Finding of No Historic Properties Affected on July 11, 2012; and

WHEREAS, the Project is within a commercial lease area that was subject to previous NHPA Section 106 review pursuant to the New Jersey-New York PA by BOEM regarding approval of a Site Assessment Plan (SAP), BOEM determined that no historic properties were affected by site assessment activities proposed in the SAP pursuant to the New Jersey-New York PA, and BOEM approved the SAP on April 8, 2021; and

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 portion of the APE (marine APE); the depth and breadth of terrestrial areas potentially impacted by any ground-disturbing activities, constituting the terrestrial portion of the APE (terrestrial APE); the viewshed from which offshore or onshore renewable energy structures would be visible, constituting the visual portion of the APE (visual APE); all areas subject to physical and visual effects from the undertaking at the O&M facility (O&M facility APE); and any temporary or permanent construction or staging areas that may fall into any of the aforementioned offshore or onshore portions of the APE (see Attachment 1, *APE Maps*); and

WHEREAS, BOEM identified the following historic properties in the APE: 22 marine archaeological resources and 59 ancient submerged landform features (ASLFs) in the marine APE; one (1) terrestrial archaeological resource and one (1) historic aboveground resource in the terrestrial APE; and 112 aboveground historic properties in the visual APE (i.e., 102 in the visual APE for Offshore Project components, three [3] in the visual APE for Onshore Project components, and seven [7] in the visual portion of the O&M facility APE); and

WHEREAS, BOEM identified two (2) NHLs in the visual APE for Offshore Project components (i.e., Atlantic City Convention Hall [Jim Whelan Boardwalk Hall] and Lucy, The Margate Elephant); and

WHEREAS, BOEM determined that the Project design and implementation of avoidance measures identified in this Memorandum of Agreement (MOA) will avoid adverse effects on certain historic properties: 22 marine archaeological resources, such as shipwrecks or potential shipwrecks (i.e., Marine

Archaeological Resources 01–21 and 232); one terrestrial archaeological resource (i.e., 23-Mo-283) and one (1) historic aboveground resource (i.e., West Jersey and Atlantic Railroad Historic District) in the terrestrial APE; and 73 aboveground historic properties in the visual APE for Offshore Project components, three (3) aboveground historic properties in the visual APE for Onshore Project components, and seven (7) aboveground historic properties in the visual portion of the O&M facility APE; and

WHEREAS, within the range of Project alternatives analyzed in the EIS, BOEM determined the 59 ASLFs identified in the marine APE (i.e., ASLFs 22–46, 48, 50–52, 54, 57, 204–231) are eligible for listing in the National Register of Historic Places (NRHP) under Criteria A and D and would be adversely affected by physical disturbance from Offshore Project construction within the avoidance buffers of these resources; and

WHEREAS, within the range of Project alternatives analyzed in the EIS, BOEM determined the following 29 historic aboveground resources in the visual APE in New Jersey would be visually adversely affected by the Project: Absecon Lighthouse in Atlantic City, Atlantic County; Atlantic City Boardwalk Historic District in Atlantic City, Atlantic County; Atlantic City Convention Hall (Jim Whelan Boardwalk Hall; NHL) in Atlantic City, Atlantic County; Barnegat Lighthouse in Barnegat Light, Ocean County; Brigantine Hotel in Brigantine City, Atlantic County; Central Pier in Atlantic City, Atlantic County; The Flanders Hotel in Ocean City, Cape May County; Forked River Coast Guard Station No. 112 in Berkeley Township, Ocean County; Great Egg Coast Guard Station in Longport Borough, Atlantic County; Haddon Hall (Resorts Casino Hotel) in Atlantic City, Atlantic County; Island Beach State Park Historic District in Berkeley Township, Ocean County; John Stafford Historic District in Ventnor City, Atlantic County; Little Egg Harbor U.S. Life Saving Station #23 in Little Egg Harbor, Ocean County; Lucy, The Margate Elephant (NHL) in Margate City, Atlantic County; Margate Fishing Pier in Margate City, Atlantic County; Missouri Avenue Beach (Chicken Bone Beach) in Atlantic City, Atlantic County; Music Pier in Ocean City, Cape May County; Ocean City Boardwalk in Ocean City, Cape May County; Ritz Carlton Hotel in Atlantic City, Atlantic County; Riviera Apartments in Atlantic City, Atlantic County; Saint Leonard's Tract Historic District in Ventnor City, Atlantic County; Seaview Golf Club, Clarence Geist Pavilion in Galloway Township, Atlantic County; U.S. Coast Guard Station in Atlantic City, Atlantic County; Vassar Square Condominiums in Ventnor City, Atlantic County; Ventnor City Fishing Pier in Ventnor City, Atlantic County; 108 South Gladstone Avenue in Margate City, Atlantic County; 114 South Harvard Avenue in Ventnor City, Atlantic County; 114 South Osborne Avenue in Margate City, Atlantic County; and 120 Atlantic Avenue in Atlantic City, Atlantic County; and

WHEREAS, within the range of Project alternatives analyzed in the EIS, BOEM determined there would be a visual adverse effect on two (2) NHLs in the visual APE for Offshore Project components (i.e., Atlantic City Convention Hall [Jim Whelan Boardwalk Hall] and Lucy, The Margate Elephant); and

WHEREAS, BOEM, in consultation with Tribal Nations, New Jersey SHPO, ACHP, and consulting parties, has developed this MOA to document the resolution of the undertaking's adverse effects, as required by NHPA Section 106 at 36 CFR 800.6, on 59 historic properties in the marine APE (i.e., 59 ASLFs) and 29 historic properties in the visual APE (i.e., 29 historic aboveground resources, including two [2] NHLs); and

WHEREAS, BOEM has planned and is taking action to minimize harm, as required by NHPA Section 110(f) at 36 CFR 800.10, to the two (2) adversely affected NHLs in the visual APE (i.e., Atlantic City Convention Hall [Jim Whelan Boardwalk Hall] and Lucy, The Margate Elephant) as explained in the Finding of Effect, with minimization measures including the use of non-reflective white or light gray paint on Offshore Project components and Aircraft Detection Lighting Systems (ADLS) to minimize visibility of the Project from the NHLs; and

WHEREAS, New Jersey SHPO concurred with BOEM's Finding of Adverse Effect on Historic Properties on March 20, 2024; and

WHEREAS, throughout this document the term "Tribal Nation" have the same meaning as "Indian Tribe" as defined at 36 CFR 800.16(m); and

WHEREAS, BOEM recognizes its government-to-government obligation to consult with Tribal Nations that may attach religious and cultural significance to historic properties that may be affected by the proposed undertaking and will comply with the American Indian Religious Freedom Act (AIRFA), Native American Graves Protection and Repatriation Act (NAGPRA), Executive Orders 13007, 13175, and 14112, Department Manual 512, Chapter 4 and 5 (November 2022), and Memorandum of Understanding to Protect Sacred Sites (November 2021); and

WHEREAS, BOEM acknowledges the United Nations draft resolution, Our Ocean, Our Future: Call for Action (Seventy-first session, A/71/L.74, June 2017) and UNESCO, SDG 11 Synthesis Report, Target 11.4, Strengthen efforts to protect and safeguard the world's cultural and natural heritage, July 5, 2023; and

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

WHEREAS, the Mashantucket (Western) Pequot Tribal Nation initially declined BOEM's invitation to consult on November 22, 2021; however, on April 19, 2023, the Tribal Nation indicated the Project is in their revised area of interest, therefore requested to receive notifications for the Project, and participated in Section 106 consultation meetings and reviews; and

WHEREAS, the Stockbridge-Munsee Community Band of Mohican Indians initially declined BOEM's invitation to consult on November 12, 2021; however, on May 31, 2023, the Tribal Nation indicated the Project is in their area of interest, therefore requested to consult on the Project, and participated in Section 106 consultation meetings and reviews; and

WHEREAS, the Absentee-Shawnee Tribe of Indians of Oklahoma and Shawnee Tribe declined BOEM's invitation to consult; and

WHEREAS, the Delaware Tribe of Indians, Mashpee Wampanoag Tribe, The Delaware Nation, The Shinnecock Indian Nation, and Wampanoag Tribe of Gay Head (Aquinnah) have participated in consultation on the Project; and

WHEREAS, the Eastern Shawnee Tribe of Oklahoma and The Narragansett Indian Tribe did not respond to BOEM's invitation to consult; however, BOEM has included these Tribal Nations in all consulting party communications; and

WHEREAS, the Mashpee Wampanoag Tribe continues to participate in Section 106 consultations with BOEM and in compliance with the NHPA and as a cooperating Tribal government under the Council on Environmental Quality (CEQ) guidance to preserve and protect its sacred sites and natural and cultural resources, and through consultation, the Mashpee Wampanoag Tribe categorically objects to the adverse effects as a result of the undertaking; and

WHEREAS, the Mashpee Wampanoag Tribe attaches traditional and cultural association to ASLFs and asserts sacred sites should be avoided comparable to the same extent that historic shipwrecks are being avoided; and

WHEREAS, the Mashpee Wampanoag Tribe asserts inherent aboriginal rights, title, and jurisdictional interest over the submerged lands once inhabited by their ancestors and objects to ACHP's guidance and direction of SHPO's signatory authority on submerged archaeological assets; and

WHEREAS, the Mashpee Wampanoag Tribe is a federally recognized Tribe and asserts inherent aboriginal rights, title, and jurisdictional interest over submerged lands extending to the Exclusive Economic Zone (EEZ) and do not recognize SHPO authority over Tribal authority of maritime environments and submerged landscapes; and

WHEREAS, the Mashpee Wampanoag Tribe extends its spiritual and cultural connections to these submerged lands and maritime environments as a traditional cultural place and sacred site based on traditional cultural knowledge and Indigenous expertise and therefore expects a consensus seeking model and co-management approach to these spiritually connected environments based on cultural provenance; and

WHEREAS, BOEM acknowledges Tribal Nations possess special expertise in assessing the NRHP eligibility of properties of religious and cultural significance to Tribal Nations, pursuant to 36 CFR § 800.4(c)(1), and BOEM has consulted with Tribal Nations to identify historic properties of religious and cultural significance to the Tribal Nation(s) that may be eligible for listing in the NRHP and that may be affected by the undertaking; and

WHEREAS, the Delaware Tribe of Indians, The Delaware Nation, Mashantucket (Western) Pequot Tribal Nation, Mashpee Wampanoag Tribe, The Shinnecock Indian Nation, Stockbridge-Munsee Community Band of Mohican Indians, Wampanoag Tribe of Gay Head (Aquinnah) have certain responsibilities assigned to them in this MOA related to implementation of mitigation measures for their respective Tribal Nations, and BOEM invited these Tribal Nations to sign this MOA as invited signatories; and

WHEREAS, in accordance with 36 CFR 800.3, BOEM invited other federal agencies, state and local governments, and consulting parties with a demonstrated interest in the undertaking to participate in this consultation; the list of those invited and accepting participation are listed in the *Lists of Invited Governments and Organizations and Participating Consulting Parties* (Attachment 2); and

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

WHEREAS, BOEM invited the United States Army Corps of Engineers (USACE) to consult since USACE has the authority to issue any needed permits and permissions for this Project under Section 404 of the Clean Water Act (33 U.S.C. 1344), Sections 10 and 14 of the Rivers and Harbors Act (33 U.S.C. 403), and Section 103 of the Marine Protection, Research, and Sanctuaries Act; and

WHEREAS, construction of the Project requires a Department of the Army (DA) permit from USACE for activities that would result in the discharge of dredged or fill material in waters of the United States pursuant to Section 404 of the Clean Water Act (33 U.S.C. 1344), and work and structures in navigable waters of the United States and structures from the mean high water mark to the seaward limit of the OCS pursuant to Section 10 of the Rivers and Harbors Act of 1899 (33 U.S.C. 403), and activities associated with ocean disposal of dredged materials under Section 103 of the Marine Protection, Research, and Sanctuaries Act, and requires Section 408 permission under Section 14 of the Rivers and

Harbors Act for any alterations that have the potential to alter, occupy, or use any federally authorized civil works projects; and

WHEREAS, 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 February 1, 2024), BOEM invited USACE to sign this MOA as a concurring party; and

WHEREAS, USACE is or will be the Lead Federal Agency responsible for reviewing and authorizing a connected action, which includes the repair and/or replacement of an existing bulkhead to be conducted by the Lessee under a USACE Individual Permit and implementation of a maintenance dredging program to be conducted in coordination with the City of Atlantic City under an approved USACE DA Permit (CENAP-OPR-2021-00573-95) and a New Jersey Department of Environmental Protection (NJDEP) Dredge Permit (No. 0102.20.0001.1 LUP 210001), which BOEM has reviewed as part of the Project; and

WHEREAS, USACE's permitted area for the connected action of the maintenance dredging program per DA Permit CENAP-OPR-2021-00573-95 encompasses a portion of BOEM's O&M facility APE, BOEM has reviewed and agrees with USACE's Finding of No Effect on Historic Properties per this DA Permit for areas in which the USACE permitted area for the connected action and O&M facility APE overlap; and

WHEREAS, the Bureau of Safety and Environmental Enforcement (BSEE) 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 on May 29, 2024, and BOEM invited BSEE to sign this MOA as a concurring party; and

WHEREAS, BOEM will participate in the Section 106 review for the repair and/or replacement of an existing bulkhead under USACE Individual Permit, which will occur at a later date, with USACE serving as Lead Federal Agency, and BOEM will consult with signatories and consulting parties if this Section 106 review requires alteration of the conclusions reached in BOEM's 2024 *Finding of Adverse Effect for the Atlantic Shores Offshore Wind South Project Construction and Operations Plan* (hereinafter, the Finding of Effect); and

WHEREAS, BOEM notified and invited the Secretary of the Interior (hereafter *SOI* or *Secretary*; represented by the National Park Service [NPS]) to consult regarding this Project pursuant to the Section 106 regulations, including consideration of the potential effects on National Historic Landmarks (NHLs) as required under NHPA Section 110(f) (54 U.S.C. 306107) and 36 CFR 800.10; NPS accepted BOEM's invitation to consult on November 22, 2021; BOEM invited NPS to sign this MOA as a concurring party; and NPS informed BOEM that it wishes to continue to be a consulting party, but that given the nature of the adverse effects on NHLs, NPS will not be a signatory to this MOA; and

WHEREAS, BOEM invited the New Jersey Historic Trust to consult because the organization agreed to be the third-party administrator for the mitigation fund associated with adversely affected historic properties located in New Jersey, established under Stipulation III.C.1.i, this MOA assigns certain responsibilities to the New Jersey Historic Trust in administering this mitigation fund, and BOEM invited the New Jersey Historic Trust to sign this MOA as an invited signatory; and

WHEREAS, in accordance with 36 CFR 800.6(a)(1), BOEM has notified the ACHP of its adverse effect determination with its distribution of the Finding of Effect, including adverse effects on the NHLs pursuant to 36 CFR 800.10(b), and ACHP is consulting on the resolution of adverse effects on the historic properties pursuant to 36 CFR 800.6(a)(1)(iii) and 36 CFR 800.10(b); and

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

WHEREAS, BOEM conducted five Section 106 consultation meetings on August 30, 2022; June 8, 2023; December 4, 2023; February 27, 2024; and April 25, 2024 and invited consulting parties (see Attachment 2) to these meetings; and

WHEREAS, pursuant to 36 CFR 800.6, BOEM invited all other consulting parties not designated as required or invited signatories, as stated in the previous clauses of this MOA 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 (i.e., hereafter, required and invited signatories) agree, consistent with 36 CFR 800.6(b)(2), that adverse effects will be resolved in the manner set forth in this MOA; and

WHEREAS, BOEM sought and considered the views of the public regarding Section 106 for this Project through the NEPA process by holding virtual public scoping meetings when initiating the NEPA and NHPA Section 106 review on October 19, 21, and 25, 2021, and public meetings related to the Draft EIS in-person on June 21 and 22, 2023 and virtually on June 26 and 28, 2023; and

WHEREAS, BOEM made the first Draft MOA available to the public for review and comment from May 19, 2023 through July 3, 2023, and made an updated version of the Draft MOA available to the public on March 22, 2024 using BOEM's Project website, and BOEM received comments from the public; and

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

STIPULATIONS

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

I. MEASURES TO AVOID ADVERSE EFFECTS ON IDENTIFIED HISTORIC PROPERTIES

A. BOEM will include the following measures for avoiding adverse effects on historic properties located in the Project APE as conditions of approval of the Project COP:

1. Marine APE

i. The Lessee will comply with protective buffers recommended by the Qualified Marine Archaeologist (QMA) for all 22 marine archaeological resources (i.e., Marine Archaeological Resources 01–21 and 232). Protective buffers measure a minimum of 50 meters from the outer edge of magnetic anomalies or acoustic contacts for each of the resources as described in the *Cultural Resources Avoidance, Minimization, and Mitigation Plan* (Attachment 3) and *Marine Archaeology Monitoring and Post-Review Discovery Plan* (Attachment 4).

ii. To demonstrate avoidance of all marine archaeological resources and historic properties identified in Stipulation I.A.1.i, the Lessee will provide as-placed and as-laid maps with both the horizontal and vertical extent of all seafloor impacts. These seafloor impacts may include anchoring activities (location of all anchors, anchor chains, cables, and wire ropes on the seafloor, including sweep but excluding the vertical extent of anchor penetration of the seafloor), cable installation (including trenching depths and seafloor footprint of the installation vessel), and WTG installation (anchoring and spudding/jack-up vessel placement). The as-built or as-laid position plats must be submitted at a scale of 1-in. = 1,000-ft., with Differential Global Positioning System (DGPS) accuracy demonstrating that these seafloor disturbing activities complied with the avoidance criteria applied to the archaeological sites or historic properties established in this MOA. These documents and maps must be submitted to BOEM for consulting parties to review no later than 90 days after completion of the seafloor disturbing/construction activities.

iii. During construction of the Project, the Lessee will prepare and submit annual reports to BOEM that describe implementation of avoidance buffers, pursuant to Stipulation XV (*Reporting*).

2. Terrestrial APE

i. The Lessee will conduct archaeological monitoring during onshore construction in areas identified as having high or moderate archaeological sensitivity (including "medium-high" or "medium" archaeological sensitivity as described in the *Cultural Resources, Avoidance, Minimization, and Mitigation Plan* [Attachment 3]), including undisturbed, paved areas within 1,000 feet of a previously identified archaeological site, consistent with the protocol described in the *Terrestrial Archaeology Monitoring and Post-Review Discovery Plan* (Attachment 5). If archaeological resources or human remains are identified during construction, operations, or decommissioning of the Project, the onsite construction supervisor must stop work immediately and follow the protocols outlined in the *Terrestrial Archaeology Monitoring and Post-Review Discovery Plan* (Attachment 5).

ii. The Lessee will construct the portion of the onshore export cable within the proposed Limit of Disturbance (LOD) as depicted in New Jersey Department of Environmental Protection (NJDEP) permit application 0000-21-0022.2 LUP240001 (NJDEP Permitting Plan, Tiles 47-49) to ensure avoidance of the Greenwood Cemetery. Along Black Horse Pike (U.S. Route 40 7 322), the LOD is located within the paved lanes of the roadway, approximately 10–11 feet south of the northern curb/gutter and sidewalk that borders the edge of the Greenwood Cemetery parcel. Any change to the proposed LOD at this location that results in a placement closer than 10–11 feet from the northern curb of Black Horse Pike will require additional consultation pursuant to Stipulation VII (*Project Modifications*). If any such changes are made to the location or extent of the proposed LOD at this location, the Lessee will provide updated and detailed construction drawings to BOEM and New Jersey SHPO depicting the LOD adjacent to Greenwood Cemetery, as soon as those plans are available and no later than 60 days prior to the start of construction.

iii. The Lessee will coordinate with consulting Tribal Nations to provide them with an opportunity to participate as monitors during ongoing ground disturbing activities in the areas identified for monitoring in Stipulation I.A.2.i. The Lessee must provide compensation and travel and per diem costs, consistent with each Tribal Nation's standard costs for monitoring activities.

3. Visual APE

    i. To maintain avoidance of adverse effects on historic properties in the visual APE where BOEM determined no adverse effects or where no effects would occur, the Lessee must ensure that Project structures are within the Project 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. If the Project is modified, BOEM will follow Stipulation VII (*Project Modifications*).

II. MEASURES TO MINIMIZE ADVERSE EFFECTS ON IDENTIFIED HISTORIC PROPERTIES

1. Visual APE

    i. BOEM has undertaken planning and actions to minimize adverse effects on aboveground historic properties in the visual APE, including minimizing harm to the adversely affected NHLs (i.e., Atlantic City Convention Hall [Jim Whelan Boardwalk Hall] and Lucy, The Margate Elephant). The measures stipulated here will minimize visual adverse effects on all adversely affected aboveground historic properties in the visual APE. Additionally, these measures will minimize the undertaking's additive adverse effects to the cumulative visual adverse effects on these adversely affected historic properties from all reasonably foreseeable offshore wind energy developments. BOEM will include the following measures for minimizing adverse effects on historic properties in the visual APE as conditions of approval of the Project COP:

        a. The Lessee must use uniform WTG design, height, and rotor diameter to reduce visual contrast and decrease visual clutter.

        b. The Lessee must apply a paint color to the WTGs no lighter than Pure White (RAL 9010) and no darker than Light Grey (RAL 7035) in accordance with Federal Aviation Administration (FAA) Advisory Circular 70/7460-1M (2020) and BOEM's Guidelines for Lighting and Marking of Structures Supporting Renewable Energy Development (April 28, 2021) to help reduce potential visibility of the turbines.

        c. The Lessee must use ADLS or related means (e.g., dimming or shielding) to limit visual impact, pursuant to approval by the FAA and BOEM and commercial and technical feasibility at the time of Facility Design Report/Fabrication and Installation Report approval. The WTGs and Offshore Substations (OSS) must be lit and marked in accordance with FAA and United States Coast Guard (USCG) lighting standards and will be 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 ON IDENTIFIED HISTORIC PROPERTIES

A. BOEM will include the mitigation measures and below-referenced HPTPs listed in Stipulation III as conditions of approval of the Project COP. BOEM will require the Lessee to fund these measures per *Mitigation Funding Amounts* (Attachment 6), which contains good-faith estimates

based on the experience of qualified consultants for similar activities and comparable historic properties.

B. Marine APE

1. The Lessee cannot avoid 59 ASLFs (i.e., ASLFs 22–46, 48, 50–52, 54, 57, 204–231). To resolve the adverse effects on the 59 ASLFs, BOEM will include the following as conditions of approval of the Lessee's COP and require fulfillment of any on-site preconstruction work at these 59 ASLFs for the following mitigation measures prior to construction of the Project. The Lessee must fund mitigation measures, as described in *Mitigation Funding Amounts* (Attachment 6) and the Historic Property Treatment Plan (HPTP) for ASLFs (Attachment 7):

    i. Preconstruction Geoarchaeology. Collaborative review of existing geophysical and geotechnical data with Tribal Nations; selection of coring locations in consultation with Tribal Nations; collection of up to two 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 the Atlantic region, decided through consultation with Tribal Nations; 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 BOEM and consulting Tribal Nations; final reporting; and public or professional presentations summarizing the results of the investigations, developed with the consent of the consulting Tribal Nations. The collection of vibracores must be completed prior to commencing seabed disturbing activities within the ASLFs. The qualified professional marine archaeologist leading the research must meet the professional qualifications listed under Stipulation X (*Expertise and Qualifications*). If any unanticipated discovery is found during the implementation of this mitigation measure, then BOEM with the assistance of the Lessee will follow the Stipulation XIII (*Post-Review Discoveries*).

        a. The collection of the vibracore samples must be completed prior to commencing seabed disturbing activities within ASLFs.

        b. The Lessee must invite consulting Tribal Nations to participate during core opening and processing and must provide compensation and travel and per diem costs, consistent with each Tribal Nation's standard costs for monitoring activities.

        c. The Lessee must notify signatories and Tribal Nations of completion of this measure through annual reporting, per Stipulation XV (*Reporting*).

    ii. Open-Source GIS, Story Maps, and Animations. Consultation with the 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 Tribal Nations to develop Story Map content or equivalent digital media ; training sessions with Tribal Nations to review GIS functionality; review of Draft Story Maps with Tribal Nations; delivery of GIS to Tribal Nations; and consultation with Tribal

Nations to decide how the data will be interpreted and represented and the format to be used (i.e. Story Maps or reports).

a. The Lessee must develop the GIS under this measure so that it is free to use and free to modify by the Tribal Nations. To the extent feasible, all data must be provided in formats that allow for interoperability with other GIS platforms that the Tribal Nations may use. All datasets incorporated in the GIS must comply with Federal Geographic Data Committee data and metadata standards.

b. The Lessee must submit the Description of the GIS with appropriate schema, data organization, and custom reports/queries, formatting, and intended audiences, and Final Technical Description of the GIS with schema, data organization, and custom reports/queries to the consulting Tribal Nations for review.

c. BOEM, in consultation with the Tribal Nations, will select a consultant to implement these mitigation measures, per the Expertise and Qualifications stipulation for investigations of ASLFs (Stipulation X.C).

d. The mitigation measure may be completed during or post-construction but must be completed within four years of execution of this MOA, unless different timing is agreed upon by the consulting Tribal Nations and accepted by BOEM.

e. The Lessee must notify signatories and Tribal Nations of completion of this measure through annual reporting, per Stipulation XV (*Reporting*).

iii. ASLF Post-Construction Seafloor Impact Inspection.

a. Assessment. The Lessee must assess seafloor impacts on a maximum of 59 ASLFs and analyze the ASLFs for the presence of archaeological materials, including but not limited to chipped stone tools, flakes, modified wooden implements, and bone. The post-construction seafloor assessment may consist of a QMA conducting or overseeing a Remotely Operated Vehicle (ROV) of the seafloor in the areas where previously identified ASLFs exist and where construction activities will permanently disturb the ASLFs and displace material culture.

b. Three-Dimensional (3D) Model. The Lessee must develop a 3D model to define the spatial relationship of Project components and installation methodology (e.g., cable installation via trenching or jetting) relative to the ASLFs. The 3D model must identify portions of ASLFs within the vertical APE that will be impacted and that possess a high potential for preserved evidence of human occupation.

c. Documentation. The QMA must document the impacts immediately following the installation of any inter-array cables, WTGs, service platforms, and export cables that impact the previously identified ASLFs. Documentation of the impacted ASLFs must include the use of standard archaeological methodologies.

d. Methods. This inspection must cover not only the immediate physical impacts on the seafloor but also any berms created during trenching activities, anchoring activities, and scour or berms made during pile driving and installation of

WTGs. These methodologies may include, but are not limited to, establishing a permanent datum, mapping, photo, video, 3D photogrammetry, and collecting a limited number of artifacts. For position accuracy, the ROV should be tracked using an Ultra- Short Base Line (USBL) positioning system.

e. Reporting. In the final report for each of these investigations, the QMA must note the seafloor conditions (visibility), environmental conditions (e.g., sandy, mud, shell hash bottom), sea state, and how much time has passed since the construction activities have concluded in the area of the ASLF. The Lessee must produce a series of as-laid or as-placed plats that will show the location of the infrastructure in relation to the ASLF and should include both horizontal and vertical penetration into the ASLF. The maps must also include the location of any sites and artifacts identified as a result of the visual inspection. If sites are identified on state-owned submerged bottomlands, a copy of the notification to the state, a copy of the site file, and the site trinomial must be provided as part of the final report. The QMA must include all logs and other data associated with the ROV visual inspection of the seafloor.

    1) Identification of potential cultural material during the ROV inspection would not constitute a post-review discovery under Stipulation XIII (*Post-Review Discoveries*) and would not trigger the reporting and consultation requirements established in the *Marine Archaeology Monitoring and Post-Review Discovery Plan* (Attachment 4) because the ASLFs subject to this mitigation measure are previously identified historic properties that have already been determined to be adversely affected by the undertaking. In the event that human remains or potential human remains are identified during the ROV inspections, the Lessee must adhere to the *Marine Archaeology Monitoring and Post-Review Discovery Plan* (Attachment 4), inclusive of the statutory, regulatory, and policy requirements incorporated, therein.

    2) The Lessee must provide Tribal Nations and BOEM with draft and final technical reports, including 3D models and resulting seafloor impact assessments.

    3) The Lessee must notify signatories and Tribal Nations of completion of this measure through annual reporting, per Stipulation XV (*Reporting*).

f. Timing. The post-construction seafloor inspection must be completed no later than 60 calendar days post-final cable burial. If unanticipated issues arise during offshore construction that prevent the post-construction seafloor inspection from being completed within 60 calendar days post-final cable burial, the Lessee must notify BOEM and propose an alternate completion timeframe for BOEM approval.

g. Tribal Monitors. The Lessee must coordinate with consulting Tribal Nations to provide them with an opportunity to participate as monitors either via live feed or on the vessel (depending upon vessel space, monitors' offshore safety training and certification, monitors' availability, and health and safety concerns) during the post-construction seafloor inspection of the previously identified ASLFs in the APE (as described above). The Lessee will commence coordination with Tribal Nations with sufficient time to allow Tribal Nations'

members to obtain safety training and other certifications as necessary. The Lessee will provide Tribal Nations with notification of any opportunity to participate in monitoring no less than 30 days prior to start of activities for monitoring. The Lessee must provide compensation and travel and per diem costs, consistent with each Tribal Nation's standard costs for monitoring activities.

iv. Subsistence and Settlement Study of New Jersey for the Stockbridge-Munsee Community Band of Mohican Indians. The region for assessment consists of the Munsee homelands in New Jersey. Per BOEM's consultation with the Stockbridge-Munsee Community Band of Mohican Indians, the Lessee will fulfill the following commitments in accordance with Attachment 6 (*Mitigation Funding Amounts*) and Attachment 7 (*Historic Property Treatment Plan for Ancient Submerged Landform Features*): engaging a qualified contractor and providing funding for a desktop assessment of archaeological assemblages for a subsistence and settlement pattern analysis in New Jersey; developing a methodology for predictive modeling for areas with sensitivity for the presence of archaeological sites, including historic properties and sites of religious and cultural significance to the Tribal Nation; assembling GIS data layers indicating site locations, digital copies of site maps, reports, and literature relevant to the study (this may require additional consultation between the Tribal Nation, contractor, and New Jersey SHPO); funding for the Stockbridge-Munsee THPO's direction of and collaboration on the study; providing relevant GIS data layers to the Tribal Nation for use in this study as well as providing a tutorial on the data; coordinating with the Tribal Nation on reviewing and responding to comments on draft deliverables; and providing final deliverables consisting of one confidential report per participating Tribal Nation that may contain sensitive resource information and one report that could be made available to the public (both reports may be distributed by the Stockbridge-Munsee Community Band of Mohican Indians at the Tribe's discretion). These reports may also be shared by the Stockbridge-Munsee Community Band of Mohican Indians with any other Tribal Nations if requested at the Tribe's discretion.

    a. The Delaware Tribe of Indians and/or The Delaware Nation may elect to participate in the study with the Stockbridge-Munsee Community Band of Mohican Indians.

    b. This measure may be completed pre, during, or post-construction, and must be completed within four years after the MOA is executed.

    c. The Lessee must notify signatories and Tribal Nations of completion of this measure through annual reporting, per Stipulation XIII (*Reporting*).

    d. BOEM, in consultation with the Stockbridge-Munsee Community Band of Mohican Indians, will select consultants to implement this mitigation measure, per the Expertise and Qualifications stipulation (Stipulation X.C).

v. Tribal Capacity for The Delaware Nation. The Lessee must fulfill the following commitments in accordance with Attachment 6 (*Mitigation Funding Amounts*) and Attachment 7 (*Historic Property Treatment Plan for Ancient Submerged Landform Features*): funding Tribal Nation capacity activities as determined by The Delaware Nation associated with monitoring of the ASLFs, including but not limited to, technology upgrades and training associated with interpretation and analysis of non-proprietary or

otherwise regulatory-protected GIS data; funding for The Delaware Nation's participation in ethnographic studies with other Tribes, if applicable; funding for The Delaware Nation THPO's collaboration in those same studies, if applicable; and providing relevant ASLF GIS data layers to The Delaware Nation for use in studies, as well as providing a tutorial on this data. The Delaware Nation will determine the priority of Tribal capacity needs and initiatives associated with monitoring of ASLFs.

a. This measure may be completed pre-, during, or post-construction and must be completed within five years after the MOA is executed.

b. BOEM, in consultation with the Tribal Nations, will select consultants to implement this mitigation measure, per the Expertise and Qualifications stipulation for investigations of ASLFs (Stipulation X.C).

c. The Lessee must notify signatories and Tribal Nations of completion of this measure through annual reporting, per Stipulation XIII (*Reporting*).

vi. Tribal Capacity for the Delaware Tribe of Indians. The Lessee must fulfill the following commitments in accordance with Attachment 6 (*Mitigation Funding Amounts*) and Attachment 7 (*Historic Property Treatment Plan for Ancient Submerged Landform Features*): funding the Tribal Nation's historic preservation capacity activities as determined by the Tribal Nation, including but not limited to, technology upgrades and training associated with interpretation and analysis of non-proprietary or otherwise regulatory-protected GIS data; engaging contractors to assist the Tribal Nation with GIS-related or archaeology-related activities; funding for the THPO's collaboration in studies with other Tribal Nations, if applicable; and providing relevant ASLF GIS data layers to the Tribal Nation for use in studies, as well as providing a tutorial on this data. The Tribal Nation will determine the priority of Tribal capacity historic preservation needs and initiatives.

a. This measure may be completed pre-, during, or post-construction and must be completed within five years after the MOA is executed.

b. BOEM, in consultation with the Tribal Nations, will select consultants to implement this mitigation measure, per the Expertise and Qualifications stipulation for investigations of ASLFs (Stipulation X.C).

c. The Lessee must notify signatories and Tribal Nations of completion of this measure through annual reporting, per Stipulation XIII (*Reporting*).

vii. Tribal Capacity for the Mashantucket (Western) Pequot Tribal Nation. The Lessee must fulfill the following commitments in accordance with Attachment 6 (*Mitigation Funding Amounts*) and Attachment 7 (*Historic Property Treatment Plan for Ancient Submerged Landform Features*): funding the Tribal Nation's historic preservation capacity activities as determined by the Tribal Nation, including but not limited to, technology upgrades and training associated with interpretation and analysis of non-proprietary or otherwise regulatory-protected GIS data; engaging contractors to assist the Tribal Nation with GIS-related or archaeology-related activities; funding for the THPO's collaboration in studies with other Tribal Nations, if applicable; and providing relevant ASLF GIS data layers to Tribal Nation for use in studies, as well as providing a tutorial on this data. The Tribal Nation will determine the priority of Tribal capacity historic preservation needs and initiatives.

a. This measure may be completed pre-, during, or post-construction and must be completed within five years after the MOA is executed.

b. BOEM, in consultation with the Tribal Nations, will select consultants to implement this mitigation measure, per the Expertise and Qualifications stipulation for investigations of ASLFs (Stipulation X.C).

c. The Lessee must notify signatories and Tribal Nations of completion of this measure through annual reporting, per Stipulation XIII (*Reporting*).

viii. Tribal Capacity for the Mashpee Wampanoag Tribe. The Lessee must fulfill the following commitments in accordance with Attachment 6 (*Mitigation Funding Amounts*) and Attachment 7 (*Historic Property Treatment Plan for Ancient Submerged Landform Features*): funding the Tribal Nation's historic preservation capacity activities as determined by the Tribal Nation, including but not limited to, technology upgrades and training associated with interpretation and analysis of non-proprietary or otherwise regulatory-protected GIS data; engaging contractors to assist the Tribal Nation with GIS-related or archaeology-related activities; funding for the THPO's collaboration in studies with other Tribal Nations, if applicable; and providing relevant ASLF GIS data layers to Tribal Nation for use in studies, as well as providing a tutorial on this data. The Tribal Nation will determine the priority of Tribal capacity historic preservation needs and initiatives.

a. This measure may be completed pre-, during, or post-construction and must be completed within five years after the MOA is executed.

b. BOEM, in consultation with the Tribal Nations, will select consultants to implement this mitigation measure, per the Expertise and Qualifications stipulation for investigations of ASLFs (Stipulation X.C).

c. The Lessee must notify signatories and Tribal Nations of completion of this measure through annual reporting, per Stipulation XIII (*Reporting*).

ix. Tribal Capacity for the Shinnecock Indian Nation. The Lessee must fulfill the following commitments in accordance with Attachment 6 (*Mitigation Funding Amounts*) and Attachment 7 (*Historic Property Treatment Plan for Ancient Submerged Landform Features*): funding the Tribal Nation's historic preservation capacity activities as determined by the Tribal Nation, including but not limited to, technology upgrades and training associated with interpretation and analysis of non-proprietary or otherwise regulatory-protected GIS data; engaging contractors to assist the Tribal Nation with GIS-related or archaeology-related activities; funding for the THPO's collaboration in studies with other Tribal Nations, if applicable; and providing relevant ASLF GIS data layers to Tribal Nation for use in studies, as well as providing a tutorial on this data. The Tribal Nation will determine the priority of Tribal capacity historic preservation needs and initiatives.

a. This measure may be completed pre-, during, or post-construction and must be completed within five years after the MOA is executed.

b. BOEM, in consultation with the Tribal Nations, will select consultants to implement this mitigation measure, per the Expertise and Qualifications stipulation for investigations of ASLFs (Stipulation X.C).

c. The Lessee must notify signatories and Tribal Nations of completion of this measure through annual reporting, per Stipulation XIII (*Reporting*).

x. Tribal Capacity for the Wampanoag Tribe of Gay Head (Aquinnah). The Lessee must fulfill the following commitments in accordance with Attachment 6 (*Mitigation Funding Amounts*) and Attachment 7 (*Historic Property Treatment Plan for Ancient Submerged Landform Features*): funding the Tribal Nation's historic preservation capacity activities as determined by the Tribal Nation, including but not limited to, technology upgrades and training associated with interpretation and analysis of non-proprietary or otherwise regulatory-protected GIS data; engaging contractors to assist the Tribal Nation with GIS-related or archaeology-related activities; funding for the THPO's collaboration in studies with other Tribal Nations, if applicable; and providing relevant ASLF GIS data layers to Tribal Nation for use in studies, as well as providing a tutorial on this data. The Tribal Nation will determine the priority of Tribal capacity historic preservation needs and initiatives.

a. This measure may be completed pre-, during, or post-construction and must be completed within five years after the MOA is executed.

b. BOEM, in consultation with the Tribal Nations, will select consultants to implement this mitigation measure, per the Expertise and Qualifications stipulation for investigations of ASLFs (Stipulation X.C).

c. The Lessee must notify signatories and Tribal Nations of completion of this measure through annual reporting, per Stipulation XIII (*Reporting*).

C. Visual APE

1. BOEM will include the measures in Stipulation III.C.1 as conditions of approval of the Project COP and as mitigation measures to resolve adverse effects, including direct, indirect, and cumulative effects, on the 29 adversely affected aboveground historic properties in the visual APE in New Jersey:

- In Atlantic County:
  - Atlantic City:
    - Absecon Lighthouse;
    - Atlantic City Boardwalk Historic District;
    - Atlantic City Convention Hall (Jim Whelan Boardwalk Hall; NHL);
    - Central Pier;
    - Haddon Hall (Resorts Casino Hotel);
    - Missouri Avenue Beach (Chicken Bone Beach);
    - Ritz Carlton Hotel;
    - Riviera Apartments;
    - U.S. Coast Guard Station;
    - 120 Atlantic Avenue;
  - Brigantine City:
    - Brigantine Hotel;
  - Galloway Township:
    - Seaview Golf Club, Clarence Geist Pavilion;
  - Longport Borough:
    - Great Egg Coast Guard Station
  - Margate City:

- Lucy, The Margate Elephant (NHL);
- Margate Fishing Pier;
- 108 South Gladstone Avenue;
- 114 South Osborne Avenue;

▪ Ventnor City:
- John Stafford Historic District;
- Saint Leonard's Tract Historic District;
- Vassar Square Condominiums;
- Ventnor City Fishing Pier;
- 114 South Harvard Avenue;

o In Cape May County:
▪ Ocean City:
- The Flanders Hotel;
- Music Pier;
- Ocean City Boardwalk;

o In Ocean County:
▪ Barnegat Light:
- Barnegat Lighthouse;

▪ Berkeley Township:
- Forked River Coast Guard Station No. 112;
- Island Beach State Park Historic District;

▪ Little Egg Harbor:
- Little Egg Harbor U.S. Life Saving Station #23.

i. Mitigation Fund for Historic Properties. The Lessee must contribute funding to a mitigation fund in the amounts set forth in Attachment 6 (*Mitigation Funding Amounts*) to resolve visual adverse effects on the following 20 of the 29 adversely affected historic properties in New Jersey:

o In Atlantic County
▪ Atlantic City:
- Central Pier;
- Haddon Hall (Resorts Casino Hotel);
- Ritz Carlton Hotel;
- Riviera Apartments;
- U.S. Coast Guard Station;
- 120 Atlantic Avenue;

▪ Brigantine City:
- Brigantine Hotel;

▪ Galloway Township:
- Seaview Golf Club, Clarence Geist Pavilion;

▪ Margate City:
- Margate Fishing Pier;
- 108 South Gladstone Avenue;
- 114 South Osborne Avenue;

▪ Ventnor City:
- John Stafford Historic District;
- Saint Leonard's Tract Historic District;

- Vassar Square Condominiums;
- Ventnor City Fishing Pier;
- 114 South Harvard Avenue;

- In Cape May County:
  - Ocean City:
    - The Flanders Hotel;
    - Music Pier;
    - Ocean City Boardwalk;

- In Ocean County:
  - Little Egg Harbor:
    - Little Egg Harbor U.S. Life Saving Station #23.

See Attachment 6 for funding amounts, based on input of qualified consultants with experience fulfilling activities similar to those that can be funded through a mitigation fund and for historic properties comparable to those adversely affected by the Project.

a. Fund Establishment. BOEM will require the Lessee to establish and contribute funds to a mitigation fund to resolve visual adverse effects on the historic properties. Attachment 6 provides a basis for the total funding amount, based on input of qualified consultants with experience fulfilling activities similar to those that may be funded through the mitigation fund and for historic properties comparable to those adversely affected by the Project.

b. Fund Administration and Monitoring. BOEM and the Lessee have identified the New Jersey Historic Trust (third-party administrator) as an appropriate non-profit historic preservation organization to administer the fund and the funded activities, to ensure the effectiveness of these activities as mitigation for the undertaking's adverse effect on the historic properties. BOEM will consult with the third-party administrator and New Jersey SHPO prior to allowing the third-party administrator to issue any grants to ensure the grants will be awarded for preservation-related activities. The third-party administrator's fees and administrative costs will be paid from the fund and must not exceed 6% of the fund amount. BOEM, with the assistance of the third-party administrator, must ensure through the annual reporting process (see Stipulation XV) that all granted funds are used exclusively for the purposes described in Stipulation III.C for direct costs of preservation, interpretation, or commemoration of the historic properties adversely affected by the undertaking. The third-party administrator must prohibit the use of grant funds for indirect costs, such as accountant fees, employee salaries or benefits, or legal fees. BOEM and the Lessee have consulted on the selection of the New Jersey Historic Trust as the third-party administrator with the consulting parties. The New Jersey Historic Trust has been found to be acceptable to BOEM as the third-party administrator. The same consultation process would be followed in the case of replacement of the third-party administrator, if needed.

c. Funding Amounts. In order to mitigate the undertaking's visual adverse effects on historic properties, the Lessee must provide the lump sum amount of $1,685,000 [reflects correction made after April 10, 2024, in accordance with totals provided in Attachment 6] in support of historic preservation and public interpretive and commemorative activities; see Attachment 6. The amount

contributed on behalf of each individual historic property is based on previously proposed measures discussed with consulting parties (including, but not limited to, activities such as applicable brick and mortar preservation, public access, or interpretation activities). BOEM considers these measures to be appropriate to fully address the nature, scope, size, and magnitude of adverse effects, including cumulative effects caused by the Project to the NRHP-qualifying characteristics of each historic property that would be affected, and the heightened significance and concerns of the NHLs. In the specific context of this undertaking, including the privately owned properties involved, the signatories agree that it is appropriate to provide flexibility to implement these or other specific activities for preservation, interpretation, and commemoration to mitigate adverse effects on historic properties, and the signatories agree that the level of funding identified in Attachment 6 is appropriate.

d. Depositing the Funding Amount. Within 90 days of the Lessee receiving a non-objection notice from BOEM for the Project' last Fabrication and Installation Report (FIR), or 60 days after submittal of the last FIR with Bureau of Safety and Environmental Enforcement (BSEE) not having raised objections (30 CFR 285.700(b)), the Lessee must pay $1,685,000 [reflects correction made after April 10, 2024, in accordance with totals provided in Attachment 6] to an escrow account. The mitigation fund will be managed by the third-party administrator, for the purpose of providing grants until the fund balance is expended. Notwithstanding the additional obligations of the Lessee under this MOA, including reporting on the implementation of the mitigation fund, the Lessee's deposit of such funds into this mitigation fund will satisfy the Lessee's obligations as it relates to mitigation for visual adverse effects on the historic properties listed in Stipulation III.C.1.i, unless additional consultation is required in the event of unapplied funds, as described below.

e. Allocation of Funds through Grants. Funds will be allocated to grants to support mitigation activities for the preservation, interpretation, or commemoration of historic sites, buildings, or events. Grants will be awarded for the long-term protection, preservation, and commemoration of adversely affected historic properties in the following order of preference: Grants must first be awarded to the historic properties listed in Stipulation III.C.1.i. If after two years from the date the third-party administrator begins accepting grant applications, there are any funds still unapplied, then grants may be awarded for activities for any visually adversely affected historic property identified in the Finding of Effect and Stipulation III.C.1.

f. Unapplied Funds. If, after five years from the date the administrator begins accepting grant applications, any funds are unapplied, then BOEM will consult with the consulting parties on appropriate use of the remaining funds to resolve adverse effects, and the MOA may be amended if necessary. BOEM will ensure that the mitigation fund operating procedures are clear that the remaining funds will be used for historic properties that are listed under Stipulation III.C.1 and that have not yet received any funds from this mitigation fund. After those historic properties are addressed, then any remaining funds may be applied to activities for any adversely affected historic property identified in the Finding of Effect. The signatories agree that the existence of unapplied funds does not constitute a breach of this agreement.

g. Mitigation Fund Operating Procedures and Reporting. BOEM will consult with the third-party administrator to develop operating procedures for the mitigation fund, and BOEM will review and approve the final operating procedures no later than two years after the MOA is executed. BOEM will provide the final operating procedures to the consulting parties. The mitigation fund operating procedures will clarify when and how the third-party administrator will start accepting grants, including the time period for application, how the applications will be screened, and the criteria for grant funding eligibility. BOEM will ensure that the third-party administrator has procedures under which it will provide a copy of all grants made and an annual report on expenditure of funds and activities to BOEM, New Jersey SHPO and the Lessee. The Lessee must summarize the third-party administrator's annual report to describe funded mitigation activities, progress, completion, and outcomes in the annual report per the Reporting Stipulation (Stipulation XV), with sufficient detail for BOEM to ensure that the mitigation is being implemented according to this section.

h. Grant-supported Mitigation Standards. BOEM will ensure that the operating procedures include the following, where applicable:

1) Where Historic American Buildings Survey (HABS) documentation and HABS-like documentation is implemented as a grant-supported mitigation through the mitigation fund, the grantee will first consult with the New Jersey SHPO and the NPS, as appropriate, to identify photographic documentation specifications.

2) Where a Historic Structure Report is implemented as a grant-supported mitigation through the mitigation fund, the documentation will be prepared in accordance with New Jersey SHPO's 2015 *Historic Structure Reports and Preservation Plans: A Preparation Guide – Second Edition*, as may be amended, and the project team must include an individual meeting the SOI's qualifications standards for Historic Architecture.

3) Where funding is granted for projects that include physical changes to historic properties, including for visitor experience, public access, climate resiliency, or comparable actions, all projects must meet the SOI's Standards for the Treatment of Historic Properties, and these projects should not constitute adverse effects themselves on the historic properties.

i. Consistent with NHPA Section 110(f) and as described in the Finding of Effect, BOEM has undertaken planning and actions as may be necessary to minimize harm to NHLs. The mitigation funding for NHLs under this MOA does not replace any other planning and actions BOEM has taken to comply with that statutory requirement.

ii. Funding and Implementation of Historic Property Treatment Plans. The Lessee must fund and implement the following measures described in HPTPs to resolve adverse effects on nine (9) of the 29 adversely affected aboveground historic properties in the visual APE, in lieu of or in addition to contributions to the mitigation fund described in Stipulation III.C.1.i:

- In Atlantic County:
  - Atlantic City:
    - Atlantic City Convention Hall (Jim Whelan Boardwalk Hall; NHL);

- Absecon Lighthouse;
- Atlantic City Boardwalk Historic District;
- Missouri Avenue Beach (Chicken Bone Beach);

▪ Longport Borough:
- Great Egg Coast Guard Station;

▪ Margate City:
- Lucy, The Margate Elephant (NHL);

o In Ocean County:
▪ Barnegat Light:
- Barnegat Lighthouse;

▪ Berkeley Township:
- Forked River Coast Guard Station No. 112;
- Island Beach State Park Historic District;

a. The Lessee must fund the mitigation measures according to Attachment 6 (*Mitigation Funding Amounts*), which contains funding amounts for each mitigation measure in Stipulation III.C.1.i and III.C.1.ii. Funding amounts reflect good faith estimates, based on the experience of qualified consultants with similar activities and comparable historic properties.

b. The Lessee must ensure the mitigation measures under Stipulation III.C.1.ii are completed within four years of MOA execution, unless a different timeline is agreed upon by interested consulting parties and accepted by BOEM and may be completed simultaneously, as applicable.

c. <u>Atlantic City Convention Hall (Jim Whelan Boardwalk Hall) (NHL) in Atlantic City, Atlantic County</u>. The following mitigation measure would be implemented to resolve adverse effects on this historic property as described in the corresponding HPTP (Attachment 8):

1) Provide funding toward the rehabilitation of the Kennedy Plaza West Pavilion at the Atlantic City Convention Hall (Jim Whelan Boardwalk Hall) NHL. Funding may also be used toward the refinement of plans and specifications for the proposed project. The rehabilitation of the building will allow the currently vacant section of the NHL to be returned to public use to be enjoyed by visitors to the Atlantic City Convention Hall (Jim Whelan Boardwalk Hall) NHL and the Atlantic City Boardwalk.

2) All mitigation is subject to New Jersey SHPO review and approval. Mitigation measures must comply with the SOI Standards for the Treatment of Historic Properties.

d. <u>Lucy, The Margate Elephant (NHL) in Margate City, Atlantic County</u>. The following mitigation measure would be implemented to resolve adverse effects on this historic property as described in the corresponding HPTP (Attachment 9):

1) Provide funding toward the construction of a new visitor experience and welcome center at the Lucy, The Margate Elephant NHL. Funding may also be used toward the refinement of plans and specifications for the proposed project or to the landscaping and/or hardscaping. The number of people that visit Lucy, The Margate Elephant has surpassed the capacity of the current

facilities and there are currently not enough restrooms nor is Lucy, The Margate Elephant accessible to all members of the public. This project is being designed to enhance the visitor experience and to accommodate larger groups as well as school children and opportunity to visit this historic resource.

2) All mitigation is subject to New Jersey SHPO review and approval. Mitigation measures must comply with the SOI Standards for the Treatment of Historic Properties.

e. Historic Properties Owned by the State of New Jersey (NJDEP). The following mitigation measure would be implemented to resolve adverse effects on Absecon Lighthouse in Atlantic City, Atlantic County; Barnegat Lighthouse in Barnegat Light, Ocean County; Forked River Coast Guard Station No. 112 in Berkeley Township, Ocean County; and Island Beach State Park Historic District in Berkeley Township, Ocean County as described in the corresponding HPTP (Attachment 10).

1) Provide funding to NJDEP for the planning or implementation of preservation, restoration, rehabilitation, cyclical maintenance, resiliency planning, disaster recovery, or other associated activities to ensure the long-term preservation of these historic properties.

2) All mitigation is subject to New Jersey SHPO review and approval. Mitigation measures must comply with the SOI Standards for the Treatment of Historic Properties.

f. Historic Properties in Atlantic County.

1) Atlantic City Boardwalk Historic District in Atlantic City. The following mitigation measure would be implemented to resolve adverse effects on this historic property as described in the corresponding HPTP (Attachment 11):

- Provide funding toward the next phase of the Atlantic City Boardwalk Restoration Plan. Due to the length of the boardwalk, Atlantic City has been replacing portions of the structure, which is the longest in the world, in segments and has secured grants and other sources of funding for the work completed thus far. The intent of this mitigation measure is to provide Atlantic City with funding to be used toward the removal and replacement of the next planned segment of the Atlantic City Boardwalk.
- All mitigation is subject to New Jersey SHPO review and approval. Mitigation measures must comply with the SOI Standards for the Treatment of Historic Properties.

2) Great Egg Coast Guard Station in Longport Borough. The following mitigation measure would be implemented to resolve adverse effects on this historic property as described in the corresponding HPTP (Attachment 12):

- Provide funding to the Borough of Longport for the planning or implementation of preservation, restoration, rehabilitation, cyclical maintenance, resiliency planning, disaster recovery, or other associated activities to ensure the long-term preservation of the Great Egg Coast Guard Station.

- All mitigation is subject to New Jersey SHPO review and approval. Mitigation measures must comply with the SOI Standards for the Treatment of Historic Properties.

3) Missouri Avenue Beach (Chicken Bone Beach) in Atlantic City. The following mitigation measures would be implemented to resolve adverse effects on this historic property as described in the corresponding HPTP (Attachment 13):

- Provide funding to hire a Secretary of the Interior Qualified Professional to produce a study to determine if the Missouri Avenue Beach (Chicken Bone Beach) qualifies as a TCP per the NPS's *National Register Bulletin 38: Guidelines for Evaluating and Documenting Traditional Cultural Properties* (Parker and King, 1992). The consultant will work with the Chicken Bone Beach Historical Foundation, Inc. and the interested consulting parties to develop a methodology and exact scope of work.
- Provide funding to develop and install signage to increase public awareness of the history and significance of Missouri Avenue Beach (Chicken Bone Beach).
- Provide funding to the Chicken Bone Beach Historical Foundation Inc. to promote the history and significance of Missouri Avenue Beach (Chicken Bone Beach) through the Youth Jazz Institute.
- All mitigation is subject to New Jersey SHPO review and approval. Mitigation measures must comply with the SOI Standards for the Treatment of Historic Properties.

g. In order to demonstrate that mitigation measures in the HPTPs that involve physical changes to an adversely affected historic property will not result in additional adverse effects on that historic property, the Lessee must engage a historic architect or architectural historian that meets the SOI Professional Qualifications Standards to review all architectural/engineering plans and specifications from contractors. This historic architect or architectural historian will prepare a report for each mitigation measure that describes how the proposed work meets the SOI Standards for the Treatment of Historic Properties which will be submitted to BOEM prior to the start of construction for each mitigation measure. That documentation will be submitted to BOEM and to New Jersey SHPO for review and approval per Stipulation VI (*Review Process for Documents Produced Under MOA Stipulations*). Documentation of conformance with the SOI Standards must be maintained by the Lessee. The Lessee must also keep a record of all final plans and specifications for each mitigation project, which will be available to BOEM or the New Jersey SHPO upon request.

1) The historic architect or architectural historian must submit the following to BOEM and New Jersey SHPO for review as part of the historic architect or architectural historian's report:

- A site plan that has the north direction clearly marked;
- A set of architectural/engineering plans and specifications for the mitigation measure;

- Photographs of the historic property before mitigation implementation;
- A description of the mitigation measure (the project);
- A description of the mitigation measure's origin (including but not limited to "requested by the property owner through consultation on [date]");
- Identification of the staff who meet the SOI Professional Qualifications Standards; and
- A description of how the work meets the SOI Standards for the Treatment of Historic Properties.

2) The Lessee must submit the following to BOEM at the conclusion of the mitigation measure implementation:

- Before and after images of the mitigation measure's implementation; and
- A concluding report from the historic architect or architectural historian describing how the work met the SOI Standards for the Treatment of Historic Properties.

IV. PHASED IDENTIFICATION AND EVALUATION OF HISTORIC PROPERTIES

A. BOEM will defer and phase the final identification and evaluation of historic properties within the terrestrial APE, pursuant to 36 CFR 800.4(b)(2) and 800.5(a)(4), and consistent with the *Terrestrial Archaeology Phased Identification Plan* (Attachment 14). BOEM, with the assistance of the Lessee, will conduct phased identification and evaluation of historic properties in the terrestrial APE and will then assess the effects and consult with Tribal Nations, the New Jersey SHPO, the ACHP, and consulting parties on identification, assessment of effect, and the resolution of adverse effects before the initiation of onshore construction of the Project at the locations subject to phased identification as specified in the *Terrestrial Archaeology Phased Identification Plan* (Attachment 14). BOEM will implement the following measures for phased identification in the terrestrial APE:

1. For identification of historic properties within portions of the terrestrial APE, the Lessee must conduct supplemental technical studies in accordance with New Jersey state guidelines and recommendations presented in BOEM's most recent *Guidelines*. The Lessee will coordinate with New Jersey SHPO prior to the initiation of any such identification efforts in the state.

    i. BOEM requires that identification efforts be documented in a technical report that addresses the identification of historic properties and includes an evaluation of effects applying the criteria of adverse effect pursuant to 36 CFR 800.5(a).

    ii. BOEM requires that identification efforts for terrestrial archaeological resources in the state of New Jersey be documented in a supplemental terrestrial archaeological resources survey report, consistent with New Jersey SHPO guidelines.

    iii. BOEM requires that preparation of a supplemental Terrestrial Archaeological Resources Assessment includes effects recommendations on terrestrial archaeological resources that are historic properties identified in the supplemental terrestrial archaeological resources survey report.

2. BOEM will consult with Tribal Nations, the New Jersey SHPO, the ACHP, and consulting parties on the results of historic property identification surveys for any portions of the APE that were not addressed in the pre-approval consultations.

3. If Project effects on identified terrestrial archaeological resources cannot be avoided, BOEM will require additional investigation to evaluate the NRHP eligibility of the potentially affected resources. BOEM will treat all identified potential historic properties as eligible for inclusion in the NRHP unless BOEM determines, and the SHPO agrees, that a property is ineligible, pursuant to 36 CFR 800.4.

4. If BOEM identifies no additional historic properties or determines that no historic properties are adversely affected as a result of this phased identification, BOEM, with the assistance of the Lessee, will notify and consult with Tribal Nations, the New Jersey SHPO, the ACHP, and consulting parties following the consultation process set forth here in this stipulation.

    i. BOEM, with the assistance of the Lessee, will notify all Tribal Nations, the New Jersey SHPO, the ACHP, and consulting parties about the surveys and BOEM's determination by providing a written summary of the surveys including any maps, a summary of the surveys, and/or research conducted to identify historic properties and assess effects, and copies of the surveys.

    ii. BOEM, with the assistance of the Lessee, must provide Tribal Nations, the New Jersey SHPO, the ACHP, and consulting parties with 60 calendar days to review and comment on the survey reports, the results of the surveys, BOEM's determination, and the documents.

    iii. After the 60-calendar-day review period has concluded and no comments require additional consultation, BOEM, with the assistance of the Lessee, must notify Tribal Nations, the New Jersey SHPO, the ACHP, and consulting parties that New Jersey SHPO has concurred with BOEM's determination, and if BOEM received any comments, provide a summary of the comments and BOEM's responses. If the New Jersey SHPO provides comments on BOEM's determination, then BOEM will resolve any such comments through additional consultation.

    iv. If requested by the Tribal Nations, the New Jersey SHPO, the ACHP, or consulting parties, BOEM, with the assistance of the Lessee, will conduct a consultation meeting during this 60-calendar day review period.

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

5. If BOEM determines additional historic properties will be subject to adverse effects based on the information from these surveys, BOEM, with the assistance of the Lessee, will notify and consult with Tribal Nations, the New Jersey SHPO, the ACHP, and consulting parties regarding BOEM's finding and the proposed measures to resolve the adverse effect(s), including the development of a new HPTP(s) following the consultation process set forth in this stipulation. Funding from the Lessee to the extent necessary to implement mitigation measures to resolve the adverse effect(s) to historic properties identified through phased identification would be in addition to the maximum mitigation funding amount identified in Attachment 6 (*Mitigation Funding Amounts*).

    i. BOEM, with the assistance of the Lessee, will notify Tribal Nations, the New Jersey SHPO, the ACHP, and consulting parties about the surveys and BOEM's determination by providing a written summary of the results including any maps, a summary of the surveys

and/or research conducted to identify historic properties and assess effects, copies of the surveys, BOEM's determination, and the proposed resolution measures for the adverse effect(s).

ii. The Tribal Nations, the New Jersey SHPO, the ACHP, and consulting parties will have 60 calendar days to review and comment on the documents including the adverse effect finding and the proposed resolution of adverse effect(s), including a draft HPTP(s).

iii. BOEM, with the assistance of the Lessee, will conduct a consultation meeting during this 60-calendar day review period, and additional consultation meetings, if necessary.

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

v. BOEM, with the assistance of the Lessee, will send the revised draft final documents to Tribal Nations, the New Jersey SHPO, the ACHP, and consulting parties for review and comment during a 30-calendar-day review and comment period. With this same submittal of draft final documents, the Lessee must provide a summary of all the comments received on the documents and BOEM's responses.

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

vii. Once BOEM has received agreement from the New Jersey SHPO on the finding of new adverse effect(s) and BOEM has accepted the final measures to resolve adverse effects, BOEM, with the assistance of the Lessee, will notify the Tribal Nations, the New Jersey SHPO, the ACHP, and consulting parties that the phased identification and final measures to resolve adverse effects have been accepted. With this notification, BOEM, with the assistance of the Lessee, will provide the final document(s) including the final measures to resolve adverse effects and a summary of comments and BOEM's responses to comments, if they receive any on the draft final documents.

viii. The MOA will not need to be amended after the final measures to resolve adverse effects are accepted by BOEM.

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

7. If a Tribal Nation that attaches religious and cultural significance to a property off Tribal lands does not agree with BOEM's determination regarding whether an affected property is eligible for inclusion in the NRHP, the Tribal Nation may ask the ACHP to request the agency official to obtain a determination of eligibility pursuant to 36 CFR Part 63 (36 CFR 800.4(c)(2)).

8. If any of the consulting parties object to the findings or resolutions made pursuant to these measures, BOEM will resolve any such objections pursuant to the dispute resolution process set forth in Stipulation XVII (*Dispute Resolution*).

V. CONNECTED ACTION RELATED TO O&M FACILITY

A. USACE will serve as Lead Federal Agency for the portion of the activities under the connected action of repair and/or replacement of an existing bulkhead at the Project O&M facility under a

USACE Nationwide Permit 3 or Nationwide Permit 13. BOEM will participate in Section 106 review of the connected action. If this review requires alteration of the conclusions reached in the Finding of Effect for this Project and, thus, requires additional consultation with the signatories and consulting parties, BOEM will follow the steps outlined in the Project Modifications Stipulation (Stipulation VII) for notification and consultation.

VI. REVIEW PROCESS FOR DOCUMENTS PRODUCED UNDER MOA STIPULATIONS

A. The following process will be used for any document, report, or plan produced in accordance with Stipulations of this MOA for which a specific review process has not been defined:

1. Draft Document

    i. The Lessee will provide the document to BOEM for technical review and approval.

        a. BOEM will have 30 calendar days to complete its technical review.

        b. If BOEM does not provide approval, it shall submit its comments back to the Lessee, who will have 30 calendar days to address the comments.

    ii. BOEM, with the assistance of the Lessee, will provide the draft document to the signatories and consulting parties, except the ACHP, for review, comment and/or approval.

        a. Consulting parties will have 60 calendar days to review and comment or another time frame agreed upon by the signatories and consulting parties.

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

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

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

    iii. If BOEM requires substantial edits to the draft document, the Lessee must make those revisions and resubmit the document as a draft for revision under Stipulation VI.A.1.i.

2. Draft Final Document

    i. The Lessee must provide BOEM with the draft final document for technical review and approval.

        a. BOEM will have 15 calendar days to complete its technical review.

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

    ii. BOEM, with the assistance of the Lessee, will provide the final draft document to the signatories and consulting parties, except the ACHP, for review, comment, and/or approval. With this same submittal of draft final documents, BOEM, with the assistance

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

a. Consulting parties will have 30 calendar days to review and comment, or another time frame agreed upon by the signatories and consulting parties,

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

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

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

3. Final Document

i. The Lessee must provide BOEM with the final document for approval.

a. BOEM will have 15 calendar days to complete its technical review.

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

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

VII. PROJECT MODIFICATIONS

A. If the Lessee proposes any modifications to the Project that expand the Project beyond the Project Design Envelope included in the COP and/or occur outside of the defined APEs, or if the proposed modifications change BOEM's final NHPA Section 106/110(f) determinations and findings for this Project, the Lessee must notify and provide BOEM with information concerning the proposed modifications. The Lessee must not proceed with the proposed modifications until the following process under Stipulation VII.A is concluded. BOEM will determine if these modifications require alteration of the conclusions reached in the Finding of Effect. BOEM, with assistance of the Lessee, will notify the signatories and consulting parties and will consult on whether these modifications require alteration of the conclusions reached in the Finding of Effect. The Lessee must provide the signatories consulting parties with information concerning the proposed changes, and these parties will have 30 calendar days from receipt of this information to comment on the proposed changes. BOEM will consider any comments from signatories and consulting parties prior to agreeing to any proposed changes. Using the procedure below, BOEM will, as necessary, consult with the signatories and consulting parties to identify and evaluate historic properties in any newly affected areas, assess the effects of the modification(s), and resolve any adverse effects. Any Project modification followed pursuant to Stipulation VII would not require an amendment to the MOA. BOEM will require the Lessee to document project modifications, including any consultations conducted under this Stipulation in the annual report, pursuant to Stipulation XV (*Reporting*).

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

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

    ii. BOEM, with the assistance of the Lessee, will provide the signatories and consulting parties with 30 calendar days to review and comment on the proposed change, BOEM's determination, and the documents.

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

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

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

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

    i. BOEM, with the assistance of the Lessee, will notify all signatories and consulting parties about the proposed modification, BOEM's determination, and the proposed resolution measures for the adverse effect(s).

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

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

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

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

with the assistance of the Lessee, will provide a summary of all the comments received on the documents and BOEM's responses.

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

vii. BOEM, with the assistance of the Lessee will notify the signatories and consulting parties that BOEM has approved the project modification and will provide the final document(s) including the final HPTP(s) and a summary of comments and BOEM's responses to comments, if BOEM receives any on the draft final documents, after BOEM has received concurrence from New Jersey SHPO on the finding of new adverse effect(s), BOEM has accepted the final HPTP(s), and BOEM has approved the Project modification.

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

B. If any of the signatories or consulting parties object to determinations, findings, or resolutions made pursuant to these measures (Stipulations VII.A.1 and VII.A.2), BOEM will resolve any such objections pursuant to the dispute resolution process set forth in the Stipulation XVII (*Dispute Resolution*).

VIII. SUBMISSION OF DOCUMENTS

A. Federally recognized Tribal Nations, New Jersey SHPO, ACHP, and consulting parties:

1. All submittals will be submitted electronically unless a specific request is made for the submittal to be provided in paper format.

IX. CURATION

A. Collections from federal lands or the OCS:

1. Any archaeological materials removed from federal lands or the OCS as a result of the actions required by this MOA will be curated in accordance with 36 CFR 79, "Curation of Federally Owned and Administered Archaeological Collections," ACHP's "Recommended Approach for Consultation on Recovery of Significant Information from Archaeological Sites" published in the Federal Register (64 Fed. Reg. 27085-27087 (May 18, 1999)), or other provisions agreed to by the consulting parties and following applicable State guidelines. Other provisions may include curating materials of Native American heritage with Tribal Nations. No excavation is allowed to be initiated before acceptance and approval of a curation plan. The curation plan must be developed through consultation with the consulting Tribal Nations, agencies, and property owners and finalized within one year after completion of the associated construction activities.

i. In the event artifacts and material culture of Native American heritage within the coastal and marine environments are identified and recovered during pre-construction, construction, operation, maintenance, and decommissioning of the proposed Project under this MOA, including for mitigation or resulting from post-review discovery including but not limited to vibracore sampling, those materials, if they are not replaced on the seafloor, will be housed at a curatorial facility in consultation with the Tribal Nations. These collection and curation directions do not apply to the post-construction seafloor inspection mitigation.

2. If suspected human remains are encountered, the Lessee must comply with the Advisory Council on Historic Preservation's (ACHP) *Policy Statement on Burial Sites, Human Remains, and Funerary Objects (March 2023)*.

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

1. Archaeological materials from state or local government lands in the APE and the records and documentation associated with these materials shall be curated within the state of their origin at a repository preferred by the SHPO, or an approved and certified repository, in accordance with the standards and guidelines required by New Jersey SHPO for materials collected in New Jersey. Curating materials of Native American heritage with Tribal Nations should be considered an acceptable option. State and local government lands as described here may include the seafloor in state waters. No excavation should be initiated before acceptance and approval of a curation plan. The curation plan will be developed through consultation with consulting Tribal Nations, agencies, and property owners and finalized within one year after completion of the associated construction activities.

    i. In the event artifacts and material culture of Native American heritage within the coastal and marine environments are identified and recovered from state property during pre-construction, construction, operation, maintenance, and decommissioning of the proposed Project under this MOA, including for mitigation or resulting from post-review discovery including but not limited to vibracore sampling, those materials, if they are not replaced on the seafloor, may be housed at a curatorial facility in consultation with the Tribal Nations and SHPO and local government(s). These collection and curation directions do not apply to the post-construction seafloor inspection mitigation.

2. Collections from private lands that would remain private property: In cases where archaeological survey and testing are conducted on private land, any recovered collections remain the property of the landowner. In such instances, BOEM and the Lessee, in coordination with New Jersey SHPO and affected Tribal Nation(s), will encourage landowners to donate the collection(s) to an appropriate public or Tribal entity. To the extent a private landowner requests that the materials be removed from the site, the Lessee must seek to have the materials donated to the repository identified under Stipulation IX.B.1 through a written donation agreement developed in consultation with the consulting parties. BOEM, assisted by the Lessee, will seek to have all materials the state curated together in the same curation facility within the state. In cases where the property owner wishes to transfer ownership of the collection(s) to a public or Tribal entity, BOEM and the Lessee will ensure that recovered artifacts and related documentation are curated in a suitable repository as agreed to by BOEM, New Jersey SHPO, and affected Tribal Nation(s), and following New Jersey state guidelines. To the extent feasible, the materials and records resulting from the actions required by this MOA for private lands will be curated in accordance with 36 CFR Part 79. No excavation is allowed to be initiated before acceptance and approval of a curation plan.

3. If suspected human remains are encountered, the Lessee must comply with the Advisory Council on Historic Preservation's (ACHP) *Policy Statement on Burial Sites, Human Remains, and Funerary Objects (March 2023)* and the post-review discovery plans for marine archaeology (Attachment 4) and terrestrial archaeology (Attachment 5).

X. EXPERTISE AND QUALIFICATIONS

A. Secretary of the Interior's Standards for Archaeology and Historic Preservation. The Lessee must ensure that all work carried out pursuant to this MOA meets the SOI's Standards for Archaeology and Historic Preservation, 48 Fed Reg. 44,716 (September 29, 1983), taking into account the suggested approaches to new construction in the SOI's Standards for Rehabilitation.

B. SOI Professional Qualifications Standards. The Lessee must ensure that all work carried out pursuant to this MOA is performed by or under the direct supervision of historic preservation professionals who meet the SOI's Professional Qualifications Standards (48 FR 44,738-44,739). A "qualified professional" is a person who meets the relevant standards outlined in such SOI's Standards. The Lessee must provide documentation to BOEM demonstrating that consultants retained for services pursuant to the MOA meet these standards prior to the implementation of mitigation measures.

C. Investigations of ASLFs. The Lessee must ensure that the additional investigations of ASLFs will be conducted and reports and other materials produced by one or more QMAs and geological specialists who meet the SOI's Professional Qualifications Standards and have experience both in conducting HRG surveys and processing and interpreting the resulting data for archaeological potential, as well as collecting, subsampling, and analyzing cores. BOEM, in consultation with the Tribal Nations, will select a consultant to implement mitigation measures in Stipulation III.B.1 acceptable to the majority of Tribal Nations.

D. Tribal Consultation Experience. BOEM, with the assistance of the Lessee, will ensure that all work carried out pursuant to this MOA that requires consultation with Tribal Nations is performed by professionals who have demonstrated professional experience consulting with federally recognized Tribal Nations.

E. Professional Standards for the Treatment of Human Remains. The Lessee will ensure that all work carried out pursuant to this MOA is performed by professionals who adhere to the principles of the Society for American Archaeology's *Statement Concerning the Treatment of Human Remains* (April 14, 2021) and the ACHP's *Policy Statement on Burial Sites, Human Remains, and Funerary Objects* (March 2023).

F. BOEM Acknowledgement of the Special Expertise of Tribal Nations. BOEM recognizes that all Tribal participants and knowledge need not conform to the SOI's standards, acknowledging that Tribal Nations possess special expertise in identifying, assessing the eligibility of, evaluating project effects on, and developing mitigation for historic properties that may possess religious and cultural significance to Tribal Nations, pursuant to 36 CFR 800.4(c)(1). To further apply this expertise, BOEM with the assistance of the Lessee, will incorporate Indigenous knowledge and Indigenous Traditional Ecological Knowledge (ITEK) that is conveyed by traditional knowledge keepers of the applicable Tribal Nation into the documents and review processes when such knowledge is received from Tribal Nations in consultation and during implementation of the MOA, consistent with the Office of Science and Technology Policy and Council on Environmental Quality memorandums (Executive Branch policy) on ITEK and federal decision making (November 15, 2021) and "Guidance for Federal Departments and Agencies on Indigenous Knowledge" (November 30, 2022), and "301 DM 7 Departmental Responsibilities for Consideration and Inclusion of Indigenous Knowledge in Department Actions and Scientific Research" (December 5, 2023). Tribal Nations will also be afforded the opportunity to review the application of their knowledge in documents produced under the MOA pursuant to Stipulation VI (*Review Process for Documents Produced Under MOA Stipulations*).

XI. DURATION

A. This MOA will expire at (1) the decommissioning of the Project in the Lease Area, as defined in the Lessee's lease with BOEM (Lease Number OCS-A 0499), or (2) 25 years from the date of COP approval, whichever occurs first. Prior to such time, BOEM may consult with the signatories to reconsider the terms of the MOA and amend it in accordance with Amendments Stipulation (Stipulation XVIII).

XII. ARCHAEOLOGICAL MONITORING

A. Implementation of Archaeological Monitoring Plans. The Lessee must implement the archaeological monitoring plans found in the *Marine Archaeology Monitoring and Post-Review Discovery Plan* (Attachment 4) and *Terrestrial Archaeology Monitoring and Post-Review Discovery Plan* (Attachment 5) for the areas identified for archaeological monitoring.

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

XIII. POST-REVIEW DISCOVERIES

A. Implementation of Post-Review Discovery Plans. If properties are discovered that may be historically significant or unanticipated effects on historic properties are found, BOEM, with the assistance of the Lessee, will implement the post-review discovery plans found in the *Marine Archaeology Monitoring and Post-Review Discovery Plan* (Attachment 4) and *Terrestrial Archaeology Monitoring and Post-Review Discovery Plan* (Attachment 5).

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 on a historic property prior to or during construction, operations, maintenance, or decommissioning of the Project, the Lessee must implement the following actions which are consistent with the post-review discovery plans for marine archaeology (Attachment 4) and terrestrial archaeology (Attachment 5):

1. Immediately halt all ground- or seafloor-disturbing activities within the area of discovery while considering whether stabilization and further protections are warranted to keep the discovered resource from further degradation and impact;

2. Notify BOEM and BSEE in writing via report within 72 hours of the discovery including any recommendations on the need and urgency of stabilization and additional protections for the discovered resource;

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

4. Conduct any additional investigations as directed by BOEM or its designee to determine, in consultation with the appropriate SHPO and consulting Tribal Nations, whether the resource is eligible for listing in the NRHP (30 CFR 585.702(b)). BOEM will also be notified about the transmittal of information on the archaeological site to the SHPO. BOEM will direct the Lessee to complete additional investigations, as BOEM deems appropriate, if:

i. The site has been impacted by Project activities; or

ii. Impacts on the site from Project activities cannot be avoided.

5. BOEM, with the assistance of the Lessee and in consultation with Tribal Nations, will consider the implementation of post-review discovery protocols developed by Tribal Nations, as applicable, prior to conducting additional investigations.

6. If investigations indicate that the resource is eligible for listing in the NRHP, BOEM, with the assistance of the Lessee, will work with the other relevant 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.

7. If investigations identify that human remains or funerary items are present and associated with Tribal Nations or Native American (as defined at 25 U.S.C. 32 3001 (9)) occupations, then BOEM, assisted by the Lessee, will implement the treatment process consistent with the Native American Graves Protection and Repatriation Act (NAGPRA). BOEM will consult with Tribal Nations prior to the development or execution of a treatment plan, consistent with the provisions of NAGPRA at 25 U.S.C. 3001-3013 and related law at 18 U.S.C. 1170. The Lessee must assist BOEM in the development and execution of a treatment plan at BOEM's request that is responsive to Tribal Nation concerns that might be expressed in the consultation.

8. If there is any evidence that the discovery is from a Native American society or appears to be a preserved burial site, the Lessee must contact the Tribal Nations 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 Tribal Nations pursuant to the post-review discovery plan.

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

XIV. EMERGENCY SITUATIONS

A. In the event of an emergency or disaster that is declared by the President or the Governor of New Jersey, which represents an imminent threat to public health or safety, or creates a hazardous condition due to impacts from this Project's infrastructure damaged during the emergency and affecting historic properties in the APEs, the Lessee must notify BOEM and BSEE. BOEM will then, with the assistance of the Lessee, notify the Tribal Nations, the New Jersey SHPO, and the ACHP of the condition which has initiated the situation and the measures taken to respond to the emergency or hazardous condition. BOEM will make this notification as soon as reasonably possible, but no later than 48 hours from when it becomes aware of the emergency or disaster. Should the Tribal Nations, SHPO, or the ACHP desire to provide technical assistance to BOEM, they shall submit comments within seven calendar days from notification if the nature of the emergency or hazardous condition allows for such coordination.

XV. REPORTING

A. By January 31 of each calendar year, following the execution of this MOA until it expires or is terminated, the Lessee must prepare and, following BOEM's review and agreement to share this summary report, provide all signatories and consulting parties to this MOA a summary report

detailing work undertaken pursuant to the MOA. Such report shall include:

1. A description of how the stipulations relating to avoidance, minimization, and mitigation measures (Stipulations I, II, and III) were implemented;

2. Any scheduling changes proposed;

3. Any project modifications, including consultations conducted pursuant to Stipulation VII (*Project Modifications*);

4. Any changes to the attachments to the MOA;

5. Any amendments to the MOA, pursuant to Stipulation XVIII (*Amendments*);

6. Any problems encountered regarding the implementation of this MOA; and

7. Any disputes and objections received in BOEM's efforts to carry out the terms of this MOA.

B. The Lessee can satisfy its reporting requirement under this stipulation by providing the relevant portions of the annual compliance certification required under 30 CFR 285.633.

C. If requested by the signatories, BOEM will convene an annual meeting with the signatories and consulting parties to discuss the annual report, the implementation of this MOA, and other requested topics.

XVI. LEASE ASSIGNMENT AND SEGREGATION

A. If as a result of an assignment of record title interest in any portion of Lease OCS-A 0499 in accordance with 30 CFR §§ 585.408 – .411 the assigned and retained portions become segregated into separate and distinct leases, BOEM will ensure that approval of any activity on the new lease includes conditions binding that lessee to the terms of this MOA as they apply to the retained portion of the original lease. The new lessee will notify the signatories in writing that it agrees to the terms of this MOA and intends to sign the MOA as an invited signatory.

B. BOEM will consider any amendments to the MOA that become necessary as a result of the segregation of the original lease, in accordance with Stipulation XVIII (*Amendments*). However, an amendment under Stipulation XVIII will not be necessary if BOEM determines the new lessee's participation does not change the undertaking in a manner that would require any modifications to the stipulations set forth in this MOA. In such a case, BOEM will document the assignment and segregation of the lease and the new lessee's becoming a signatory to the MOA in a written notification to the signatories and consulting parties and include a copy of the new lessee's executed signature page as an invited signatory.

C. For the purposes of this MOA only, upon assignment and segregation of Lease OCS-A 0499, the Lessee (Atlantic Shores Offshore Wind, LLC) and the new lessee will each assume and implement all stipulations assigned to the Lessee in this MOA.

XVII. DISPUTE RESOLUTION

A. If any 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 will consult with such party and potentially with other interested parties to resolve the objection and may amend the MOA to resolve the objection, if necessary, pursuant to Stipulation XVIII (*Amendments*). If BOEM determines that such objection cannot be resolved,

BOEM:

1. Will forward all documentation relevant to the dispute, including BOEM's proposed resolution, to ACHP requesting that the ACHP 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 will prepare a written response that considers any timely advice or comments regarding the dispute from ACHP, 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. May make a final decision on the dispute and proceed accordingly, if ACHP does not provide its advice regarding the dispute within the 30-calendar-day time period. 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 or consulting parties to the MOA, and provide them and 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 must notify BOEM. BOEM will review the objection and may notify the other signatories as appropriate, and respond to the objector.

XVIII. 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 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 signatories and consulting parties. Revisions to any attachment to this MOA will not require an amendment to the MOA.

XIX. TERMINATION

A. 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 and consulting parties to attempt to develop an amendment per the Amendments Stipulation (Stipulation XVIII). 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.

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

XX. COORDINATION WITH OTHER FEDERAL AGENCIES

A. If 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 a federal agency may become a 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 Amendments Stipulation (Stipulation XVIII).

B. If the signatories and invited signatories approve the federal agency's request to be a signing party to this MOA, an amendment under the Amendments Stipulation (Stipulation XVIII) 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 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.

XXI. ANTI-DEFICIENCY ACT

A. Pursuant to 31 U.S.C. 1341, BOEM's obligations under this MOA are subject to the availability of appropriated funds, and the stipulations of this MOA are subject to the provisions of the Anti-Deficiency Act. BOEM will make reasonable and good faith efforts to secure the necessary funds to implement this MOA in its entirety. If compliance with the Anti-Deficiency Act alters or impairs BOEM's ability to implement the stipulations of this agreement, BOEM will consult in accordance with the amendment and termination procedures found in Stipulations XVIII and XIX of this agreement.

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

[SIGNATURES COMMENCE ON FOLLOWING PAGE]

MEMORANDUM OF AGREEMENT
AMONG THE BUREAU OF OCEAN ENERGY MANAGEMENT,
THE DELAWARE NATION,
THE DELAWARE TRIBE OF INDIANS,
THE MASHANTUCKET (WESTERN) PEQUOT TRIBAL NATION,
THE MASHPEE WAMPANOAG TRIBE,
THE SHINNECOCK INDIAN NATION,
THE STOCKBRIDGE-MUNSEE COMMUNITY BAND OF MOHICAN INDIANS,
THE WAMPANOAG TRIBE OF GAY HEAD (AQUINNAH)
THE STATE HISTORIC PRESERVATION OFFICER OF NEW JERSEY,
THE NEW JERSEY HISTORIC TRUST,
ATLANTIC SHORES OFFSHORE WIND PROJECT 1, LLC,
ATLANTIC SHORES OFFSHORE WIND PROJECT 2, LLC, AND
THE ADVISORY COUNCIL ON HISTORIC PRESERVATION
REGARDING THE ATLANTIC SHORES OFFSHORE WIND SOUTH PROJECT
(LEASE NUMBER OCS-A 0499)

Signatory:

Bureau of Ocean Energy Management (BOEM)

_____ Date:_____
Elizabeth A. Klein
Director
Bureau of Ocean Energy Management

MEMORANDUM OF AGREEMENT
AMONG THE BUREAU OF OCEAN ENERGY MANAGEMENT,
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REGARDING THE ATLANTIC SHORES OFFSHORE WIND SOUTH PROJECT
(LEASE NUMBER OCS-A 0499)

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

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AMONG THE BUREAU OF OCEAN ENERGY MANAGEMENT,
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REGARDING THE ATLANTIC SHORES OFFSHORE WIND SOUTH PROJECT
(LEASE NUMBER OCS-A 0499)

Signatory:

Advisory Council on Historic Preservation (ACHP)

_____ Date:_____
Reid J. Nelson
Executive Director
Advisory Council on Historic Preservation

MEMORANDUM OF AGREEMENT
AMONG THE BUREAU OF OCEAN ENERGY MANAGEMENT,
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REGARDING THE ATLANTIC SHORES OFFSHORE WIND SOUTH PROJECT
(LEASE NUMBER OCS-A 0499)

Invited Signatory:

The Delaware Nation

_____ Date:_____
Deborah Dotson
President of the Executive Committee
The Delaware Nation

MEMORANDUM OF AGREEMENT
AMONG THE BUREAU OF OCEAN ENERGY MANAGEMENT,
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(LEASE NUMBER OCS-A 0499)

Invited Signatory:

The Delaware Tribe of Indians

_____ Date:_____
Brad KillsCrow
Chief
The Delaware Tribe of Indians

MEMORANDUM OF AGREEMENT
AMONG THE BUREAU OF OCEAN ENERGY MANAGEMENT,
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(LEASE NUMBER OCS-A 0499)

Invited Signatory:

Mashantucket (Western) Pequot Tribal Nation

_____ Date:_____
Rodney Butler
Chairman
Mashantucket (Western) Pequot Tribal Nation

MEMORANDUM OF AGREEMENT
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(LEASE NUMBER OCS-A 0499)

Invited Signatory:

Mashpee Wampanoag Tribe

_____ Date:_____
Brian Weeden
Chairman
Mashpee Wampanoag Tribe

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AMONG THE BUREAU OF OCEAN ENERGY MANAGEMENT,
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(LEASE NUMBER OCS-A 0499)

Invited Signatory:

The Shinnecock Indian Nation

_____ Date:_____
Bryan Polite
Chairman
The Shinnecock Indian Nation

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(LEASE NUMBER OCS-A 0499)

Invited Signatory:

Stockbridge-Munsee Community Band of Mohican Indians

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

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(LEASE NUMBER OCS-A 0499)

Invited Signatory:

New Jersey Historic Trust

_____ Date:_____
Glenn Ceponis
Executive Director
New Jersey Historic Trust

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(LEASE NUMBER OCS-A 0499)

Invited Signatory:

Atlantic Shores Offshore Wind Project 1, LLC

_____ Date:_____
Jennifer Daniels
Vice President and Development Director
Atlantic Shores Offshore Wind Project 1, LLC

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(LEASE NUMBER OCS-A 0499)

Invited Signatory:

Atlantic Shores Offshore Wind Project 2, LLC

_____ Date:_____
Jennifer Daniels
Vice President and Development Director
Atlantic Shores Offshore Wind Project 2, LLC

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(LEASE NUMBER OCS-A 0499)

Concurring Party:

United States Bureau of Safety and Environmental Enforcement (BSEE)

_____ Date:_____
[Name]
[Title]
United States Bureau of Safety and Environmental Enforcement (BSEE)

MEMORANDUM OF AGREEMENT
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(LEASE NUMBER OCS-A 0499)

Concurring Party:

United States Army Corps of Engineers (USACE)

_____ Date:_____
[Name]
[Title]
United States Army Corps of Engineers (USACE)

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Concurring Party:

[Organization]

_____ Date:_____
[Name]
[Title]
[Organization]

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LIST OF ATTACHMENTS TO THE MOA

ATTACHMENT 1 – APE MAPS

ATTACHMENT 2 – LISTS OF INVITED GOVERNMENTS AND ORGANIZATIONS AND PARTICIPATING CONSULTING PARTIES

ATTACHMENT 3 – CULTURAL RESOURCES AVOIDANCE, MINIMIZATION, AND MITIGATION PLAN

ATTACHMENT 4 – MARINE ARCHAEOLOGY MONITORING AND POST-REVIEW DISCOVERY PLAN

ATTACHMENT 5 – TERRESTRIAL ARCHAEOLOGY MONITORING AND POST-REVIEW DISCOVERY PLAN

ATTACHMENT 6 – MITIGATION FUNDING AMOUNTS

ATTACHMENT 7 – HISTORIC PROPERTY TREATMENT PLAN FOR ANCIENT SUBMERGED LANDFORM FEATURES

ATTACHMENT 8 – HISTORIC PROPERTY TREATMENT PLAN FOR ATLANTIC CITY CONVENTION HALL (JIM WHELAN BOARDWALK HALL) (NHL) IN ATLANTIC CITY, ATLANTIC COUNTY, NEW JERSEY

ATTACHMENT 9 – HISTORIC PROPERTY TREATMENT PLAN FOR LUCY, THE MARGATE ELEPHANT (NHL) IN MARGATE CITY, ATLANTIC COUNTY, NEW JERSEY

ATTACHMENT 10 – HISTORIC PROPERTY TREATMENT PLAN FOR HISTORIC PROPERTIES OWNED BY THE STATE OF NEW JERSEY (NJDEP): ABSECON LIGHTHOUSE IN ATLANTIC CITY, ATLANTIC COUNTY; BARNEGAT LIGHTHOUSE IN BARNEGAT LIGHT, OCEAN COUNTY; FORKED RIVER COAST GUARD STATION NO. 112 IN BERKELEY TOWNSHIP, OCEAN COUNTY; AND ISLAND BEACH STATE PARK HISTORIC DISTRICT IN BERKELEY TOWNSHIP, OCEAN COUNTY

ATTACHMENT 11 – HISTORIC PROPERTY TREATMENT PLAN FOR ATLANTIC CITY BOARDWALK HISTORIC DISTRICT IN ATLANTIC CITY, ATLANTIC COUNTY, NEW JERSEY

ATTACHMENT 12 – HISTORIC PROPERTY TREATMENT PLAN FOR GREAT EGG COAST GUARD STATION IN LONGPORT BOROUGH, ATLANTIC COUNTY, NEW JERSEY

ATTACHMENT 13 – HISTORIC PROPERTY TREATMENT PLAN FOR MISSOURI AVENUE BEACH (CHICKEN BONE BEACH) IN ATLANTIC CITY, ATLANTIC COUNTY, NEW JERSEY

ATTACHMENT 14 – TERRESTRIAL ARCHAEOLOGY PHASED IDENTIFICATION PLAN

ATTACHMENT 1 – APE MAPS

ATTACHMENT 2 – LISTS OF INVITED GOVERNMENTS AND ORGANIZATIONS AND PARTICIPATING CONSULTING PARTIES

Table 1. Governments and Organizations Invited to Participate in NHPA Section 106 Consultation

Government or Organization Type	Invited Government or Organization Name
Tribal Nations	Absentee-Shawnee Tribe of Indians of Oklahoma
	Delaware Tribe of Indians
	Eastern Shawnee Tribe of Oklahoma
	Mashantucket (Western) Pequot Tribal Nation
	Mashpee Wampanoag Tribe
	Shawnee Tribe
	Stockbridge-Munsee Community Band of Mohican Indians
	The Delaware Nation
	The Narragansett Indian Tribe
	The Shinnecock Indian Nation
	Wampanoag Tribe of Gay Head (Aquinnah)
Federal Agencies	U.S. Advisory Council on Historic Preservation
	U.S. Army Corps of Engineers
	U.S. Bureau of Safety and Environmental Enforcement
	U.S. Coast Guard
	U.S. Environmental Protection Agency
	U.S. Fish and Wildlife Service
	U.S. National Oceanic and Atmospheric Administration
	U.S. National Park Service
	U.S. Naval History and Heritage Command (Underwater Archaeology Branch)
SHPOs and State Agencies	New Jersey Department of Environmental Protection
	New Jersey Department of Environmental Protection, Historic Preservation Office
State Recognized Tribes	Lenape Indian Tribe of Delaware
	Nanticoke Indian Tribe
	Nanticoke Lenni-Lenape Tribe
	Powhatan Renape Nation
	Ramapough Lenape Indian Nation
	Ramapough Mountain Indians
Local Governments	Atlantic County
	Atlantic County, Department of Regional Planning and Development
	Barnegat Township
	Bass River Township
	Berkeley Township
	Borough of Avalon
	Borough of Barnegat Light
	Borough of Bay Head
	Borough of Beach Haven
	Borough of Cape May Point
	Borough of Harvey Cedars
	Borough of Longport
	Borough of Manasquan

Government or Organization Type	Invited Government or Organization Name
	Borough of Mantoloking
	Borough of Point Pleasant Beach
	Borough of Sea Girt
	Borough of Seaside Park
	Borough of Ship Bottom
	Borough of Stone Harbor
	Borough of Surf City
	Borough of Tuckerton
	Borough of West Cape May
	Borough of West Wildwood
	Borough of Wildwood Crest
	Borough of Woodbine
	Cape May County
	City of Absecon
	City of Atlantic City
	City of Brigantine
	City of Cape May
	City of Egg Harbor City
	City of Linwood
	City of Margate
	City of North Wildwood
	City of Ocean City
	City of Pleasantville
	City of Port Republic
	City of Sea Isle City
	City of Somers Point
	City of Ventnor City
	City of Wildwood
	Dennis Township
	Eagleswood Township
	Galloway Township
	Lacey Township
	Long Beach Township
	Manchester Township
	Middle Township
	Ocean County
	Stafford Township
	Toms River Township
	Town of Hammonton
	Township of Brick
	Township of Egg Harbor
	Township of Hamilton

Government or Organization Type	Invited Government or Organization Name
	Township of Lakewood
	Township of Little Egg Harbor
	Township of Lower
	Township of Ocean
	Township of Upper
	Wall Township
Nongovernmental Organizations or Groups	600 Boardwalk LLC
	Absecon Historical Society
	Anglers Club of Absecon Island
	Atlantic City Convention Center
	Atlantic County Historical Society
	Avalon History Center
	Barnegat Historical Society
	Barnegat Light Museum
	Barnegat Lighthouse State Park
	Belmar Historical Society
	Brigantine Beach Historical Museum
	Cape May Lighthouse
	Caribbean Motel
	Central Pier Associates LLC
	Chicken Bone Beach Historical Foundation, Inc.
	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
	Historical Society of Lacey
	Lakewood Historical Society
	Legacy Vacation Resorts
	Linwood Historical Society
	Long Beach Island Historical Association
	Longport Historical Society
	Madison Hotel
	Margate Historical Society
	Max Gurwicz Enterprises
	Museum of Cape May County

Government or Organization Type	Invited Government or Organization Name
	New Jersey Casino Reinvestment Development Authority (CRDA)
	New Jersey Historic Trust
	New Jersey Lighthouse Society
	New Jersey Maritime Museum
	Ocean City Historical Museum
	Ocean City Music Pier
	Ocean County Historical Society
	Old Wall Historical Society
	Patriots for the Somers Mansion
	Preservation New Jersey
	Property Owner of 108 South Gladstone Avenue, Margate, New Jersey
	Property Owner of 114 South Harvard Avenue, Ventnor City, New Jersey
	Property Owner of 114 South Osborne Avenue, Margate, New Jersey
	Property Owner of 120 Atlantic Avenue, Atlantic City, New Jersey
	Property Owner of 124 Atlantic Avenue, Atlantic City, New Jersey
	Property Owner of 125 South Montgomery Avenue, Atlantic City, New Jersey
	Property Owner of 5231 Central Avenue, Ocean City, New Jersey
	Raphael-Gordon House
	Resorts International
	Ritz-Carlton Hotel/Condominium Association
	Rutgers University, Department of Marine and Coastal Sciences, School of Environmental and Biological Sciences
	Save Long Beach Island, Inc.
	Save Lucy Committee, Inc.
	Seaside Heights Historical Society
	Seaview Resort Acquisition Group LLC
	Squan Village Historical Society
	St. Leonard's Association
	The Flanders Hotel/Flanders Condominium Association
	The Inlet Public-Private Association Inc.
	The Museum of Cape May County
	The Noyes Museum of Art
	Tuckerton Historical Society
	Vassar Square Condominium Association
	Waretown Historical Society
	Wildwood Crest Historical Society
	Wildwood Historical Society
Lessee	Atlantic Shores Offshore Wind, LLC

Table 2. Consulting Parties Participating in Section 106 Consultation

Government or Organization Type	Participating Government or Organization Name
Tribal Nations	Delaware Tribe of Indians
	Eastern Shawnee Tribe of Oklahoma
	Mashantucket (Western) Pequot Tribal Nation
	Mashpee Wampanoag Tribe
	Stockbridge-Munsee Community Band of Mohican Indians
	The Delaware Nation
	The Narragansett Indian Tribe
	The Shinnecock Indian Nation
	Wampanoag Tribe of Gay Head (Aquinnah)
Federal Agencies	U.S. Advisory Council on Historic Preservation
	U.S. Army Corps of Engineers
	U.S. Bureau of Safety and Environmental Enforcement
	U.S. Coast Guard
	U.S. National Park Service
	U.S. Naval History and Heritage Command (Underwater Archaeology Branch)
SHPOs and State Agencies	New Jersey Department of Environmental Protection, Historic Preservation Office
	New Jersey Department of Environmental Protection, State Parks, Forests & Historic Sites
State Recognized Tribes	Lenape Indian Tribe of Delaware
Local Government	Atlantic County
	Atlantic County, Department of Regional Planning and Development
	Borough of Bay Head
	Borough of Beach Haven
	Borough of Harvey Cedars
	Borough of Longport
	Borough of Point Pleasant Beach
	Borough of Sea Girt
	Borough of Seaside Park
	Borough of Stone Harbor
	Borough of West Cape May
	Cape May County (represented by Cultural Heritage Partners and Warwick Group Consultants, LLC)
	City of Atlantic City (represented by Rutala Associates, LLC)
	City of Brigantine
	City of Cape May
	City of Linwood
	City of Margate
	City of North Wildwood (represented by Warwick Group Consultants, LLC)
	City of Ocean City
	City of Sea Isle City
	City of Somers Point (represented by Rutala Associates, LLC)

Government or Organization Type	Participating Government or Organization Name
	City of Ventnor City
	Galloway Township
	Long Beach Township (represented by Warwick Group Consultants, LLC)
	Stafford Township
	Township of Brick
	Township of Upper
Nongovernmental Organizations or Groups	Anglers Club of Absecon Island
	Chicken Bone Beach Historical Foundation, Inc.
	Greater Cape May Historic Society
	Hereford Inlet Lighthouse
	New Jersey Historic Trust
	Property Owner of 108 South Gladstone Avenue, Margate, New Jersey (represented by Perskie Mairone Brog Barrera & Baylinson, P.C.)
	Resorts Casino Hotel (DGMB Casino, LLC)
	Ritz Condominiums
	Save Long Beach Island, Inc.
	Save Lucy Committee, Inc. (represented by Rutala Associates, LLC)
	St. Leonard's Association
	The Flanders Hotel
	The Inlet Public-Private Association Inc.
	The Noyes Museum of Art
	Vassar Square Condominium Association
Lessee	Atlantic Shores Offshore Wind, LLC

ATTACHMENT 3 – CULTURAL RESOURCES AVOIDANCE, MINIMIZATION, AND MITIGATION PLAN

ATTACHMENT 4 – MARINE ARCHAEOLOGY MONITORING AND POST-REVIEW DISCOVERY PLAN

ATTACHMENT 5 – TERRESTRIAL ARCHAEOLOGY MONITORING AND POST-REVIEW DISCOVERY PLAN

ATTACHMENT 6 – MITIGATION FUNDING AMOUNTS

The mitigation measures proposed in Stipulation III have been developed by individuals who meet the qualifications specified in the SOI's Qualifications Standards for Archaeology, History, Architectural History, and/or Architecture (36 CFR 61) and are based on input from consulting parties. The proposed mitigation measures consider the nature, scope, and magnitude of adverse effects caused by the Project and the qualifying characteristics of each historic property that would be affected. The funding amounts that follow are those proposed by the Lessee, which is responsible for providing this funding, as revised in consultation with consulting parties. The Lessee would provide a maximum total of $6,459,520 to support mitigation of all adverse effects caused by the Project as described in the MOA in Stipulation III, of which $1,685,000 of that total would be placed in escrow to provide a mitigation fund as described under Stipulation III.C.1.i, and the remaining $4,774,520 would be divided between the other mitigation measures under Stipulation III, as described below. These budgets are good-faith estimates, based on the experience of these qualified consultants with similar activities and comparable historic properties. The proposed level of funding is appropriate to accomplish the identified preservation goals and result in meaningful benefits to the affected properties, resolving adverse effects. Therefore, the funding amounts indicated here for activities required by the MOA represent the maximum amounts the Lessee is required to spend to fund these activities.

The mitigation funding amounts for each adversely affected historic property for which mitigation has been stipulated in Stipulation III are summarized in the table below. The corresponding mitigation measures are summarized in Stipulation III and referenced HPTPs, where applicable.

<u>Mitigation Measures for Adversely Affected Historic Properties in the Marine APE</u>

- $2,354,520 for mitigation to resolve adverse effects on 59 ASLFs, including:
    - $1,480,080 for:
        - Preconstruction geoarchaeology
        - Open-Source GIS, Story Maps, and Animations
        - ASLF Post-construction seafloor assessment
    - $191,480 for a Subsistence and Settlement Study of New Jersey for the Stockbridge-Munsee Community Band of Mohican Indians
    - $191,480 for Tribal Capacity Support for The Delaware Nation
    - $191,480 for Tribal Capacity Support for the Delaware Tribe of Indians
    - $[TBD] for Tribal Capacity Support for the Mashantucket (Western) Pequot Tribal Nation
    - $[TBD] for Tribal Capacity Support for the Mashpee Wampanoag Tribe
    - $[TBD] for Tribal Capacity Support for the Shinnecock Indian Nation
    - $[TBD] for Tribal Capacity Support for the Wampanoag Tribe of Gay Head (Aquinnah)

<u>Mitigation Measures for Adversely Affected Historic Properties in the Visual APE</u>

- Per Stipulation III.C.1.i, contribution of $1,685,000 to the mitigation fund for 20 of the 29 adversely affected historic properties in the visual APE:
    - In Atlantic County:
        - Atlantic City:
            - $100,000 for Central Pier;

        - $65,000 for Haddon Hall (Resorts Casino Hotel);
        - $65,000 for Ritz Carlton Hotel;
        - $70,000 for Riviera Apartments;
        - $55,000 for U.S. Coast Guard Station;
        - $25,000 for 120 Atlantic Avenue;
      - Brigantine City:
        - $65,000 for Brigantine Hotel;
      - Galloway Township:
        - $75,000 for Seaview Golf Club, Clarence Geist Pavilion;
      - Margate City:
        - $100,000 for Margate Fishing Pier;
        - $25,000 for 108 South Gladstone Avenue;
        - $25,000 for 114 South Osborne Avenue;
      - Ventnor City:
        - $100,000 for John Stafford Historic District;
        - $100,000 for Saint Leonard's Tract Historic District;
        - $70,000 for Vassar Square Condominiums;
        - $100,000 for Ventnor City Fishing Pier;
        - $25,000 for 114 South Harvard Avenue;
    - In Cape May County:
      - Ocean City:
        - $65,000 for The Flanders Hotel;
        - $100,000 for Music Pier;
        - $400,000 for Ocean City Boardwalk;
    - In Ocean County:
      - Little Egg Harbor:
        - $55,000 for Little Egg Harbor U.S. Life Saving Station #23;

- Per Stipulation III.C.1.ii, $2,420,000 for the implementation of a HPTP for nine (9) of the 29 adversely affected historic properties in the visual APE:
    - Atlantic City Convention Hall (Jim Whelan Boardwalk Hall; NHL)
      - Mitigation: Provide funding toward the rehabilitation of the Kennedy Plaza West Pavilion at the Atlantic City Convention Hall (Jim Whelan Boardwalk Hall) NHL. Funding may also be used toward the refinement of plans and specifications for the proposed project. The rehabilitation of the building will allow the currently vacant section of the NHL to be returned to public use to be enjoyed by visitors to the Atlantic City Convention Hall (Jim Whelan Boardwalk Hall) NHL and the Atlantic City Boardwalk.
      - Funding Amount: $1,000,000
    - Lucy, The Margate Elephant (NHL) in Margate City, Atlantic County
      - Mitigation: Provide funding toward the construction of a new visitor experience and welcome center at the Lucy, The Margate Elephant NHL. Funding may also be used toward the refinement of plans and specifications for the proposed project or to the landscaping and/or hardscaping. The number of people that visit Lucy, The Margate Elephant has surpassed the capacity of the current facilities and there are currently not enough restrooms nor is Lucy, The Margate Elephant accessible to all members of the public. This project is being designed to enhance

the visitor experience and to accommodate larger groups as well as school children and opportunity to visit this historic resource.
        - Funding Amount: $500,000
- Historic Properties Owned by the State of New Jersey (NJDEP)
    - Mitigation: Provide $325,000 in funding to NJDEP for the planning or implementation of preservation, restoration, rehabilitation, cyclical maintenance, resiliency planning, disaster recovery, or other associated activities to ensure the long-term preservation of these historic properties.
    - Funding Amounts:
        - $75,000 for Absecon Lighthouse
        - $75,000 for Barnegat Lighthouse
        - $50,000 for Forked River Coast Guard Station No. 112
        - $125,000 for Island Beach State Park Historic District
- Historic Properties in Atlantic County
    - Atlantic City Boardwalk Historic District in Atlantic City
        - Mitigation:
            - Provide funding toward the next phase of the Atlantic City Boardwalk Restoration Plan. Due to the length of the boardwalk, Atlantic City has been replacing portions of the structure, which is the longest in the world, in segments and has secured grants and other sources of funding for the work completed thus far. The intent of this mitigation measure is to provide Atlantic City with funding to be used toward the removal and replacement of the next planned segment of the Atlantic City Boardwalk.
        - Funding Amount: $500,000
    - Great Egg Coast Guard Station in Longport Borough
        - Mitigation:
            - Provide funding to the Borough of Longport for the planning or implementation of preservation, restoration, rehabilitation, cyclical maintenance, resiliency planning, disaster recovery, or other associated activities to ensure the long-term preservation of the Great Egg Coast Guard Station.
        - Funding Amount: $55,000
    - Missouri Avenue Beach (Chicken Bone Beach) in Atlantic City
        - Mitigation:
            - Provide funding to hire a Secretary of the Interior Qualified Professional to produce a study to determine if the Missouri Avenue Beach (Chicken Bone Beach) qualifies as a TCP per the NPS's *National Register Bulletin 38: Guidelines for Evaluating and Documenting Traditional Cultural Properties* (Parker and King, 1992). The consultant will work with the Chicken Bone Beach Historical Foundation, Inc. and the interested consulting parties to develop a methodology and exact scope of work.
            - Provide funding to develop and install signage to increase public awareness of the history and significance of Missouri Avenue Beach (Chicken Bone Beach).
            - Provide funding to the Chicken Bone Beach Historical Foundation Inc. to promote the history and significance of

Missouri Avenue Beach (Chicken Bone Beach) through the Youth Jazz Institute.

- Funding Amount: $40,000

ATTACHMENT 7 – HISTORIC PROPERTY TREATMENT PLAN FOR ANCIENT SUBMERGED LANDFORM FEATURES

ATTACHMENT 8 – HISTORIC PROPERTY TREATMENT PLAN FOR ATLANTIC CITY CONVENTION HALL (JIM WHELAN BOARDWALK HALL) (NHL) IN ATLANTIC CITY, ATLANTIC COUNTY, NEW JERSEY

ATTACHMENT 9 – HISTORIC PROPERTY TREATMENT PLAN FOR LUCY, THE MARGATE ELEPHANT (NHL) IN MARGATE CITY, ATLANTIC COUNTY, NEW JERSEY

ATTACHMENT 10 – HISTORIC PROPERTY TREATMENT PLAN FOR HISTORIC PROPERTIES OWNED BY THE STATE OF NEW JERSEY (NJDEP): ABSECON LIGHTHOUSE IN ATLANTIC CITY, ATLANTIC COUNTY; BARNEGAT LIGHTHOUSE IN BARNEGAT LIGHT, OCEAN COUNTY; FORKED RIVER COAST GUARD STATION NO. 112 IN BERKELEY TOWNSHIP, OCEAN COUNTY; AND ISLAND BEACH STATE PARK HISTORIC DISTRICT IN BERKELEY TOWNSHIP, OCEAN COUNTY

ATTACHMENT 11 – HISTORIC PROPERTY TREATMENT PLAN FOR ATLANTIC CITY BOARDWALK HISTORIC DISTRICT IN ATLANTIC CITY, ATLANTIC COUNTY, NEW JERSEY

ATTACHMENT 12 – HISTORIC PROPERTY TREATMENT PLAN FOR GREAT EGG COAST GUARD STATION IN LONGPORT BOROUGH, ATLANTIC COUNTY, NEW JERSEY

ATTACHMENT 13 – HISTORIC PROPERTY TREATMENT PLAN FOR MISSOURI AVENUE BEACH (CHICKEN BONE BEACH) IN ATLANTIC CITY, ATLANTIC COUNTY, NEW JERSEY

ATTACHMENT 14 – TERRESTRIAL ARCHAEOLOGY PHASED IDENTIFICATION PLAN

ATTACHMENT B. APE FIGURES

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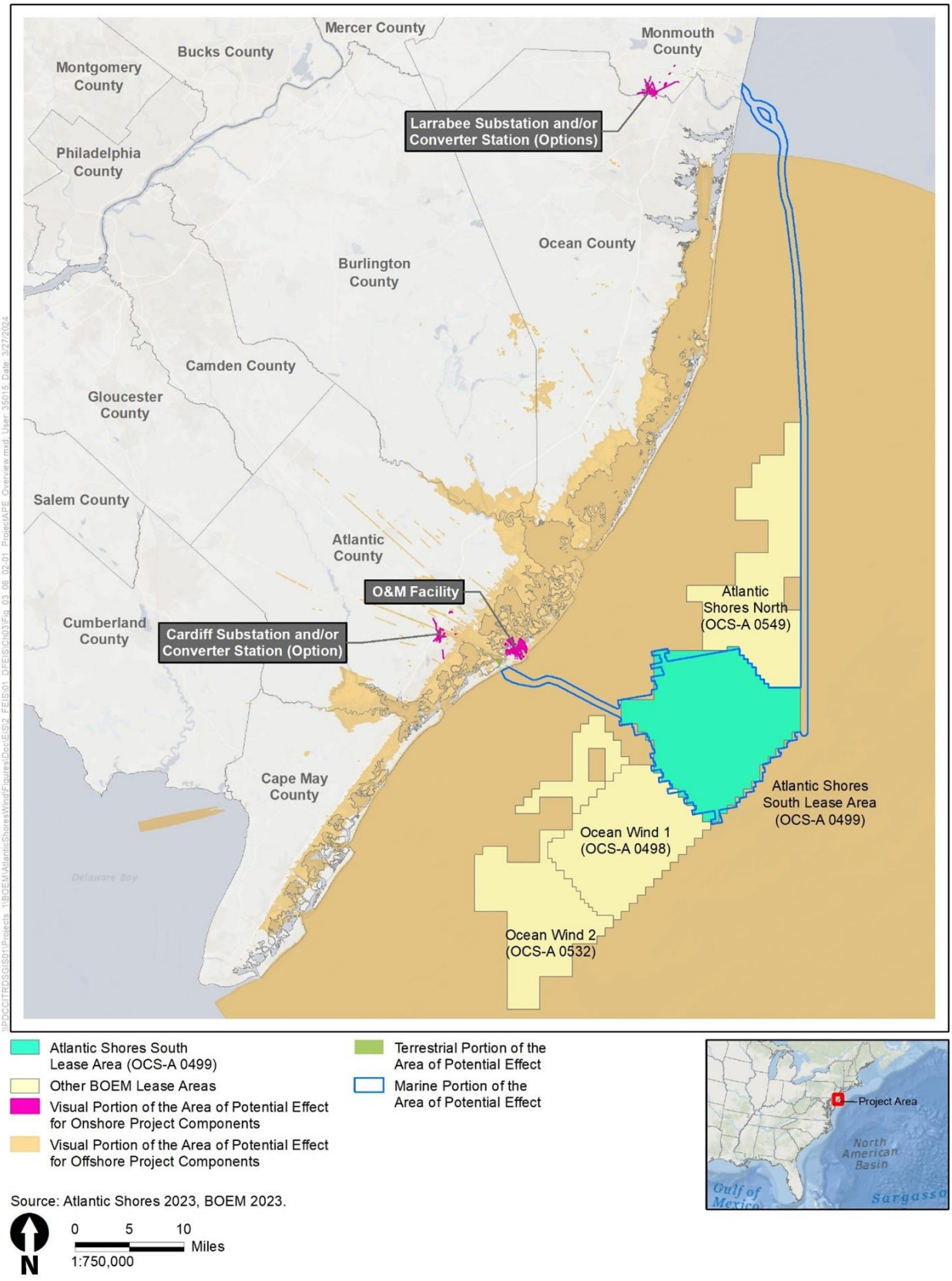

Figure I.B-1. Overview of Project APE

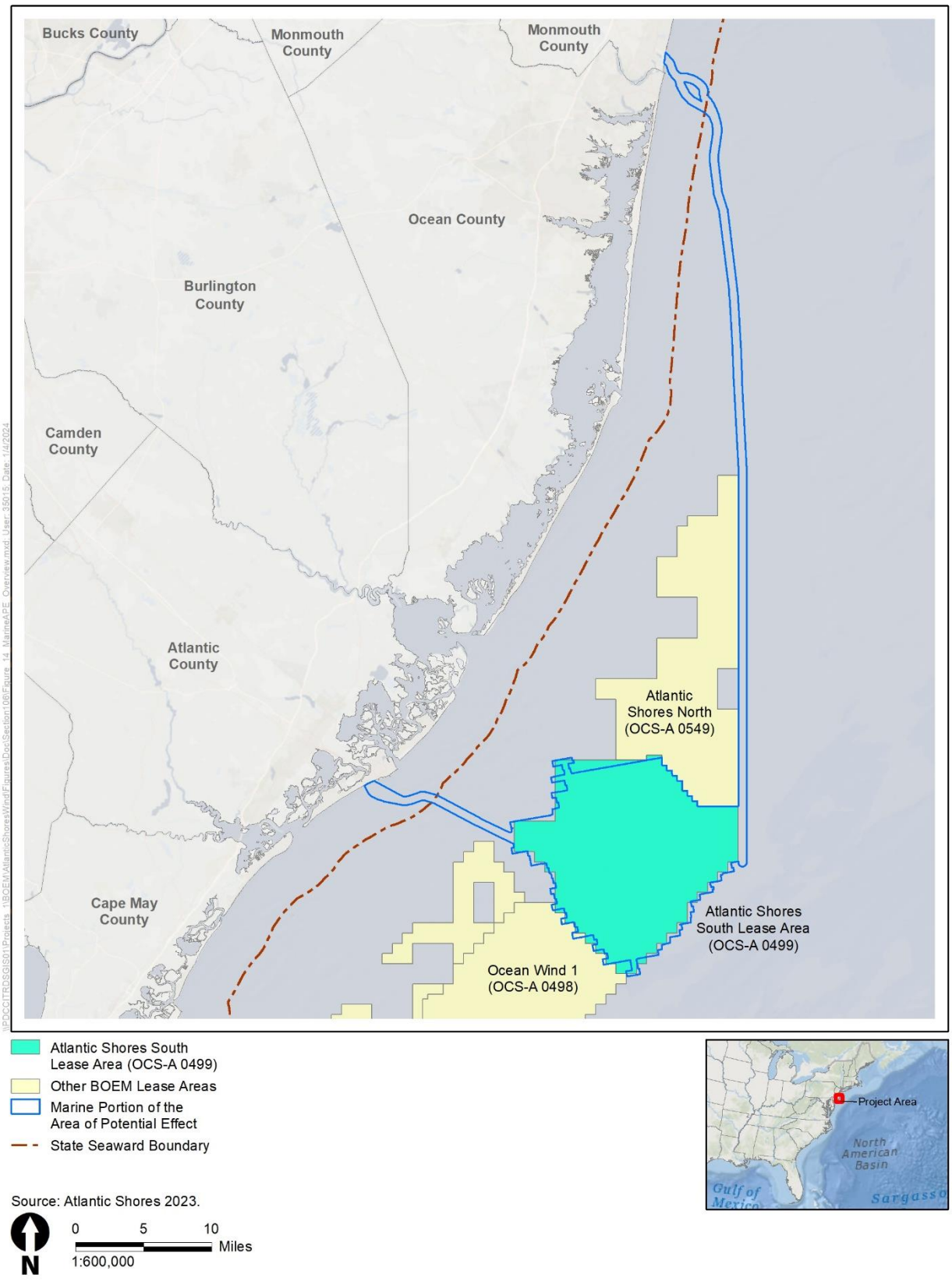

Figure I.B-2. Overview of Marine APE

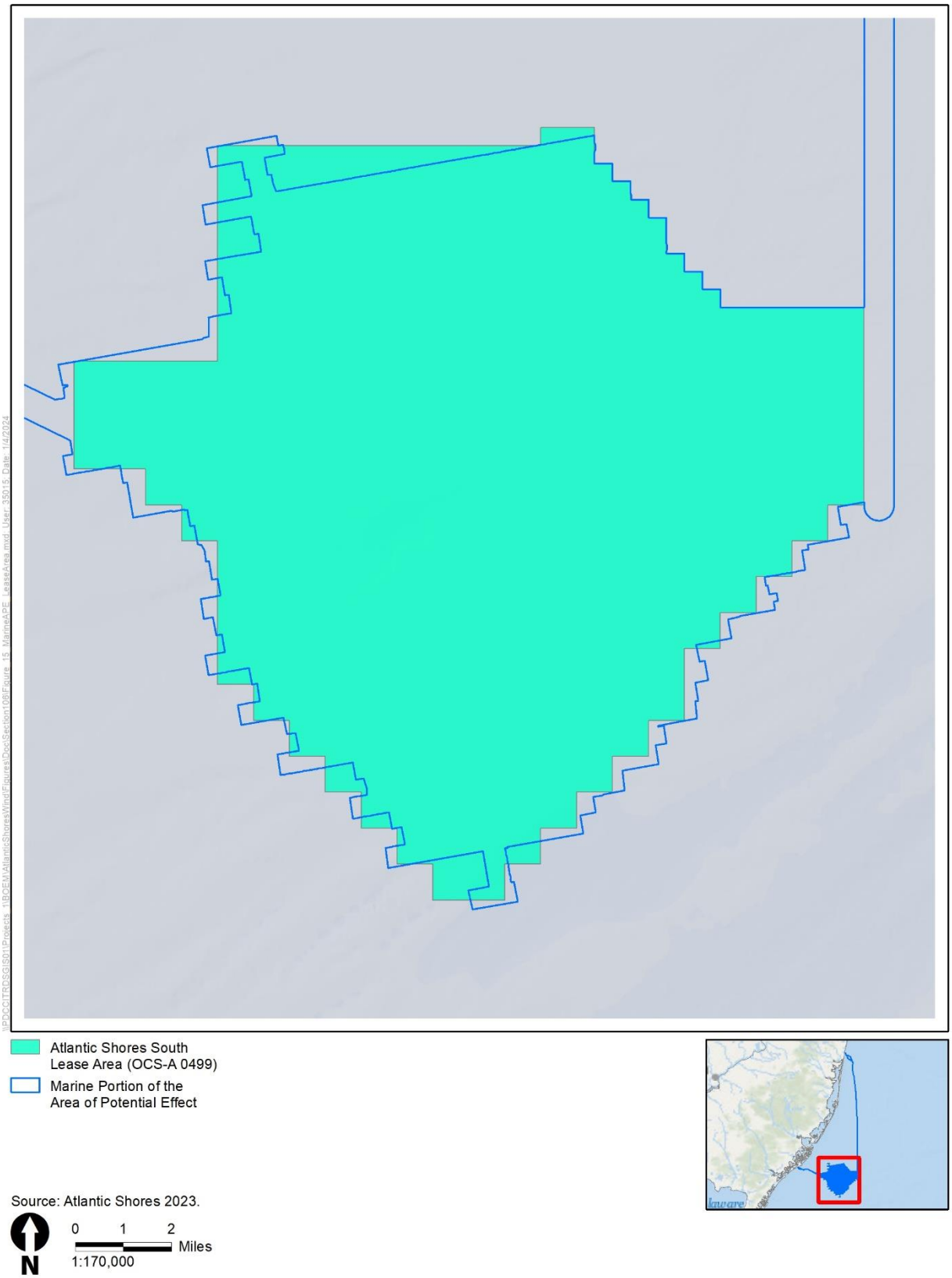

Figure I.B-3. Detail of Marine APE within the Lease Area

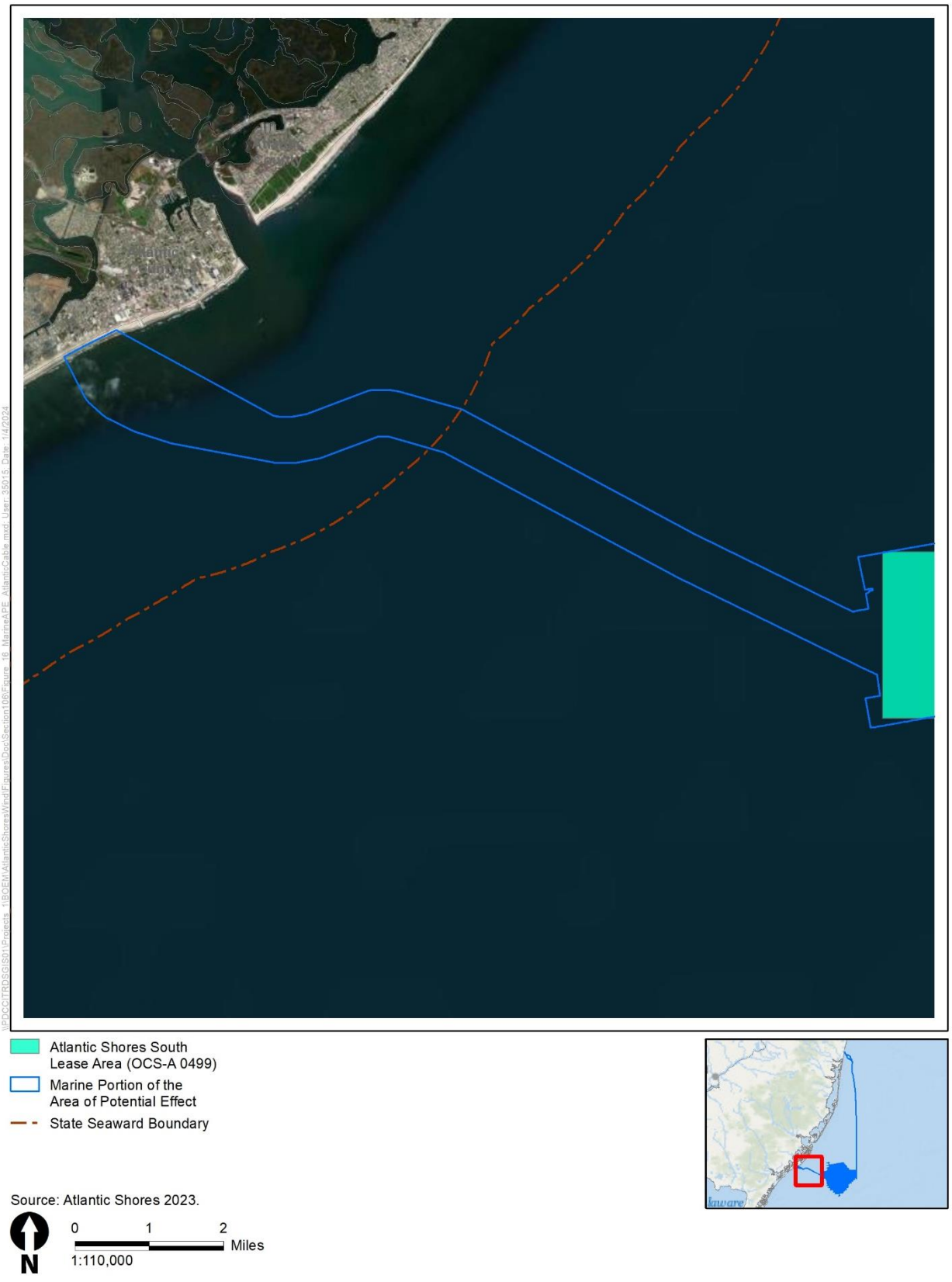

Figure I.B-4. Detail of Marine APE within the Atlantic Offshore ECC

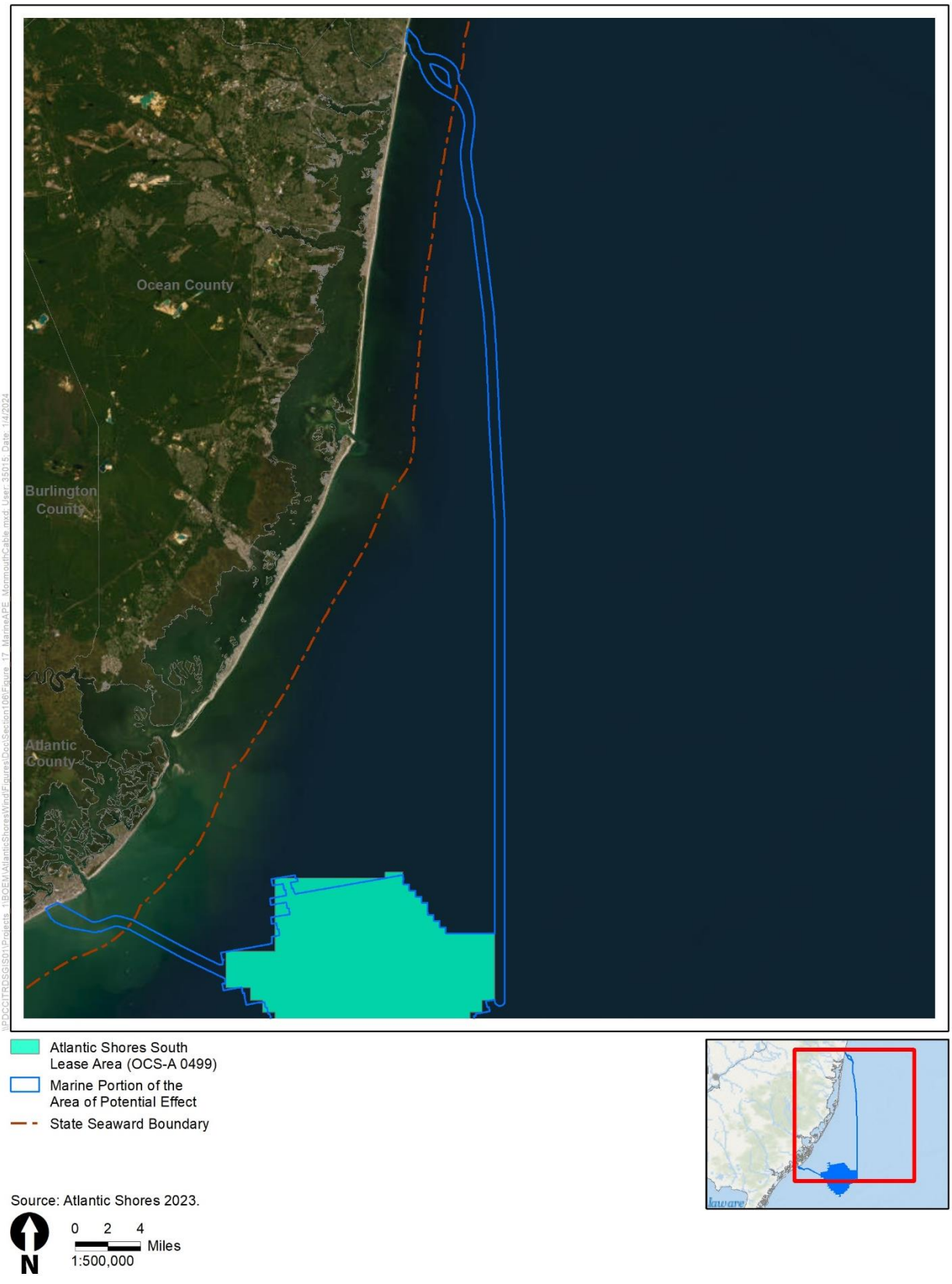

Figure I.B-5. Detail of Marine APE within the Monmouth Offshore ECC

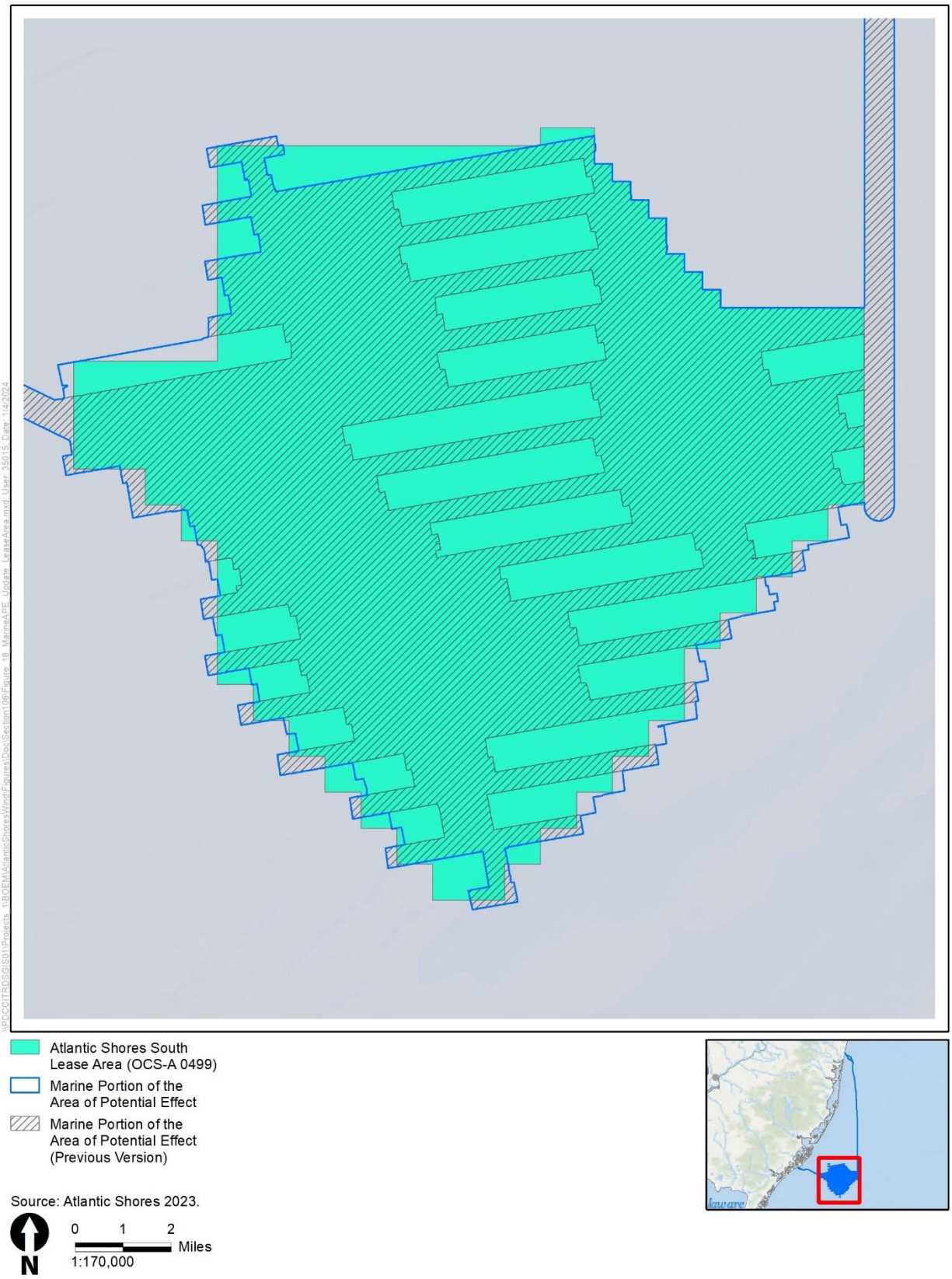

Figure I.B-6. Comparison of Previous and Current Marine APE Delineations

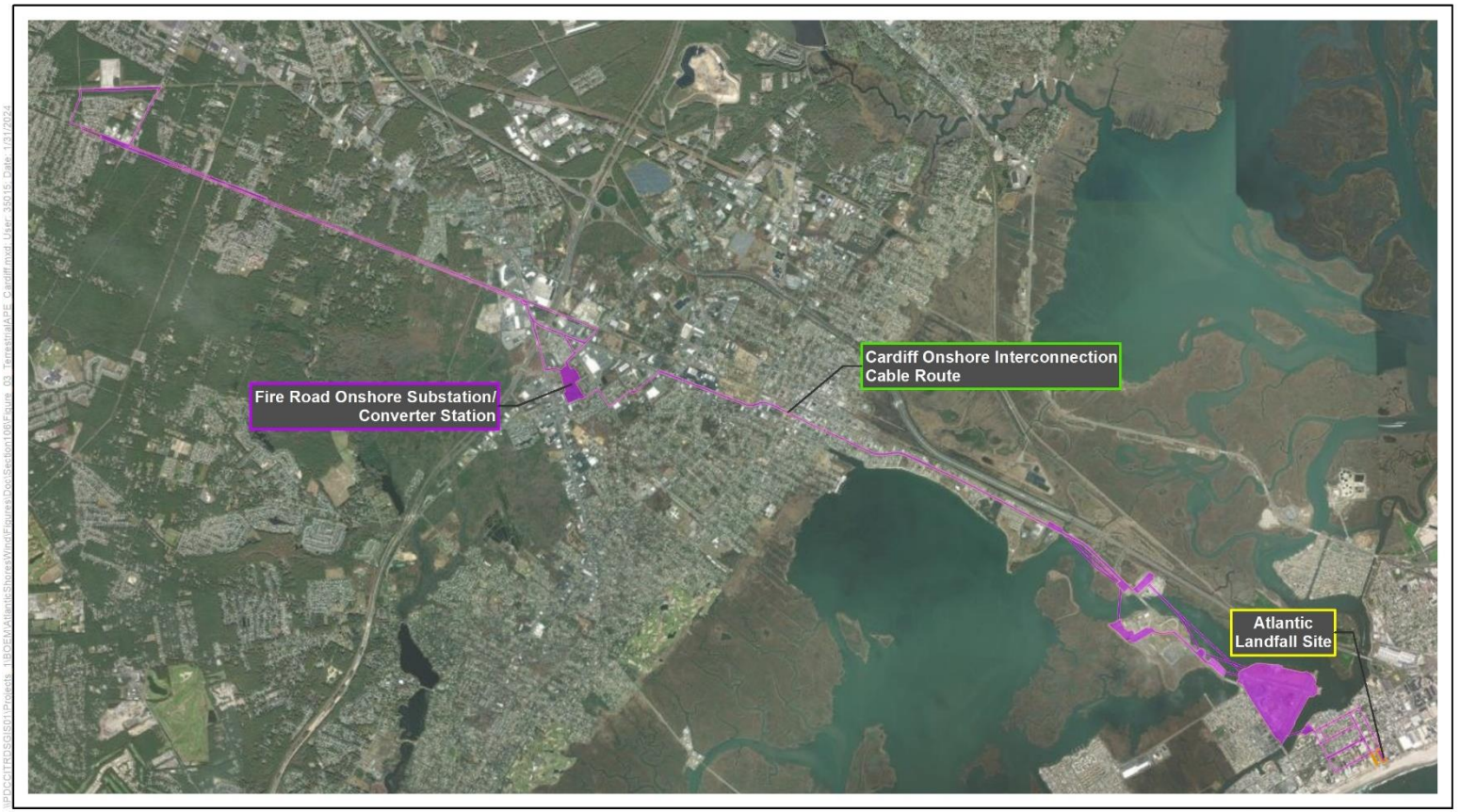

Figure I.B-7. Detail of Terrestrial APE for Cardiff Facilities

Figure I.B-8. Detail of Terrestrial APE for Larrabee Facilities

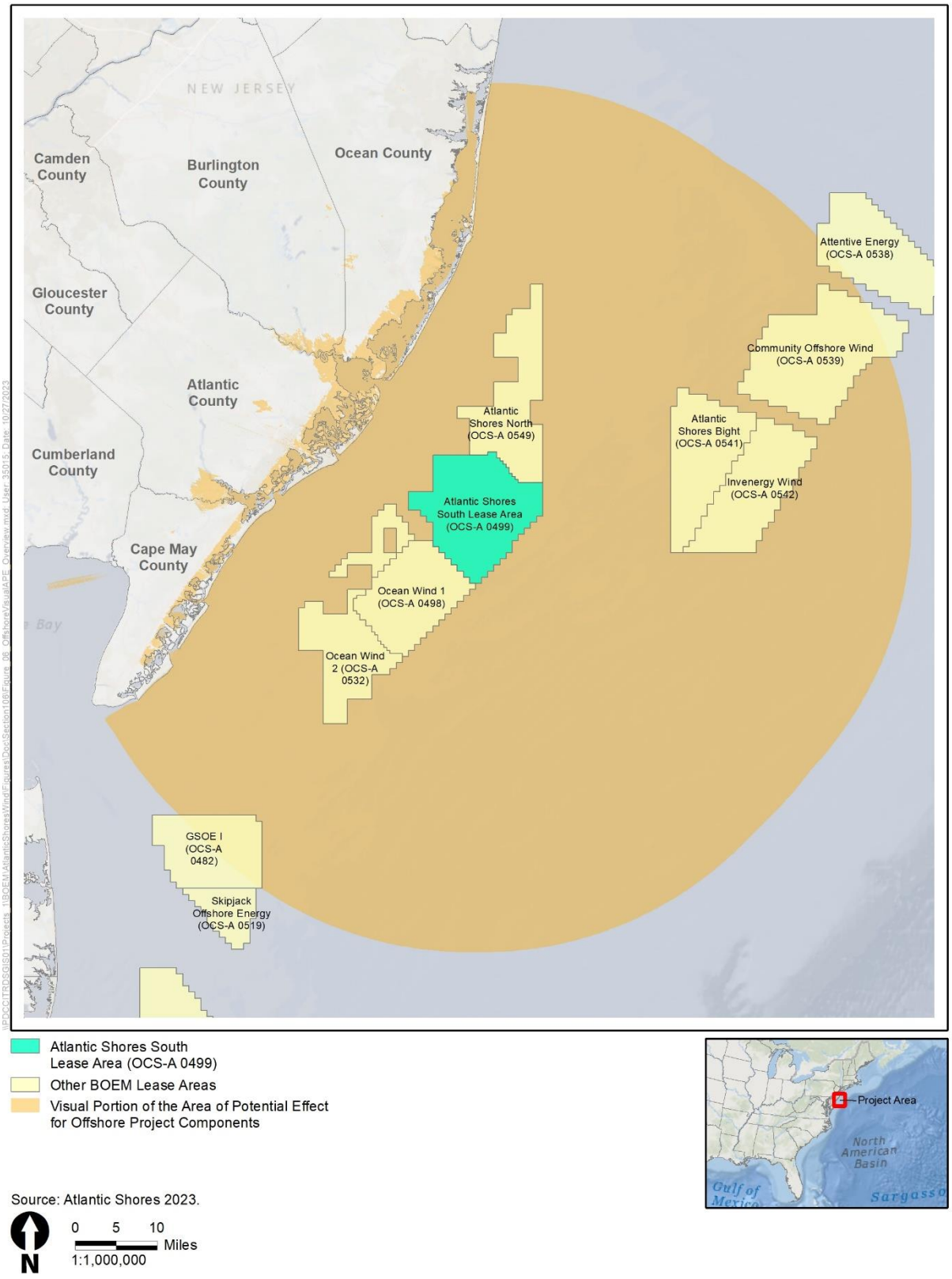

Figure I.B-9. Overview of Visual APE for Offshore Project Components

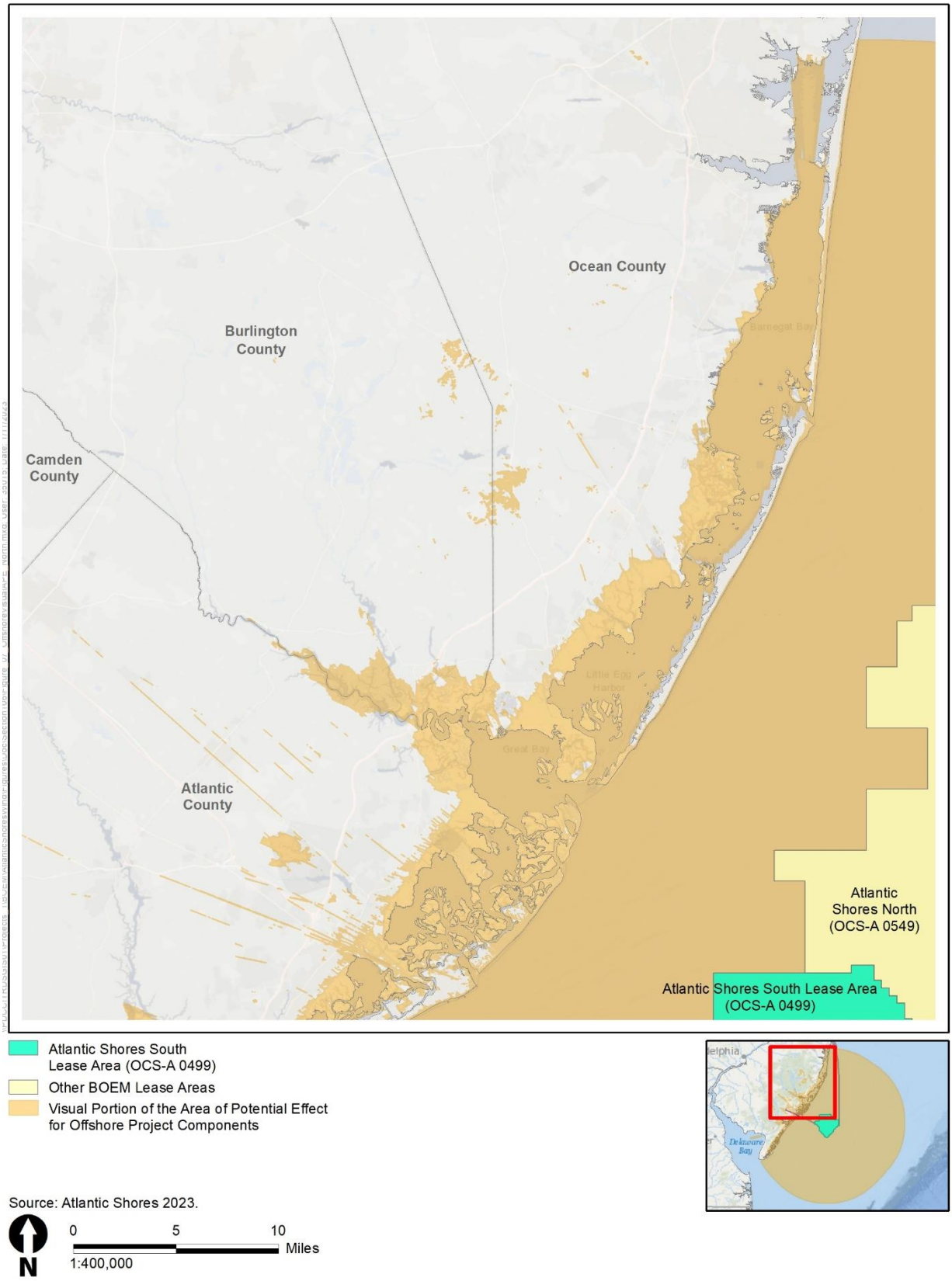

Figure I.B-10. Detail of Visual APE for Offshore Project Components, sheet 1 of 2

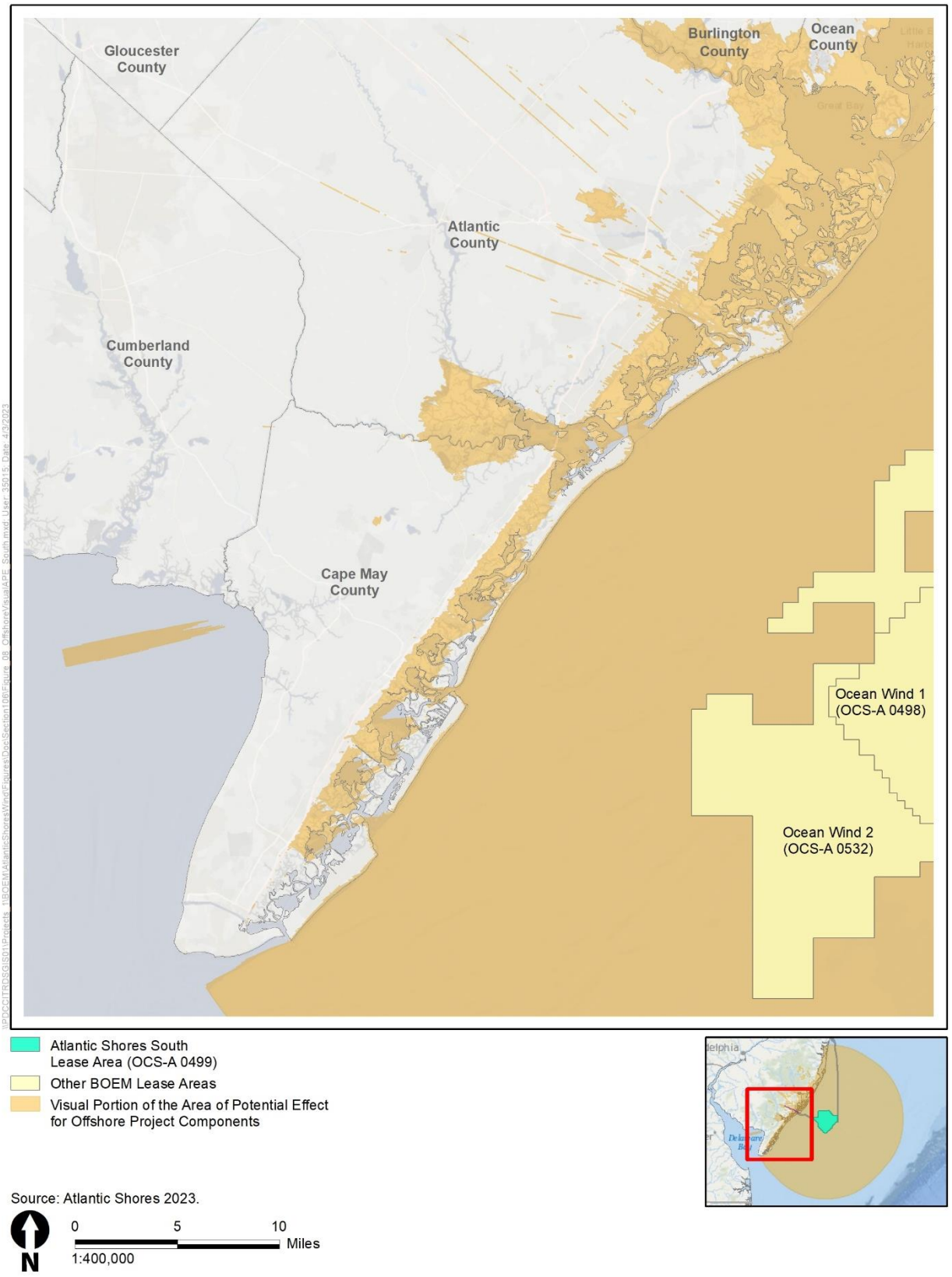

Figure I.B-11. Detail of Visual APE for Offshore Project Components, sheet 2 of 2

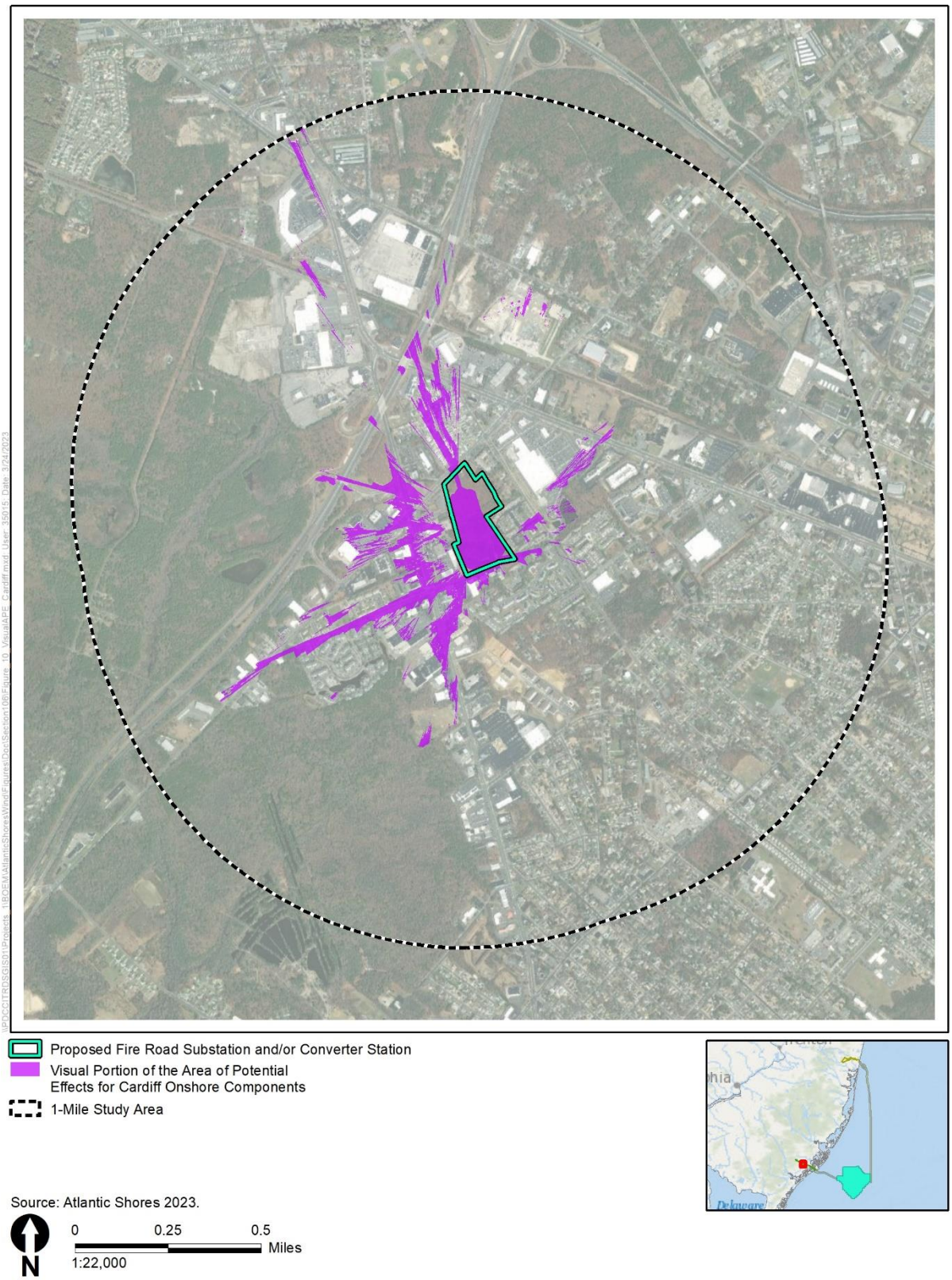

Figure I.B-12. Detail of Visual APE for Onshore Project Components Proposed for the Cardiff Facilities: Fire Road Site

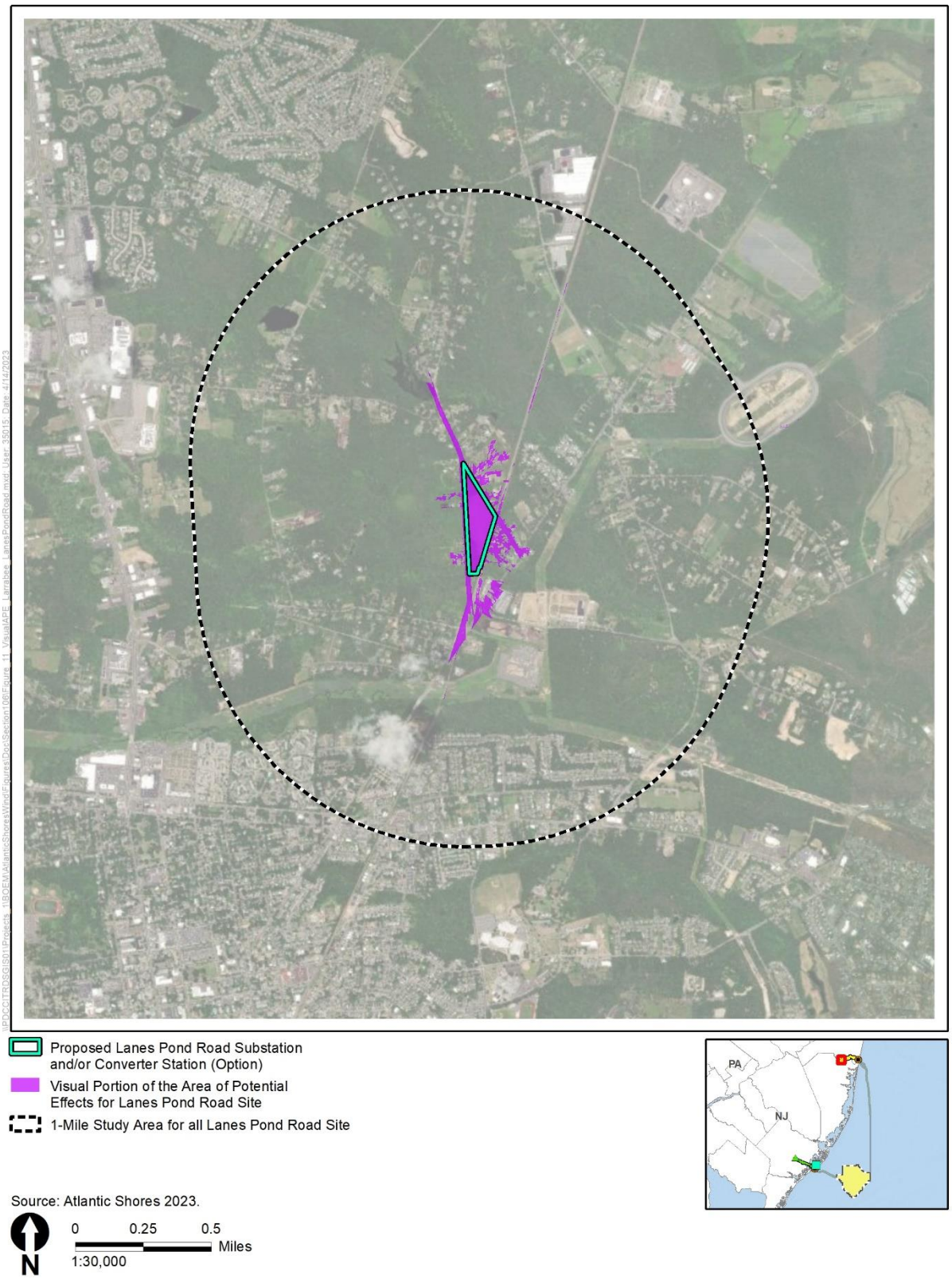

Figure I.B-13. Detail of Visual APE for Onshore Project Components Proposed for the Larrabee Facilities: Lanes Pond Road Site

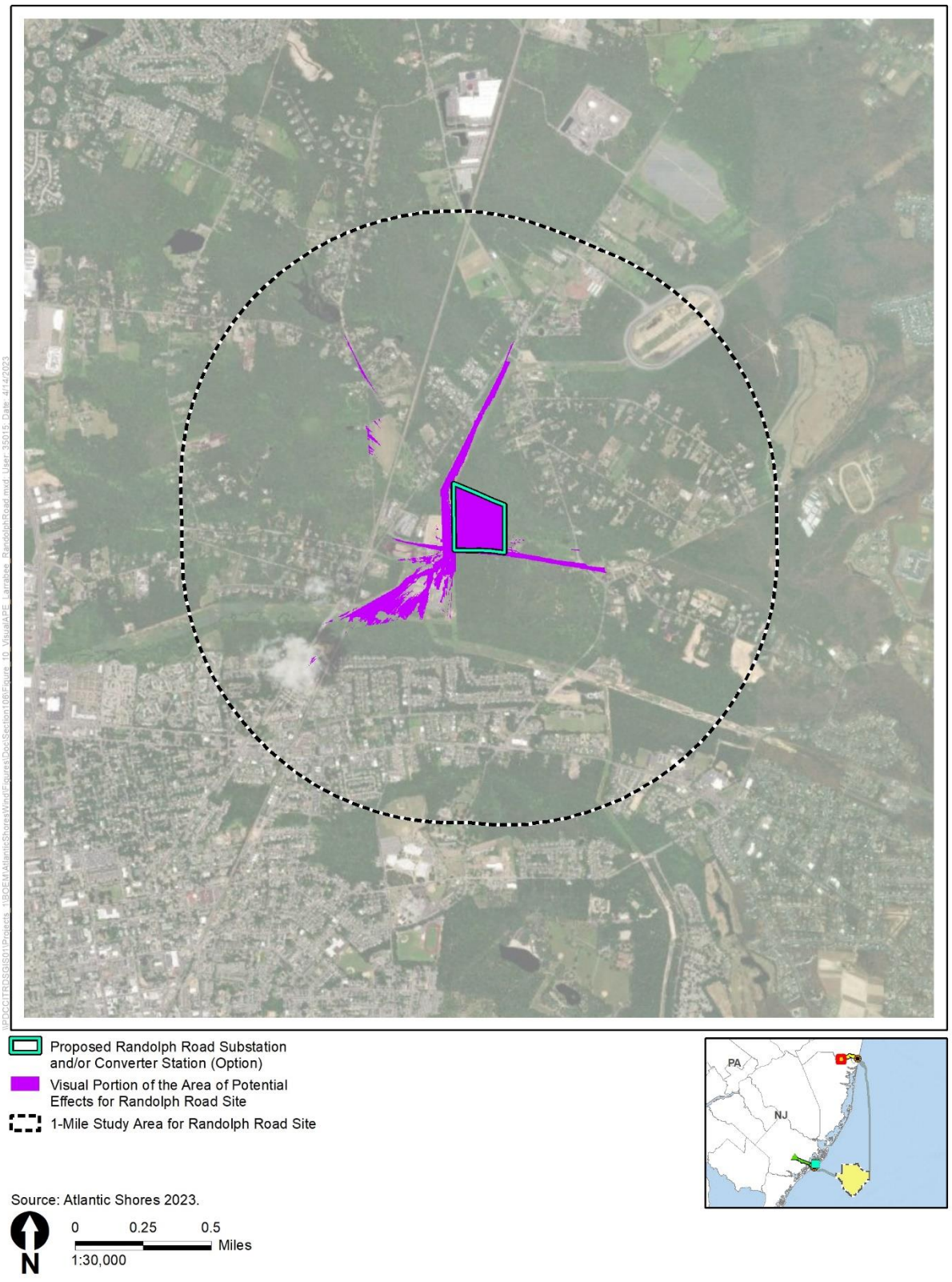

Figure I.B-14. Detail of Visual APE for Onshore Project Components Proposed for the Larrabee Facilities: Randolph Road Site

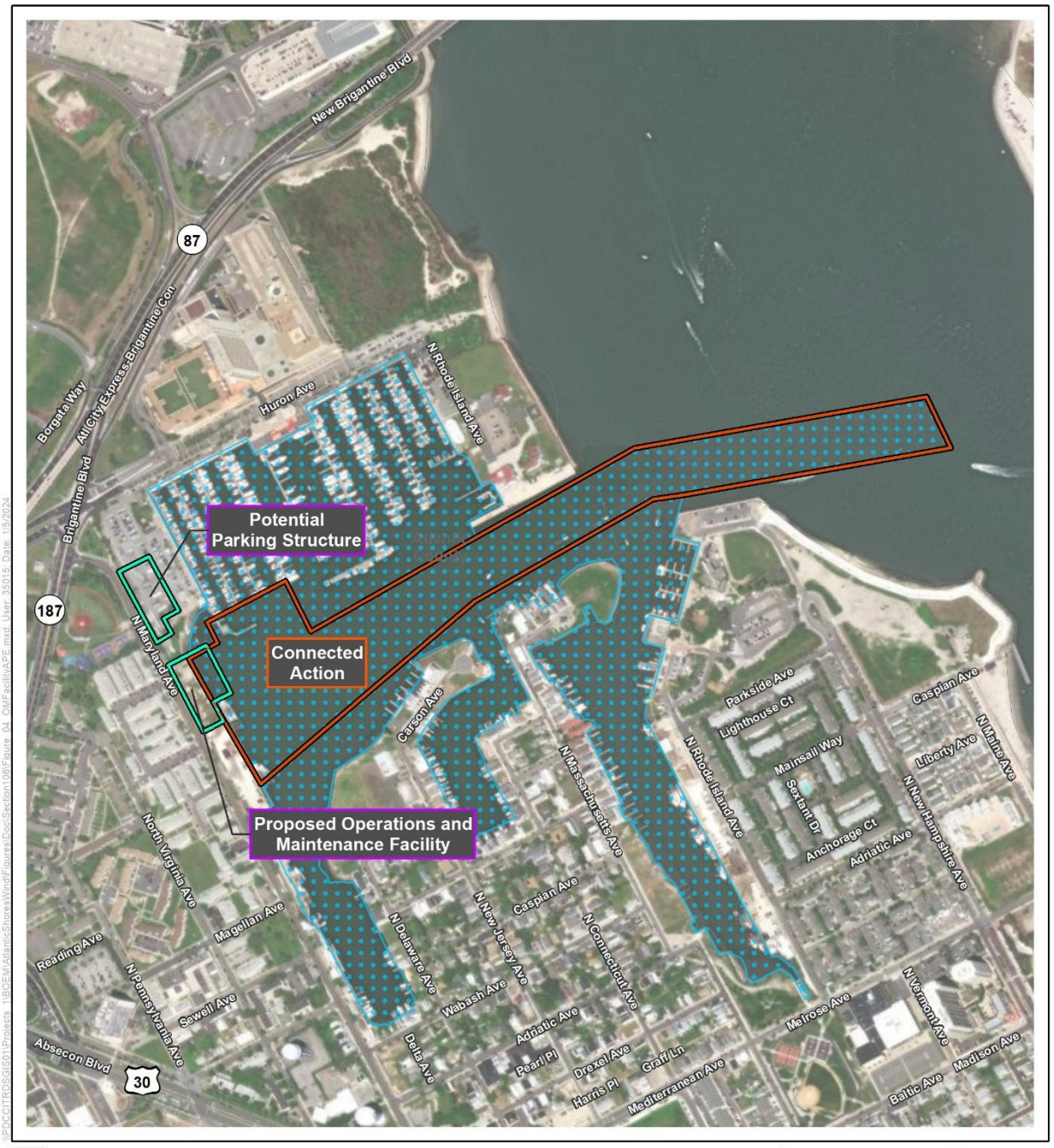

Figure I.B-15. Detail of APE for the O&M Facility

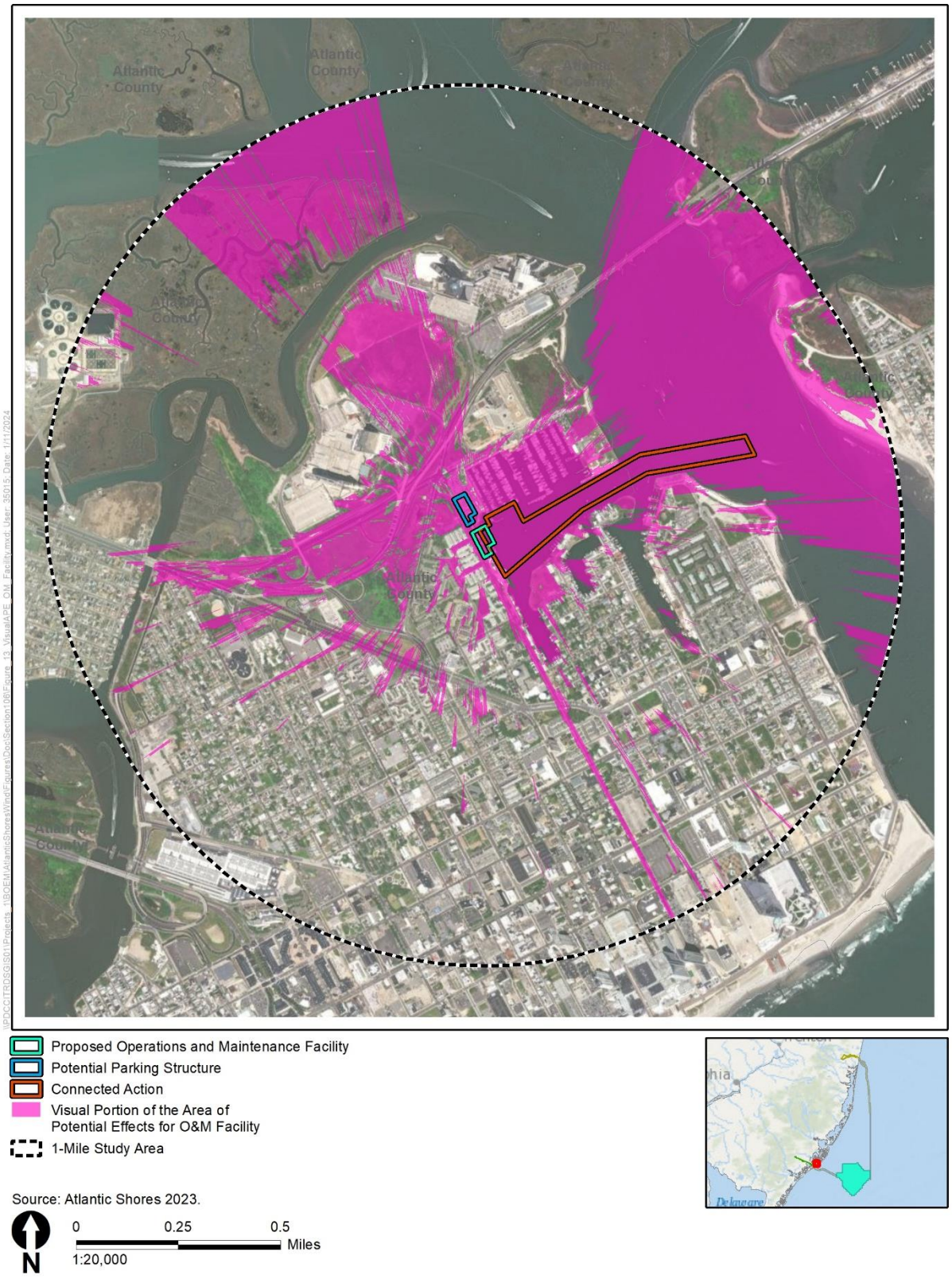

Figure I.B-16. Detail of Visual Portion of the APE for Onshore Project Components for the Proposed O&M Facility

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 Atlantic Shores South Project beginning in November 2021 and throughout the consultation process as entities became known to BOEM.

Government or Organization Type	Government or Organization Name
Federally recognized Tribes	Absentee-Shawnee Tribe of Indians of Oklahoma Delaware Tribe of Indians Eastern Shawnee Tribe of Oklahoma Mashantucket (Western) Pequot Tribal Nation Mashpee Wampanoag Tribe Shawnee Tribe Stockbridge-Munsee Community Band of Mohican Indians The Delaware Nation The Narragansett Indian Tribe The Shinnecock Indian Nation Wampanoag Tribe of Gay Head (Aquinnah)
Federal agencies	U.S. Advisory Council on Historic Preservation U.S. Army Corps of Engineers U.S. Bureau of Safety and Environmental Enforcement U.S. Coast Guard U.S. Environmental Protection Agency U.S. Fish and Wildlife Service U.S. National Oceanic and Atmospheric Administration U.S. National Park Service U.S. Naval History and Heritage Command (Underwater Archaeology Branch)
SHPOs and state agencies	New Jersey Department of Environmental Protection New Jersey Historic Preservation Office (NJHPO)
State recognized tribes	Lenape Indian Tribe of Delaware Nanticoke Indian Association Nanticoke Lenni-Lenape Tribe Powhatan Renape Nation Ramapough Lenape Indian Nation Ramapough Mountain Indians
Local governments	Atlantic County Atlantic County, Department of Regional Planning and Development Barnegat Township Bass River Township Berkeley Township Borough of Avalon Borough of Barnegat Light Borough of Bay Head Borough of Beach Haven Borough of Cape May Point Borough of Harvey Cedars Borough of Longport

Government or Organization Type	Government or Organization Name
	Borough of Manasquan Borough of Mantoloking Borough of Point Pleasant Beach Borough of Sea Girt Borough of Seaside Park Borough of Ship Bottom Borough of Stone Harbor Borough of Surf City Borough of Tuckerton Borough of West Cape May Borough of West Wildwood Borough of Wildwood Crest Borough of Woodbine Cape May County City of Absecon City of Atlantic City City of Brigantine City of Cape May City of Egg Harbor City City of Linwood City of Margate City of North Wildwood City of Ocean City City of Pleasantville City of Port Republic City of Sea Isle City City of Somers Point City of Ventnor City City of Wildwood Dennis Township Eagleswood Township Galloway Township Lacey Township Long Beach Township Manchester Township Middle Township Ocean County Stafford Township Toms River Township Town of Hammonton Township of Brick Township of Egg Harbor Township of Hamilton Township of Lakewood Township of Little Egg Harbor Township of Lower Township of Ocean Township of Upper Wall Township

Government or Organization Type	Government or Organization Name
Nongovernmental organizations or groups	600 Boardwalk LLC Absecon Historical Society Anglers Club of Absecon Island Atlantic City Convention Center Atlantic County Historical Society Avalon History Center Barnegat Historical Society Barnegat Light Museum Barnegat Lighthouse State Park Belmar Historical Society Brigantine Beach Historical Museum Cape May Lighthouse Caribbean Motel Central Pier Associates LLC Chicken Bone Beach Historical Foundation, Inc. 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 Historical Society of Lacey Lakewood Historical Society Legacy Vacation Resorts Linwood Historical Society Long Beach Island Historical Association Longport Historical Society Madison Hotel Margate Historical Society Max Gurwicz Enterprises Museum of Cape May County New Jersey Casino Reinvestment Development Authority New Jersey Historic Trust New Jersey Lighthouse Society New Jersey Maritime Museum Ocean City Historical Museum Ocean City Music Pier Ocean County Historical Society Old Wall Historical Society Patriots for the Somers Mansion Preservation New Jersey

Government or Organization Type	Government or Organization Name
	Property Owner of 108 South Gladstone Avenue, Margate, New Jersey Property Owner of 114 South Harvard Avenue, Ventnor City, New Jersey Property Owner of 114 South Osborne Avenue, Margate, New Jersey Property Owner of 120 Atlantic Avenue, Atlantic City, New Jersey Property Owner of 124 Atlantic Avenue, Atlantic City, New Jersey Property Owner of 125 South Montgomery Avenue, Atlantic City, New Jersey Property Owner of 5231 Central Avenue, Ocean City, New Jersey Raphael-Gordon House Resorts Casino Hotel (DGMB Casino, LLC) Ritz-Carlton Hotel/Condominium Association (Ritz Condominiums) Rutgers University, Department of Marine and Coastal Sciences, School of Environmental and Biological Sciences Save Long Beach Island, Inc. Save Lucy Committee, Inc. Seaside Heights Historical Society Seaview Resort Acquisition Group LLC Squan Village Historical Society St. Leonard's Association The Flanders Hotel/Flanders Condominium Association The Inlet Public-Private Association Inc. The Museum of Cape May County The Noyes Museum of Art Tuckerton Historical Society Vassar Square Condominium Association Waretown Historical Society Wildwood Crest Historical Society Wildwood Historical Society
Lessee	Atlantic Shores Offshore Wind, LLC

ATTACHMENT D. CONSULTING PARTIES TO THE ATLANTIC SHORES SOUTH PROJECT

The following is a current list of consulting parties to the NHPA Section 106 review of the Atlantic Shores South Project, as of May 2024:

Government or Organization Type	Government or Organization Name	Representative(s), Title
Federally recognized Tribes	Delaware Tribe of Indians	Susan Bachor, Archaeologist, Tribal Historic Preservation Officer Representative Jimmie Johnson, Delaware Tribe Environmental Program Director Brad KillsCrow, Chief Joanna Maurer, GIS Specialist Martina Thomas, Preservation Generalist Tristen Tucker
	Eastern Shawnee Tribe of Oklahoma	Brett Barnes, Cultural Preservation Director Paul Barton, Tribal Historic Preservation Officer Glenna Wallace, Chief
	Mashantucket (Western) Pequot Tribal Nation	Rodney Butler, Chairman Michael E. Johnson, Acting Tribal Historic Preservation Officer Stormy Hay, THPO Coordinator Crystal Whipple, Vice Chairwoman
	Mashpee Wampanoag Tribe	Carlton Hendricks, Vice Chairman Jason Steiding, Director, Natural Resources Department Brian Weeden, Chairman David Weeden, Tribal Historic Preservation Officer
	Stockbridge-Munsee Community Band of Mohican Indians	Jeff Bendremer, THPO
	The Delaware Nation	Deborah Dotson, President of Executive Committee Katelyn Lucas, Historic Preservation Assistant Carissa Speck, Tribal Historic Preservation Director
	The Narragansett Indian Tribe	John Brown, Tribal Historic Preservation Officer Dinalyn Spears, Natural Resources Manager Anthony Dean Stanton, Chief Sachem
	The Shinnecock Indian Nation	Rainbow Chavis, Cultural Resources Director Jason Cofield, Executive Director of Tribal Operations Bianca Collins, Council of Trustees Secretary Lance A. Gumbs, Tribal Representative Bryan Polite, Chairman Rachel Valdez-Costillo, Tribal Historic Preservation Officer

Government or Organization Type	Government or Organization Name	Representative(s), Title
	Wampanoag Tribe of Gay Head (Aquinnah)	Cheryl Andrews-Maltais, Chairwoman Al Clark, Vice Chair Kevin Devine, Councilman Lael Echo-Hawk, General Counsel Barbara Spain, Executive Assistant Tara Thomas, Paralegal Bettina Washington, Tribal Historic Preservation Officer
Federal agencies	U.S. Advisory Council on Historic Preservation	Christopher Daniel, Federal Property Management Section, Program Analyst Chris Koeppel, Federal Property Management Section, Assistant Director Jamie Lee Marks, Senior Program Analyst, Office of Native American Affairs
	U.S. Army Corps of Engineers	Brian Anthony, Biologist, Philadelphia District, Regulatory Branch Juan Carlos Corona Ann DiLorenzo Naomi Handell, Regulatory Program Manager, North Atlantic Division Nicole Minnichbach, Cultural Resource Specialist and Tribal Liaison Todd Schaible, Chief, Philadelphia District, Regulatory Branch Chris Veinotte, Acting Regulatory Program Manager, USACE North Atlantic Division
	U.S. Bureau of Safety and Environmental Enforcement	W. Shawn Arnold, Federal Preservation Officer/Senior Marine Archaeologist Barry Bleichner Daniel "Herb" Leedy, Supervisory Biologist
	U.S. Coast Guard	Matt Creelman, District 5 Agency Point of Contact George Detweiler, Headquarters Rob Webb, District 5 Marine Transportation Specialist
	U.S. National Park Service	Kristin Andel, Energy Specialist Mary Krueger, Region 1 Energy Specialist Kathryn Schlegel, Historical Landscape Architect
	U.S. Naval History and Heritage Command (Underwater Archaeology Branch)	Alexis Catsambis, Maritime Archaeologist and Cultural Resource Manager Bradley A. Krueger, Archaeologist
SHPOs and state agencies	New Jersey Department of Environmental Protection, Historic Preservation Office	Meghan Baratta, Supervising Historic Preservation Specialist Jennifer Leynes, Senior Historic Preservation Specialist Katherine Marcopul, Administrator and Deputy Historic Preservation Officer Jesse West-Rosenthal, Senior Historic Preservation Specialist
	New Jersey Department of Environmental Protection, State Parks, Forests & Historic Sites	Jenifer Clayton Robin Madden, Chief of Operations Mark Texel, Administrator Judeth Yeany

Government or Organization Type	Government or Organization Name	Representative(s), Title
State/non-federally recognized tribes	Lenape Indian Tribe of Delaware	Dennis Coker, Principal Chief
Local governments	Atlantic County	Frances Brown, Senior Planner Gerald DelRosso, County Administrator Doug DiMeo, County Engineer John Peterson, Department Head, Planning and Engineering
	Atlantic County, Department of Regional Planning and Development	Ranae Fehr, Director, Land Acquisition John Peterson, Department Head
	Borough of Bay Head	William Curtis, Mayor Frank Pannucci Jr., Administrator
	Borough of Beach Haven	Jaime Baumiller, Councilwoman Colleen Lambert, Mayor Robert (Bob) Stern
	Borough of Harvey Cedars	Jonathan Oldham, Mayor (retired) Robert Stern
	Borough of Longport	Scott Porter Nicholas Russo, Mayor
	Borough of Point Pleasant Beach	Paul Kanitra, Mayor Kristen O'Rourke, Quality of Life Director
	Borough of Sea Girt	Donald Fetzer, Mayor James Gant, Administrator Justin Macko, Chief, Interim Borough Administrator
	Borough of Seaside Park	John Peterson Jr., Mayor Thomas Seaman, Administrator
	Borough of Stone Harbor	Judith Davies-Dunhour, Mayor Steve Morris, Solicitor Manny Parada, Director of Public Works Robert Smith, Borough Administrator Kim Stevenson, Municipal Clerk
	Borough of West Cape May	Carol Sabo, Mayor
	Cape May County (represented by Cultural Heritage Partners and Warwick Group Consultants, LLC)	Rita (Fulginiti) Rothberg, County Clerk Michael Donohue, Administrator Kevin Lare, Clerk of the Board Jeffrey R. Lindsay, Esquire Will Morey, Planning Board, Freeholder Patricia Salvatore, Cultural and Heritage Commission Chair Ronald Simone, Assistant County Administrator Gerald Thornton, Freeholder Director William Cook, Special Council (Cultural Heritage Partners) Peyton Lindley, Fall Legal Intern (Cultural Heritage Partners) Claire O'Brien, Preservation Practice Coordinator (Cultural Heritage Partners) Dan Ginolfi (Warwick Group Consultants, LLC) Howard Marlowe (Warwick Group Consultants, LLC)

Government or Organization Type	Government or Organization Name	Representative(s), Title
	City of Atlantic City (represented by Rutala Associates, LLC)	Jim Rutala (Rutala Associates, LLC)
	City of Brigantine	Sinclair Cooper, Committee Member Mike Riordan, Councilman-at-Large Vincent Sera, Mayor Jennifer Sigmund Lynn Sweeney, City Clerk
	City of Cape May	Louis Belasco, Deputy City Manager/Tax Assessor/Floodplain Administrator Erin Burke, City Clerk Judith E. Decker, Historic Preservation Commission Secretary Zachary Mullock, Mayor Michael Voll, City Manager
	City of Linwood	Mary Cole, Deputy Municipal Clerk Darren Matik, Mayor Leigh Ann Napoli, Municipal Clerk, Registrar of Vital Statistics
	City of Margate	Johanna Casey, Municipal Clerk Roger McLarnon, Planner, Zoning Officer Ken Mosca, Business Administrator
	City of North Wildwood (represented by Warwick Group Consultants, LLC)	W. Scott Jett, City Clerk Patrick Rosenello, Mayor Kyle Rutherford, Confidential Aide to the Mayor Dan Ginolfi (Warwick Group Consultants, LLC) Howard Marlowe (Warwick Group Consultants, LLC)
	City of Ocean City	Doug Bergen, Public Information Officer George Savastano, Business Administrator
	City of Sea Isle City	Shannon Romano, Municipal Clerk George Savastano, Business Administrator
	City of Somers Point (represented by Rutala Associates, LLC)	Jason Frost, City Administrator Jim Rutala, City Planner (Rutala Associates, LLC)
	City of Ventnor City	Tim Kriebel, Commissioner Lance Landgraf, Mayor
	Galloway Township	Anthony Coppola, Mayor Kelli Danieli, Township Clerk Christian Johansen, Township Manager Cyndi Spinelli, Executive Assistant
	Long Beach Township (represented by Warwick Group Consultants, LLC)	Danielle La Valle, Municipal Clerk Joseph Mancini, Mayor Kyle Ominski, Business Administrator Dan Ginolfi (Warwick Group Consultants, LLC) Howard Marlowe (Warwick Group Consultants, LLC)
	Stafford Township	Linda Martin, Municipal Clerk Gregory Myhre, Mayor Mathew von der Hayden, Township Administrator

Government or Organization Type	Government or Organization Name	Representative(s), Title
	Township of Brick	Joanne Bergin, Business Administrator Elissa Commins, Township Engineer John Ducey, Mayor
	Township of Upper	Curtis Corson, Committee Member Kim Hayes, Committee Member Joanne Herron, Deputy Municipal Clerk Barbara Young, Municipal Clerk
Nongovernmental organizations or groups	Anglers Club of Absecon Island	Vince Foschini Michael Zarro, D.P.M., President
	Chicken Bone Beach Historical Foundation, Inc.	Derek Longcrier, Board Member Henrietta W. Shelton, President
	Greater Cape May Historic Society	Harry Bellangy, President and Historian Kathleen Wyatt, Secretary and Administrator
	Hereford Inlet Lighthouse	Robert Simone, City Administrator, City of North Wildwood
	New Jersey Historic Trust	Jennifer Boggs, Historic Preservation Specialist 1 Glenn Ceponis, Executive Director
	Property Owner of 108 South Gladstone Avenue, Margate, New Jersey (represented by Perskie Mairone Brog Barrera & Baylinson, P.C.)	Ronald S. Gross, Property Owner Christopher M. Baylinson, Certified Civil Trial Attorney
	Resorts Casino Hotel (DGMB Casino, LLC)	Christina Sweeney, Paralegal
	Ritz Condominiums	Nicole Accardi, General Manager George Ingram
	Save Long Beach Island, Inc.	Bob Stern, President
	Save Lucy Committee, Inc. (represented by Rutala Associates, LLC)	Richard Helfant, Executive Director & Chief Executive Officer Jim Rutala, Principal (Rutala Associates, LLC)
	St. Leonard's Association	William (Bill) Sill, President
	The Flanders Hotel	Jeff Saltiel, Board of Trustees Peter Voudouris, President
	The Inlet Public-Private Association Inc.	Jean Muchanic, Executive Director
	The Noyes Museum of Art	Michael Cagno, Executive Director
	Vassar Square Condominium Association	Paul Snyderman, President
Lessee	Atlantic Shores Offshore Wind, LLC (Lessee)	Jennifer Daniels, Development Director Kyle Hilberg, Permitting Lead Kody McCann, Permitting Associate

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ATTACHMENT E. USACE PUBLIC NOTICE FOR DA PERMIT APPLICATION CENAP OPR 2021-00573-95

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Public Notice

US Army Corps of Engineers
Philadelphia District
Wanamaker Building
100 Penn Square East
Philadelphia, PA 19107-3390
ATTN: CENAP-OP-R

Public Notice No.	Date
CENAP-OPR-2021-0573-95	**December 20, 2021**
Application No.	File No.
CENAP-OPR-2021-00573-95	
In Reply Refer to:	
REGULATORY BRANCH	

This District has received an application for a Department of the Army (DA) permit pursuant to Section 10 of the Rivers and Harbors Act of 1899 (33 U.S.C. 403) and Section 404 of the Clean Water Act (33 U.S.C. 1344).

The purpose of this notice is to solicit comments and recommendations from the public concerning issuance of a Department of the Army permit for the work described below.

APPLICANT: City of Atlantic City
Attn: Mr. Anthony Swan
1301 Bacharach Boulevard
Atlantic City, New Jersey 08041

WATERWAYS: Clam Creek portion of the Absecon Inlet Federal Navigation Channel, Farley's Marina, Gardiners Basin, Snug Harbor, Delta Basin, Kammerman's Marina, U.S. Coast Guard/New Jersey State Police Marina, Penrose Canal, Venice Lagoon, Bader Field Lagoon, Chelsea Harbor, Fenton Place Lagoon, and Ventnor Lagoon.

LOCATION: Atlantic City, Atlantic County, New Jersey

ACTIVITY: The applicant, City of Atlantic City, has requested Department of the Army (DA) authorization to perform ten (10)-year maintenance dredging of thirteen (13) city waterways, with the proposed "city-wide" maintenance dredging program targeting substantial shoaling that has built up over the last century, including recent sediment deposited by Superstorm Sandy and Winter Storm Jonas.

All of the work would be accomplished via hydraulic cutterhead or mechanical dredge. All resultant dredged material, estimated to be approximately 597,761.0-cubic yards of sand and silt, would be removed from approximately 104.67-acres of sea bottom and disposed at three (3) locations: the Dredged Hole #86 (DH#86) subaqueous borrow pit restoration site in Beach Thorofare located in Atlantic City, Atlantic County, New Jersey; the upland Tuckahoe Turf Farm located in Estell Manor, Atlantic County, New Jersey; and the upland Kinsley's Landfill located in Sewell, Mantua Township, Gloucester County, New Jersey.

For navigational safety, the hydraulic dredge pipeline will be marked in accordance with U.S. Coast Guard regulations and would be sunken, except where submerged aquatic vegetation (SAV) is encountered where it would be floated.

Each maintenance dredging event is anticipated to be approximately twelve (12) weeks in duration, including mobilization/demobilization, dredging, and material placement activities. Two (2) or three (3) maintenance dredging events are anticipated to be conducted over the next ten (10)-years, with the initial dredging event proposed to be undertaken during Fall 2022.

Clam Creek portion of the Absecon Inlet Federal Navigation Channel
Approximate Coordinates: Latitude: 39.377375, Longitude: -74.423009.
Maintenance dredging of 122,710.0-cubic yards of shoaled sediments from a 17.75-acre section of the Clam Creek portion of the Absecon Inlet Federal Navigation Channel to -15.0-feet below the plane of Mean Low Water (MLW), plus 1.0-foot of allowable overdredge, and 4:1 side slopes, is proposed. Part of the Absecon Inlet Federal Navigation Channel, Clam Creek has been historically dredged by USACE-Philadelphia District since the early 1900s.

All resultant dredged material from the Clam Creek Portion of the Absecon Inlet Federal Navigation Channel would be placed at the DH#86 subaqueous borrow pit restoration site in Beach Thorofare.

Farley's Marina
Approximate Coordinates: Latitude: 39.378455, Longitude: -74.426250.
Maintenance dredging of a total of 154,829.0-cubic yards of shoaled sediments from five (5) areas within Farley's Marina is proposed.

- Farley's Marina Fuel: Maintenance dredging of 20,113.0-cubic yards of shoaled sediments from an approximately 2.86-acre footprint to -15.0-feet below the plane of Mean Low Water (MLW), plus 1.0-foot of allowable overdredge, and 4:1 side slopes, is proposed.
- Farley's Marina Area #1: Maintenance dredging of 10,534.0-cubic yards of shoaled sediments from an approximately 8.58-acre footprint to -7.0-feet below the plane of Mean Low Water (MLW), plus 1.0-foot of allowable overdredge, and 4:1 side slopes, is proposed.
- Farley's Marina Area #2: Maintenance dredging of 91,005.0-cubic yards of shoaled sediments from an approximately 7.67-acre footprint to -15.0-feet below the plane of Mean Low Water (MLW), plus 1.0-foot of allowable overdredge, and 4:1 side slopes is proposed.
- Farley's Marina Area #3: Maintenance dredging of 31,739.0-cubic yards of shoaled sediments from an approximately 4.31-acre footprint to -10.0-feet below the plane of Mean Low Water (MLW), plus 1.0-foot of allowable overdredge, and 4:1 side slopes, is proposed.

- Farley's Marina Area #4: Maintenance dredging of 1,438.0-cubic yards of shoaled sediments from an approximately 2.37-acre footprint to -7.0-feet below the plane of Mean Low Water (MLW), plus 1.0-foot of allowable overdredge, and 4:1 side slopes, is proposed.

Part of Atlantic City's Inlet Marina Area, available records indicate that Farley's Marina was historically dredge-maintained during the 1950s and 1980s.

All resultant dredged material from Farley's Marina would be placed at the DH#86 subaqueous borrow pit restoration site in Beach Thorofare.

Gardeners Basin
Approximate Coordinates: Latitude: 39.373566, Longitude: -74.420809.
Maintenance dredging of 174,731.0-cubic yards of shoaled sediments from an approximately 12.71-acre footprint to -15.0-feet below the plane of Mean Low Water (MLW), plus 1.0-foot of allowable overdredge, and 4:1 side slopes, is proposed. Part of Atlantic City's Inlet Marina Area, available records indicate that Gardeners Basin was historically dredge-maintained during the 1950s and 1980s.

Approximately 52,600.0-cubic yards of dredged material removed from the northern portion of Gardeners Basin would be placed upland at the Tuckahoe Turf Farm; and approximately 122,131.0-cubic yards of dredged material removed from the southern portion of Gardeners Basin would be placed upland at Kinsley's Landfill.

Snug Harbor
Approximate Coordinates: Latitude: 39.375373, Longitude: -74.423638.
Maintenance dredging of 23,114.0-cubic yards of shoaled sediments from an approximately 4.92-acre footprint to -9.0-feet below the plane of Mean Low Water (MLW), plus 1.0-foot of allowable overdredge, and 4:1 side slopes, is proposed. Part of Atlantic City's Inlet Marina Area, available records indicate that Snug Harbor was historically dredge-maintained during the 1950s and 1980s.

All resultant dredged material from Snug Harbor would be placed at the DH#86 subaqueous borrow pit restoration site in Beach Thorofare.

Delta Basin
Approximate Coordinates: Latitude: 39.372080, Longitude: -74.426022.
Maintenance dredging of 52,554.0-cubic yards of shoaled sediments from an approximately 9.75-acre footprint to -15.0-feet below the plane of Mean Low Water (MLW), plus 1.0-foot of allowable overdredge, and 4:1 sides slopes, is proposed. Part of Atlantic City's Inlet Marina Area, available records indicate that the Delta Basin was historically dredge-maintained during the 1950s and 1980s.

Approximately 30,814.0-cubic yards of dredged material removed from the northern portion of Delta Basin would be placed at the DH#86 subaqueous borrow pit restoration site in Beach Thorofare; and approximately 21,740.0-cubic yards of dredged material removed from the southern portion of Delta Basin would be placed upland at Kinsley's Landfill.

Kammerman's Marina
Approximate Coordinates: Latitude: 39.376582, Longitude: -74.423134.
Maintenance dredging of 2,602.0-cubic yards of shoaled sediments from an approximately 0.47-acre footprint to -6.0-feet below the plane of Mean Low Water (MLW), plus 1.0-foot of allowable overdredge, and 4:1 side slopes, is proposed. Part of Atlantic City's Inlet Marina Area, available records indicate that Kammerman's Marina was historically dredge-maintained during the 1950s and 1980s.

All resultant dredged material from Kammerman's Marina would be placed at the DH#86 subaqueous borrow pit restoration site in Beach Thorofare.

U.S. Coast Guard/New Jersey State Police Marina
Approximate Coordinates: Latitude: 39.378022, Longitude: -74.424093.
Maintenance dredging of 8,604.0-cubic yards of shoaled sediments from an approximately 1.73-acre footprint to -10.0-feet below the plane of Mean Low Water (MLW), plus 1.0-foot of allowable overdredge, and 4:1 side slopes, is proposed. Part of Atlantic City's Inlet Marina Area, available records indicate that the U.S. Coast Guard and New Jersey State Police Marina was historically dredge-maintained during the 1950s and 1980s.

All resultant dredged material from the U.S. Coast Guard and New Jersey State Police Marina would be placed upland at Kinsley's Landfill.

Penrose Canal
Approximate Coordinates: Latitude: 39.372480, Longitude: -74.444921.
Maintenance dredging of 5,725.0-cubic yards of shoaled sediments from an approximately 2.97-acre footprint to -5.0-feet below the plane of Mean Low Water (MLW), plus 1.0-foot of allowable overdredge, and 4:1 side slopes, is proposed. Available records indicate that the man-made Penrose Canal was excavated/constructed in the 1880s. No historical records were found to indicate that the Penrose Canal was ever historically dredge-maintained.

All resultant dredged material from Penrose Canal would be placed upland at the Tuckahoe Turf Farm.

Venice Lagoon
Approximate Coordinates: Latitude: 39.372592, Longitude: -74.452376.
Maintenance dredging of 3,318.0-cubic yards of shoaled sediments from an approximately 6.37-acre footprint to -5.0-feet below the plane of Mean Low Water (MLW), plus 1.0-foot of allowable overdredge, and 4:1 side slopes, is proposed. Available records indicate that the man-made Venice Lagoon was

excavated/constructed in the 1880s. No historical records were found to indicate that the Venice Lagoon was ever historically dredge-maintained.

All resultant dredged material from Venice Lagoon would be placed upland at the Tuckahoe Turf Farm.

Bader Field Lagoon
Approximate Coordinates: Latitude: 39.359380, Longitude: -74.453190.
Maintenance dredging of 42,202.0-cubic yards of shoaled sediments from an approximately 13.40-acre footprint to -5.0-feet below the plane of Mean Low Water (MLW), plus 1.0-foot of allowable overdredge, and 4:1 side slopes, is proposed. Available records indicate that the man-made Bader Field Lagoon was excavated/constructed during the early 1900s. No historical records were found to indicate that the Bader Field Lagoon area was ever historically dredge-maintained.

All resultant dredged material from Bader Field Lagoon would be placed upland at the Tuckahoe Turf Farm.

Chelsea Harbor
Approximate Coordinates: Latitude: 39.351552, Longitude: -74.460122.
Maintenance dredging of 151.0-cubic yards of shoaled sediments from an approximately 1.29-acre footprint to -5.0-feet below the plane of Mean Low Water (MLW), plus 1.0-foot of allowable overdredge, and 4:1 side slopes, is proposed. Available records indicate that the man-made Chelsea Harbor was excavated/constructed during the early 1900s. No historical records were found to indicate that the Chelsea Harbor area was ever historically dredge-maintained.

All resultant dredged material from Chelsea Harbor would be placed upland at the Tuckahoe Turf Farm.

Fenton Place Lagoon
Approximate Coordinates: Latitude: 39.358180, Longitude: -74.448722.
Maintenance dredging of 6,646.0-cubic yards of shoaled sediments from an approximately 5.74-acre footprint to -5.0-feet below the plane of Mean Low Water (MLW), plus 1.0-foot of allowable overdredge, and 4:1 side slopes, is proposed. Available records indicate that the man-made Fenton Place Lagoon was excavated/constructed during the early 1900s. No historical records were found to indicate that the Fenton Place Lagoon area was ever historically dredge-maintained.

All resultant dredged material from Fenton Place Lagoon would be placed upland at the Tuckahoe Turf Farm.

Ventnor Lagoon
Approximate Coordinates: Latitude: 39.351839, Longitude: -74.457452.
Maintenance dredging of 575.0-cubic yards of shoaled sediments from an approximately 1.78-acre footprint to -5.0-feet below the plane of Mean Low

Water (MLW), plus 1.0-foot of allowable overdredge, and 4:1 side slopes, is proposed. Available records indicate that the man-made Ventnor Lagoon was excavated/constructed during the early 1900s. No historical records were found to indicate that the Ventnor Lagoon area was ever historically dredge-maintained.

All resultant dredged material from Ventnor Lagoon would be placed upland at the Tuckahoe Turf Farm.

Dredge Material Placement:

All resultant dredged material, estimated to be approximately 597,761.0-cubic yards of sand and silt, would be disposed at three (3) locations: the DH#86 sub-aqueous restoration site in Beach Thorofare located in Atlantic City, Atlantic County, New Jersey; the upland Tuckahoe Turf Farm located in Estell Manor, Atlantic County, New Jersey; and the upland Kinsley's Landfill located in Sewell, Mantua Township, Gloucester County, New Jersey.

DH#86:
Approximate Coordinates: Latitude: 39.360598, Longitude: -74.469802.
Approximately 334,069.0-cubic yards of dredged material from the dredge sites listed above would be mechanically and hydraulically placed into DH#86 in accordance with Department of the Army (DA) Permit Number NAP-2020-00059-95 (Enclosure A). DH#86 is an approximately 14.0-acre man-made subaqueous borrow pit feature formed by historical sand mining activities. DH#86, located in Beach Thorofare, is one of several subaqueous pits within the New Jersey Atlantic bay system that was used as a sediment borrow site for construction of roadways, bridges, and building lots in Atlantic City and the surrounding area. The depth below the existing surrounding natural seabed within DH#86 ranges from approximately 5.0-feet below Mean Low Water (MLW) at the shallowest to 57.0-feet below MLW at the deepest. DA Permit Number NAP-2020-00059-95, issued on 10 June 2020 to the New Jersey Department of Transportation – Office of Maritime Resources (NJDOT-OMR), authorized the restoration of DH#86 via in-water discharge of dredged material. DH#86 is owned and maintained by NJDOT-OMR. Placement of dredged material into DH#86 by Atlantic City is contingent upon execution of a use agreement between Atlantic City and NJDOT-OMR.

Tuckahoe Turf Farm:
Approximate Coordinates: Latitude: 39.680137, Longitude: -74.782414.
Approximately 111,217.0-cubic yards of dredged material would be loaded into trucks and transported to the Tuckahoe Turf Farm located in Estell Manor, Atlantic County, New Jersey, for upland placement.

Kinsley's Landfill:
Approximate Coordinates: Latitude: 39.793075, Longitude: -75.105967.
Approximately 152,475.0-cubic yards of dredged material would be loaded into trucks and transported to Kinsley's Landfill located in Sewell, Mantua Township, Gloucester County, New Jersey, for upland placement.

PURPOSE: The stated purpose of this project is to maintain safe navigational depths for transiting emergency, commercial, and recreational vessels; and restore a man-made subaqueous borrow pit feature formed by historical sand mining activities.

The decision whether to issue a permit will be based on an evaluation of the activity's probable impact including its cumulative impacts on the public interest. The decision will reflect the national concern for both protection and utilization of important resources. The benefits which reasonably may be expected to accrue from the work must be balanced against its reasonably foreseeable detriments. All factors which may be relevant to the work will be considered including the cumulative effects thereof; among those are conservation, economics, aesthetics, general environmental concerns, wetlands, cultural values, fish and wildlife values, flood hazards, flood plain values, land use, navigation, shore erosion and accretion, recreation, water supply and conservation, water quality, energy needs, safety, food and fiber production, mineral needs and welfare of the people. A Department of the Army permit will be granted unless the District Engineer determines that it would be contrary to the public interest.

The Corps of Engineers is soliciting comments from the public; Federal, State, and local agencies and officials; Indian Tribes; and other interested parties in order to consider and evaluate the impacts of this proposed activity. Any comments received will be considered by the Corps of Engineers to determine whether to issue, modify, condition or deny a permit for this proposal. To make this decision, comments are used to assess impacts on endangered species, historic properties, water quality, general environmental effects, and the other public interest factors listed above. Comments are used in the preparation of an Environmental Assessment and/or an Environmental Impact Statement pursuant to the National Environmental Policy Act. Comments are also used to determine the need for a public hearing and to determine the overall public interest of the proposed activity.

Due to COVID-19, comments on the proposed work should be submitted via email, within thirty (30) days, to the District Engineer, U.S. Army Corps of Engineers, Philadelphia District at **PhiladelphiaDistrictRegulatory@usace.army.mil**. If it is necessary to provide a paper copy, comments should be submitted, within thirty (30 days), via traditional hard copy mail to the U.S. Army Corps of Engineers, Philadelphia District, Wanamaker Building, 100 Penn Square East, Philadelphia, Pennsylvania 19107-3390, Attn: CENAP-OPR.

The USACE Cultural Resource Specialist is currently reviewing the proposed permit action for potential impacts to Historic Properties eligible for or listed on the National Register of Historic Places. A determination of effects will be coordinated with the State Historic Preservation Office, the Tribes and other consulting parties.

A preliminary review of this application indicates that the proposed work may affect listed aquatic-based species or their critical habitat. Pursuant to Section 7 of the Endangered Species Act (ESA), the Philadelphia District will evaluate the potential effects from the proposed actions to these species and their habitat and consult with NOAA Fisheries as appropriate. Consultation will be concluded prior to the final decision on this permit application.

Pursuant to Section 7 of the Endangered Species Act (ESA, a preliminary review of this application indicates that the proposed work would not affect land-based species or their critical habitat. Given

USACE's no effect determination, as per Section 7 of the ESA, no further consultation with the U.S. Fish & Wildlife Service is required.

The Magnuson-Stevens Fishery Conservation and Management Act requires all federal agencies to consult with the NOAA Fisheries for all actions, or proposed actions, permitted, funded, or undertaken by the agency that may adversely affect Essential Fish Habitat (EFH). A preliminary review of this application indicates that EFH is present within the project area. The Philadelphia District will evaluate the potential effects of the proposed actions on EFH and will consult with NOAA Fisheries as appropriate. Consultation will be concluded prior to the final decision on this permit application.

Per Federal Regulations 33 CFR 325.1(d)(7), the applicant has stated that compensatory mitigation is not required because the proposed project is expected to result in an overall net increase in habitat functions and values through beneficial re-utilization of dredged material to restore the man-made subaqueous borrow pit feature known as DH#86.

In accordance with Section 307(c) of the Coastal Zone Management Act of 1972, applicants for Federal Licenses or Permits to conduct an activity affecting land or water uses in a State's coastal zone must provide certification that the activity complies with the State's Coastal Zone Management Program. The applicant has stated that the proposed activity complies with and will be conducted in a manner that is consistent with the approved State Coastal Zone Management (CZM) Program. No permit will be issued until the State has concurred with the applicant's certification or has waived its right to do so. Comments concerning the impact of the proposed and/or existing activity on the State's coastal zone should be sent to this office, with a copy to the State's Office of Coastal Zone Management.

In accordance with Section 401 of the Clean Water Act, a Water Quality Certificate is necessary from the State government in which the work is located. Any comments concerning the work described above which relate to Water Quality considerations should be sent to this office with a copy to the State.

The evaluation of the impact of the work described above on the public interest will include application of the guidelines promulgated by the Administrator, U.S. Environmental Protection Agency, under authority of Section 404(b) of the Clean Water Act.

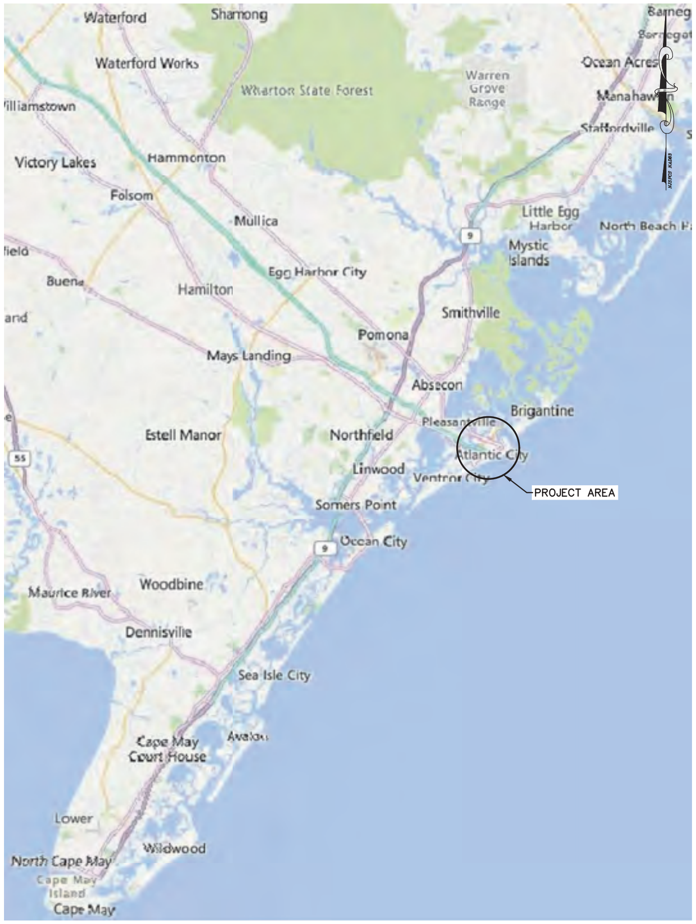
Any person may request, in writing, to the District Engineer, within the comment period specified in this notice, that a public hearing be held to consider this application. Requests for a public hearing shall state, in writing to **PhiladelphiaDistrictRegulatory@usace.army.mil,** with particularity, the reasons for holding a public hearing.

Additional information concerning this permit application may be obtained by contacting Mr. Robert Youhas of my staff via email at **robert.youhas@usace.army.mil**, or by phone at 215-656-6729.

FOR: Todd A. Schaible
Chief, Regulatory Branch

ATLANTIC CITY, NEW JERSEY
MAINTENANCE DREDGING PROJECT

VICINITY MAP
SCALE: 1" = 20,000'



LOCATION MAP
SCALE: 1" = 5,000'

SHEET INDEX

SHT.NO.	DRAWING TITLE	DATE:
1	COVER SHEET	06/17/21
2	MAINTENANCE DREDGE PERMIT PLAN	06/17/21
3	MAINTENANCE DREDGE PERMIT PLAN	06/17/21
4	MAINTENANCE DREDGE PERMIT PLAN	06/17/21
5	DREDGE CROSS SECTIONS	06/17/21
6	DREDGE CROSS SECTIONS	06/17/21
7	DREDGE CROSS SECTIONS	06/17/21

NO.	DATE	REVISION	DRAWN	CHK	REL

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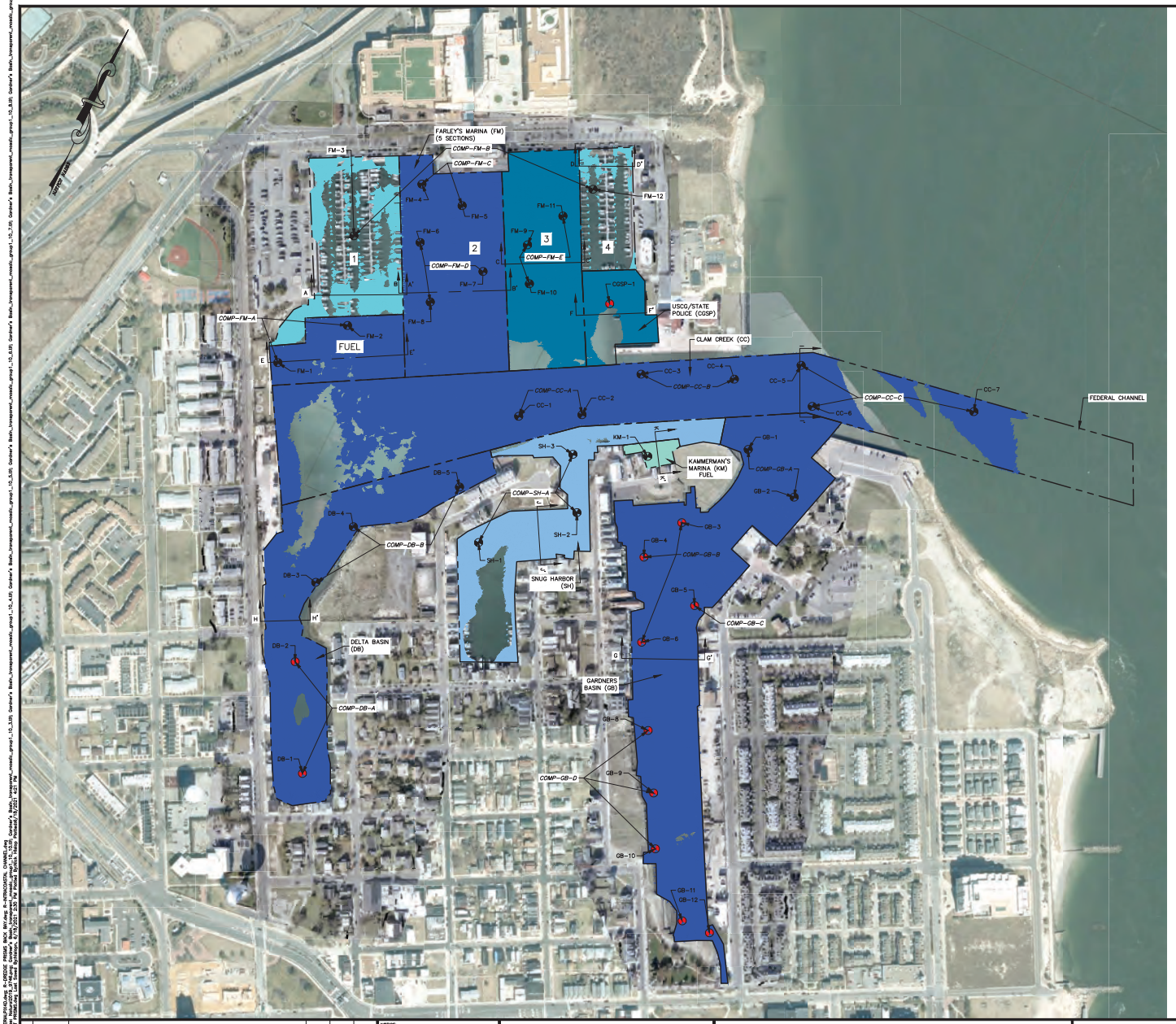
NEW JERSEY CERTIFICATE of AUTHORIZATION No. 24GA27936900

COVER SHEET
FOR
ATLANTIC CITY INLET MARINA AREA

SITUATED IN
ATLANTIC CITY · ATLANTIC COUNTY · NEW JERSEY

CADD FILE	PROJECT NO.
F-PERMIT PRISMS	191106-21
DRAWN BY: NJH	CHECKED BY: JR
SCALE: 1"=200'	DATE: 06/17/21

ACT ENGINEERS, INC.



GENERAL NOTES:

1. PHYSICAL FEATURES OUTSIDE OF THE SITE HAVE NOT BEEN COMPLETELY SHOWN.
2. THE LOCATIONS AND/OR EXISTENCE OF ANY UNDERGROUND UTILITY SERVICE LINES NOT SHOWN WERE NOT VISIBLE AT THE TIME OF SURVEY AND ARE UNKNOWN.
3. UNDERGROUND ENCROACHMENTS, IF ANY HAVE NOT BEEN SHOWN.
4. IF THIS DOCUMENT DOES NOT CONTAIN THE RAISED IMPRESSION SEAL OF THE PROFESSIONAL, IT IS NOT AN AUTHORIZED ORIGINAL AND MAY HAVE BEEN ALTERED. HORIZONTAL DATUM IS THE NEW JERSEY STATE PLANE COORDINATE SYSTEM, NORTH AMERICAN DATUM OF 1983, (N.J.S.P.C.S., NAD 83). VERTICAL DATUM IS THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88). AND WAS CONVERTED TO TIDAL DATUM USING TIDAL ELEVATIONS BASED ON: A PLAN ENTITLED "NEW JERSEY INTRACOASTAL WATERWAY, ATLANTIC CITY, NEW JERSEY, VICINITY OF CLAM CREEK EXAMINATION", DATED 09/05/2018, DEVELOPED BY U.S. ARMY ENGINEER DISTRICT, PHILADELPHIA CORPS OF ENGINEERS PHILADELPHIA, PENNSYLVANIA.
5. DATUMS WERE ESTABLISHED ON SITE USING GPS OBSERVATIONS.
6. THE BATHYMETRIC SURVEY WAS CONDUCTED ON 11/05/19 & 11/06/19 BY ACT ENGINEERS, INC.
7. SEDIMENT SAMPLING COLLECTION WAS CONDUCTED FROM 6/8/20 TO 6/12/20 AND ON 8/10/20 BY ACT ENGINEERS, INC.
8. VERTICAL REFERENCE – MEAN LOWER LOW WATER, WHICH IS BELOW N.A.V.D. 88 BY THE FOLLOWING: 2.47'.
9. THE ELEVATIONS SHOWN ARE IN TIDAL (MLLW) DATUM.

REFERENCE NOTES:

AERIAL PHOTO IMAGERY OBTAINED USING UAS TECHNOLOGY BY ACT ENGINEERS, INC. ON 11/09/2019.

AERIAL IMAGE OBTAINED VIA THE NEW JERSEY GEOGRAPHIC INFORMATION NETWORK ARC WMS INTERNET WEB MAPPING SERVICE.

ABSECON INLET SURVEY DATA OBTAINED VIA US ARMY CORPS OF ENGINEERS – PHILADELPHIA DISTRICT & MARINE DESIGN CENTER.

VOLUMES

LOCATION	TEMPLATE (Cu. Yd.)	OVERDREDGE (Cu. Yd.)	PERMIT VOLUME (Cu. Yd.)	DEPTH (Ft.)
CLAM CREEK	96,368	26,342	122,710	–15 (+1)
FARLEY'S MARINA – FUEL	15,586	4,527	20,113	–15 (+1)
FARLEY'S MARINA – 1	2,597	7,937	10,534	–7 (+1)
FARLEY'S MARINA – 2	77,804	13,201	91,005	–15 (+1)
FARLEY'S MARINA – 3	21,823	9,916	31,739	–10 (+1)
FARLEY'S MARINA – 4	57	1,381	1,438	–7 (+1)
GARDNERS BASIN	157,866	16,865	174,731	–15 (+1)
SNUG HARBOR	16,966	6,148	23,114	–9 (+1)
DELTA BASIN	44,078	8,476	52,554	–15 (+1)
KAMMERMAN'S MARINA	2,283	319	2,602	–6 (+1)
USCG/ ST. POLICE	6,167	2,437	8,604	–10 (+1)
TOTAL	441,595	97,549	539,144	--

CORE SAMPLE ID #	COMP SAMPLE ID #	COMP % SAND
FM-1 AND FM-2	COMP FM-A	34.94
FM-3 AND FM-12	COMP FM-B	22.6
FM-4 AND FM-5	COMP FM-C	16.0
FM-6 AND FM-7 AND FM-8	COMP FM-D	17.0
FM-9 AND FM-10 AND FM-11	COMP FM-E	23.8
CC-1 AND CC-2	COMP CC-A	47.1
CC-3 AND CC-4	COMP CC-B	25.0
CC-5 AND CC-6 AND CC-7	COMP CC-C	47.4
DB-1 AND DB-2	COMP DB-A	22.87
DB-3 AND DB-4 AND DB-5	COMP DB-B	70.4
GB-1 AND GB-2	COMP GB-A	20.0
GB-3 AND GB-4 AND GB-6	COMP GB-B	19.6
GB-5	COMP GB-C	79.0
GB-8 AND GB-9 AND GB-10	COMP GB-D	55.3
GB-11	COMP GB-E	37.30
GB-12	COMP GB-F	54.24
SH-1 AND SH-2 AND SH-3	COMP SH-A	34.7
KM-1	COMP KM-A	83.0
CGSP-1	COMP CGSP-A	75.6

COLOR LEGEND

- ELEVATION –15 AND ABOVE
- ELEVATION –10 AND ABOVE
- ELEVATION –9 AND ABOVE
- ELEVATION –7 AND ABOVE
- ELEVATION –6 AND ABOVE
- ELEVATION –5 AND ABOVE

AREA BOUNDARY LINE

BORING LOCATION (CLEAN)

SAMPLE EXCEEDS NJDEP RESIDENTIAL DIRECT CONTACT CRITERIA

NO.	DATE	REVISION	DRAWN	CHK	REL

200 0 200 400
HORIZONTAL SCALE IN FEET

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Voice (609) 918-0200
www.actengineers.com

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NEW JERSEY CERTIFICATE of AUTHORIZATION No. 24GA27950600

MAINTENANCE DREDGE PERMIT PLAN
FOR
ATLANTIC CITY INLET MARINA AREA

ATLANTIC CITY | SITUATED IN ATLANTIC COUNTY | NEW JERSEY

CADD FILE	PROJECT NO.
F-PERMIT PRISMS	19106-21
DRAWN BY: NJH	CHECKED BY: JR
SCALE: 1"=200'	DATE: 06/17/21
ACT ENGINEERS, INC.	
SHEET: 2 OF 7	

GENERAL NOTES:

1. PHYSICAL FEATURES OUTSIDE OF THE SITE HAVE NOT BEEN COMPLETELY SHOWN.
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5. DATUMS WERE ESTABLISHED ON SITE USING GPS OBSERVATIONS.
6. THE BATHYMETRIC SURVEY WAS CONDUCTED ON 04/05/21 & 04/06/21 BY ACT ENGINEERS, INC.
8. VERTICAL REFERENCE – MEAN LOWER LOW WATER, WHICH IS BELOW N.A.V.D. 88 BY THE FOLLOWING: 2.39'.
9. THE ELEVATIONS SHOWN ARE IN TIDAL (MLLW) DATUM.
10. PHYSICAL SAMPLES FOR PENROSE CANAL AND VENICE LAGOON WERE COLLECTED ON 05/06/21.

REFERENCE NOTES:

AERIAL IMAGE OBTAINED VIA THE NEW JERSEY GEOGRAPHIC INFORMATION NETWORK ARC WMS INTERNET WEB MAPPING SERVICE.

VOLUMES

LOCATION	TEMPLATE (Cu. Yd.)	OVERDREDGE (Cu. Yd.)	PERMIT VOLUME (Cu. Yd.)	DEPTH (Ft.)
PENROSE CANAL	3,816	1,909	5,725	-5 (+1)
VENICE LAGOON	2,187	1,131	3,318	-5 (+1)
TOTAL	6,003	3,040	9,043	--

COLOR LEGEND

- ELEVATION -15 AND ABOVE
- ELEVATION -10 AND ABOVE
- ELEVATION -9 AND ABOVE
- ELEVATION -7 AND ABOVE
- ELEVATION -6 AND ABOVE
- ELEVATION -5 AND ABOVE

AREA BOUNDARY LINE

BORING LOCATION (CLEAN)

NO.	DATE	REVISION	DRAWN	CHK	REL

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HORIZONTAL SCALE IN FEET

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Voice (609) 918-0200
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NEW JERSEY CERTIFICATE of AUTHORIZATION No. 24GA27936900

MAINTENANCE DREDGE PERMIT PLAN
FOR
ATLANTIC CITY BACK BAY

ATLANTIC CITY — SITUATED IN ATLANTIC COUNTY — NEW JERSEY

CADD FILE	PROJECT NO.
F-PERMIT PRISMS	191106-21
DRAWN BY: NJH	CHECKED BY: JR
SCALE: 1"=200'	DATE: 06/17/21

ACT ENGINEERS, INC.

GENERAL NOTES:

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7. SEDIMENT SAMPLING WAS CONDUCTED ON 04/06/21 BY ACT ENGINEERS, INC.
8. VERTICAL REFERENCE – MEAN LOWER LOW WATER, WHICH IS BELOW N.A.V.D. 88 BY THE FOLLOWING: 2.39'.
9. THE ELEVATIONS SHOWN ARE IN TIDAL (MLLW) DATUM.
10. PHYSICAL SAMPLES FOR CHELSEA HARBOR AND VENTNOR LAGOON WERE NOT COLLECTED.

REFERENCE NOTES:

AERIAL IMAGE OBTAINED VIA THE NEW JERSEY GEOGRAPHIC INFORMATION NETWORK ARC WMS INTERNET WEB MAPPING SERVICE.

VOLUMES

LOCATION	TEMPLATE (Cu. Yd.)	OVERDREDGE (Cu. Yd.)	PERMIT VOLUME (Cu. Yd.)	DEPTH (Ft.)
BADER FIELD LAGOON	31,819	10,383	42,202	-5 (+1)
CHELSEA HARBOR	81	70	151	-5 (+1)
FENTON PLACE LAGOON	25,303	7,358	32,661	-5 (+1)
VENTNOR LAGOON	135	440	575	-5 (+1)
TOTAL	57,338	18,251	75,589	--

CORE SAMPLE ID #	COMP SAMPLE ID #	COMP % SAND
BF-1	COMP BF-A	88.8
BF-2	COMP BF-B	59.0
BF-3	COMP BF-C	88.6
FP-1	COMP FP-A	76.6
FP-2	COMP FP-B	82.5

COLOR LEGEND

- ELEVATION -15 AND ABOVE
- ELEVATION -10 AND ABOVE
- ELEVATION -9 AND ABOVE
- ELEVATION -7 AND ABOVE
- ELEVATION -6 AND ABOVE
- ELEVATION -5 AND ABOVE

AREA BOUNDARY LINE

BORING LOCATION (CLEAN)

NO.	DATE	REVISION	DRAWN	CHK	REL

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MAINTENANCE DREDGE PERMIT PLAN
FOR
ATLANTIC CITY BACK BAY

ATLANTIC CITY — SITUATED IN ATLANTIC COUNTY — NEW JERSEY

CADD FILE	PROJECT NO.
F-PERMIT PRISMS	191106-21
DRAWN BY: NJH	CHECKED BY: JR
SCALE: 1"=200'	DATE: 06/17/21

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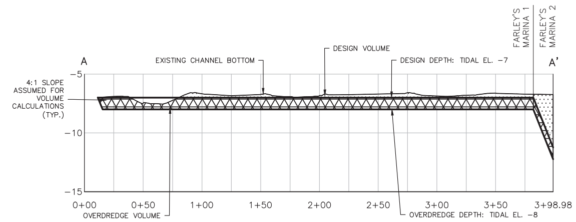
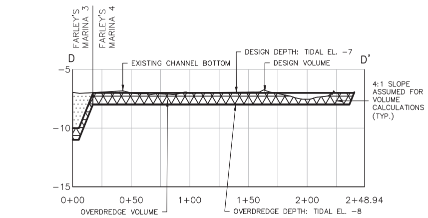
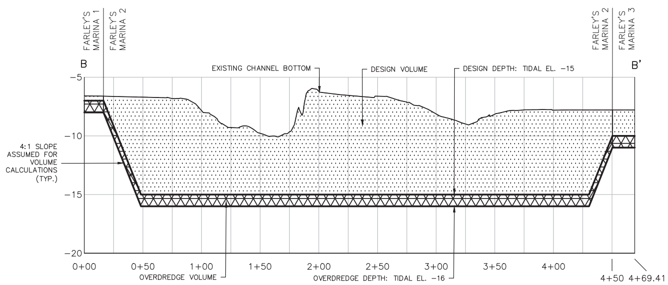


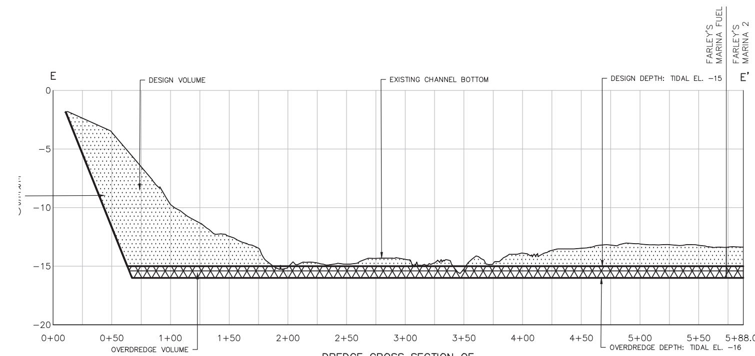
DREDGE CROSS SECTION OF
FARLEY'S MARINA 1



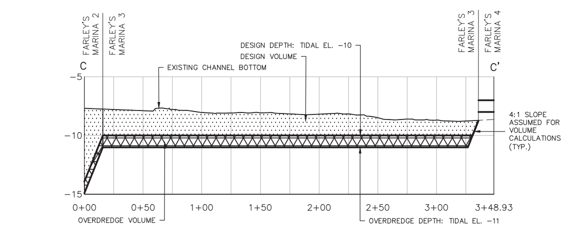
DREDGE CROSS SECTION OF
FARLEY'S MARINA 4



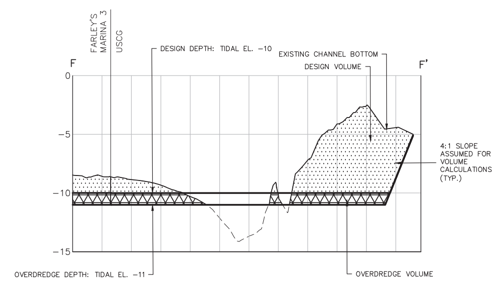
DREDGE CROSS SECTION OF
FARLEY'S MARINA 2



DREDGE CROSS SECTION OF
FARLEY'S MARINA FUEL



DREDGE CROSS SECTION OF
FARLEY'S MARINA 3



DREDGE CROSS SECTION OF
USCG

NO.	DATE	REVISION	DRAWN	CHK	REL

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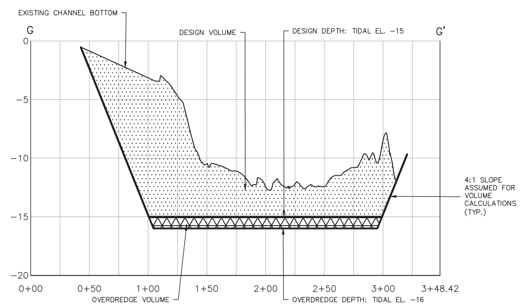
DREDGE CROSS SECTIONS
FOR
ATLANTIC CITY INLET MARINA AREA

ATLANTIC CITY — SITUATED IN ATLANTIC COUNTY — NEW JERSEY

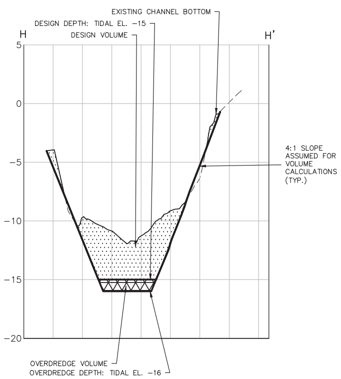
CADD FILE: F-PERMIT PRISMS	PROJECT NO.: 191106-21
DRAWN BY: NJH	CHECKED BY: JR
SCALE: 1"=6' 1"=60'	DATE: 06/17/21

ACT ENGINEERS, INC.

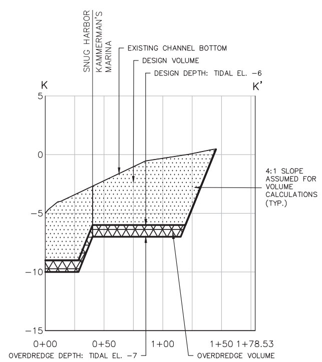
SHEET
5 OF 7



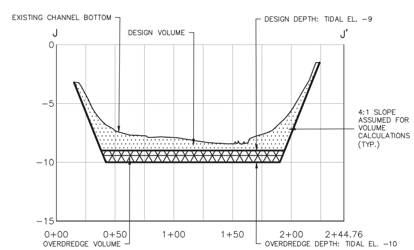
DREDGE CROSS SECTION OF
GARDENERS BASIN



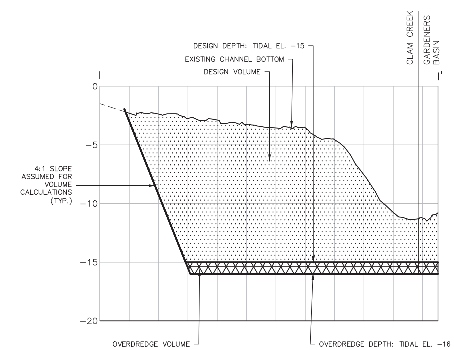
DREDGE CROSS SECTION OF
DELTA BASIN



DREDGE CROSS SECTION OF
KAMMERMAN'S MARINA



DREDGE CROSS SECTION OF
SNUG HARBOR



DREDGE CROSS SECTION OF
CLAM CREEK

NO.	DATE	REVISION	DRAWN	CHK	REL

VERTICAL SCALE IN FEET (6 0 6 12)

HORIZONTAL SCALE IN FEET (60 0 60 120)

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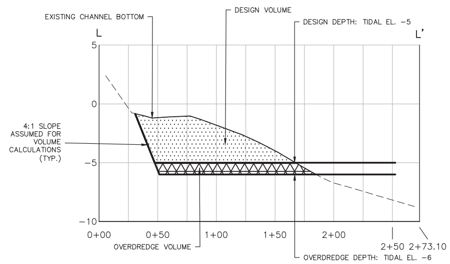
NEW JERSEY CERTIFICATE of AUTHORIZATION No. 24GA27936900

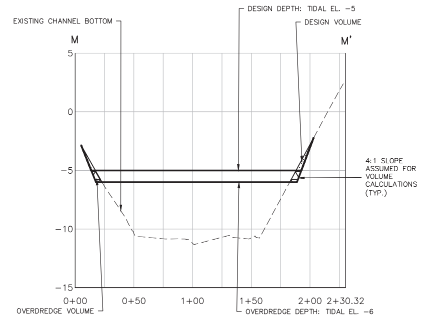
DREDGE CROSS SECTIONS
FOR
ATLANTIC CITY INLET MARINA AREA

ATLANTIC CITY — SITUATED IN ATLANTIC COUNTY — NEW JERSEY

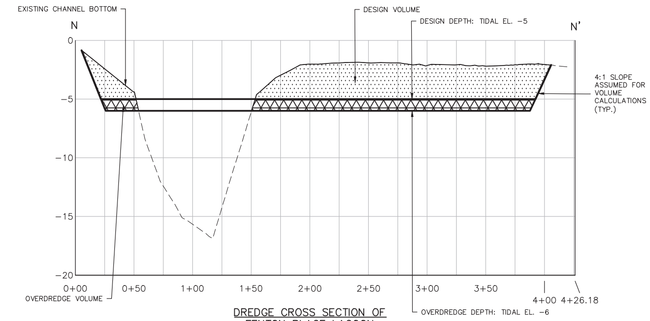
CADD FILE	PROJECT NO.
F-PERMIT PRISMS	191106-21
DRAWN BY: NJH	CHECKED BY: JR
SCALE: 1"=6' 1"=60'	DATE: 06/17/21
ACT ENGINEERS, INC.	
SHEET 6 OF 7	



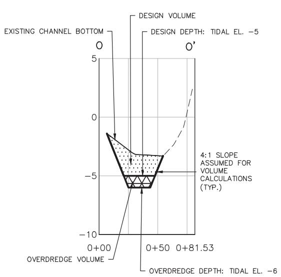
DREDGE CROSS SECTION OF
BADER FIELD LAGOON



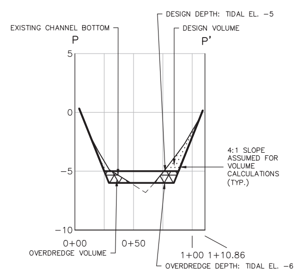
DREDGE CROSS SECTION OF
CHELSEA HARBOR



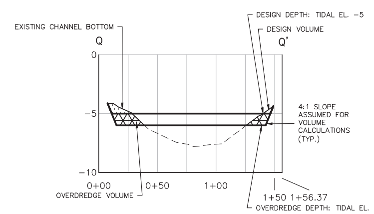
DREDGE CROSS SECTION OF
FENTON PLACE LAGOON



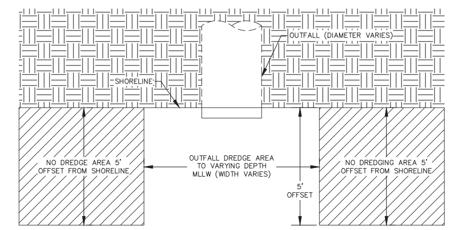
DREDGE CROSS SECTION OF
PENROSE CANAL



DREDGE CROSS SECTION OF
VENICE LAGOON

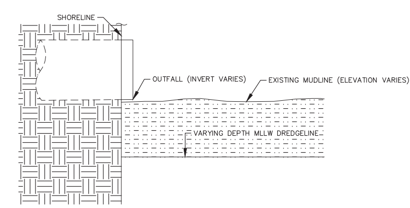


DREDGE CROSS SECTION OF
VENTNOR LAGOON



OUTFALL DREDGE AREA PLAN (TYP.)

SCALE: NO SCALE



OUTFALL DREDGE AREA SECTION (TYP.)

SCALE: NO SCALE

NO.	DATE	REVISION	DRAWN	CHK	REL

NOTICE:

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THIS DRAWING MAY NOT BE DISTRIBUTED, REUSED, COPIED OR RELIED UPON FOR ANY OTHER PURPOSE WITHOUT THE WRITTEN CONSENT OF ACT ENGINEERS, INC.

6 0 6 12
VERTICAL SCALE IN FEET

60 0 60 120
HORIZONTAL SCALE IN FEET

1 WASHINGTON BOULEVARD
SUITE 3
ROBBINSVILLE, NJ 08691
Voice (609) 918-0200
www.actengineers.com

ACT ENGINEERS, INC.
A SMALL BUSINESS ENTERPRISE
CIVIL ENGINEERING ■ LAND SURVEYING ■ ENVIRONMENTAL PERMITTING
NEW JERSEY CERTIFICATE of AUTHORIZATION No. 24GA27936900

DREDGE CROSS SECTIONS
FOR
ATLANTIC CITY BACK BAY

ATLANTIC CITY | SITUATED IN ATLANTIC COUNTY | NEW JERSEY

CADD FILE	PROJECT NO.
F-PERMIT PRISMS	191106-21
DRAWN BY: NJH	CHECKED BY: JR
SCALE: 1"=6' 1"=60'	DATE: 06/17/21
ACT ENGINEERS, INC.	
SHEET: 7 OF 7	

ENCLOSURE A

DEPARTMENT OF THE ARMY
CORPS OF ENGINEERS, PHILADELPHIA DISTRICT
WANAMAKER BUILDING, 100 PENN SQUARE EAST
PHILADELPHIA, PENNSYLVANIA 19107-3390

Regulatory Branch
Application Section II

June 10, 2020

SUBJECT: CENAP-OP-R-2020-00059-95 (NWP#27)
New Jersey Department of Transportation – Office of Maritime Resources
Restoration of Dredged Hole #86 at Beach Thorofare in Atlantic City, Atlantic County, New Jersey
Latitude: 39.360403ºN Longitude: -74.469408ºW

Ms. Genevieve Clifton
New Jersey Department of Transportation
Office of Maritime Resources
1035 Parkway Avenue, Main Building, 3rd Floor
Trenton, New Jersey 08625

Dear Ms. Clifton:

This is in regard to your proposal to restore a subaqueous borrow pit, known as Dredged Hole #86 (DH#86), located at Beach Thorofare in Atlantic City, Atlantic County, New Jersey. Specifically, mechanical and hydraulic discharge of approximately 677,000-cubic yards of dredged material from previously-authorized Department of the Army-permitted maintenance dredging projects into DH#86 shall be undertaken.

Under current Federal regulations, a Department of the Army permit is required for work or structures in navigable waters of the United States and/or the discharge of dredged or fill material into waters of the United States including wetlands.

Based upon our review of the information you have provided, it has been determined that your project is approved by existing Department of the Army Nationwide Permit Number #27 (NWP#27) described below, provided the work is conducted in compliance with the NWP general conditions, regional conditions, and the project specific special conditions.

NWP 27. Aquatic Habitat Restoration, Enhancement, and Establishment Activities.
Activities in waters of the United States associated with the restoration, enhancement, and establishment of tidal and non-tidal wetlands and riparian areas, the restoration and enhancement of non-tidal streams and other non-tidal open waters, and the rehabilitation or enhancement of tidal streams, tidal wetlands, and tidal open waters, provided those activities result in net increases in aquatic resource functions and services.

To be authorized by this NWP, the aquatic habitat restoration, enhancement, or establishment activity must be planned, designed, and implemented so that it results in aquatic habitat that resembles an ecological reference. An ecological reference may be based on the characteristics of an intact aquatic habitat or riparian area of the same type

that exists in the region. An ecological reference may be based on a conceptual model developed from regional ecological knowledge of the target aquatic habitat type or riparian area.

To the extent that a Corps permit is required, activities authorized by this NWP include, but are not limited to: The removal of accumulated sediments; the installation, removal, and maintenance of small water control structures, dikes, and berms, as well as discharges of dredged or fill material to restore appropriate stream channel configurations after small water control structures, dikes, and berms, are removed; the installation of current deflectors; the enhancement, rehabilitation, or re-establishment of riffle and pool stream structure; the placement of in-stream habitat structures; modifications of the stream bed and/or banks to enhance, rehabilitate, or re-establish stream meanders; the removal of stream barriers, such as undersized culverts, fords, and grade control structures; the backfilling of artificial channels; the removal of existing drainage structures, such as drain tiles, and the filling, blocking, or reshaping of drainage ditches to restore wetland hydrology; the installation of structures or fills necessary to restore or enhance wetland or stream hydrology; the construction of small nesting islands; the construction of open water areas; the construction of oyster habitat over unvegetated bottom in tidal waters; shellfish seeding; activities needed to reestablish vegetation, including plowing or discing for seed bed preparation and the planting of appropriate wetland species; re-establishment of submerged aquatic vegetation in areas where those plant communities previously existed; re-establishment of tidal wetlands in tidal waters where those wetlands previously existed; mechanized land clearing to remove non-native invasive, exotic, or nuisance vegetation; and other related activities. Only native plant species should be planted at the site.

This NWP authorizes the relocation of non-tidal waters, including non-tidal wetlands and streams, on the project site provided there are net increases in aquatic resource functions and services.

Except for the relocation of non-tidal waters on the project site, this NWP does not authorize the conversion of a stream or natural wetlands to another aquatic habitat type (*e.g.,* the conversion of a stream to wetland or vice versa) or uplands. Changes in wetland plant communities that occur when wetland hydrology is more fully restored during wetland rehabilitation activities are not considered a conversion to another aquatic habitat type. This NWP does not authorize stream channelization. This NWP does not authorize the relocation of tidal waters or the conversion of tidal waters, including tidal wetlands, to other aquatic uses, such as the conversion of tidal wetlands into open water impoundments.

Compensatory mitigation is not required for activities authorized by this NWP since these activities must result in net increases in aquatic resource functions and services.

Reversion. For enhancement, restoration, and establishment activities conducted: **(1)** In accordance with the terms and conditions of a binding stream or wetland enhancement or restoration agreement, or a wetland establishment agreement, between the landowner and the U.S. Fish and Wildlife Service (FWS), the Natural Resources Conservation Service

(NRCS), the Farm Service Agency (FSA), the National Marine Fisheries Service (NMFS), the National Ocean Service (NOS), U.S. Forest Service (USFS), or their designated state cooperating agencies; **(2)** as voluntary wetland restoration, enhancement, and establishment actions documented by the NRCS or USDA Technical Service Provider pursuant to NRCS Field Office Technical Guide standards; or **(3)** on reclaimed surface coal mine lands, in accordance with a Surface Mining Control and Reclamation Act permit issued by the Office of Surface Mining Reclamation and Enforcement (OSMRE) or the applicable state agency, this NWP also authorizes any future discharge of dredged or fill material associated with the reversion of the area to its documented prior condition and use (*i.e.,* prior to the restoration, enhancement, or establishment activities). The reversion must occur within five years after expiration of a limited term wetland restoration or establishment agreement or permit, and is authorized in these circumstances even if the discharge occurs after this NWP expires. The five-year reversion limit does not apply to agreements without time limits reached between the landowner and the FWS, NRCS, FSA, NMFS, NOS, USFS, or an appropriate state cooperating agency. This NWP also authorizes discharges of dredged or fill material in waters of the United States for the reversion of wetlands that were restored, enhanced, or established on prior-converted cropland or on uplands, in accordance with a binding agreement between the landowner and NRCS, FSA, FWS, or their designated state cooperating agencies (even though the restoration, enhancement, or establishment activity did not require a section 404 permit). The prior condition will be documented in the original agreement or permit, and the determination of return to prior conditions will be made by the Federal agency or appropriate state agency executing the agreement or permit. Before conducting any reversion activity the permittee or the appropriate Federal or state agency must notify the district engineer and include the documentation of the prior condition. Once an area has reverted to its prior physical condition, it will be subject to whatever the Corps Regulatory requirements are applicable to that type of land at the time. The requirement that the activity results in a net increase in aquatic resource functions and services does not apply to reversion activities meeting the above conditions. Except for the activities described above, this NWP does not authorize any future discharge of dredged or fill material associated with the reversion of the area to its prior condition. In such cases a separate permit would be required for any reversion.

Reporting. For those activities that do not require pre-construction notification, the permittee must submit to the district engineer a copy of: **(1)** The binding stream enhancement or restoration agreement or wetland enhancement, restoration, or establishment agreement, or a project description, including project plans and location map; **(2)** the NRCS or USDA Technical Service Provider documentation for the voluntary stream enhancement or restoration action or wetland restoration, enhancement, or establishment action; or **(3)** the SMCRA permit issued by OSMRE or the applicable state agency. The report must also include information on baseline ecological conditions on the project site, such as a delineation of wetlands, streams, and/or other aquatic habitats. These documents must be submitted to the district engineer at least 30 days prior to commencing activities in waters of the United States authorized by this NWP.

Notification: The permittee must submit a pre-construction notification to the district engineer prior to commencing any activity (see general condition 32), except for the following activities:

(1) Activities conducted on non-Federal public lands and private lands, in accordance with the terms and conditions of a binding stream enhancement or restoration agreement or wetland enhancement, restoration, or establishment agreement between the landowner and the FWS, NRCS, FSA, NMFS, NOS, USFS or their designated state cooperating agencies;

(2) Voluntary stream or wetland restoration or enhancement action, or wetland establishment action, documented by the NRCS or USDA Technical Service Provider pursuant to NRCS Field Office Technical Guide standards; or

(3) The reclamation of surface coal mine lands, in accordance with an SMCRA permit issued by the OSMRE or the applicable state agency.

However, the permittee must submit a copy of the appropriate documentation to the district engineer to fulfill the reporting requirement.

[**Authorities**: Section 10 of the Rivers and Harbors Act of 1899 and Section 404 of the Clean Water Act (Sections 10 and 404)]

Note: This NWP can be used to authorize compensatory mitigation projects, including mitigation banks and in-lieu fee projects. However, this NWP does not authorize the reversion of an area used for a compensatory mitigation project to its prior condition, since compensatory mitigation is generally intended to be permanent.

You are advised that this verification of NWP authorization is valid until the Nationwide Permits expire on **March 18, 2022**, unless the NWP authorization is modified, suspended, or revoked prior to this date. In the event that the NWP authorization is modified during that time period, this expiration date will remain valid, provided the activity complies with any subsequent modification of the NWP authorization.

It is noted that CZM consistency from the State is only required for those activities in or affecting a State's coastal zone. Additionally, some of the NWPs do not involve a discharge of dredged or fill material, and as such, do not require a 401 WQC. If the State has denied the required WQC and/or not concurred with the Corps' CZM consistency determination, the NWP authorization is considered denied without prejudice until an individual project specific WQC and/or CZM approval is obtained.

The State of New Jersey has denied 401 WQC and has not concurred with CZM consistency during the issuance of Philadelphia District's regional conditions for NWP#27. Therefore, you are being directed to seek further review by the state in which they will attach the required Federal consistency determination and certification as part of their review as applicable. This approval must be obtained in order for the activity to be authorized under the NWP and a copy provided to this office before work begins. Any project specific

conditions required by the State for the WQC and/or CZM approval will automatically become part of the NWP authorization.

The activities authorized by this NWP verification must comply with the NWP General Conditions, as applicable, in addition to any regional or case-specific conditions imposed by the division engineer or district engineer. A copy of the NWP General Conditions and the Philadelphia District 2017 NWP Regional Permit Conditions for New Jersey for which this verification is subject to, can be found at:

http://www.nap.usace.army.mil/Portals/39/docs/regulatory/publicnotices/2017%20Nationwide%20Permit%20General%20Conditions.pdf

http://www.nap.usace.army.mil/Portals/39/docs/regulatory/publicnotices/2017_NJ_Reg_Cond_Final.pdf

In instances where you are unable to access a digital copy of the 2017 NWP General conditions and/or the 2017 NWP Regional Permit Conditions for New Jersey, a hard copy will be transmitted by registered mail to you per request. It is further noted that you may request a copy by email at any time in which the NWP General Conditions and Regional Permit Conditions will be provided to you by facsimile or other electronic means per your request.

Activities which have commenced (i.e, are under construction) or are under contract to commence in reliance upon an NWP will remain authorized provided the activity is completed within twelve months of the date of an NWP's expiration, modification, or revocation, unless discretionary authority has been exercised on a case-by-case basis to modify, suspend, or revoke the authorization in accordance with 33 CFR 330.4(e) and 33 CFR 330.5 (c) or (d). Activities completed under the authorization of an NWP which was in effect at the time the activity was completed continue to be authorized by that NWP.

You should carefully note that this NWP authorization is based upon your agreement to comply with the terms and conditions of this NWP including any and all attached project specific special conditions listed below. Initiation of any authorized work shall constitute your agreement to comply with all of the NWP's conditions. You should also note that the authorized work may be subject to periodic inspections by a representative of this office. The verification of a Nationwide Permit including all general and special conditions is not subject to appeal.

PROJECT SPECIFIC SPECIAL CONDITIONS:

1. All work performed in association with the above noted project shall be conducted in accordance with the attached project plans identified as E-1 through E-5; all prepared by NJDOT, all entitled “NAP-2020-00059-95” and all dated 29 May 2020.

2. Construction activities shall not result in the permanent disturbance or alteration of greater than 14.0-acres of waters of the United States.

3. Any deviation in construction methodology or project design from that shown on the above noted drawings or repair plan must be approved by this office, in writing, prior to performance of

the work. All modifications to the above noted project plans shall be approved, in writing, by this office. No work shall be performed prior to written approval of this office.

4. This office shall be notified prior to the commencement of authorized work by completing and signing the enclosed Notification/ Certification of Work Commencement Form (**Enclosure 1**). This office shall also be notified within 10 days of the completion of the authorized work by completing and signing the enclosed Notification/Certification of Work Completion/Compliance Form (**Enclosure 2**). All notifications required by this condition shall be in writing. The Notification of Commencement of work may be sent to this office by facsimile or other electronic means; all other notification shall be transmitted to this office by registered mail. Oral notifications are not acceptable. Similar notification is required each time maintenance work is to be done under the terms of this Corps of Engineers permit.

5. The permittee understands and agrees that, if future operations by the United States require the removal, relocation, or other alteration, of the structure or work herein authorized, or if, in the opinion of the Secretary of the Army or his authorized representative, said structure or work shall cause unreasonable obstruction to the free navigation of the navigable waters, the permittee will be required, upon due notice from the Corps of Engineers, to remove, relocate, or alter the structural work or obstructions caused thereby, without expense to the United States. No claim shall be made against the United States on account of any such removal or alteration.

6. No dredged material shall be placed within DH#86 until a Waterfront Development Permit/Acceptable Use Determination is issued by the New Jersey Department of Environmental Protection, which identifies that the material is suitable for beneficial use in this habitat restoration project.

7. Within thirty (30) days following the placement of dredge material into DH#86 to an elevation of -10.0-feet below Mean Low Water, the permittee shall submit a hydrographic survey report to this office detailing as-built conditions.

8. After placement of the final 2.0-foot cap of sand cover material, the permittee shall monitor DH#86 for three (3) years beginning one (1) year after the project has been completed, with submittal of annual monitoring reports to this office no later than December 31st of each full monitoring year. All annual monitoring reports must include the following:

a) For the first year only, provide core logs showing grain size analysis taken a minimum of 1-2 per acre to confirm cap depth and integrity.

b) Seasonal water quality parameters (DO, salinity, pH, temperature and turbidity).

c) Seasonal fisheries surveys in the area of the former DH86 and at control location.

d) Perform annual post-restoration hydrographic surveys.

e) For year three only, provide a benthic community analysis (infauna and epifauna) at locations established in the October 2018 Stockton Coastal Research Center study.

f) For year three only, repeat the recreational use survey reported in the October 2018 Stockton Coastal Research Center study.

Any comments, positive or otherwise, on the procedures, timeliness, fairness, etc., may be submitted to **PhiladelphiaDistrictRegulatory@usace.army.mil**. You may forward your comments along with the signed Notification/Certification of Work Commencement and Completion Forms. If you should have any questions regarding this matter, please contact Mr. Robert Youhas of my staff at 215-656-6729 or write to the above address.

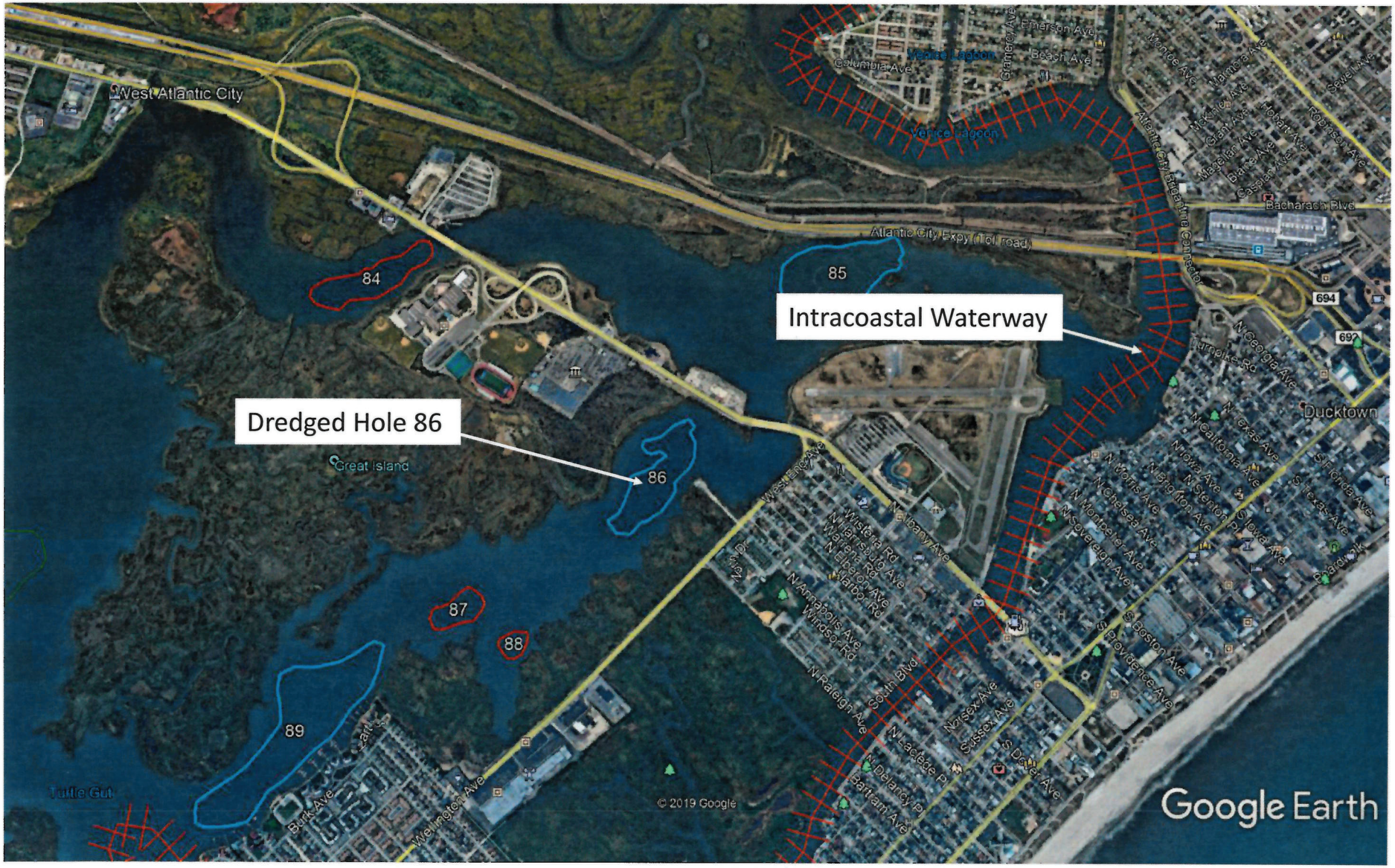
Sincerely,

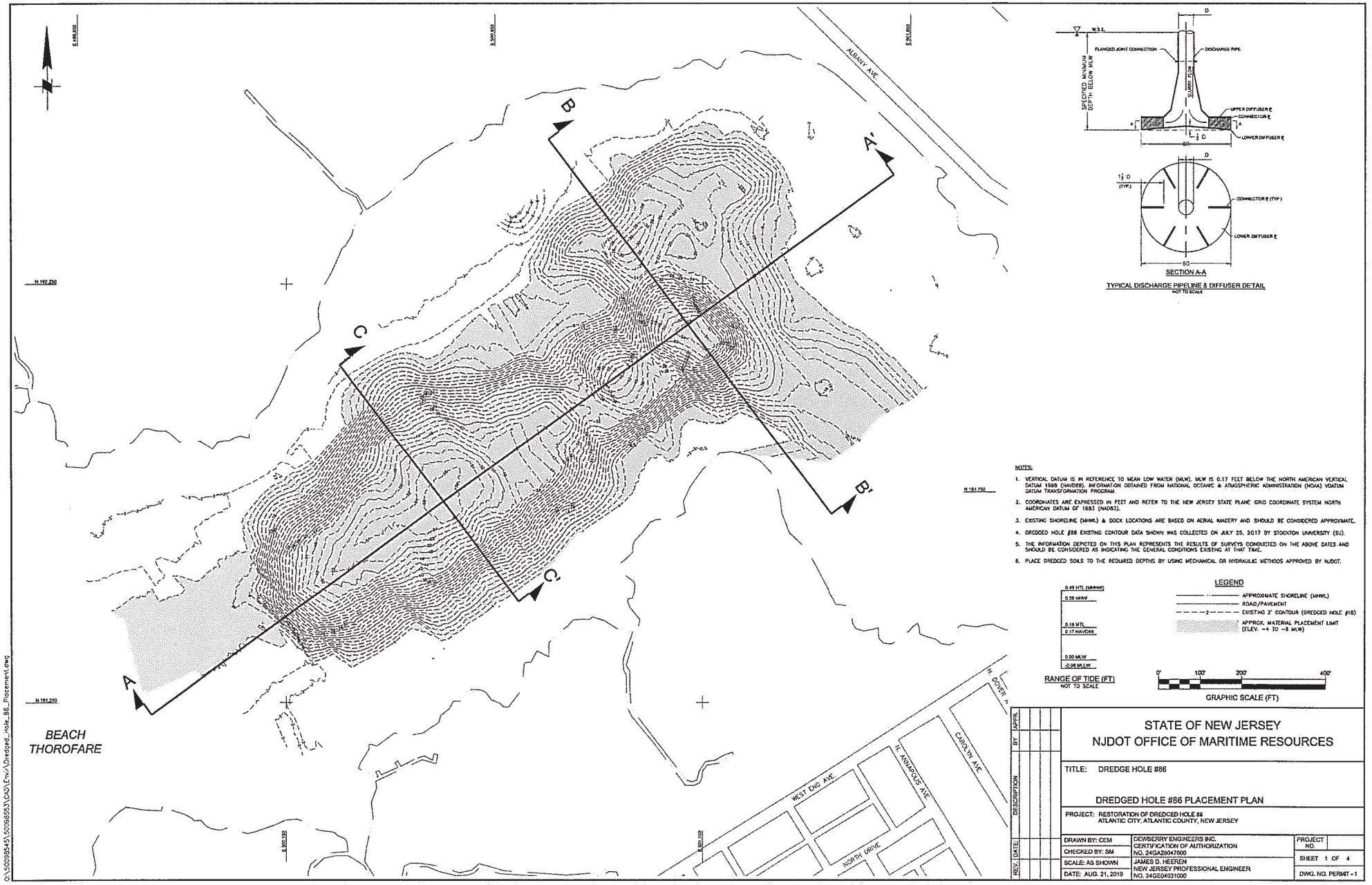
Digitally signed by HAYDUK.MICHAEL.H.1228903783
Date: 2020.06.10 06:14:16 -04'00'

Michael H. Hayduk
Chief, Applications Section II

Enclosures

PROJECT PLANS


Intracoastal Waterway
Dredged Hole 86
84
85
86
87
88
89
West Atlantic City
Great Island
Turtle Gut
Ducktown
Atlantic City Expy (Toll road)
Venice Lagoon
© 2019 Google
Google Earth



TYPICAL DISCHARGE PIPELINE & DIFFUSER DETAIL
NOT TO SCALE

NOTES:

1. VERTICAL DATUM IS IN REFERENCE TO MEAN LOW WATER (MLW). MLW IS 0.17 FEET BELOW THE NORTH AMERICAN VERTICAL DATUM 1988 (NAVD88). INFORMATION OBTAINED FROM NATIONAL OCEANIC & ATMOSPHERIC ADMINISTRATION (NOAA) VDATUM DATUM TRANSFORMATION PROGRAM.
2. COORDINATES ARE EXPRESSED IN FEET AND REFER TO THE NEW JERSEY STATE PLANE GRID COORDINATE SYSTEM NORTH AMERICAN DATUM OF 1983 (NAD83).
3. EXISTING SHORELINE (MHWL) & DOCK LOCATIONS ARE BASED ON AERIAL IMAGERY AND SHOULD BE CONSIDERED APPROXIMATE.
4. DREDGED HOLE #86 EXISTING CONTOUR DATA SHOWN WAS COLLECTED ON JULY 25, 2017 BY STOCKTON UNIVERSITY (SU).
5. THE INFORMATION DEPICTED ON THIS PLAN REPRESENTS THE RESULTS OF SURVEYS CONDUCTED ON THE ABOVE DATES AND SHOULD BE CONSIDERED AS INDICATING THE GENERAL CONDITIONS EXISTING AT THAT TIME.
6. PLACE DREDGED SOILS TO THE REQUIRED DEPTHS BY USING MECHANICAL OR HYDRAULIC METHODS APPROVED BY NJDOT.

RANGE OF TIDE (FT)
NOT TO SCALE

LEGEND

- APPROXIMATE SHORELINE (MHWL)
- ROAD/PAVEMENT
- EXISTING 2' CONTOUR (DREDGED HOLE #18)
- APPROX. MATERIAL PLACEMENT LIMIT (ELEV. -4 TO -8 MLW)

GRAPHIC SCALE (FT)

STATE OF NEW JERSEY
NJDOT OFFICE OF MARITIME RESOURCES

TITLE: DREDGE HOLE #86

DREDGED HOLE #86 PLACEMENT PLAN

PROJECT: RESTORATION OF DREDGED HOLE #86
ATLANTIC CITY, ATLANTIC COUNTY, NEW JERSEY

DRAWN BY: CEM	DEWBERRY ENGINEERS INC. CERTIFICATION OF AUTHORIZATION NO. 24GA28047600	PROJECT NO.
CHECKED BY: SM		SHEET 1 OF 4
SCALE: AS SHOWN	JAMES D. HEEREN NEW JERSEY PROFESSIONAL ENGINEER NO. 24GE04031000	DWG. NO. PERMIT - 1
DATE: AUG. 21, 2019		

REV. | DATE: | DESCRIPTION | BY | APPR.

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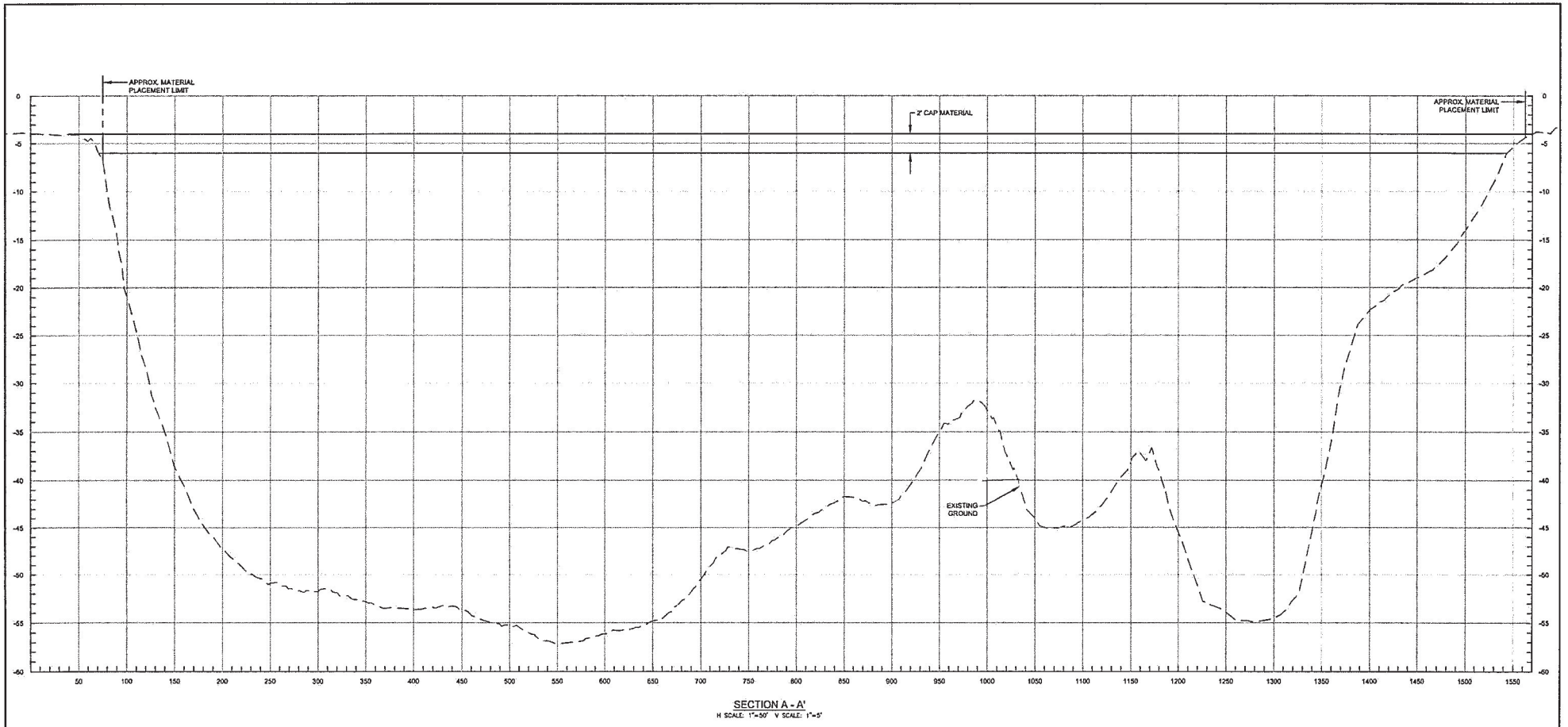

SECTION A - A'
H SCALE: 1"=50' V SCALE: 1"=5'

0' 50' 100' 200'
GRAPHIC SCALE (FT)

STATE OF NEW JERSEY
NJDOT OFFICE OF MARITIME RESOURCES

TITLE: DREDGE HOLE #86

DREDGED HOLE #86 CROSS SECTIONS

PROJECT: RESTORATION OF DREDGED HOLE #6
ATLANTIC CITY, ATLANTIC COUNTY, NEW JERSEY

DRAWN BY: CEM	DEWBERRY ENGINEERS INC. CERTIFICATION OF AUTHORIZATION NO. 24GA28047600	PROJECT NO.	
CHECKED BY: SM		SHEET 2 OF 4	
SCALE: AS SHOWN	JAMES D. HEEREN NEW JERSEY PROFESSIONAL ENGINEER NO. 24GE04031000	DWG. NO. PERMIT - 2	
DATE: AUG. 21, 2019			

REV. | DATE: | DESCRIPTION | BY | APPR.

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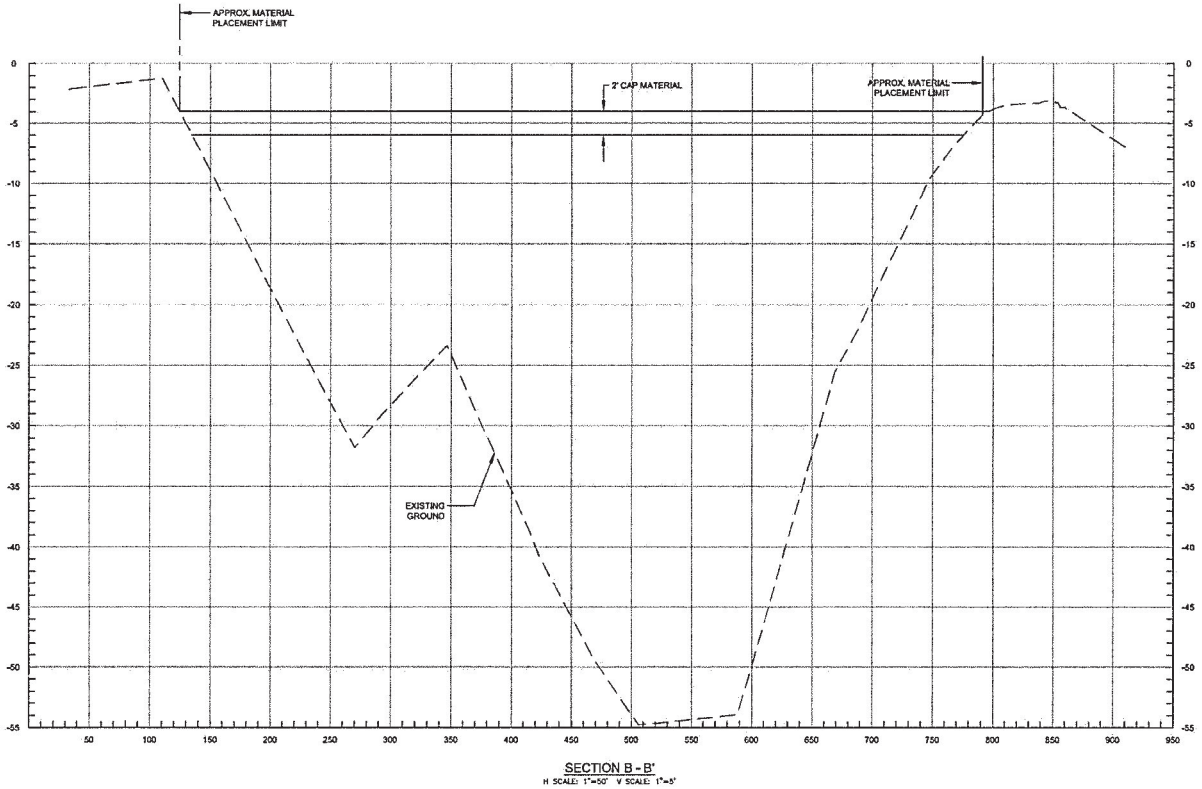

SECTION B - B'
H SCALE: 1"=50' V SCALE: 1"=5'

0' 50' 100' 200'
GRAPHIC SCALE (FT)

APPR.	BY	DESCRIPTION	DATE	REV.

STATE OF NEW JERSEY
NJDOT OFFICE OF MARITIME RESOURCES

TITLE: DREDGE HOLE #86

DREDGED HOLE #86 CROSS SECTIONS

PROJECT: RESTORATION OF DREDGED HOLE #86
ATLANTIC CITY, ATLANTIC COUNTY, NEW JERSEY

DRAWN BY: CEM	DEWBERRY ENGINEERS INC. CERTIFICATION OF AUTHORIZATION NO. 24CA28047600	PROJECT NO.
CHECKED BY: SM		SHEET 3 OF 4
SCALE: AS SHOWN	JAMES D. HEEREN NEW JERSEY PROFESSIONAL ENGINEER NO. 24GE04031000	DWG. NO. PERMIT - 3
DATE: AUG. 21, 2019		

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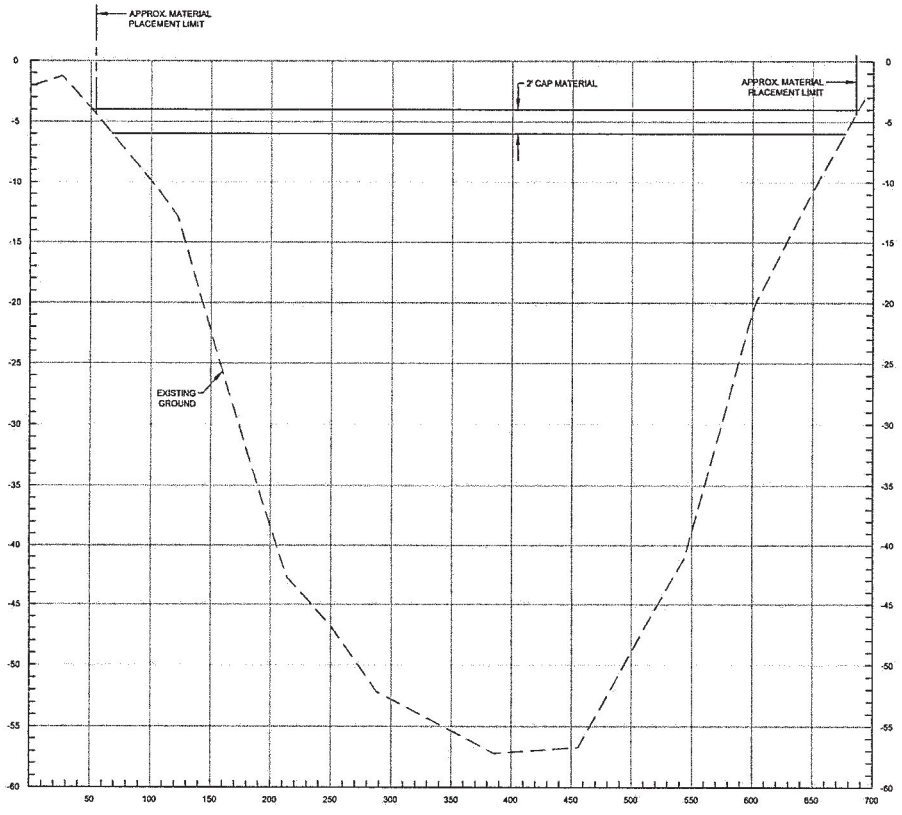

SECTION C - C'
H. SCALE: 1"=50' V SCALE: 1"=5'

0' 50' 100' 200'
GRAPHIC SCALE (FT)

STATE OF NEW JERSEY
NJDOT OFFICE OF MARITIME RESOURCES

TITLE: DREDGE HOLE #86

DREDGED HOLE #86 CROSS SECTIONS

PROJECT: RESTORATION OF DREDGED HOLE 86
ATLANTIC CITY, ATLANTIC COUNTY, NEW JERSEY

DRAWN BY: CEM	DEWBERRY ENGINEERS INC. CERTIFICATION OF AUTHORIZATION NO. 24GA28047500	PROJECT NO.
CHECKED BY: SM		SHEET 4 OF 4
SCALE: AS SHOWN	JAMES D. HEEREN NEW JERSEY PROFESSIONAL ENGINEER NO. 24GE04031000	DWG. NO. PERMIT - 4
DATE: AUG. 21, 2019		

REV. | DATE: | DESCRIPTION | BY | APPR.

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ENCLOSURE 1

NOTIFICATION/CERTIFICATION OF WORK COMMENCEMENT FORM

Permit Number: CENAP-OP-R-2020-00059-95
Name of Permittee: NJDOT – Office of Maritime Resources
Project Name: Restoration of Dredged Hole #86 at Beach Thorofare
Waterway: Beach Thorofare
County: Atlantic County State: New Jersey
Compensation/Mitigation Work Required: Yes ☐ No ☒

TO: U.S. Army Corps of Engineers, Philadelphia District
Wanamaker Building – 100 Penn Square East
Philadelphia, Pennsylvania 19107-3390
Attention: CENAP-OP-R

I have received authorization to: Restore a subaqueous borrow pit, known as Dredged Hole #86 (DH#86), located at Beach Thorofare in Atlantic City, Atlantic County, New Jersey. Specifically, mechanical and hydraulic discharge of approximately 677,000-cubic yards of dredged material from previously-authorized Department of the Army-permitted maintenance dredging projects into DH#86 shall be undertaken.

The work will be performed by:

Name of Person or Firm: _____

Address: _____

I hereby certify that I have reviewed the approved plans, have read the terms and conditions of the above referenced permit, and shall perform the authorized work in strict accordance with the permit document. The authorized work will begin on or about _____and should be completed on or about _____.

Please note that the permitted activity is subject to compliance inspections by the Army Corps of Engineers. If you fail to return this notification form or fail to comply with the terms or conditions of the permit, you are subject to permit suspension, modification, revocation, and/or penalties.

_____ _____
Permittee (Signature and Date) Telephone Number

_____ _____
Contractor (Signature and Date) Telephone Number

NOTE: This form shall be completed/signed and returned to the Philadelphia District Office prior to commencing work.

ENCLOSURE 2

NOTIFICATION/CERTIFICATION OF WORK COMPLETION/COMPLIANCE FORM

Permit Number: CENAP-OP-R-2020-00059-95
Name of Permittee: NJDOT – Office of Maritime Resources
Name of Contractor: _____
Project Name: Restoration of Dredged Hole #86 at Beach Thorofare
County: Ocean County State: New Jersey
Waterway: Beach Thorofare

Within 10 days of completion of the activity authorized by this permit, please sign this certification and return it to the following address:

U.S. Army Corps of Engineers, Philadelphia District
Wanamaker Building - 100 Penn Square East
Philadelphia, Pennsylvania 19107-3390
Attention: CENAP-OP-R

Please note that the permitted activity is subject to a compliance inspection by an Army Corps of Engineers representative. If you fail to return this notification form or fail to perform work in compliance with the permit, you are subject to administrative, civil and/or criminal penalties. Further, the subject permit may be suspended or revoked.

The authorized work was commenced on _____.

The authorized work was completed on _____.

I hereby certify that the work authorized by the above referenced permit has been completed in accordance with the terms and conditions of the above noted permit.

_____ _____
Signature of Contractor Signature of Permittee

Address:_____ Address: _____

_____ _____

Telephone Number:_____ Telephone Number:_____

For project located in areas identified as shellfish habitat, you must include with this form a bill of lading; sales order or any other document(s) demonstrating non-polluting materials were purchased and utilized for your project. I hereby certify that I and/or my contractor have utilized non-polluting materials as defined in the above noted permit.

_____ _____
Signature of Contractor Signature of Permittee