

## Appendix O Finding of Adverse Effect for the Coastal Virginia Offshore Wind 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 Coastal Virginia Offshore Wind Commercial Project (CVOW-C or Project) Construction and Operations Plan (COP) (Dominion Energy 2022). BOEM finds that the undertaking would adversely affect the following historic properties:

- 31 marine archaeological resources (Table O-5; Section O.3.1.1.1, *Marine Archaeological Resources*)
- 5 ancient submerged landform features (ASLFs) with potential archaeological or traditional cultural property (TCP) significance (Table O-6; Section O.3.1.1.2, *Ancient Submerged Landform Features*)
- 13 terrestrial archaeological resources (Table O-7; Section O.3.1.2.1, *Terrestrial Archaeological Resources*)
- 25 historic aboveground resources, including the First Cape Henry Lighthouse National Historic Landmark (NHL) (Table O-8; Sections O.3.1.2.3, *Historic Aboveground Resources*, and O.3.1.3, *Assessment of Effects on Historic Properties in the Visual APE*).

The Project is considered to have the potential to have adverse effects on these cultural resources, which are historic properties presently listed or potentially eligible for listing in the National Register of Historic Places (NRHP). The adverse effects would occur as a result of either physical effects or the visual effects of introducing changes to the setting of historic properties whose importance is partially derived from having a maritime setting.

Construction of the Project would cause physical adverse effects on historic properties that are marine cultural (i.e., marine archaeological resources and ASLFs), terrestrial archaeological, and historic aboveground resources as Project components and associated work zones are proposed for locations within the defined areas of these resources (COP, Appendices F, G, and H; Dominion Energy 2022). A total of 31 marine archaeological resources and 5 ASLFs in the marine portion of the area of potential effects (APE) cannot be avoided by the Proposed Action. Physical adverse effects are also anticipated for 13 terrestrial archaeological resources. However, terrestrial archaeological investigations are incomplete, and additional terrestrial archaeological resources subject to adverse effects may be identified during Dominion Energy's process of phased identification and evaluation of historic properties as defined in 36 CFR 800.4(b)(2) (COP, Appendix DD; Dominion Energy 2022; Section O.6, *Phased Identification and Evaluation*). Physical adverse effects are also anticipated for one historic aboveground resource that is a historic property listed in the NRHP: the Camp Pendleton/State Military Reservation Historic District, which is also one of 25 historic aboveground resources located within the visual APE for Offshore Project components anticipated to be adversely affected by the undertaking. This historic district would experience adverse effects due to the demolition of two contributing structures (Buildings 59 and 410) and removal of vegetation.

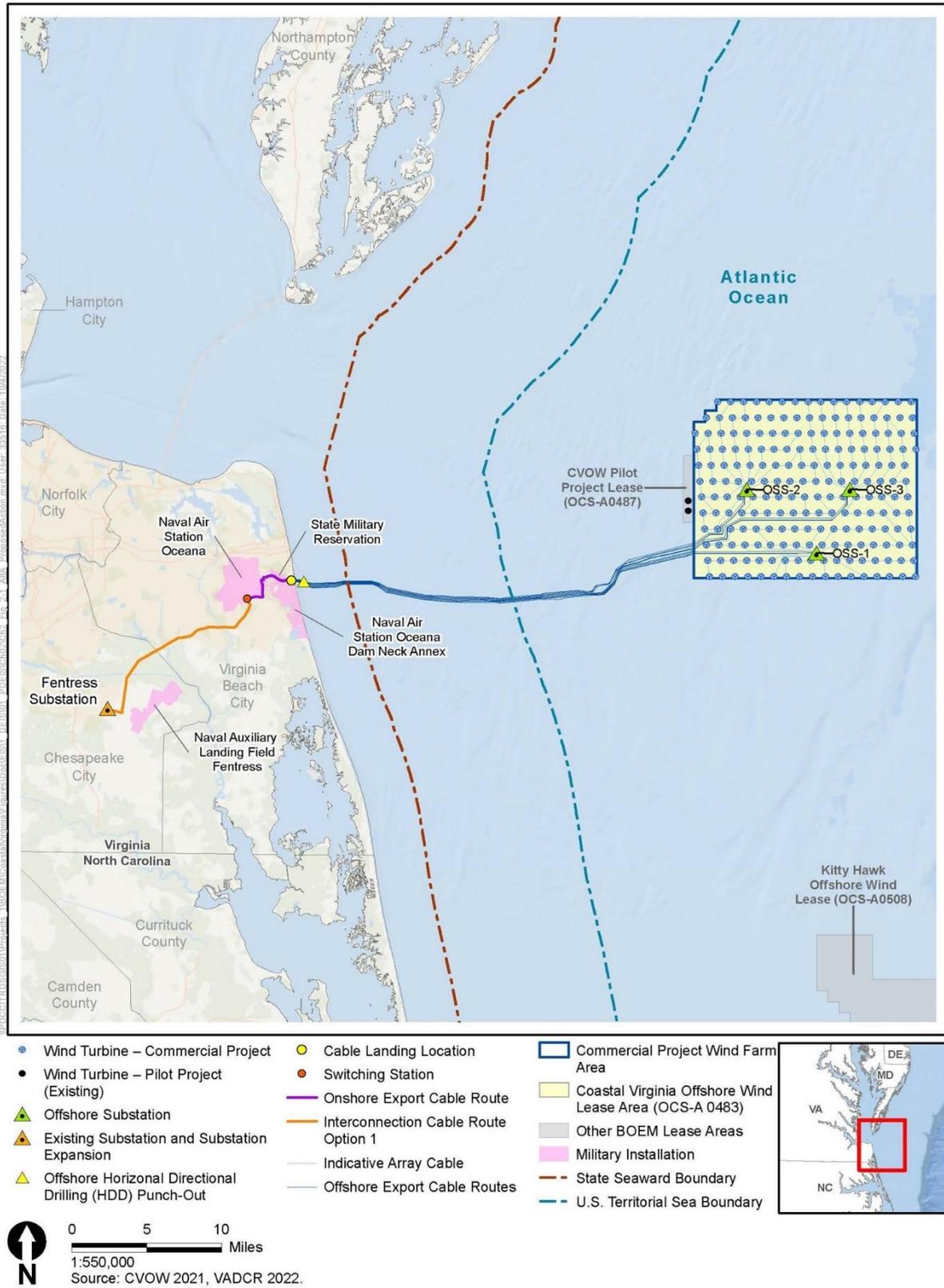
The Project would also cause visual and contribute to cumulative effects from Offshore Project component visibility on 25 historic aboveground resources, including one NHL, the First Cape Henry Lighthouse, for which ocean views are a character-defining feature that contributes to their NRHP eligibility. For compliance with NHPA Section 110(f) at 36 CFR 800.10, which applies specifically to NHLs, BOEM has determined the First Cape Henry Lighthouse NHL would be adversely affected by the

undertaking and that the one other NHL located within the APE (i.e., Eyre Hall) would not be adversely affected by the undertaking (COP, Appendix H-1; Dominion Energy 2022). BOEM will, to the maximum extent possible, undertake planning and actions as may be necessary to minimize harm to the First Cape Henry Lighthouse NHL.

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 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. NEPA substitution is described at [http://www.achp.gov/integrating\\_nepa\\_106](http://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 decided to codify the resolution of adverse effects through a Memorandum of Agreement (MOA) pursuant to 36 CFR 800.6(c).

## **O.1. Project Overview**

On June 29, 2021, BOEM received a COP from Dominion Energy proposing an offshore wind energy project within Lease Area OCS-A-0483 offshore Virginia. In addition, Dominion Energy submitted updates to the COP on October 29, 2021, December 3, 2021, and May 6, 2022. In its COP, Dominion Energy proposes the construction, operation, and eventual decommissioning of an up-to 3,000 MW wind energy project consisting of offshore wind turbine generators (WTGs) and their foundations, offshore substations (OSSs) and their foundations, scour protection for foundations, inter-array cables linking the individual turbines to the OSSs, substation interconnector cables linking the substations to each other, offshore export cables, and an onshore export cable system, onshore substations, and connections to the existing electrical grid in Virginia. At their nearest point, WTG and OSS components of the Project would be approximately 23.75 nautical miles (27 statute miles) east of Virginia Beach, Virginia. Offshore Project elements would be on the Outer Continental Shelf (OCS), with the exception of a portion of the offshore export cables within state waters. Dominion Energy is utilizing a Project Design Envelope (PDE) in its COP, which represents a reasonable range of design parameters that may be used for the Project. In reviewing the PDE, BOEM is analyzing the maximum-case scenario that could occur from any combination of the contemplated parameters. This includes any Project areas that may require phased identification of historic properties (see Section O.6, *Phased Identification and Evaluation*). 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. The Proposed Action is based on Dominion Energy's maximum-case design parameters, which are described in the COP and summarized in Appendix E, *Project Design Envelope and Maximum-Case Scenario*.



**Figure O-1 CVOW-C Proposed Action**

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

### **O.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 one prior Programmatic Agreement. In 2014, BOEM executed a Programmatic Agreement among the State Historic Preservation Office (SHPO) of North Carolina and the Advisory Council on Historic Preservation (ACHP) to consider renewable energy activities offshore North Carolina (refer to <https://www.boem.gov/sites/default/files/renewable-energy-program/State-Activities/HP/offshore-windfarm-development.pdf>).

On February 3, 2012, BOEM also published in the *Federal Register* a Notice of Availability for the final 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. The commercial lease sale for Virginia was held on September 4, 2013. At the conclusion of the sale, BOEM announced that Virginia Electric and Power Company (Dominion Energy) was the provisional winner. On November 1, 2013, the commercial wind energy lease with Dominion Energy went into effect. On October 12, 2017, BOEM approved the Site Assessment Plan (SAP) for Lease OCS-A 0483.

Dominion Energy's COP (2022) proposed installing a maximum of 205 WTGs extending up to 869 feet (276 meters) above mean sea level (MSL). Dominion Energy would mount the WTGs on monopile foundations. The proposed facility includes up to three OSS, which would be built on pile jacket foundations. Where required, scour protection would be placed around foundations to stabilize the seabed near the foundations as well as the foundations themselves. Inter-array cables would transfer electrical energy generated by the WTGs to the OSSs. The OSSs would include transformers and other electrical equipment needed to connect the inter-array cables to the offshore export cables. The offshore export cables would be buried under the seabed floor within the offshore export cable route corridor (ECRC) to connect the proposed wind energy facility to the onshore electrical grid. The offshore export cables would make landfall at and deliver electrical power to the cable landing location, which is the proposed parking lot located west of the firing range associated with Camp Pendleton/State Military Reservation to the north of Rifle Rand Road in Virginia Beach, Virginia.

The onshore export cables would transfer the electricity from the cable landing location to a common location north of Harpers Road and be installed underground within the onshore ECRC. The switching station, proposed to be constructed north of Harpers Road (Harpers Switching Station), would collect power and convert an underground cable configuration to an overhead configuration. The interconnection cable would be constructed from a common location north of Harpers Road along an interconnection cable route corridor to the expanded/upgraded onshore substation at Fentress. The interconnection cable would be installed as all overhead transmission facilities. Dominion Energy evaluated five overhead interconnection cable route alternatives (i.e., Route Options 1–5) and one hybrid interconnection cable route alternative (i.e., Option 6) from Harpers Road to the onshore substation, at the Point of Interconnection (POI). However, Route Options 2–6 have since been eliminated from the PDE. The

onshore substation is the existing Fentress Substation located northwest of the intersection at Centerville Turnpike and Etheridge Manor Boulevard in Chesapeake, Virginia. The onshore substation would be expanded and upgraded and serve as the final POI for power distribution to the Pennsylvania-New Jersey-Maryland Interconnection (PJM) grid.

Dominion Energy intends on leasing a portion of an existing facility to act as the operations and maintenance (O&M) facility. Dominion Energy is evaluating leasing options in Virginia Port Authority's (VPA's) Portsmouth Marine Terminal and Newport News Marine Terminal in the Hampton Roads area of Virginia. Generally, offshore O&M activities would include inspections of Offshore Project components, including WTG and offshore substation electrical components and equipment, for signs of corrosion, quality of coatings, and structural integrity of the WTG components; surveys of the offshore export cables and inter-array cables routes to confirm the cables have not become exposed or that any cable protection measures have not worn away; sampling and testing (including of lubricating oils, etc.); replacement of consumable items; repair or replacement of worn, failed, or defective systems; updating or improving systems; and disposal of waste materials and parts. Dominion Energy would need to use vessels, vehicles, and aircraft during O&M activities described above.

The switching station and the onshore substation would be equipped with monitoring equipment. Onshore O&M activities would include regular inspections and routine maintenance activities, including the replacement of or update to electrical components and equipment. The onshore export cables and interconnection cables would require periodic testing, with readings taken from access chambers, but should not require maintenance, though occasional repair activities may be required should there be a fault or damage caused by a third party or unanticipated events. Overhead lines would be inspected prior to each line being energized and then inspected every 3 years after. Overhead lines would also be inspected following localized storm events. Right-of-way (ROW) vegetation management crews would inspect the overhead easement every 3 years for woody vegetation and hazard trees.

Although the proposed Project is anticipated to have an operational life of 33 years, it is possible that some installations and components may remain fit for continued service after this time. Dominion Energy would be required to remove or decommission all Project infrastructure and clear the seabed of all obstructions following termination of Project operational activities and the Lease. All Project components would be removed to 15 feet (4.6 meters) below the mudline (30 CFR 585.910(a)), unless other methods are deemed suitable through consultation with the regulatory authorities, including BOEM. Unless otherwise authorized by BOEM, Dominion Energy would complete decommissioning within 2 years of termination of the Lease and either reuse, recycle, or responsibly dispose of all materials removed. Offshore export cables and inter-array cables would be retired in place or removed in accordance with a decommissioning plan; Dominion Energy would need to obtain separate and subsequent approval from BOEM to retire any portion of the Project in place. Section 106 review would be conducted at the decommissioning stage.

### **O.1.2 Undertaking**

BOEM has determined that the Project constitutes an undertaking subject to Section 106 of the NHPA as amended (54 USC 306108) and its implementing regulations (36 CFR 800), and the Project activities proposed under the COP have the potential to affect historic properties. Confidential appendices to the COP referenced in this document were sent electronically or by mail depending on expressed preference to all consulting parties on November 11, 2022. The COP, as well as its public and confidential appendices, is hereby incorporated by reference.

The undertaking for this Section 106 review is the Proposed Action. As described in Chapter 2, Section 2.1.1 of the Draft EIS, the Proposed Action would include the construction, O&M, and eventual

decommissioning of a 2,500 MW to 3,000 MW wind energy facility on the OCS offshore Virginia, occurring within the range of design parameters outlined in the CVOW-C COP (Dominion Energy 2022), subject to applicable mitigation measures.

### **O.1.3 Area of Potential Effect**

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 defines the APE for the undertaking to include the following geographic 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.
- 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). Effects are assessed on only historic properties in the APE for the Project. This includes reasonably foreseeable effects caused by the Project that may occur later in time, be farther removed in distance, or be cumulative (36 CFR 800.5[a][1]). An overview map of the Project APE is presented in Attachment A, Figure O.A-1.

On November 11, 2022, BOEM released a technical memorandum delineating the APE and demonstrating how the Preliminary APE (PAPE) developed in the CVOW-C technical studies sufficiently encompasses the scope and boundaries of the undertaking (ICF 2022).

#### **O.1.3.1 Marine Portion of the APE**

The marine portion of the APE (hereafter referred to as the *marine APE*) for the Project is the depth and breadth of the seabed potentially affected by any bottom-disturbing activities and temporary or permanent offshore construction or staging areas (Attachment A, Figure O.A-2). It includes a conservative PDE that can accommodate a number of potential designs. The marine APE encompasses activities within the Lease Area (Attachment A, Figure O.A-3) and offshore ECRC (Attachment A, Figure O.A-4).

The Lease Area encompasses 112,799 acres (45,658 hectares) within which Dominion Energy proposes up to 205 WTGs, 3 OSSs, and inter-array cables within the extent of the PDE. In the maximum design scenario, the offshore ECRC would measure approximately 49.01 miles (79 kilometers) in length and would range in width from 1,970 feet (600 meters) to 9,400 feet (2,865 meters).

The approximate maximum horizontal area and vertical depth of seabed disturbance associated with the construction or installation of each of these aforementioned Offshore Project components and composing the marine APE are provided in Table O-1.

**Table O-1 Approximate Maximum Horizontal and Vertical Extents of Seabed Disturbance for Construction of Offshore Project Components Composing the Marine APE**

Project Component	Seabed Disturbance	
	Maximum Horizontal Area	Maximum Vertical Depth
Per WTG (monopile foundation)	984.3 ft (300.0 m) radius	197 ft (60 m)
Per OSS	497,092 sq ft (46,181 sq m)	69 ft (82 m)
Inter-array cables	48 ac (19 ha)	11.5 ft (3.5 m)
Offshore Export Cable Route Corridor	15,886 ac (6,429 ha)	18.5 ft (5.5 m)

Source: COP, Tables 3.3-3, 3.3-7, 3.4-1, 3.4-2; Dominion Energy 2022.

ac = acres; ft = feet; ha = hectares; m = meters; OSS = offshore substation; sq = square; WTG = wind turbine generator.

### O.1.3.2 Terrestrial Portion of the APE

The terrestrial portion of the APE (hereafter referred to as the *terrestrial APE*) includes the depth and breadth of terrestrial areas potentially affected by any ground-disturbing activities and temporary or permanent onshore construction or staging areas (Attachment A, Figures O.A-5 to O.A-7). In the May 2022 COP, Dominion Energy’s conservative PDE included the proposed cable landing location, nearshore trenchless installation area, switching station, upgrades at the onshore substation, onshore export cable route, six interconnection cable route options, and affiliated temporary workspace. However, on August 5, 2022, Dominion Energy received approval from the Virginia State Corporation Commission (SCC) for use of the portion of the offshore export cable from 3 miles (4.8 kilometers) offshore landward and other preferred Onshore Project components (i.e., Interconnection Cable Route Option 1) in the Commonwealth of Virginia. As such, the terrestrial PAPE, as presented in the Phased Identification Plan (PIP), reflects the Onshore Project components approved by Virginia SCC (COP, Appendix DD; Dominion Energy 2022); the now-eliminated Project components previously proposed within the PDE are not included in the delineation of the terrestrial APE. The depth and breadth of potential ground-disturbing activities are described below for each location composing the terrestrial PAPE.

The PDE in the May 2022 COP includes the sea-to-shore transition cable landing location at the proposed parking lot west of the firing range at the State Military Reservation (SMR) in Virginia Beach, Virginia. The cable landing location would utilize trenchless installation within the nearshore trenchless installation area. From the cable landing location, the onshore export cable would be installed underground in vaults and duct banks within the onshore ECRC. The switching station, proposed for the Harpers Switching Station location, would be required to consolidate the energy of the onshore export cables and transition an underground cable configuration to an overhead configuration. The proposed Chicory Switching Station location would not be carried forward in the PDE per Virginia SCC approval of Interconnection Cable Route Option 1. Construction of the switching station would involve site clearing and grading, foundation and equipment construction, and site mitigation and restoration. From the common location north of Harpers Road, the interconnection cable had been proposed for installation either overhead or through a hybrid of overhead and underground cabling to connect to the onshore substation. Of the six potential interconnection cable route options considered (i.e., Route Options 1–6) in the PDE, Route Option 1 is the route that would be carried forward per Virginia SCC approval. The interconnection cable route would transfer electricity to the onshore substation (the existing Fentress Substation and POI). Expansion or upgrading of the onshore substation would involve site clearing and grading, foundation and equipment installation, and site restoration.

The approximate maximum horizontal area and vertical depth of ground disturbance associated with the construction or installation each of these aforementioned Onshore Project components and composing the

terrestrial APE are provided in Table O-2. The maximum area of potential ground disturbance associated with construction of the interconnection cable route option carried forward in the PDE (i.e., Route Option 1), as well as the considered but now-eliminated options (i.e., Route Options 2–6), is outlined in Table O-3.

**Table O-2 Approximate Maximum Horizontal and Vertical Extents of Ground Disturbance for Construction of Onshore Project Components Composing the Terrestrial APE**

Project Component	Ground Disturbance	
	Maximum Horizontal Area	Maximum Vertical Depth
Cable Landing Location	2.8 ac (1.1 ha)	125 ft (38 m)
Nearshore Trenchless Installation Area	8.8 ac (3.6 ha)	
Onshore Export Cable Route Corridor	4.41 mi (7.10 km) x 250 ft (76.0 m)	8 ft (2.4 m)
Switching Station	27.5 ac (11.1 ha)	Static pole structures: 30 ft (9 m) Backbone structures: 50 ft (15 m)
Interconnection Cable	See Table O-3	See Table O-3
Onshore Substation	21.4 ac (8.7 ha)	50 ft (15 m)

Source: COP, Tables 1.2-1 and 3.4-6, and Appendix DD, Table DD-3; Dominion Energy 2022.  
 ac = acres; ft = feet; ha = hectares; km = kilometers; m = meters; mi = miles.

**Table O-3 Approximate Maximum Horizontal and Vertical Extents of Ground Disturbance for Interconnection Cable Route Options**

Route Option	Interconnection Route Type	Ground Disturbance	
		Maximum Horizontal Area	Maximum Vertical Depth
<i>Included in Terrestrial APE (selected PDE route option)</i>			
1	Overhead	254.4 ac (103.0 ha)	Single-circuit monopole structures: 60 ft (18 m)
<i>Excluded from Terrestrial APE (eliminated PDE route options)</i>			
2	Overhead	271.9 ac (110.0 ha)	Single-circuit monopole structures: 60 ft (18 m)
3		277.9 ac (112.5 ha)	
4		292.2 ac (118.2 ha)	Double-circuit monopole structures: 80 ft (24 m)
5		405.5 ac (164.1 ha)	
6	Hybrid	286.1 ac (115.8 ha)	Single-circuit monopole structures: 60 ft (18 m) Double-circuit monopole structures: 80 ft (24 m) Open trench interconnect duct bank: 13 ft (4 m)

Source: COP, Table 3.4-6, and Appendix DD, Table DD-3; Dominion Energy 2022.  
 Notes: Route Option 1 is the route that would be carried forward among those in the PDE per Virginia SCC approval. The potential effects of other route options (Route Options 2–6) are provided for reference purposes.  
 ac = acres; ft = feet; ha = hectares; m = meters.

### **O.1.3.3 Visual Portion of the APE**

The visual portion of the APE (hereafter referred to as the *visual APE*) includes the viewshed from which renewable energy structures—whether offshore or onshore—would be visible (Attachment A, Figure O.A-8).

For the visual APE for Offshore Project components, geographic information system analysis was used to delineate the APE methodically through a series of steps, beginning with the maximum theoretical distance WTGs could be visible. This was determined by first considering the visibility of a WTG from the water level to the tip of an upright rotor blade at a height of 869 feet. The analysis then accounted for how distance and Earth curvature impede visibility as the distance increases between the viewer and WTGs (i.e., with a 40-mile [64 kilometer] distance, even blade tips would be below the sea-level horizon line). This area was refined through computer modeling with the addition of a land cover vegetation layer to account for large areas of tall vegetation that limit projected visibility to the Project. Data layers for building footprints and building heights were then added to account for existing development projected to screen views to the Project (COP, Appendices H-1 and I-1; Dominion Energy 2022). Areas with unobstructed views of Offshore Project elements then constituted the APE.

For the visual APE for Onshore Project components, the APE includes the following components: the cable landing location at the Virginia SMR; the underground transmission line connecting it to a point north of Harpers Road in Virginia Beach, known as the Cable Landing to Harpers (CLH) Route; Fentress Substation; proposed Chicory Switching Station for the Hybrid Route; and five potential overhead transmission line routes and one underground/overhead hybrid transmission route, known as Interconnection Cable Route Options 1–6. For these routes, the APE was defined in accordance with the nature of the proposed construction for specific segments, as follows:

- For portions of the proposed routes to be constructed within the existing ROW where no new vegetation would be cleared outside of the maintained ROW and where there would be no substantial increase in tower height, the APE consists of resources adjacent to the ROW.
- For portions of the proposed routes to be constructed within the existing ROW and where there would be areas of new vegetation clearance, the APE consists of 0.5 mile on either side of the existing ROW.
- For portions of the routes to be constructed in the proposed new ROW where there is no existing ROW, the APE consists of 0.5 mile on either side of the proposed new ROW (see Attachment A, Figure O.A-7) (COP, Appendix H-3, page 11; Dominion Energy 2022).

In consideration of ongoing developments in Project design and Dominion Energy’s refinement of the PDE, BOEM has determined that the visual APE for Onshore Project components sufficiently encompasses the undertaking as currently proposed.

## **O.2. Steps Taken to Identify Historic Properties**

### **O.2.1 Technical Studies and Reports**

To support the identification of historic properties within the APE, Dominion Energy provided survey reports detailing the results of cultural resource investigations in the marine, terrestrial, and visual portions of a PAPE. Table O-4 provides a summary of these efforts to identify historic properties, including results and key findings of each investigation. Collectively, BOEM finds that these reports represent a good-faith effort to identify historic properties in portions of the Project APE that are not subject to the phased identification process. Because of Dominion Energy’s process of phased

identification and evaluation of historic properties, the PIP has been shared with consulting parties in lieu of the Terrestrial Archaeological Resources Assessment (TARA) (COP, Appendix DD; Dominion Energy 2022; Section O.6, *Phased Identification and Evaluation*). BOEM anticipates sharing the TARA with consulting parties in March or April of 2023. All other documents summarized in Table O-4 have been shared with consulting parties and are hereby incorporated by reference.

**Table O-4 Cultural Resources Studies or Plans to Be Performed by Dominion Energy in the Project APE**

Portion of APE	Report	Description	Key Findings/Recommendations
Marine	<i>Marine Archaeological Resources Assessment for the Coastal Virginia Offshore Wind Commercial Project Located on the Outer Continental Shelf Offshore Virginia (COP, Appendix F; Dominion Energy 2022)</i>	MARA. Prepared by Tetra Tech, Inc. Assessment of the high-resolution geophysical survey data collected during non-intrusive survey campaigns and the geotechnical assessment in the marine PAPE representing the extent of anticipated seabed effects associated with the Project.	Tetra Tech identified 31 potential marine archaeological resources, 18 within or near the Lease Area and 13 within or near the offshore ECRC. For each marine archaeological resource, a resource-specific avoidance zone, entailing a minimum distance of 50 meters from the resource, was recommended. In addition, 5 ASLFs were identified within the Lease Area. One additional landform was identified outside of but near the Lease Area and considered for potential effects from the Proposed Action due to its proximity. No ASLFs were identified within the offshore ECRC. For each of the ASLFs, a resource-specific minimum area of avoidance was recommended.
Marine	<i>Marine Archaeological Resources Assessment for the Coastal Virginia Offshore Wind Commercial Project Located on the Outer Continental Shelf Offshore Virginia: Amendment I (COP, Appendix F; Dominion Energy 2022)</i>	Amendment to MARA. Prepared by RCG&A.	Dominion Energy submitted this amendment to advance development of the Project. RCG&A, under subcontract to Tetra Tech and on behalf of Dominion Energy, conducted this archaeological assessment of marine HRG data and evaluated the marine PAPE for the presence of submerged cultural resources along the offshore ECRC affected by OEC alignment changes and some missing data. The additional data coverage has not altered previous interpretations presented in the MARA (COP, Appendix F; Dominion Energy 2022).

Portion of APE	Report	Description	Key Findings/Recommendations
Terrestrial	<i>Terrestrial Archaeological Resources Assessment</i> (COP, Appendix G; Dominion Energy 2022) <sup>1</sup>	TARA. Prepared by Tetra Tech, Inc. Background research, examination of historical maps, assessment of primary documents available at the VDHR, field reconnaissance of the proposed Onshore Project component locations, archaeological sensitivity assessment, preliminary findings from Phase IB cultural resource survey efforts, and proposed methodology for further cultural resources work.	<p>Terrestrial archaeological background research and survey encompassed areas proposed for Onshore Project components. Investigations completed as of the May 2022 COP identified 25 terrestrial archaeological resources and one mid-twentieth century cemetery, with one grave in or near the terrestrial PAPE and Project components originally proposed within the PDE.</p> <p>Portions of the terrestrial APE were unsurveyed as of May 2022. In consultation with BOEM and the relevant SHPO, Dominion Energy will be using a process of phased identification and evaluation of historic properties, as defined in 36 CFR 800.4(b)(2), for the remaining unsurveyed areas of the terrestrial APE.</p>
Terrestrial	<i>Section 106 Phased Identification Plan</i> (COP, Appendix DD; Dominion Energy 2022)	PIP. Prepared by Tetra Tech, Inc. Overview of Project and PAPE. Plan for completion of phased historic property identification and completion of the TARA.	<p>Dominion Energy will be using a process of phased identification and evaluation of historic properties to complete the TARA. Preparation of the TARA is ongoing because of the lack of private property access permission for the entirety of the Onshore Project components under consideration. This document details the steps Dominion Energy will take to complete the required cultural resources surveys following Virginia SCC's approval and issuance of the CPCN. Dominion Energy anticipates completion of the remainder of the TARA will be required for parcels where access was not previously gained.</p>

Portion of APE	Report	Description	Key Findings/Recommendations
Visual/ Terrestrial	<i>Phase I Historic Architectural Survey of Alternative Routes, Coastal Virginia Offshore Wind Commercial Project, City of Virginia Beach and City of Chesapeake, Virginia</i> (COP, Appendix H-3; Dominion Energy 2022)	HRVEA for Onshore Project components. Desktop and field identification of previously recorded as well as newly identified aboveground historic resources within the PAPE for the electric transmission line alternative routes, extending from the cable landing location in Virginia Beach to the existing Fentress Substation in the city of Chesapeake.	A total of 322 resources were identified within the PAPE (see Table H-3.4.1-1), including 153 previously identified and 169 newly identified resources. All 169 newly recorded resources were recommended ineligible for the NRHP. Of the 153 previously recorded resources, 47 are no longer extant, 93 were recommended not eligible, 7 were recommended eligible, 4 are listed on the NRHP, and 2 are locally significant. This report also identified one archaeological resource (44VB0388) for consideration by the Project. A total of 13 aboveground historic resources were assessed for potential effects. The report found that one historic property, the Camp Pendleton/State Military Reservation Historic District, would be adversely affected by the Cable Landfall to Harpers Route. Five additional historic properties could be adversely affected, depending on the Harpers to Fentress (HF) cable route chosen for construction. Among the alternative HF routes, HF Routes 2, 3, 4, and 5 would have adverse effects on historic properties—four in the case of HF Route 5, three in the case of HF Routes 2 or 3, and two in the case of HF Route 4. Final assessments of Project effects will be dependent on the review of the survey results by BOEM, VDHR, and other consulting parties.
Visual	<i>Offshore Project Components Historic Properties Effects Analysis</i> (COP, Appendix H-1; Dominion Energy 2022)	HRVEA for Offshore Project components. A study evaluating visual effects of Offshore Project components on historic properties.	This report identified 712 properties (see Attachment H-1-7 of the HRVEA) within the portion of the visual PAPE for Offshore Project components. The report assessed the maritime setting and important character-defining ocean views for each property. According to the report, 25 historic properties would be adversely affected, including the First Cape Henry Lighthouse National Historic Landmark and the Camp Pendleton/State Military Reservation Historic District (see Table O-8, below).

Sources: COP, Appendices DD, F, G, H-1, and H-3; Dominion Energy 2022.

<sup>1</sup> Because of Dominion Energy's process of phased identification and evaluation of historic properties, the PIP has been shared with consulting parties in lieu of the TARA (COP, Appendix DD; Dominion Energy 2022; Section O.5, *Phased Identification and Evaluation*). BOEM anticipates sharing the TARA with consulting parties in March or April of 2023.

CPCN = Certificate of Public Convenience and Necessity; HRG = high-resolution geophysical; HRVEA = Historic Resource Visual Effects Assessment; MARA = Marine Archaeological Resources Assessment; PIP = Phased Identification Plan; SCC = (Virginia) State Corporation Commission; TARA = Terrestrial Archaeological Resources Assessment; VDHR = Virginia Department of Historic Resources.

BOEM has reviewed the reports summarized in Table O-4 and reached the following conclusions:

- The marine cultural resource investigations include surveys of areas of potential seafloor disturbance, following BOEM's guidelines (BOEM 2020). BOEM has reviewed the final Marine Archaeological Resources Assessment (MARA) and determined that the data are sufficient for identifying historic properties in the marine APE.
- BOEM has reviewed the TARA and PIP and determined that the completed and planned investigations summarized in the documents will be sufficient for identifying historic properties in the terrestrial APE. Efforts conducted for the TARA thus far are sufficient for determining effects on previously identified historic properties, but private property access limitations have delayed full identification of unknown historic properties. Dominion Energy will therefore be using phased identification of historic properties, as defined in 36 CFR 800.4(b)(2), for completion of archaeological investigations in the terrestrial APE, a process specifically provided for in the MOA that will be issued pursuant to 36 CFR 800.8(c)(4)(i)(A). See Section O.6, *Phased Identification and Evaluation*, for additional details on the phased process.
- The aboveground historic resource investigations included an assessment of visual effects on historic properties within the entire PDE. Effects assessments also considered visual simulations prepared as part of the Visual Impact Analysis (VIA) (COP, Appendix I-1; Dominion Energy 2022). BOEM has reviewed the Historic Resource Visual Effects Assessment (HRVEA) and determined that the completed investigations summarized in the documents are sufficient for identifying and assessing effects on historic properties in the visual APE. BOEM finds that the APE for potential visual effects is appropriate for the scale and scope of the undertaking.

In addition to the conclusions summarized above, BOEM has found that the assessment of effects on historic properties in the marine, terrestrial, and visual APEs contained within the reports is sufficient for applying the criteria of adverse effects and continuing consultation with consulting parties to resolve adverse effects on historic properties.

Consequent to the reports prepared for the COP submittal, ICF prepared a technical report for BOEM to support BOEM's cumulative effects analysis, the *Cumulative Historic Resources Visual Effects Assessment for Coastal Virginia Offshore Wind Commercial Project* (BOEM 2022). The Cumulative Historic Resources Visual Effects Assessment (CHRVEA) presents the analysis of cumulative visual effects in which BOEM, in review of the HRVEA (COP, Appendices H-1, H-2, H-3, and H-4; Dominion Energy 2022), determined that Offshore Project components would cause adverse visual effects on historic properties. The effects of other reasonably foreseeable wind energy development activities are additive to those adverse effects from the Project, resulting in cumulative effects. Twenty-five aboveground historic properties within the viewshed of WTGs for the Project and other reasonably foreseeable offshore wind energy development activities would be adversely affected by cumulative visual effects (offshore Virginia Beach, Virginia) (BOEM 2022).

## **O.2.2 Consultation and Coordination with the Parties and Public**

### **O.2.2.1 Early Coordination**

Since 2009, BOEM has coordinated OCS renewable energy activities offshore Virginia with its federal, state, local, and tribal government partners through its Intergovernmental Renewable Energy Task Force. BOEM has met regularly with federally recognized tribes that may be affected by renewable energy activities in the area since 2009, 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 for offshore Virginia is available at <https://www.boem.gov/renewable-energy/state-activities/virginia-task-force-meetings-0>, and information pertaining to BOEM's stakeholder engagement efforts in Virginia is available at <https://www.boem.gov/renewable-energy/state-activities/virginia-activities>.

### **O.2.2.2 NEPA Scoping and Public Hearings**

On July 2, 2021, BOEM announced its Notice of Intent (NOI) to prepare an EIS for the COP. This purpose of the NOI was to solicit input on issues and potential alternatives for consideration in the EIS. Throughout the scoping process, federal agencies; state, tribal, and local governments; and the general public had the opportunity to help BOEM determine significant resources and issues, IPFs, reasonable alternatives, and potential mitigation measures to be analyzed in the EIS, as well as provide additional information. BOEM also used the NEPA commenting process to allow for public involvement in the NHPA Section 106 consultation process (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. In addition, BOEM held virtual public scoping meetings, which included specific opportunities for engaging on issues relative to NHPA Section 106 for the COP, on July 12, 14, and 20, 2021. Virtual public scoping meeting materials and records are available at <https://www.boem.gov/CVOW-C-Scoping-Virtual-Meetings>.

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

- Commenters asked that BOEM ensure compliance with Section 106 of the NHPA including ensuring adequate consultation with SHPOs, tribes, and other stakeholders throughout the EIS process.
- Commenters stated that BOEM should recognize tribes' sovereign status and provide adequate government-to-government consultation with tribal governments throughout the EIS process.
- Commenters provided information sources from which BOEM could find data related to cultural, historical, and archaeological resources including the Virginia Department of Historic Resources data sharing system and the Virginia Department of Conservation and Recreation natural heritage search in Virginia.
- Commenters recommended that BOEM perform offshore and onshore archaeological and architectural surveys to identify historic properties that may be affected by the Project and coordinate these surveys with appropriate groups including SHPOs and tribes. Commenters noted that they expect adverse effects on historic properties to be addressed through the development of appropriate avoidance, minimization, and mitigation measures with these groups.
- Commenters noted that pursuant to Section 10 of the Rivers and Harbors Act of 1899 and Section 404 of the Clean Water Act, a permit would likely be required from the U.S. Army Corps of Engineers (USACE) for the Project, and USACE has designated BOEM as the lead federal agency to fulfill federal responsibilities under NHPA Section 106.
- Commenters felt that the COP VIA was not adequate and expressed concern over viewshed or visual impacts on historic properties from the proposed Project, including lighting in general and at specific locations such as the Bunder Overlook, Assateague Lighthouse, Colonial National Historic Park, the Cape Henry Memorial, as well as NHLs such as the First Cape Henry Lighthouse. These commenters asked that these areas be included within the APE.

- Commenters asked that the cultural reports associated with the Project be provided to consulting parties and tribes as soon as they are available.
- Commenters expressed concern over the methods presented in the COP for marine archaeological surveys in that the methods did not include significant reports related to Mid-Atlantic coastal shelf archaeology in the past decade. These commenters also requested that BOEM request and receive expert input from the State Underwater Archaeologist at the Virginia Department of Historic Resources during the scoping process.
- Commenters expressed concern over the methods presented in the COP for terrestrial archaeological surveys in that the methods did not include an evaluation of historic properties that might have associations with tribal families. Commenters stated that the methods should include a review of literature from Frank Speck and James Mooney's visits with specific tribes in the late nineteenth and early twentieth centuries. They also provided names of authors who recently published accounts focused on specific tribes.
- Commenters asked that the EIS include public and stakeholder review of the methods for examining and evaluating cultural landscapes.
- Commenters asked for more information regarding the location of underground cable paths coming onshore as historical archaeological material from habitats of African American and Native American people.

On August 2, 2021, additional comments from the Nansemond Indian Nation (the Nation) were submitted by Cultural Heritage Partners (CHP) on behalf of the Nation to BOEM and the Virginia SCC. The comments are summarized below:

- The letter indicates concern that methods for identification were not clearly defined; that the federally recognized tribes should be invited to discuss the methods and preliminary survey and modeling data so that the Nation can provide meaningful input into Project scoping as well as avoidance, minimization, and mitigation measures.
- The letter inquired whether the scale of involvement by the Nation reaches the ACHP's threshold in the *Guidance on Assistance to Consulting Parties* in the Section 106 Review Process for providing compensation for tribal expertise and consultant services.
- The letter requested that cultural resources reports associated with the [Site Assessment Plan] be provided to the Nation as soon as they are available to assist with their review of this Project.
- The letter noted that the methods for marine archaeological survey appear to predominantly cite scholarship based on other areas of the United States, even though BOEM itself has produced several significant reports related to Mid-Atlantic coastal shelf archaeology and requested that BOEM base the marine archaeology approach for this Project on previous work in the Mid-Atlantic region.
- The letter requested that evaluation of historic properties include an evaluation of whether properties might have associations with Nansemond families and that it include review of certain literature.
- The letter expressed a concern for consideration of cultural landscapes and traditional communities along the transmission line and within the underwater portion of the Project in keeping with BOEM's 2015 *Guidance Document for Characterizing Tribal Cultural Landscapes*.
- The letter suggested that BOEM should reach out to existing stakeholder groups, such as the Great Dismal Swamp Stakeholders Collaborative, to identify any other communities that may identify the Project area as traditional cultural properties.

- The letter expressed that the Nation is particularly concerned about protection of wildlife, marine life, and water quality in rivers and streams in southeastern Virginia because of the tremendous environmental degradation of Nansemond traditional territory.
- The letter expressed concerns about the adequacy of visual effects analysis, with a request that additional vantage points should include all historic districts, and should also include multiple assessments for the entirety of the Nation’s ancestral lands, including areas planned to route cables over waterways. These areas include without limitation the Nation’s historic hunting and fishing grounds throughout the Back Bay area, as well as the Nansemond River and Princess Anne County.
- The letter expressed concern about potential lighting impacts on the dark night sky both during and after construction, and urges BOEM to mandate Automatic Detection Lighting Systems (ADLS).

Following receipt of the Notice of Participation from the Nation, in March 2022, Dominion Energy corresponded with CHP to discuss the Nation’s comments. Dominion Energy will continue to coordinate with CHP and the Nation as the Project continues.

On December 16, 2022, BOEM published a Notice of Availability for the Draft EIS. As part of this process, BOEM held virtual public hearings on January 25, January 31, and February 2, 2023. The public comment periods closed on February 14, 2023. The input received via this process was used to inform preparation of the Final EIS.

### **O.2.2.3 NHPA Section 106 Consultations**

On June 28, 2021, BOEM contacted ACHP, Virginia Department of Historic Resources (VDHR [the Virginia SHPO]), and North Carolina SHPO to provide Project information, notify of BOEM’s intention to use the NEPA process to fulfill Section 106 obligations in lieu of the procedures set forth in 36 CFR 800.3 through 800.6, and to invite these organizations to be consulting parties.

On June 28, 2021, BOEM corresponded with 59 points of contact from governments and organizations by mail and email, including information about the Project, an invitation to be a consulting party to the NHPA Section 106 review of the COP, and the NOI to prepare an EIS. BOEM also used this correspondence to notify of its intention to use the NEPA process for Section 106 purposes, as described in 36 CFR 800.8(c), during its review. To aid those consulting parties not familiar with the NEPA substitution process, BOEM developed a *National Environmental Policy Act (NEPA) Substitution for Section 106 Consulting Party Guide* (available at <https://www.boem.gov/sites/default/files/documents/renewable-energy/state-activities/NEPA-Substitution-Consulting-Party-Guide.pdf>), which it attached to this correspondence.

On July 2, 2021, BOEM contacted the Eastern Shawnee Tribe of Oklahoma, Shawnee Tribe, Cherokee Nation, Eastern Band of Cherokee Indians, United Keetoowah Band of Cherokee Indians in Oklahoma, Absentee-Shawnee Tribe of Indians of Oklahoma, The Delaware Nation, Delaware Tribe of Indians, The Shinnecock Indian Nation, The Narragansett Indian Tribe, Pamunkey Indian Tribe, Chickahominy Indian Tribe, Chickahominy Indian Tribe – Eastern Division, Upper Mattaponi Indian Tribe, Rappahannock Tribe, Nansemond Indian Nation, Tuscarora Nation, and the Monacan Indian Nation by email and mail with information about the Project, an invitation to be a consulting party to the NHPA Section 106 review of the COP, and the NOI to prepare an EIS. BOEM also used this correspondence to notify of its intention to use the NEPA process for Section 106 purposes, as described in 36 CFR 800.8(c), during its review.

During the period of July 12–19, 2021, outreach was conducted by phone to confirm receipt of correspondence among the governments and organizations that had not responded to the invitation to consult. The list of the governments and organizations contacted is included in Attachment B. Entities

that responded to BOEM's invitation or were subsequently made known to BOEM and added as consulting parties are listed in Attachment C.

On August 13, 2021, BOEM invited the Nansemond Indian Nation, Catawba Indian Nation, and Delaware Tribe of Indians to participate in a government-to-government consultation meeting during the week of September 6–10, 2021.

On September 27, 2021, BOEM hosted a single government-to-government consultation meeting for both the CVOW-C and Kitty Hawk Wind projects in accordance with a request for CHP on behalf of the Nansemond Indian Nation; the meeting was held with the Rappahannock Indian Tribe, Pamunkey Indian Tribe, Nansemond Indian Nation, Chickahominy Indian Tribe, Upper Mattaponi Indian Tribe, Monacan Indian Nation, Delaware Nation, Delaware Tribe of Indians, Mashpee Wampanoag Tribe, Eastern Band Cherokee Indians, Passamaquoddy Tribe, Mashantucket (Western) Pequot Tribal Nation, and Cultural Heritage Partners. During the meeting, BOEM presented information about both the CVOW-C and Kitty Hawk Wind projects and discussed scoping comments received from a Federally Recognized Tribe for both projects.

On September 9, 2022, BOEM held virtual NHPA Section 106 Consultation Meeting #1. The presentation included a brief Project overview, review of NEPA substitution for the 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.

BOEM held virtual NHPA Section 106 Consultation Meeting #2 on December 15, 2022. The presentation included a discussion of the documents distributed for consulting party review and a question-and-answer session with discussion.

On December 16, 2022, BOEM distributed a Notice of Availability to notify the consulting parties that the Draft EIS was available for public review and comment until February 14, 2023.

BOEM plans to hold consultation meetings to consult on the finding of effect and the resolution of adverse effects, receive additional input regarding the Draft EIS analysis, and consult on an MOA prior to issuing the Record of Decision (ROD). Additional consultation meetings may be scheduled during the period between the Draft EIS and issuance of the ROD if further consultation is needed to resolve adverse effects through an MOA. Additional consultation would occur if any alternatives that required phased identification are selected for the final Project design (see Section O.6, *Phased Identification and Evaluation*).

The list of the governments and organizations invited to participate as consulting parties is included in Attachment B. Entities that responded to BOEM's invitation or were subsequently made known to BOEM and added as consulting parties are listed in Attachment C.

### **O.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, which causes its deterioration, except where such neglect and deterioration are recognized qualities of a property of religious and cultural significance to an Indian tribe or Native Hawaiian organization; and
- vii. Transfer, lease, or sale of property out of federal ownership or control without adequate and legally enforceable restrictions or conditions to ensure long-term preservation of the property's historic significance.

### **O.3.1 Assessment of Effects on Historic Properties**

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

#### **O.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. 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 marine archaeological resources and ASLFs are considered eligible and, therefore, historic properties at this time. Based on the information presented below, BOEM finds historic properties would be adversely affected in the marine APE.

##### **O.3.1.1.1 Marine Archaeological Resources**

Marine geophysical archaeological surveys performed for the Proposed Action identified 42 potential marine archaeological resources (Table O-5; COP, Appendix F; Dominion Energy 2022): 29 within or near the proposed offshore Lease Area and 13 within or near the offshore ECRC (COP, Appendix F; Dominion Energy 2022). Of the 29 marine archaeological resources within the northern border of the Lease Area, 11 consist of large scuttled World War II-era ships, tires, cable spools, and other materials intentionally deposited since the 1970s to facilitate development of the Triangle Reef Fish Haven (COP, Sections 2.1.1 and 4.2.4.2; Dominion Energy 2022). As such, BOEM has determined these 11 resources are not historic properties eligible for listing in the NRHP. Because the ages and NRHP eligibility of the other 31 marine archaeological 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 the 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, Appendix F; Dominion Energy 2022). Of the 31 marine archaeological resources considered historic properties eligible for listing in the NRHP, a total of 27 marine archaeological resources were located in the marine APE (i.e., Targets 1, 2, 4–13, 15–18, 21–31): 16 within the Lease Area and another 11 within the offshore ECRC. An additional 4 marine archaeological resources (i.e., Targets 3, 14, 19, and 20) are located outside of but near the marine APE and have been considered for potential effects from the Proposed Action due to their proximity.

**Table O-5 Marine Archaeological Resources In or Near the Marine APE**

Resource ID	Potential Source	Location Within the Marine APE	Finding of Effect <sup>1</sup>
WN 002a	Intentionally sunk <i>USNS Garrison</i>	Lease Area (TRFH)	N/A
WN 002b	Intentionally sunk <i>USNS Webster</i>	Lease Area (TRFH)	N/A
WN 003a	Intentionally sunk <i>USNS Haviland</i>	Lease Area (TRFH)	N/A
WN 003b	Intentionally sunk <i>USNS Clark</i>	Lease Area (TRFH)	N/A
WN 007	Intentionally sunk <i>USNS John Morgan</i>	Lease Area (TRFH)	N/A
WN 009	Unknown	Lease Area (TRFH)	N/A
WN 010	Intentionally sunk <i>Lillian Luckenback</i>	Lease Area (TRFH)	N/A
WN 011	Intentionally sunk <i>Kurn</i>	Lease Area (TRFH)	N/A
WN 013	Intentionally sunk <i>Tripca</i>	Lease Area (TRFH)	N/A
WN 014	Unknown	Lease Area (TRFH)	N/A
WN 015	Unknown	Lease Area (TRFH)	N/A
Target 1	Unknown	Lease Area	Adverse effect
Target 2	Unknown	Lease Area	Adverse effect
Target 3	Unknown	Adjacent to Lease Area	Adverse effect
Target 4	Unknown	Lease Area	Adverse effect
Target 5	Unknown	Lease Area	Adverse effect
Target 6	Unknown	Lease Area	Adverse effect
Target 7	Disintegrated section of an unknown shipwreck	Lease Area	Adverse effect
Target 8	Unknown	Lease Area	Adverse effect
Target 9	Unknown debris	Lease Area	Adverse effect
Target 10	Known shipwrecks <i>Cuyahoga</i> , <i>Middle Ground</i> , or charted NOAA #15064	Lease Area	Adverse effect
Target 11	Unknown debris	Lease Area	Adverse effect
Target 12	Unknown	Lease Area	Adverse effect
Target 13	Unknown	Lease Area	Adverse effect
Target 14	Known shipwreck <i>Francis E. Powell</i>	Adjacent to Lease Area	Adverse effect
Target 15	Unknown shipwreck and debris	Lease Area	Adverse effect
Target 16	Unknown	Lease Area	Adverse effect
Target 17	Unknown	Lease Area	Adverse effect

Resource ID	Potential Source	Location Within the Marine APE	Finding of Effect <sup>1</sup>
Target 18	Unknown	Lease Area	Adverse effect
Target 19	Unknown debris	Adjacent to Offshore ECRC	Adverse effect
Target 20	Unknown debris	Adjacent to Offshore ECRC	Adverse effect
Target 21	Unknown debris	Offshore ECRC	Adverse effect
Target 22	Unknown	Offshore ECRC	Adverse effect
Target 23	Unknown	Offshore ECRC	Adverse effect
Target 24	Charted debris NOAA #14936	Offshore ECRC	Adverse effect
Target 25	Unknown	Offshore ECRC	Adverse effect
Target 26	Unknown	Offshore ECRC	Adverse effect
Target 27	Unknown debris	Offshore ECRC	Adverse effect
Target 28	Unknown debris	Offshore ECRC	Adverse effect
Target 29	Unknown object	Offshore ECRC	Adverse effect
Target 30	Unknown object or debris	Offshore ECRC	Adverse effect
Target 31	Unknown debris	Offshore ECRC	Adverse effect

Source: COP, Appendix F, Table VI-2; Dominion Energy 2022.

<sup>1</sup> BOEM anticipates that all adverse effects have the potential to be alleviated through the adoption of Avoidance, Minimization, and Mitigation (AMM) measures. BOEM anticipates that the number of adversely affected marine archaeological resources may be refined through ongoing Section 106 consultations.

APE = area of potential effect; ECRC = Export Cable Route Corridor; ID = identification; NOAA = National Oceanic and Atmospheric Administration; TRFH = Triangle Reef Fish Haven; WN = Wreck Number.

The severity of Project 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 for listing in the NRHP. Avoidance of 31 historic properties has been recommended, as indicated in Table O-5. The avoidance buffers for the historic properties were determined using several factors in a process developed by Dominion Energy’s Qualified Marine Archaeologist (QMA) (COP, Appendix F; Dominion Energy 2022). Avoidance of Targets 1–7, 9, 12, 13, 16–21, and 23–31 was recommended by a minimum distance of 164 feet (50 meters) from the center point of the resource. Avoidance of Targets 8, 10, 11, 14, 15, and 22 was recommended by a minimum distance of 164 feet (50 meters) from the visible extent of the resource. Avoidance buffers recommended for each resource may contain contributing elements to the NRHP eligibility of the resources. Modifications to the recommended avoidance buffers of these resources may be made through ongoing analysis and consultation.

Dominion Energy has not presently committed to avoiding these resources or their associated avoidance buffers. Furthermore, the marine cultural investigations do not enable a definitive delineation of marine archaeological resource boundaries. Avoidance buffers recommended for each resource may contain contributing elements to the NRHP eligibility of the resources; as a result, the Project’s encroachment on the recommended avoidance buffers for the four marine archaeological resources outside of but adjacent to the marine APE is presently assumed to result in adverse effects on these resources. Therefore, BOEM finds that the 31 marine archaeological resources that are historic properties would be subject to adverse effects from the undertaking. Adverse effects on these resources may potentially be avoided, minimized, or mitigated in the final Project design. BOEM anticipates that the number of adversely affected marine archaeological historic properties may be refined through ongoing Section 106 consultations.

**O.3.1.1.2 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 do represent a good-faith effort to identify submerged historic properties within the APE potentially affected by the undertaking, as defined at 36 CFR 800.4. If undiscovered archaeological resources are present within the identified 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.

Dominion Energy’s marine geophysical archaeological surveys identified a total of six geomorphic features, representing potential ASLFs (Table O-6). Five of these landforms are located within the Lease Area portion of the marine APE. No ASLFs were identified within the offshore ECRC. A sixth ASLF (i.e., Target P-01) is located outside of but near the Lease Area; this resource has been considered for potential effects from the Proposed Action due to its proximity but is not anticipated to experience an effect from the Project. 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, 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 O-6 ASLFs In or Near the Marine APE**

Landform ID	Location Within Marine APE	Finding of Effect <sup>1</sup>
P-01	Adjacent to Lease Area	No effect
P-02	Lease Area	Adverse effect
P-03	Lease Area	Adverse effect
P-04-A	Lease Area	Adverse effect
P-04-B	Lease Area	Adverse effect
P-05	Lease Area	Adverse effect

Source: COP, Appendix F, Table V-4; Dominion Energy 2022.

<sup>1</sup> BOEM anticipates that all adverse effects have the potential to be alleviated through the adoption of Avoidance, Minimization, and Mitigation (AMM) measures. BOEM anticipates that the number of adversely affected ASLFs may be refined through ongoing Section 106 consultations.

APE = area of potential effect; ID = identification.

An archaeological geotechnical analysis of ASLFs assessed a total of 31 borehole samples in the Lease Area in an attempt to verify the high-resolution geophysical (HRG) data and develop a temporal framework across the APE. Dominion Energy collected 31 borehole samples in the Lease Area for geoarchaeological analysis; 21 of those 31 cores contained evidence of preserved paleosols. Of those 21 cores, 4 predated both the Last Glacial Maximum (LGM) and the arrival of humans in the Western Hemisphere. Three samples dated approximately 18,300–17,800 calibrated years before present (cal BP) during the Oldest Dryas climate episode, and 14 samples dated approximately 14,000–12,000 cal BP after initiation of human presence in the Western Hemisphere. Thirteen of those samples dated from the Paleoindian period, and one dated from the Archaic period.

The severity of effects would depend on the extent to which integral or significant components of the affected ASLF are disturbed, damaged, or destroyed, resulting in the loss of contributing elements to the historic property's eligibility for listing in the NRHP. Resource-specific minimum avoidance areas for each of the six identified ASLFs within and near the marine APE were recommended (COP, Appendix F; Dominion Energy 2022). The avoidance areas were developed based on a 164-foot (50-meter) buffer around the mapped extent of each landform. Avoidance measures could include micro-siting facilities and work zones away from features and avoidance buffers and/or adjusting burial depth of cabling across features. Though the Project may encroach on the avoidance buffer of the seventh landform outside of but near the marine APE, the entire landform is contained within the avoidance buffer; as such, the undertaking is anticipated to have no effect on this resource. However, development of the final Project design is ongoing, and it is currently unclear whether Dominion Energy would be able to avoid effects on the identified ASLFs in the marine APE. As such, the undertaking is anticipated to have adverse effects on the five ASLFs identified in the marine APE. Adverse effects on these resources may be avoided, minimized, or mitigated in the final Project design. BOEM anticipates that the number of adversely affected ASLFs may be refined through ongoing Section 106 consultations.

### **O.3.1.2 Assessment of Effects on Historic Properties in the Terrestrial APE**

Cultural resource investigations completed for the Proposed Action have identified historic properties in the terrestrial APE (COP, Appendices G and H-3; Dominion Energy 2022). Based on the information presented below, BOEM finds historic properties would be adversely affected in the terrestrial APE.

#### **O.3.1.2.1 Terrestrial Archaeological Resources**

As discussed in Section O.1.3.2, *Terrestrial Portion of the APE*, Dominion Energy has eliminated certain Project components previously proposed in the May 2022 COP within the PDE (i.e., Interconnection Cable Route Options 2–6, including the proposed use of the Chicory Switching Station location under Route Option 6). These now-eliminated Project components previously proposed within the PDE are not included in the delineation of the terrestrial APE. BOEM has included resources identified within these eliminated areas for the purposes of facilitating Section 106 consultations but anticipates the undertaking to have no effect on these resources.

As of September 2022, Dominion Energy's investigations have identified a total of 25 terrestrial archaeological resources in or near the terrestrial APE or in areas that had been previously proposed for ground-disturbing activities but have since been eliminated from the PDE (Table O-7). Terrestrial archaeological investigations have not been fully completed within 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 Dominion Energy's process of phased identification and evaluation of historic properties (COP, Appendix DD; Dominion Energy 2022; Section O.6, *Phased Identification and Evaluation*). Twenty-two of the 25 resources were identified in Dominion Energy's terrestrial archaeological background research and survey efforts (COP, Appendices G and H-3; Dominion Energy 2022). Six resources bearing cultural or religious significance to the Nansemond Indian Nation were identified through Dominion Energy's correspondence with CHP: three of the same resources identified in Dominion Energy's investigations and three additional resources.

The extent of investigations performed for the Proposed Action as of May 2022 does not enable conclusive determinations of eligibility for listing 19 of the 25 identified terrestrial archaeological resources in the NRHP; as such, BOEM assumes these are eligible for listing in the NRHP under Criteria A, B, C, and/or D and, therefore, historic properties. Otherwise, sufficient data from Dominion Energy's investigations have enabled BOEM to determine that the six other resources are isolated finds without sufficient integrity or significance for NRHP eligibility (i.e., 26-21, 26-234, 28-08, 31-46, 33-08, and

34-02). One cemetery and one historic aboveground resource were identified in the terrestrial APE, which may or may not contain contributing archaeological elements that could be affected by the undertaking; further discussion of these resources is provided in the *Cemeteries* and *Historic Aboveground Resources* sections below. BOEM anticipates that the number of identified terrestrial archaeological resources and historic properties in the terrestrial APE may be refined through the phased identification process and ongoing Section 106 consultations.

**Table O-7 Terrestrial Archaeological Resources In or Near the Terrestrial APE or PDE**

<b>Resource ID</b>	<b>Cultural Component</b>	<b>Location</b>	<b>NRHP Status</b>	<b>Finding of Effect</b>
44CS0250	Pre-Contact	Interconnection CRC	Potentially eligible	Adverse effect
44VB0162	Pre- and Post-Contact	Interconnection CRC	Potentially eligible	Adverse effect
44VB0204	Post-Contact	Onshore Export CRC	Potentially eligible	No adverse effect
44VB0274	Pre-Contact	Interconnection CRC	Potentially eligible	Adverse effect
44VB0306	Post-Contact	Interconnection CRC	Potentially eligible	Adverse effect
44VB0314	Post-Contact	Interconnection CRC	Potentially eligible	Adverse effect
44VB0319	Post-Contact	Interconnection CRC	Potentially eligible	Adverse effect
44VB0361	Post-Contact	Onshore Export CRC	Potentially eligible	Adverse effect
44VB0388	Post-Contact	Near Onshore ECRC	Potentially eligible	No effect
44VB0389	Pre- and Post-Contact	Onshore Export CRC	Potentially eligible	Adverse effect
44VB0395	Pre- and Post-Contact	Onshore Export CRC	Potentially eligible	Adverse effect
44VB0396	Post-Contact	Onshore Export CRC	Potentially eligible	Adverse effect
26-A	Post-Contact	Interconnection CRC	Potentially eligible	Adverse effect
35-A	Post-Contact	Onshore Export CRC	Potentially eligible	Adverse effect
Unassigned	Post-Contact	Onshore Export CRC	Potentially eligible	Adverse effect
26-21 (IF)	Post-Contact	Interconnection CRC	Not eligible	N/A
26-234 (IF)	Post-Contact	Interconnection CRC	Not eligible	N/A
28-08 (IF)	Post-Contact	Interconnection CRC	Not eligible	N/A
31-46 (IF)	Post-Contact	Onshore Export CRC	Not eligible	N/A
33-08 (IF)	Post-Contact	Onshore Export CRC	Not eligible	N/A
34-02 (IF)	Post-Contact	Onshore Export CRC	Not eligible	N/A
44CS0016	<i>Pre-Contact</i>	<i>Eliminated Interconnection CRC, Route Option 5</i>	<i>Potentially eligible</i>	<i>No effect</i>
44CS0156	<i>Post-Contact</i>	<i>Eliminated Interconnection CRC, Route Option 5</i>	<i>Potentially eligible</i>	<i>No effect</i>
44VB0175	<i>Contact and Post-Contact</i>	<i>Eliminated Chicory Switching Station</i>	<i>Potentially eligible</i>	<i>No effect</i>
44VB0290	<i>Unknown</i>	<i>Eliminated Interconnection CRC, Route Option 2</i>	<i>Potentially eligible</i>	<i>No effect</i>

Sources: COP, Appendices G and H-3; Dominion Energy 2022.

<sup>1</sup> Smithsonian trinomial identifiers have not been assigned for resources 26-A, 35-A, 26-21, 26-234, 28-08, 31-46, 33-08, 34-02, and “unassigned.”

<sup>2</sup> BOEM anticipates that all adverse effects have the potential to be alleviated through the adoption of Avoidance, Minimization, and Mitigation (AMM) measures. BOEM anticipates that the number of adversely affected terrestrial archaeological resources may be refined through ongoing Section 106 consultations.

Notes: Italicization indicates those resources that are located within now-eliminated areas of the PDE.

APE = area of potential effect; CRC = cable route corridor; ID = identification; IF = isolated find.

The severity of Project effects on terrestrial archaeological resources that are historic properties would depend on the extent to which integral or significant components of the affected resource are disturbed, damaged, or destroyed, resulting in the loss of contributing elements to the historic property’s eligibility for listing in the NRHP. Based on Dominion Energy’s terrestrial archaeological investigations as of September 2022, BOEM is able to conclude the following about the Proposed Action and 19 identified terrestrial archaeological resources that are historic properties:

- The Proposed Action would have adverse effects on 13 resources (i.e., 44CS0250, 44VB0162, 44VB0274, 44VB0306, 44VB0314, 44VB0319, 44VB0361, 44VB0389, 44VB0395, 44VB0396, 26-A, 35-A, and “unassigned”).
- The Proposed Action would have no adverse effects on one resource (i.e., 44VB0204). Though the defined boundary of this resource partially overlaps the terrestrial APE, no integral or significant components potentially contributing to this resource’s NRHP eligibility were identified in this area.
- The Proposed Action would have no effect on:
  - One resource (i.e., 44VB0388) outside of but adjacent to the terrestrial APE. As of September 2022, there is no evidence that resource 44VB0388 extends into the terrestrial APE; however, terrestrial archaeological investigations of the terrestrial APE adjacent to this resource have not yet been completed. BOEM has included resource 44VB0388 in its assessment of effects but presently anticipates no effect on this resource. Additional terrestrial archaeological investigations completed through the phased identification and evaluation process will determine whether resource 44VB0388 extends into the terrestrial APE and is subject to effects of the Project.
  - Four resources (i.e., 44CS0016, 44CS0156, 44VB0175, and 44VB0290) located in areas that would have been affected by proposed Project components now eliminated from the PDE.

As detailed in the Section 106 PIP (COP, Appendix DD; Dominion Energy 2022), Dominion Energy will assess avoidance, minimization, and mitigation measures appropriate for terrestrial archaeological resources following completion of the survey and analysis. Dominion Energy is committed to minimizing impacts on cultural resources through the siting, routing, and design process of the Onshore Project components to the extent practicable.

However, development of the final Project design is ongoing, and it is currently unclear whether Dominion Energy would be able to avoid effects on terrestrial archaeological resources. In addition, Dominion Energy will be using a process of phased identification and evaluation of historic properties, as defined in 36 CFR 800.4(b)(2), for the unsurveyed areas of the terrestrial APE. Completion of Phase IB archaeological surveys during the phased process may lead to the identification of archaeological resources in the terrestrial APE. As such, BOEM anticipates the undertaking as currently proposed would have adverse effects on a total of 13 known terrestrial archaeological resources that are historic properties assumed eligible for listing in the NRHP (see Table O-7). Adverse effects on these resources may be avoided, minimized, or mitigated in the final Project design. BOEM also anticipates that the number of

adversely affected terrestrial archaeological resources may be refined through the phased identification process and ongoing Section 106 consultations, which may involve refining the assessments of integrity, significance, and eligibility for listing identified resources in the NRHP. BOEM will use an 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 COP, Appendix DD (Dominion Energy 2022), and Section O.6, *Phased Identification and Evaluation*, for additional details.

#### **O.3.1.2.2 Cemeteries**

One cemetery—an approximately mid-twentieth century cemetery with one known grave—was identified outside of but near the terrestrial APE and has been considered for potential effects from the Proposed Action due to its proximity to the proposed Harpers Switching Station (COP, Appendix G; Dominion Energy 2022).

The severity of Project effects would depend on the extent to which the cemetery is disturbed, damaged, or destroyed. Avoidance, minimization, and mitigation measures appropriate for this resource are still under development. Although avoidance of this resource has been recommended (COP, Appendix G; Dominion Energy 2022), the extent of cultural resource investigations performed for the Proposed Action does not enable a definitive delineation of the extent of potential graves that may be present beyond the one identified grave. If additional cultural resource investigations enable definitive delineation of the cemetery, development and implementation of an avoidance buffer surrounding the defined perimeter of the resource location would result in no effect on this resource. BOEM may also require archaeological monitoring during construction activities that are proposed for areas near this resource; this process would likely avoid adverse effects on this resource.

At this time, BOEM anticipates avoidance, minimization, or mitigation procedures under development for this resource would result in the Project having no adverse effect on this resource. BOEM would use an MOA to establish commitments for assessing effects and implementing measures to avoid, minimize, or mitigate effects on this resource prior to construction.

#### **O.3.1.2.3 Historic Aboveground Resources**

The Camp Pendleton/State Military Reservation Historic District, a historic aboveground resource in Virginia Beach, Virginia, is listed in the NRHP and identified in the terrestrial APE. The resource would be subject to adverse effects from the undertaking (COP, Appendix H-3; Dominion Energy 2022). Two structures are contributing elements to the historic district and in the terrestrial APE: Buildings 59 and 410. Building 59 is a mess hall dating to 1939 and one of nine nearly identical buildings. Building 410 was constructed between 1940 and 1942 as a firehouse during expansion of the site. It has a more unique architectural design compared with other structures in the historic district.

The Project effects under the PDE would constitute physical destruction of Buildings 59 and 410 for the installation of the underground transmission lines associated with the cable landing location and onshore export cable route to the Harpers Switching Station. Demolition of these contributing elements to the Camp Pendleton/State Military Reservation Historic District would physically alter components of this historic property; as such, the undertaking is anticipated to have an adverse effect on the Camp Pendleton/State Military Reservation Historic District. For additional discussion of visual effects on this historic property, see Section O.3.1.3, *Assessment of Effects on Historic Properties in the Visual APE*, below.

BOEM would use an MOA to establish commitments for implementing measures to avoid, minimize, or mitigate effects on historic properties prior to construction. Minimization and mitigation treatment options may include detailed site documentation, historic research, and historic preservation studies; preparation of digital media or museum-type exhibits for public interpretation; installation of historic markers or signs; installation of vegetative screening; or contributions to historical preservation organizations or specific preservation projects. Additional mitigation options could be identified through consultation with BOEM, VDHR, and consulting parties.

### **O.3.1.3 Assessment of Effects on Historic Properties in the Visual APE**

Cultural resource investigations completed for the Proposed Action have identified historic properties in the visual APE (COP, Appendices H-1, H-2, and H-3; Dominion Energy 2022). Based on the information presented below, BOEM finds historic properties would be adversely affected in the visual APE.

As discussed in Section O.1.3.3, *Visual Portion of the APE*, Dominion Energy has eliminated certain Onshore Project components previously proposed in the May 2022 COP within the PDE. These now-eliminated Project components had been included in the delineation of the visual PAPE for Onshore Project components, and therefore, Dominion Energy's cultural resource investigations included historic property identification efforts in areas no longer located within the visual APE for the undertaking as currently proposed. However, BOEM has included resources identified within these eliminated areas for the purposes of facilitating Section 106 consultations but anticipates the undertaking to have no effect on these resources.

Dominion Energy's review of the visual APE for Offshore Project components identified 712 aboveground historic properties, including two NHLs (COP, Appendix H-1; Dominion Energy 2022). The properties were assessed to identify those with maritime settings and character-defining ocean views. Of the properties, 25 would be adversely affected by visual effects of the proposed Offshore Project components, including the First Cape Henry Lighthouse NHL (Table O-8). These 25 adversely affected historic properties retain a maritime setting that contributes to the properties' eligibility for listing in the NRHP. Each property continues to offer significant ocean views that support the integrity of its maritime setting. The seaward views include vantage points with the potential for an open view toward the Offshore Project components.

Where BOEM found adverse visual effects on the historic properties from Offshore Project components, BOEM determined that the undertaking would also cause cumulative visual effects (BOEM 2022). Cumulative effects are additive effects; where BOEM has determined adverse effects would occur from Project actions on historic properties, BOEM assessed whether those effects would add to the potential adverse effects of other reasonably foreseeable actions and thereby result in cumulative effects. The cumulative effects descriptions are included for each aboveground historic property in the following sections.

Dominion Energy's review of the visual APE for Onshore Project components identified 322 historic aboveground resources (COP, Appendices H-2 and H-3; Dominion Energy 2022). Although consultation with VDHR is ongoing, 13 of the resources have been determined to be historic properties that are listed or eligible for listing in the NRHP. BOEM has determined the undertaking would have an adverse effect on 1 of the 13 properties: the Camp Pendleton/State Military Reservation Historic District in Virginia Beach, Virginia, which is also within the visual APE for Offshore Project components (see Table O-8). With elimination of certain Onshore Project components from the PDE (i.e., Interconnection Cable Route Options 2–6, including the Chicory Switching Station location under Route Option 6), BOEM finds that the undertaking would have no effect on 5 of the 13 properties that would have otherwise been subject to visual adverse effects. The 5 historic properties are the Albemarle & Chesapeake Canal Historic District

in Chesapeake, Virginia; Albemarle & Chesapeake Canal in Chesapeake, Virginia; a worker's house associated with Murray Farms in Chesapeake, Virginia; a residence at 2773 Salem Road in Virginia Beach, Virginia; and the Centreville-Fentress Historic District in Chesapeake, Virginia.

**Table O-8 Adversely Affected Aboveground Historic Properties in the Visual APE<sup>1</sup>**

<b>Resource Name or Description</b>	<b>Resource ID</b>	<b>Location</b>	<b>Portion of Visual APE</b>	<b>Distance to Nearest WTG<sup>2</sup></b>	<b>NRHP Status</b>
Atlantic Wildfowl Heritage Cottage/de Witt Cottage	134-0066	Virginia Beach, VA	Offshore Project Components	27.80 miles	Listed (also VLR Listed)
Camp Pendleton/State Military Reservation Historic District	134-0413	Virginia Beach, VA	Onshore and Offshore Project Components	27.70 miles	Listed
Cavalier Hotel and Beach Club	134-0503	Virginia Beach, VA	Offshore Project Components	28.80 miles	Listed (also VLR Listed)
Cavalier Shores Historic District	134-5379	Virginia Beach, VA	Offshore Project Components	28.05 miles	Listed (also VLR Listed)
Chesapeake Bay Bridge-Tunnel	065-0167	Northampton, VA	Offshore Project Components	29.20 miles	Eligible
Chesapeake Light Tower	134-5301	Virginia Beach, VA	Offshore Project Components	13.03 miles	Potentially Eligible
Currituck Beach Lighthouse	CK0106	Currituck, NC	Offshore Project Components	36.86 miles	Listed
Cutty Sark Motel Efficiencies	134-5866	Virginia Beach, VA	Offshore Project Components	28.00 miles	Potentially Eligible
Dam Neck Annex	134-5046	Virginia Beach, VA	Offshore Project Components	27.40 miles	Potentially Eligible
Econo Lodge/Empress Motel	134-5869	Virginia Beach, VA	Offshore Project Components	27.92 miles	Potentially Eligible
First Cape Henry Lighthouse	134-0007/ 134-0660	Fort Story, VA	Offshore Project Components	29.20 miles	Listed and NHL
Fort Story Historic District	134-0660	Virginia Beach, VA	Offshore Project Components	29.20 miles	Listed (also VLR Listed)
Hilton Washington Inn/Quality Inn and Suites	134-5863	Virginia Beach, VA	Offshore Project Components	27.70 miles	Potentially Eligible

Resource Name or Description	Resource ID	Location	Portion of Visual APE	Distance to Nearest WTG <sup>2</sup>	NRHP Status
House (100 54 <sup>th</sup> Street)	134-5660	Virginia Beach, VA	Offshore Project Components	28.15 miles	Potentially Eligible
House (4910 Ocean Front Avenue)	134-5399	Virginia Beach, VA	Offshore Project Components	28.10 miles	Potentially Eligible
House (5302 Ocean Front Avenue)	134-5665	Virginia Beach, VA	Offshore Project Components	28.17 miles	Potentially Eligible
House (7900 Ocean Front Avenue)	134-0587	Virginia Beach, VA	Offshore Project Components	28.30 miles	Potentially Eligible
House (8304–8306 Ocean Front Avenue)	134-5089	Virginia Beach, VA	Offshore Project Components	28.37 miles	Eligible
House (8600 Ocean Front Avenue)	134-5493	Virginia Beach, VA	Offshore Project Components	28.52 miles	Potentially Eligible
Oceans II Condominiums/Aeolus Motel	134-5872	Virginia Beach, VA	Offshore Project Components	28.00 miles	Potentially Eligible
Sandbridge Historic District	Unassigned	Virginia Beach, VA	Offshore Project Components	26.90 miles	Potentially Eligible
Seahawk Motel	134-5857	Virginia Beach, VA	Offshore Project Components	27.97 miles	Potentially Eligible
Seatack Lifesaving Station/U.S. Coast Guard Station	134-0047	Virginia Beach, VA	Offshore Project Components	27.80 miles	Listed (also VLR Listed)
Second Cape Henry Lighthouse	134-0079/114-5250/134-0660	Virginia Beach, VA	Offshore Project Components	29.08 miles	Listed
Virginia House	134-5865	Virginia Beach, VA	Offshore Project Components	27.92 miles	Potentially Eligible

Source: COP, Appendices H-1, H-2, and H-3; Dominion Energy 2022.

<sup>1</sup> BOEM anticipates that all adverse effects have the potential to be alleviated through the adoption of AMM measures. BOEM anticipates that the number of adversely affected historic properties may be refined through ongoing Section 106 consultations.

<sup>2</sup> For the Proposed Action.

APE = area of potential effect; FOE = finding of effect; ID = identification; NHL = National Historic Landmark; NRHP = National Register of Historic Places; VDHR = Virginia Department of Historic Resources; VLR = Virginia Landmarks Register; WTG = Wind turbine generator.

### **O.3.1.3.1 Atlantic Wildfowl Heritage Museum/de Witt Cottage, Virginia Beach, Virginia**

The Atlantic Wildfowl Heritage Museum/de Witt Cottage (DHR ID: 134-0066) is located within an urban setting on the waterfront on a 0.36-acre (0.15-hectare) lot in Virginia Beach, Virginia. The Atlantic Wildfowl Heritage Museum is housed within the de Witt Cottage. The property was listed in the NRHP under Criteria A and C as an example of resort development architecture (COP, Appendix H-1; Dominion Energy 2022). The de Witt Cottage is the sole surviving example of an oceanfront dwelling constructed during the first development period in Virginia Beach from the late nineteenth to early twentieth century. The property was built near the ocean at a location where views would be clear and open and where beach access would be easy for visitors. Because it was designed as a resort for use by prosperous city-dwellers, the property's maritime setting and ocean views are character-defining and contribute to its significance (Newbill 1988).

The property, which is oriented toward the west and Atlantic Avenue, has unobstructed ocean views, particularly from the east elevation. The nearby Virginia Beach Boardwalk—Fishing Pier Key Observation Point (KOP) (KOP Field ID 24d in COP, Appendix I-1; Dominion Energy 2022) represents views to the nearest Project component, located 27.6 miles (44.4 kilometers) east of the property. From the pier, views toward the Project would be unobstructed. The introduction of modern elements into the setting would draw the attention of viewers due to the movement of the blades and the contrast of the thin white lines along the horizon (COP, Appendix I-1; Dominion Energy 2022).

With the Project, the property's integrity of setting, feeling, and association would be diminished. The integrity of location, workmanship, design, and materials would not be affected. The unobstructed ocean views and maritime setting are character-defining features of the property that contribute to its historic significance. Historically, the property relied on these features to provide a beachside resort atmosphere and experience to guests; thus, they were integral considerations in the placement, design, and historic use of the property. The introduction of modern elements would interfere with the historically and currently unadulterated ocean viewscape. Therefore, the Project would result in an adverse effect on the Atlantic Wildfowl Heritage Museum/de Witt Cottage.

As described in the *Cumulative Historic Resources Visual Effects Analysis – Coastal Virginia Offshore Wind Commercial Project*, this property is 27.8 miles (44.7 kilometers) from the nearest WTG associated with the Project and 44.3 miles (71.3 kilometers) from the nearest potential WTG location for other offshore wind energy development activities. The total number of theoretically visible WTGs from this property is 221; 205 theoretically visible WTGs (92.8 percent) would be visible from the proposed Project. As such, BOEM determined the Proposed Action 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 2022).

### **O.3.1.3.2 Camp Pendleton/State Military Reservation Historic District, Virginia Beach, Virginia**

The Camp Pendleton/State Military Reservation Historic District (DHR ID: 134-0413) occupies 343 acres (139 hectares) of land along the coast of the Atlantic Ocean in Virginia Beach, Virginia. It was established in 1911 and consists of 130 contributing resources. The district is eligible for the NRHP under Criterion A as a military facility developed in response to the need for a dedicated range and training facility for all National Guard units in Virginia. It is also eligible under Criterion C due to its substantial and intact concentration of temporary World War II buildings. It includes examples of early twentieth century residential and military buildings dating from the 1910s through the 1930s, and it is

representative of the evolution of a military post serving state and federal needs during peacetime and wartime (COP, Appendix H-3; Dominion Energy 2022).

The Project would result in the removal of vegetation from the western edge of the district to north of the main entrance and demolition of two contributing structures—Buildings 59 and 410—for the installation of the underground transmission lines associated with the cable landing location and onshore export cable route to the Harpers Switching Station. Building 59 is a 1939 Mess Hall and is one of nine nearly identical buildings. Building 410 was a fire house constructed between 1940 and 1942 during the expansion of the site during World War II and has a more unique architectural design. The Project would also entail tree clearing within a workspace near the ruins of the YMCA, which is recorded as archaeological site 44VB0388 and a potential historic resource. Although tree clearing within the workspace would alter the current viewshed of the YMCA ruins, those woodlands are not integral to the site’s historical significance. Furthermore, after work is completed in the proposed workspace at the Rifle Range, the area would be restored to pre-construction condition (COP, Appendix H-3; Dominion Energy 2022). See Section O.3.1.2.3, *Historic Aboveground Resources*, for additional details on the physical adverse effects the undertaking would have on the Camp Pendleton/State Military Reservation Historic District.

The boundary of the historic district stretches to the beach, which has a picnic area and open views of the ocean. The district has character-defining ocean views from this beach. The Croatan Beach C KOP (KOP Field ID 30c in COP, Appendix I-1; Dominion Energy 2022) represents views to the nearest Project component, which is 27.7 miles (44.6 kilometers) east of the property. Although there is vegetation at the ground level near the shoreline of the district, views toward the Project would be unobstructed, particularly from the beach area. The introduction of modern elements into the setting of the district would draw the attention of viewers due to the movement of the blades and the contrast of the thin white lines along the horizon (COP, Appendix I-1; Dominion Energy 2022).

The Project effects would constitute physical destruction of contributing elements of the historic district as well as the introduction of visual elements that affect the setting. The Project would diminish the design, materials, and workmanship of the district. However, because these buildings represent only a small percentage of the contributing features within the historic district, these Project effects would not render the district ineligible for the NRHP. The Project would also diminish the integrity of location, feeling, and association due to the introduction of modern elements. The introduction of the WTGs to the east would interfere with the historically and currently unadulterated ocean viewscape visible from the beach areas within the district.

As described in the *Cumulative Historic Resources Visual Effects Analysis – Coastal Virginia Offshore Wind Commercial Project*, this property is 27.7 miles (44.6 kilometers) from the nearest WTG associated with the Project and 43.2 miles (69.5 kilometers) from the nearest potential WTG location for other offshore wind energy development activities. The total number of theoretically visible WTGs from this property is 216; 205 theoretically visible WTGs (94.9 percent) would be visible from the proposed Project. As such, BOEM determined the Proposed Action 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 2022).

### **O.3.1.3.3 Cavalier Hotel and Beach Club, Virginia Beach, Virginia**

The Cavalier Hotel (DHR ID: 134-0503) is listed in the NRHP under Criterion C for Architecture as a 1920s hotel exhibiting Jeffersonian-inspired Classical Revival style. The hotel is also listed under Criterion A in the areas of Recreation and Social History for its associations with development of Virginia Beach into a beach resort destination town; it was also the last pre-World War II hotel built in the city.

The seven-story hotel has a maritime setting and overlooks the town and ocean from its elevated location on a hill that rises above Atlantic Avenue/Pacific Avenue. Its unique Y form maximizes the views of the ocean from individual rooms and, according to the NRHP nomination (Pollard 2013), “[e]very possible aspect of the design was chosen to reflect the relationship of the hotel to the ocean including views of the ocean from many public areas.”

From the ground level in front of the hotel, views of the ocean are partially obscured by the tall Marriott to the northeast and Embassy Suites hotels to the southeast. However, the Cavalier Beach Club situated on the east side of Atlantic Avenue/Pacific Avenue offers views from the beach and club directly toward the ocean and Project. Additionally, the hotel itself rests atop a hill and the elevated stories would have views of the ocean and some of the WTGs associated with the Project. The Marriott Virginia Beach Oceanfront Hotel KOP (KOP Field ID 26 in COP, Appendix I-1; Dominion Energy 2022) represents views from the approximate location of the Cavalier Hotel to the nearest Project component, 28 miles (45 kilometers) to the east. From here, views toward the Project would be unobstructed. The introduction of these modern elements into the setting would draw the attention of viewers due to the movement of the blades and the contrast of the thin white lines along the horizon (COP, Appendix I-1; Dominion Energy 2022).

The Project would not affect the integrity of location, workmanship, design, and materials of the resource. However, the integrity of setting, feeling, and association of the Cavalier Hotel would be diminished. Unobstructed ocean views and a beachside or maritime setting are character-defining features of the hotel that contribute to its significance because they were integral considerations in the placement and design of the property. The introduction of modern elements would interfere with how visitors experience the historically and currently unadulterated ocean viewscape visible from the beach and from the public and private areas in the hotel. Therefore, the Project would result in an adverse effect on the Cavalier Hotel.

As described in the *Cumulative Historic Resources Visual Effects Analysis – Coastal Virginia Offshore Wind Commercial Project*, this property is 28.2 miles (45.4 kilometers) from the nearest WTG associated with the Project and 45.9 miles (73.9 kilometers) from the nearest potential WTG location for other offshore wind energy development activities. The total number of theoretically visible WTGs from this property is 224; 205 theoretically visible WTGs (91.5 percent) would be visible from the proposed Project. As such, BOEM determined the Proposed Action 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 2022).

#### **O.3.1.3.4 Cavalier Shores Historic District, Virginia Beach, Virginia**

The Cavalier Shores Historic District (DHR ID: 134-5379) is a suburban historic district occupying 31.5 acres (12.8 hectares) within a rectilinear street grid at the north end of Virginia Beach, along the oceanfront immediately north of the Cavalier Hotel to which the neighborhood is connected. The historic district was listed in the NRHP in 2019 under Criteria A and C in the areas of Community Planning and Development, Landscape Architecture, and Architecture. The district includes a line of oceanfront properties on the east side of Ocean Front Avenue. These properties were sold at higher prices initially due to their views of the ocean and immediate beach access. According to the NRHP nomination, “Cavalier Shores began the trend of oceanfront private residence construction that would continue up the north shore of the beach over the ensuing decades” (Taylor 2018).

The district has a maritime setting. Its ocean views are a character-defining feature, particularly for the eastern properties, but views of the ocean from elevated points farther inland are also possible. The King Neptune Statue/Boardwalk KOP (KOP Field ID 22 in COP, Appendix I-1; Dominion Energy 2022) represents unobstructed views to the nearest Project component, which is 27.9 miles (44.9 kilometers)

east of the property. Another representative KOP is the North End Beach—Residential Beach 1 KOP (KOP Field ID 15a and 15b in COP, Appendix I-1; Dominion Energy 2022), which represents views from a similar residential area to the nearest Project component, located 28.1 miles (45.2 kilometers) east of the KOP. From both of these KOPs, views toward the Project would be unobstructed. The introduction of these modern elements into the setting would draw the attention of viewers due to the movement of the blades and the contrast of the thin white lines along the horizon (COP, Appendix I-1; Dominion Energy 2022).

With the Project, the district's integrity of setting, feeling, and association would be diminished. The integrity of location, workmanship, design, and materials would not be affected. The unobstructed ocean views and maritime setting are character-defining features of the district. They contribute to its significance because they were integral considerations in the community and landscape designs of the district. Specifically, for the oceanfront properties in the district, the unobstructed views toward the ocean and access to the beach immediately adjacent to the rear of the properties are significant parts of their design. This view increased their historic value. The introduction of modern elements would interfere with the historically and currently unadulterated ocean viewscape visible from the eastern edge of the district. Therefore, the Project would result in an adverse effect on the Cavalier Shores Historic District.

As described in the *Cumulative Historic Resources Visual Effects Analysis – Coastal Virginia Offshore Wind Commercial Project*, this property is 28.1 miles (45.2 kilometers) from the nearest WTG associated with the Project and 27.2 miles (43.8 kilometers) from the nearest potential WTG location for other offshore wind energy development activities. The total number of theoretically visible WTGs from this property is 149; 147 theoretically visible WTGs (98.7 percent) would be visible from the proposed Project. As such, BOEM determined the Proposed Action 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 2022).

### **0.3.1.3.5 Chesapeake Bay Bridge-Tunnel, Northampton, Virginia**

The Chesapeake Bay Bridge-Tunnel (DHR ID: 065-0167) spans 17.6 miles (28.3 kilometers) across Chesapeake Bay, from Cape Charles to Virginia Beach. The bridge includes 12 miles (19 kilometers) with a low-level trestle, two tunnels, two bridges, causeways, and four human-made islands. The bridge is eligible for listing in the NRHP under Criteria A and C for significance in the areas of Transportation and Engineering (COP, Appendix H-1; Dominion Energy 2022). By nature of its purpose and function, the Chesapeake Bay Bridge-Tunnel has a maritime setting and ocean views along much of the bridge. The ocean views create a scenic crossing, with the bridge as a tourist attraction. A scenic overlook on the north end of the structure faces toward the bay, but the open ocean surrounds the bridge and is part of its setting.

For the majority of the bridge crossing, ocean views are unobscured. The bridge landfall and tunnel access areas have more restricted views due to the presence of vegetation and structures, and the curve of land of Virginia Beach obstructs eastern ocean views at the southern end of the bridge. The Cape Henry Lighthouse/Fort Story Military Base KOP (KOP Field ID 13 in COP, Appendix I-1; Dominion Energy 2022) represents views to the nearest Project component, which is 29.1 miles (46.8 kilometers) east of the property. This KOP represents a view from the southern portion of the bridge to the area northwest of the KOP, with more limited views of Offshore Project components due to the presence of land. The taller central sections of the bridge would have more expansive views toward the Project because there would be no intervening land masses. The introduction of modern elements into the setting of the bridge would draw the attention of viewers due to the movement of the blades and the contrast of the thin white lines along the horizon (COP, Appendix I-1; Dominion Energy 2022).

With the Project, the bridge's integrity of setting, feeling, and association would be diminished. The integrity of location, workmanship, design, and materials would not be affected. Wide ocean views from much of the bridge and a maritime setting are character-defining features of the bridge. The bridge, by design and purpose, requires a maritime setting and takes advantage of the views along the crossing to provide a unique scenic experience for those crossing and visiting. The introduction of modern elements would interfere with the historically and currently unadulterated ocean viewscape visible from the bridge. Therefore, the Project would result in an adverse effect on the Chesapeake Bay Bridge-Tunnel.

As described in the *Cumulative Historic Resources Visual Effects Analysis – Coastal Virginia Offshore Wind Commercial Project*, this property is 29.2 miles (47.0 kilometers) from the nearest WTG associated with the Project and 56.5 miles (90.9 kilometers) from the nearest potential WTG location for other offshore wind energy development activities. The total number of theoretically visible WTGs from this property is 207; 205 theoretically visible WTGs (99.0 percent) would be visible from the proposed Project. As such, BOEM determined the Proposed Action 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 2022).

#### **O.3.1.3.6 Chesapeake Light Tower, Virginia Beach, Virginia**

The Chesapeake Light Tower (DHR ID: 134-5301) is considered eligible for listing in the NRHP by the VDHR under Criterion C as an example of a Texas Tower, a prefabricated light station utilized in open ocean conditions in water greater than 30 feet (9 meters). Because the Light Tower is situated offshore, it has clear views of the ocean in all directions. It is inexorably linked to its ocean setting and ocean views due to its historic function as a navigational aid associated with maritime and offshore transportation practices (COP, Appendix H-1; Dominion Energy 2022).

Although there are no KOPs in the VIA that represent the views from the Light Tower toward the Project, the location of the property in open water would mean that views toward the Project would be unobstructed from sea-level and elevated viewpoints on the tower. The introduction of modern elements into the ocean setting, only 13 miles (21 kilometers) from the property, would draw the attention of viewers due to size of the WTGs at that distance, the movement of the blades, and the contrast of the WTGs along the horizon (COP, Appendix I-1; Dominion Energy 2022).

The Project would not affect the integrity of location, workmanship, design, and materials. However, the integrity of setting, feeling, and association of the Chesapeake Light Tower would be diminished. The unobstructed 360-degree views of open ocean water are character-defining features of the property that contribute to its significance because they were integral to the placement, design, and function. The introduction of modern elements would interfere with the historically and currently unadulterated ocean viewscape surrounding the property. Therefore, the Project would result in an adverse effect on the Chesapeake Light Tower.

As described in the *Cumulative Historic Resources Visual Effects Analysis – Coastal Virginia Offshore Wind Commercial Project*, this property is 13 miles (21 kilometers) from the nearest WTG associated with the Project and 37.2 miles (59.9 kilometers) from the nearest potential WTG location for other offshore wind energy development activities. The total number of theoretically visible WTGs from this property is 274; 205 theoretically visible WTGs (74.8 percent) would be visible from the proposed Project. As such, BOEM determined the Proposed Action 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 2022).

### **O.3.1.3.7 Currituck Beach Lighthouse, Corolla, North Carolina**

The Currituck Beach Lighthouse and Lighthouse Complex (North Carolina SHPO ID: CK0001, CK0106) is listed in the NRHP in the areas of Commerce, Transportation, and Architecture (COP, Appendix H-1; Dominion Energy 2022). The lighthouse was constructed between the Atlantic Ocean and Currituck Sound, and provided guidance for ships navigating the region to prevent shipwrecks. Unobstructed ocean views within a maritime setting were required for the lighthouse's historic function. The lighthouse is reliant on its maritime setting and views to the ocean for its historic significance.

Although ground-level ocean views are obstructed by vegetation, the lighthouse has clear, wide views of the ocean from the top of the 162-foot (49-meter) tower. The Currituck Beach Lighthouse KOP (KOP Field ID 48 in COP, Appendix I-1; Dominion Energy 2022) represents views to the nearest Project component, which is 36.8 miles (59.2 kilometers) northeast of the property. From this KOP, views toward the Project would be unobstructed from elevated viewpoints. The introduction of modern elements into the setting of the lighthouse would draw the attention of viewers due to the movement of the blades and the contrast of the thin white lines along the horizon (COP, Appendix I-1; Dominion Energy 2022).

With the Project, the lighthouse's integrity of setting, feeling, and association would be diminished. The integrity of location, workmanship, design, and materials would not be affected. The unobstructed ocean views and maritime setting are character-defining features of the property that contribute to its significance because they were integral considerations in the placement, design, and historic function of the lighthouse. The introduction of modern elements would interfere with the historically and currently unobstructed ocean viewscape. Therefore, the Project would result in an adverse effect on the Currituck Beach Lighthouse.

As described in the *Cumulative Historic Resources Visual Effects Analysis – Coastal Virginia Offshore Wind Commercial Project*, this property is 36.86 miles (59.32 kilometers) from the nearest WTG associated with the Project and 28.34 miles (45.61 kilometers) from the nearest potential WTG location for other offshore wind energy development activities. The total number of theoretically visible WTGs from this property is 264; 192 theoretically visible WTGs (72.7 percent) would be visible from the proposed Project. As such, BOEM determined the Proposed Action 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 2022).

### **O.3.1.3.8 Cutty Sark Motel Efficiencies, Virginia Beach, Virginia**

During the post–World War II period of economic growth and development, the hotel and resort business grew to meet demand from increasing numbers of middle-class tourists. The boom altered the Atlantic shoreline in Virginia Beach as new hotels and motels were constructed during the mid-twentieth century. As documented in the *National Register of Historic Places Multiple Property Listing: Virginia Beach Oceanfront Resort Motels and Hotels* (McClane and Kirchen 2020), many of these new hotels reflected streamlined modern architecture. These were constructed within a period of significance from 1955 to 1970. Virginia Beach has approximately 3.5 miles (5.6 kilometers) of resort ocean frontage; buildings were constructed close to the ocean and beach to take advantage of the views, beach access, and Virginia Beach Boardwalk. Therefore, the maritime setting was of primary consideration for these types of properties. Unobstructed ocean views were also character-defining features, particularly from the rooms facing east. Many hotels and motels were designed to take advantage of and maximize these views (McClane and Kirchen 2020). The Cutty Sark Motel Efficiencies property (DHR ID: 134-5866) is an example of one such property. It is oriented to the east, toward Atlantic Avenue, with private balconies that offered direct ocean views for visitors. In 1970, the hotel faced an empty lot between it and the beach, meaning it had direct ocean views during the period of significance (Nationwide Environmental Title

Research [NETR] 1970). It is considered NRHP eligible as an example of a small family-operated motel from this period. It still retains many of its character-defining features, including massing, Modern-inspired architectural details, and private balconies (COP, Appendix H-1; Dominion Energy 2022).

Today, ocean views from the Cutty Sark are largely obscured by the taller Edgewater Condominiums building across from the motel on the west side of Atlantic Avenue. The condominium building is directly between the Cutty Sark and the ocean. Some ocean views may still be possible from the northwest corner balconies and rooms of the motel. The King Neptune Statue/Boardwalk KOP (KOP Field ID 22 in COP, Appendix I-1; Dominion Energy 2022) represents unobstructed views to the nearest Project component, which is 27.9 miles (44.9 kilometers) east of the property. From the statue, which is inside Neptune's Park, views toward the Project would be unobstructed. Therefore, the introduction of modern elements into the setting of the boardwalk would draw the attention of viewers due to the movement of the blades and the contrast of the thin white lines along the horizon (COP, Appendix I-1; Dominion Energy 2022).

Ocean views and a maritime setting are character-defining features of the Cutty Sark Motel Efficiencies that contribute to its significance because they were integral considerations in the placement, design, and historic function of the property. The integrity of location, workmanship, design, and materials for the Cutty Sark would not be affected by the Project. The setting is already somewhat diminished due to the large condominium building that now stands between the motel and ocean; however, quick access to the beach and boardwalk, as well as unobstructed ocean views, is still possible. With the Project, the motel's integrity of setting, feeling, and association would be further diminished due to the introduction of modern elements that would interfere with the historically and currently unobstructed ocean viewscape. Therefore, the Project would result in an adverse effect on the Cutty Sark Motel Efficiencies.

As described in the *Cumulative Historic Resources Visual Effects Analysis – Coastal Virginia Offshore Wind Commercial Project*, this property is 28.0 miles (45.1 kilometers) from the nearest WTG associated with the Project and 45.12 miles (72.61 kilometers) from the nearest potential WTG location for other offshore wind energy development activities. The total number of theoretically visible WTGs from this property is 215; 205 theoretically visible WTGs (95.3 percent) would be visible from the proposed Project. As such, BOEM determined the Proposed Action 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 2022).

### **O.3.1.3.9 Dam Neck Annex, Virginia Beach, Virginia**

Dam Neck Annex (DHR ID: 134-5046) consists of more than 1,100 acres (445 hectares) of highlands and marshes and more than 3 miles (4.8 kilometers) of coastal beaches. The property is considered eligible for the purposes of the Project under Criterion A as an example of a naval defense facility. The district is sited on an early to mid-twentieth century defense property, and the area is connected to centuries of maritime and military activity (COP, Appendix H-1; Dominion Energy 2022). As a naval defense facility, a maritime setting was imperative for the historic operation and function of the property. Ocean views are character-defining features and contribute to the historic significance of the property.

The long stretch of beach on the eastern edge of the Dam Neck Annex property, which includes picnic areas, offers unobstructed ocean views. Although there are buildings and tall vegetation at the ground level throughout the annex, views toward the Project would be unobstructed from the beach areas and would be possible from elevated points farther inland. Located slightly north of the annex, the Croatan Beach KOP (KOP Field ID 30c in COP, Appendix I-1; Dominion Energy 2022) represents views to the nearest Project component, which is 27.7 miles (45.6 kilometers) east of the property. The introduction of modern elements into the setting of the property would draw the attention of viewers due to the

movement of the blades and the contrast of the thin white lines along the horizon (COP, Appendix I-1; Dominion Energy 2022).

The unobstructed ocean views and maritime setting are inherent parts of the design and historic function of the property. The introduction of offshore wind components would not affect the integrity of location, workmanship, design, and materials. However, the property's integrity of setting, feeling, and association would be diminished due to alterations in the ocean views and maritime setting. The introduction of modern elements would interfere with the historically and currently unobstructed ocean viewscape. Therefore, the Project would result in an adverse effect on the Dam Neck Annex.

As described in the *Cumulative Historic Resources Visual Effects Analysis – Coastal Virginia Offshore Wind Commercial Project*, this property is 27.4 miles (44.1 kilometers) from the nearest WTG associated with the Project and 43.4 miles (69.8 kilometers) from the nearest potential WTG location for other offshore wind energy development activities. The total number of theoretically visible WTGs from this property is 220; 201 theoretically visible WTGs (91.4 percent) would be visible from the proposed Project. As such, BOEM determined the Proposed Action 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 2022).

#### **O.3.1.3.10 Econo Lodge/Empress Motel, Virginia Beach, Virginia**

As described in the Section O.3.1.3.8, the Econo Lodge/Empress Motel (DHR ID: 134-5869) was constructed within the historic context documented and described in the *National Register of Historic Places Multiple Property Listing: Virginia Beach Oceanfront Resort Motels and Hotels* (McClane and Kirchen 2020). It is considered NRHP eligible as an intact example of a resort motel from the mid-twentieth century (McClane and Kirchen 2020). It retains many of its character-defining features, including massing and oceanfront balconies (COP, Appendix H-1; Dominion Energy 2022). The lodge is oriented to the west, toward Atlantic Avenue, but enjoys unobstructed ocean views from the entire east elevation, which faces the Virginia Beach Boardwalk and ocean beyond.

Today, ocean views from the Econo Lodge/Empress Motel remain unobscured. The lodge has been surrounded by larger, newer hotels and commercial structures on the north, west, and south sides, but the east elevation still faces the ocean. The view from here does not include any modern structures. The King Neptune Statue/Boardwalk KOP (KOP Field ID 22 in COP, Appendix I-1; Dominion Energy 2022) represents unobstructed views to the nearest Project component, which is 27.9 miles (44.9 kilometers) east of the property. From this KOP, views toward the Project would be unobstructed. The introduction of modern elements into the setting of the boardwalk would draw the attention of viewers due to the movement of the blades and the contrast of the thin white lines along the horizon (COP, Appendix I-1; Dominion Energy 2022).

Ocean views and a maritime setting are character-defining features of the Econo Lodge/Empress Motel that contribute to its significance. The lodge was strategically placed and designed to take full advantage of these views within a beachside setting. The integrity of location, workmanship, design, and materials for the lodge would not be affected by the Project. However, the lodge's integrity of setting, feeling, and association would be diminished as a result of the Project due to the introduction of modern elements that would interfere with the historically and currently unobstructed ocean viewscape. Therefore, the Project would result in an adverse effect on the Econo Lodge/Empress Motel.

As described in the *Cumulative Historic Resources Visual Effects Analysis – Coastal Virginia Offshore Wind Commercial Project*, this property is 27.9 miles (44.9 kilometers) from the nearest WTG associated with the Project and 45.12 miles (72.61 kilometers) from the nearest potential WTG location for other

offshore wind energy development activities. The total number of theoretically visible WTGs from this property is 243; 205 theoretically visible WTGs (84.4 percent) would be visible from the proposed Project. As such, BOEM determined the Proposed Action 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 2022).

#### **O.3.1.3.11 First Cape Henry Lighthouse (NHL), Fort Story, Virginia**

The First Cape Henry Lighthouse NHL (DHR ID: 134-0007/134-0660) was listed as an NHL in 1964, in the NRHP in 1966, and in the Virginia Landmarks Register under Criteria A and C (COP, Appendix H-1; Dominion Energy 2022). The lighthouse was built on a dune directly along the ocean coastline. Unobstructed ocean views were required for the lighthouse's historic function. It is reliant on its maritime setting and views to the ocean for its NRHP and NHL significance.

Currently, the lighthouse has full unobstructed views of the ocean from the top of the 72-foot (22-meter) tower. Ground-level ocean views are obstructed by vegetation that crowds the base of the lighthouse. The Cape Henry Lighthouse/Fort Story Military Base KOP (KOP Field ID 13 in COP, Appendix I-1; Dominion Energy 2022) represents views to the nearest Project component, which is 29.1 miles (46.8 kilometers) east of the property. Although there is vegetation at the ground level along the shoreline of the district, views toward the Project would be unobstructed, particularly from elevated viewpoints. The introduction of modern elements into the setting of the NHL would draw the attention of viewers due to the movement of the blades and the contrast of the thin white lines along the horizon (COP, Appendix I-1; Dominion Energy 2022).

With the Project, the NHL's integrity of setting, feeling, and association would be diminished. The integrity of location, workmanship, design, and materials would not be affected. The unobstructed ocean views and maritime setting are character-defining features of the property that contribute to its significance. They were integral considerations in the placement, design, and historic function of the lighthouse. The introduction of modern elements would interfere with the historically and currently unadulterated ocean viewscape. Therefore, the Project would result in an adverse effect on the First Cape Henry Lighthouse NHL.

As described in the *Cumulative Historic Resources Visual Effects Analysis – Coastal Virginia Offshore Wind Commercial Project*, this property is 29.12 miles (46.86 kilometers) from the nearest WTG associated with the Project and 49.43 miles (79.55 kilometers) from the nearest potential WTG location for other offshore wind energy development activities. The total number of theoretically visible WTGs from this property is 223; 205 theoretically visible WTGs (91.9 percent) would be visible from the proposed Project. As such, BOEM determined the Proposed Action 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 2022).

#### **O.3.1.3.12 Fort Story Historic District, Virginia Beach, Virginia**

The Fort Story Historic District (DHR ID: 134-0660) is eligible for the NRHP under Criteria A and C for its association with Military History and Government as well as Architecture (COP, Appendix H-1; Dominion Energy 2022). The fort was constructed along the ocean coastline, with unobstructed ocean views; it is bounded on the east and north by the Atlantic Ocean and Chesapeake Bay. The maritime setting and ocean views are character-defining features of the district that were part of its historic function and significance.

Currently, there are multiple locations along the coastline within the district that have unobstructed ocean views. The Cape Henry Lighthouse/Fort Story Military Base KOP (KOP Field ID 13 in COP, Appendix I-1; Dominion Energy 2022) represents views to the nearest Project component, which is 29.1 miles (46.8 kilometers) east of the property. Although there is vegetation at the ground level along portions of the district's shoreline, views toward the Project would be unobstructed, particularly from elevated viewpoints throughout the district. The introduction of modern elements into the setting of the district would draw the attention of viewers due to the movement of the blades and the contrast of the thin white lines along the horizon (COP, Appendix I-1; Dominion Energy 2022).

With the Project, the district's integrity of setting, feeling, and association would be diminished. The integrity of location, workmanship, design, and materials would not be affected. The unobstructed ocean views and maritime setting were integral considerations in the placement, design, and historic function of Fort Story. The introduction of modern elements would interfere with the historically and currently unadulterated ocean viewscape. Therefore, the Project would result in an adverse effect on the Fort Story Historic District.

As described in the *Cumulative Historic Resources Visual Effects Analysis – Coastal Virginia Offshore Wind Commercial Project*, this property is 29.12 miles (46.86 kilometers) from the nearest WTG associated with the Project and 49.43 miles (79.55 kilometers) from the nearest potential WTG location for other offshore wind energy development activities. The total number of theoretically visible WTGs from this property is 216; 205 theoretically visible WTGs (94.9 percent) would be visible from the proposed Project. As such, BOEM determined the Proposed Action 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 2022).

#### **O.3.1.3.13 Hilton Washington Inn/Quality Inn and Suites, Virginia Beach, Virginia**

As described in the Section O.3.1.3.8, the Hilton Washington Inn/Quality Inn and Suites (DHR ID: 134-5863) was constructed within the historic context documented and described in the *National Register of Historic Places Multiple Property Listing: Virginia Beach Oceanfront Resort Motels and Hotels* (McClane and Kirchen 2020). It is considered NRHP eligible in the Multiple Property Listing as an intact example of a resort motel from the mid-twentieth century—specifically, it represents the arrival of national hotel chains in Virginia Beach, circa 1970 (McClane and Kirchen 2020). It retains many of its character-defining features, including massing, architectural details, semi-circular oceanfront rooms, and private balconies (COP, Appendix H-1; Dominion Energy 2022). The hotel sits on the west side of Atlantic Avenue. Its semi-circular design allowed rooms and balconies on three sides of the building to have direct ocean views, which are unobscured because the interior-curve of the hotel faces the beach.

Today, ocean views from the Hilton Washington Inn/Quality Inn and Suites remain unobscured. The Marriott Virginia Beach Oceanfront Hotel KOP (KOP Field ID 26 in COP, Appendix I-1; Dominion Energy 2022) represents elevated views to the nearest Project component, which is 28 miles (45 kilometers) to the east. The views may be similar to those from the upper floors of the inn. From the Marriott, views toward the Project would be unobstructed. The Grommet Island Park/Boardwalk KOP (KOP Field ID 29 in COP, Appendix I-1; Dominion Energy 2022) is geographically closer to the inn than the Marriott KOP and represents views to the nearest Project component, which is 27.7 miles (44.6 kilometers) to the east. The introduction of modern elements into the maritime setting of the inn would draw the attention of viewers due to the movement of the blades and the contrast of the thin white lines along the horizon (COP, Appendix I-1; Dominion Energy 2022).

Ocean views and a maritime setting are character-defining features of the Hilton Washington Inn/Quality Inn and Suites that contribute to its significance. The unique design of the inn enhances eastern ocean

views from the private rooms and balconies. The inn was built on a lot where the views would be unobstructed and the beach would be readily accessible. The Project would not affect the integrity of location, workmanship, design, and materials for the inn. However, the integrity of setting, feeling, and association would be diminished due to the introduction of modern elements that would interfere with the historically and currently unobstructed ocean viewscape. Therefore, the Project would result in an adverse effect on the Hilton Washington Inn/Quality Inn and Suites.

As described in the *Cumulative Historic Resources Visual Effects Analysis – Coastal Virginia Offshore Wind Commercial Project*, this property is 27.7 miles (44.6 kilometers) from the nearest WTG associated with the Project and 44.0 miles (70.8 kilometers) from the nearest potential WTG location for other offshore wind energy development activities. The total number of theoretically visible WTGs from this property is 229; 205 theoretically visible WTGs (89.5 percent) would be visible from the proposed Project. As such, BOEM determined the Proposed Action 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 2022).

#### **O.3.1.3.14 House (100 54<sup>th</sup> Street), Virginia Beach, Virginia**

The house at 100 54<sup>th</sup> Street in Virginia Beach, Virginia (DHR ID: 134-5660) is potentially eligible for the NRHP under Criterion A as an example of oceanfront urban development in Virginia Beach in the mid-twentieth century (COP, Appendix H-1; Dominion Energy 2022). The property is oriented to the west, toward 54<sup>th</sup> Street, but has unobstructed ocean views from the rear elevation. The location of the property enables inhabitants to enjoy ocean views and have direct access to the beach; thus, the maritime setting is key to its significance.

Currently, the house has unobstructed views of the ocean from the rear elevation and yard. The North End Beach—Residential Beach 1 KOP (KOP Field ID 15a and 15b in COP, Appendix I-1; Dominion Energy 2022) represents views from the approximate location of this property to the nearest Project component, which is 28.1 miles (45.2 kilometers) east of the KOP. From this KOP, views toward the Project would be unobstructed. The introduction of these modern elements into the setting would draw the attention of viewers due to the movement of the blades and the contrast of the thin white lines along the horizon (COP, Appendix I-1; Dominion Energy 2022).

With the Project, the property's integrity of setting, feeling, and association would be diminished. The integrity of location, workmanship, design, and materials would not be affected. The unobstructed ocean views and the beachside or maritime setting are character-defining features of the property. They contribute to its significance because they were integral considerations in the placement and design of the property. The introduction of modern elements would interfere with the historically and currently unadulterated ocean viewscape visible from the house and the beach. Therefore, the Project would result in an adverse effect on the house at 100 54<sup>th</sup> Street.

As described in the *Cumulative Historic Resources Visual Effects Analysis – Coastal Virginia Offshore Wind Commercial Project*, this property is 28.15 miles (45.30 kilometers) from the nearest WTG associated with the Project and 46.46 miles (74.77 kilometers) from the nearest potential WTG location for other offshore wind energy development activities. The total number of theoretically visible WTGs from this property is 207; 205 theoretically visible WTGs (99.0 percent) would be visible from the proposed Project. As such, BOEM determined the Proposed Action 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 2022).

### **O.3.1.3.15 House (4910 Ocean Front Avenue), Virginia Beach, Virginia**

The house at 4910 Ocean Front Avenue in Virginia Beach, Virginia (DHR ID: 134-5399), is potentially eligible for the NRHP under Criterion A as an example of beachfront urban development in Virginia Beach in the early twentieth century. It is also eligible for the NRHP under Criterion C as an example of the Shingle style of architecture (COP, Appendix H-1; Dominion Energy 2022). The property is oriented to the west, toward Ocean Front Avenue, but has unobstructed ocean views from the two-story porch on the rear elevation. The location of the property enables inhabitants to enjoy ocean views and have direct access to the beach; thus, the maritime setting is key to its significance.

Currently, the only obstruction between the house and the ocean is a low fence that borders the property. The North End Beach—Residential Beach 1 KOP (KOP Field ID 15a and 15b in COP, Appendix I-1; Dominion Energy 2022) represents views from the approximate location of this property to the nearest Project component, which is 28.1 miles (45.2 kilometers) east of the KOP. From this KOP, views toward the Project would be unobstructed. The introduction of these modern elements into the setting would draw the attention of viewers due to the movement of the blades and the contrast of the thin white lines along the horizon (COP, Appendix I-1; Dominion Energy 2022).

With the Project, the property's integrity of setting, feeling, and association would be diminished. The integrity of location, workmanship, design, and materials would not be affected. The unobstructed ocean views and maritime setting are character-defining features of the property. They contribute to its significance because they were integral considerations in the placement and design of the property. The introduction of modern elements would interfere with the historically and currently unadulterated ocean viewscape visible from the house and the beach. Therefore, the Project would result in an adverse effect on the house at 4910 Ocean Front Avenue.

As described in the *Cumulative Historic Resources Visual Effects Analysis – Coastal Virginia Offshore Wind Commercial Project*, this property is 28.1 miles (45.2 kilometers) from the nearest WTG associated with the Project and 46.28 miles (74.48 kilometers) from the nearest potential WTG location for other offshore wind energy development activities. The total number of theoretically visible WTGs from this property is 207; 205 theoretically visible WTGs (99.0 percent) would be visible from the proposed Project. As such, BOEM determined the Proposed Action 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 2022).

### **O.3.1.3.16 House (5302 Ocean Front Avenue), Virginia Beach, Virginia**

The house at 5302 Ocean Front Avenue in Virginia Beach, Virginia (DHR ID: 134-5665), is potentially eligible for the NRHP under Criterion A as an example of early twentieth century oceanfront urban development in Virginia Beach (COP, Appendix H-1; Dominion Energy 2022). The property is oriented to the west, toward Ocean Front Avenue, but has unobstructed ocean views from the rear elevation. The location of the property enables inhabitants to enjoy ocean views and have direct access to the beach; thus, the maritime setting is key to its significance.

Currently, the house has unobstructed views of the ocean from the rear elevation and yard. The North End Beach—Residential Beach 1 KOP (KOP Field ID 15a and 15b in COP, Appendix I-1; Dominion Energy 2022) represents views from the approximate location of this property to the nearest Project component, which is 28.1 miles (45.2 kilometers) east of the KOP. From this KOP, views toward the Project would be unobstructed. The introduction of these modern elements into the setting would draw the attention of viewers due to the movement of the blades and the contrast of the thin white lines along the horizon (COP, Appendix I-1; Dominion Energy 2022).

With the Project, the property's integrity of setting, feeling, and association would be diminished. The integrity of location, workmanship, design, and materials would not be affected. The unobstructed ocean views and maritime setting are character-defining features of the property. They contribute to its significance because they were integral considerations in the placement and design of the property. The introduction of modern elements would interfere with the historically and currently unadulterated ocean viewscape visible from the house and the beach. Therefore, the Project would result in an adverse effect on the house at 5302 Ocean Front Avenue.

As described in the *Cumulative Historic Resources Visual Effects Analysis – Coastal Virginia Offshore Wind Commercial Project*, this property is 28.17 miles (45.34 kilometers) from the nearest WTG associated with the Project and 46.42 miles (74.71 kilometers) from the nearest potential WTG location for other offshore wind energy development activities. The total number of theoretically visible WTGs from this property is 207; 205 theoretically visible WTGs (99.0 percent) would be visible from the proposed Project. As such, BOEM determined the Proposed Action 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 2022).

#### **O.3.1.3.17 House (7900 Ocean Front Avenue), Virginia Beach, Virginia**

The house at 7900 Ocean Front Avenue in Virginia Beach, Virginia (DHR ID: 134-0587), is potentially eligible for the NRHP under Criterion A as an example of early twentieth century oceanfront urban development in Virginia Beach. It is also eligible for the NRHP under Criterion C under Architecture (COP, Appendix H-1; Dominion Energy 2022). The property is oriented to the west, toward Ocean Front Avenue, at the cul-de-sac created by the perpendicular 79<sup>th</sup> Street. The property is surrounded by tall trees but has ocean views from the rear elevation. A second-story porch allows wide views toward the ocean. The location of the property enables inhabitants to enjoy ocean views and have direct access to the beach; thus, the maritime setting is key to its significance.

Currently, the house has views of the ocean from the rear elevation and yard; the views may be partially obstructed by the tall vegetation that borders the eastern edge of the property. The property is located between the North End Beach—Residential Beach 1 KOP (KOP Field ID 15a and 15b in COP, Appendix I-1; Dominion Energy 2022) and Cape Henry Lighthouse/Fort Story Military Base (KOP Field ID 13 in COP, Appendix I-1; Dominion Energy 2022). The North End Beach KOP represents views to the nearest Project component, which is 28.1 miles (45.2 kilometers) east of the KOP. The Cape Henry Lighthouse/Fort Story Military Base KOP also represents views to the nearest Project component, which is 29.1 miles (46.8 kilometers) east of the KOP. Although there is vegetation at the ground level along the shoreline of the Cape Henry Lighthouse/Fort Story Military Base KOP, from both KOPs, views toward the Project would be unobstructed, particularly from elevated viewpoints, such as the lighthouses. The introduction of modern elements into the setting of this property would draw the attention of viewers due to the movement of the blades and the contrast of the thin white lines along the horizon (COP, Appendix I-1; Dominion Energy 2022).

With the Project, the property's integrity of setting, feeling, and association would be diminished. The integrity of location, workmanship, design, and materials would not be affected. The unobstructed ocean views and maritime setting are character-defining features of the property. They contribute to its significance because they were integral considerations in the placement and design of the property. The introduction of modern elements would interfere with the historically and currently unadulterated ocean viewscape visible from the house. Therefore, the Project would result in an adverse effect on the house at 7900 Ocean Front Avenue.

As described in the *Cumulative Historic Resources Visual Effects Analysis – Coastal Virginia Offshore Wind Commercial Project*, this property is 28.3 miles (45.5 kilometers) from the nearest WTG associated with the Project and 47.6 miles (76.6 kilometers) from the nearest potential WTG location for other offshore wind energy development activities. The total number of theoretically visible WTGs from this property is 207; 205 theoretically visible WTGs (99.0 percent) would be visible from the proposed Project. As such, BOEM determined the Proposed Action 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 2022).

#### **O.3.1.3.18 House (8304–8306 Ocean Front Avenue), Virginia Beach, Virginia**

This property consists of three lots at 8304–8306 Ocean Front Avenue in Virginia Beach, Virginia (DHR ID: 134-5089). The property is also referred to as “Sandswept” in the Virginia Beach Register and eligible for the NRHP under Criterion C as an example of mid-twentieth century International style architecture (COP, Appendix H-1; Dominion Energy 2022). The property is oriented to the west between two cul-de-sacs created by Ocean Front Avenue. The property is surrounded by tall trees but has direct beach access and ocean views from the rear elevations and yard. Elevated porches on the buildings provide views toward the ocean over the sand dune that runs along the east boundary of the property. The location of the property enables inhabitants to enjoy ocean views and have direct access to the beach; thus, the maritime setting is key to its significance.

Currently, the property has views of the ocean from the rear elevation and yard; the views may be partially obstructed by tall vegetation and a low sand dune. The property is located between the North End Beach—Residential Beach 1 KOP (KOP Field ID 15a and 15b in COP, Appendix I-1; Dominion Energy 2022) and Cape Henry Lighthouse/Fort Story Military Base (KOP Field ID 13 in COP, Appendix I-1; Dominion Energy 2022). The North End Beach KOP represents views to the nearest Project component, which is 28.1 miles (45.2 kilometers) east of the KOP. The Cape Henry Lighthouse/Fort Story Military Base KOP also represents views to the nearest Project component, which is 29.1 miles (46.8 kilometers) east of the KOP. Although there is vegetation at the ground level along the shoreline of the Cape Henry Lighthouse/Fort Story Military Base KOP, from both KOPs, views toward the Project would be unobstructed, particularly from elevated viewpoints, such as the lighthouses. The introduction of modern elements into the setting of this property would draw the attention of viewers due to the movement of the blades and the contrast of the thin white lines along the horizon (COP, Appendix I-1; Dominion Energy 2022).

With the Project, the property’s integrity of setting, feeling, and association would be diminished. The integrity of location, workmanship, design, and materials would not be affected. The unobstructed ocean views and maritime setting are character-defining features of the property. They contribute to its significance because they were integral considerations in the placement and design of the property. The introduction of modern elements would interfere with the historically and currently unadulterated ocean viewscape visible from the house. Therefore, the Project would result in an adverse effect on the house at 8304–8306 Ocean Front Avenue.

As described in the *Cumulative Historic Resources Visual Effects Analysis – Coastal Virginia Offshore Wind Commercial Project*, this property is 28.37 miles (45.66 kilometers) from the nearest WTG associated with the Project and 48 miles (77 kilometers) from the nearest potential WTG location for other offshore wind energy development activities. The total number of theoretically visible WTGs from this property is 207; 205 theoretically visible WTGs (99.0 percent) would be visible from the proposed Project. As such, BOEM determined the Proposed Action 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 2022).

### **O.3.1.3.19 House (8600 Ocean Front Avenue), Virginia Beach, Virginia**

The house at 8600 Ocean Front Avenue in Virginia Beach, Virginia (DHR ID: 134-5493), is also referred to as the Faulkner House in the Virginia Beach Register. It is eligible for the NRHP under Criterion A as an example of early twentieth century oceanfront urban development in Virginia Beach (COP, Appendix H-1; Dominion Energy 2022). The property is located at the eastern end of 86<sup>th</sup> Street but may be oriented toward Ocean Front Avenue; tall trees obscure the south and west elevations. The trees surround the property on all sides. The property has direct beach access and ocean views from the rear elevations and a beach walkway leading from 86<sup>th</sup> Street to the beach. Elevated views toward the ocean are possible from the rear elevation of the house. The location of the property enables inhabitants to enjoy ocean views and have direct access to the beach; thus, the maritime setting is key to its significance.

Currently, the property has partially obscured views of the ocean from the rear elevation; these views are very likely less obstructed during winter months. The property is located between the North End Beach—Residential Beach 1 KOP (KOP Field ID 15a and 15b in COP, Appendix I-1; Dominion Energy 2022) and Cape Henry Lighthouse/Fort Story Military Base (KOP Field ID 13 in COP, Appendix I-1; Dominion Energy 2022). The North End Beach KOP represents views to the nearest Project component, which is 28.1 miles (45.2 kilometers) east of the KOP. The Cape Henry Lighthouse/Fort Story Military Base KOP also represents views to the nearest Project component, which is 29.1 miles (46.8 kilometers) east of the KOP. Although there is vegetation at the ground level along the shoreline of the Cape Henry Lighthouse/Fort Story Military Base KOP, from both KOPs, views toward the Project would be unobstructed, particularly from elevated viewpoints, such as the lighthouses. The introduction of modern elements into the setting of this property would draw the attention of viewers due to the movement of the blades and the contrast of the thin white lines along the horizon (COP, Appendix I-1; Dominion Energy 2022).

With the Project, the property's integrity of setting, feeling, and association would be diminished. The integrity of location, workmanship, design, and materials would not be affected. The unobstructed ocean views and maritime setting are character-defining features of the property. They contribute to its significance because they were integral considerations in the placement and design of the property. The introduction of modern elements would interfere with the historically and currently unadulterated ocean viewscape visible from the house. Therefore, the Project would result in an adverse effect on the house at 8600 Ocean Front Avenue.

As described in the *Cumulative Historic Resources Visual Effects Analysis – Coastal Virginia Offshore Wind Commercial Project*, this property is 28.52 miles (45.90 kilometers) from the nearest WTG associated with the Project and 48.15 miles (77.49 kilometers) from the nearest potential WTG location for other offshore wind energy development activities. The total number of theoretically visible WTGs from this property is 206; 204 theoretically visible WTGs (99.0 percent) would be visible from the proposed Project. As such, BOEM determined the Proposed Action 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 2022).

### **O.3.1.3.20 Oceans II Condominiums/Aeolus Motel, Virginia Beach, Virginia**

As described in the Section O.3.1.3.8, the Oceans II Condominiums/Aeolus Motel (DHR ID: 134-5872) was constructed within the historic context documented and described in the *National Register of Historic Places Multiple Property Listing: Virginia Beach Oceanfront Resort Motels and Hotels* (McClane and Kirchen 2020). It is considered NRHP eligible in the Multiple Property Listing as the first Florida-style motel constructed in Virginia Beach in the mid-twentieth century (McClane and Kirchen 2020). It retains many of its character-defining features, including exterior walkways, flat roof, Modern-inspired

architectural detailing, and balconies (COP, Appendix H-1; Dominion Energy 2022). The hotel sits on the west side of Atlantic Avenue. A long row of rooms faces east and toward the ocean; there are no intervening structures to block these views. From the south elevation and pool area, views of the ocean are also available.

Today, ocean views from the Oceans II Condominiums/Aeolus Motel remain unobscured. The Marriott Virginia Beach Oceanfront Hotel KOP (KOP Field ID 26 in COP, Appendix I-1; Dominion Energy 2022) represents elevated views to the nearest Project component, which is 28 miles (45 kilometers) to the east. From the Marriott, views toward the Project would be unobstructed; views from the Oceans II Condominiums/Aeolus Motel would be similar. The introduction of modern elements into the maritime setting of the property would draw the attention of viewers due to the movement of the blades and the contrast of the thin white lines along the horizon (COP, Appendix I-1; Dominion Energy 2022).

Ocean views and a maritime setting are character-defining features of the Oceans II Condominiums/Aeolus Motel that contribute to its significance. The property was built on a lot where views would be unobstructed and the beach would be readily accessible, taking full advantage of the ocean views that would be available from the private rooms, balconies, and pool area. The Project would not affect the integrity of location, workmanship, design, and materials for the property. However, the integrity of setting, feeling, and association would be diminished due to the introduction of modern elements that would interfere with the historically and currently unobstructed ocean viewscape. Therefore, the Project would result in an adverse effect on the Oceans II Condominiums/Aeolus Motel.

As described in the *Cumulative Historic Resources Visual Effects Analysis – Coastal Virginia Offshore Wind Commercial Project*, this property is 28 miles (45 kilometers) from the nearest WTG associated with the Project and 45.67 miles (73.49 kilometers) from the nearest potential WTG location for other offshore wind energy development activities. The total number of theoretically visible WTGs from this property is 215; 205 theoretically visible WTGs (95.3 percent) would be visible from the proposed Project. As such, BOEM determined the Proposed Action 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 2022).

#### **O.3.1.3.21 Sandbridge Historic District, Virginia Beach, Virginia**

A formal consideration of the district is planned for 2030. However, the proposed Sandbridge Historic District (DHR ID: Unassigned) is considered potentially eligible for the NRHP for the purposes of this Project. Specifically, it is considered eligible as one of Virginia Beach's last planned communities with beachfront access and limited commercial development during the mid-twentieth century. According to the HRVEA, "Sandbridge is a physically isolated seaside residential community distinguished by its beach front and ocean orientation" (COP, Appendix H-1; Dominion Energy 2022). It consists of single-family residential lots developed in a dense grid pattern and approximately 4.5 miles (7.2 kilometers) of oceanfront, according to the proposed delineation for this Project (COP, Appendix H-1; Dominion Energy 2022).

Many of the residential structures associated with the Sandbridge Historic District are oriented toward the beach and ocean. A long stretch of lots on the eastern boundary have direct ocean views and beach access. Ocean views may also be possible from elevated stories on more inland structures. The Back Bay National Wildlife Refuge/Little Island Park (KOP Field ID 44 in COP, Appendix I-1; Dominion Energy 2022) is near or within the southern portion of the district as currently proposed. This KOP represents unobstructed views to the nearest Project component, which is 26.8 miles (43.1 kilometers) to the east. From this KOP, inland views would be partially obscured by structures and vegetation, but views toward the Project from the beach area would be unobstructed. Therefore, the introduction of modern elements

into the setting would draw the attention of viewers due to the movement of the blades and the contrast of the thin white lines along the horizon (COP, Appendix I-1; Dominion Energy 2022).

Ocean views and a maritime setting are character-defining features of the proposed Sandbridge Historic District that contribute to its significance. The community was intentionally designed and located in an area where unobstructed ocean views could be enjoyed by residents. The Project would not affect the integrity of location, workmanship, design, and materials for the property. However, the integrity of setting, feeling, and association would be diminished due to the introduction of modern elements that would interfere with the historically and currently unobstructed ocean viewscape. Therefore, the Project would result in an adverse effect on the proposed Sandbridge Historic District.

As described in the *Cumulative Historic Resources Visual Effects Analysis – Coastal Virginia Offshore Wind Commercial Project*, this property is 26.9 miles (43.3 kilometers) from the nearest WTG associated with the Project and 36.5 miles (58.7 kilometers) from the nearest potential WTG location for other offshore wind energy development activities. The total number of theoretically visible WTGs from this property is 249; 203 theoretically visible WTGs (81.5 percent) would be visible from the proposed Project. As such, BOEM determined the Proposed Action 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 2022).

#### **O.3.1.3.22 Seahawk Motel, Virginia Beach, Virginia**

As described in the Section O.3.1.3.8, the Seahawk Motel (DHR ID: 134-5857) was constructed within the historic context documented and described in the *National Register of Historic Places Multiple Property Listing: Virginia Beach Oceanfront Resort Motels and Hotels* (McClane and Kirchen 2020). It is considered NRHP eligible as a motel constructed in Virginia Beach in the mid-twentieth century (McClane and Kirchen 2020). It retains many of its character-defining features, including oceanfront balconies, window wall, pool, and terrace. The hotel advertised 100 percent oceanfront rooms, confirming that ocean views were a significant amenity that attracted visitors (COP, Appendix H-1; Dominion Energy 2022).

The motel is set on the west side of Atlantic Avenue. There are no intervening structures to block the ocean views from the rooms and balconies on the eastern elevation. The Naval Aviation Monument Park KOP (KOP Field ID 23 in COP, Appendix I-1; Dominion Energy 2022) represents unobstructed views to the nearest Project component, which is 27.9 miles (44.9 kilometers) east of the property. From this KOP, views toward the Project would be unobstructed. Therefore, the introduction of modern elements into the setting here would draw the attention of viewers due to the movement of the blades and the contrast of the thin white lines along the horizon (COP, Appendix I-1; Dominion Energy 2022).

Ocean views and a maritime setting are character-defining features of the Seahawk Motel that contribute to its significance. The property was built on lots where views would be unobstructed and where the beach would be readily accessible. The property takes full advantage of the ocean views from the rooms and balconies. The Project would not affect the integrity of location, workmanship, design, and materials for the property. However, the integrity of setting, feeling, and association would be diminished due to the introduction of modern elements that would interfere with the historically and currently unobstructed ocean viewscape. Therefore, the Project would result in an adverse effect on the Seahawk Motel.

As described in the *Cumulative Historic Resources Visual Effects Analysis – Coastal Virginia Offshore Wind Commercial Project*, this property is 27.97 miles (45.01 kilometers) from the nearest WTG associated with the Project and 45.0 miles (72.4 kilometers) from the nearest potential WTG location for other offshore wind energy development activities. The total number of theoretically visible WTGs from

this property is 225; 205 theoretically visible WTGs (91.1 percent) would be visible from the proposed Project. As such, BOEM determined the Proposed Action 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 2022).

### **O.3.1.3.23 Seatack Lifesaving Station/U.S. Coast Guard Station, Virginia Beach, Virginia**

The Seatack Lifesaving Station/U.S. Coast Guard Station (DHR ID: 134-0047) was listed in the NRHP in 1979 under Criteria A and C in the areas of Maritime History and Architecture. As a lifesaving station and, later, a Coast Guard station, the property required a maritime setting for its construction and operation. The property was reliant on views of the ocean to function. Therefore, it is oriented toward the Atlantic Ocean and has unobstructed ocean views, which are enhanced by the height of the tower (COP, Appendix H-1; Dominion Energy 2022).

Currently, the property retains its maritime setting, though this has been diminished by the commercial development surrounding it. It also retains ocean views because there are no structures between the property and beach. The Naval Aviation Monument Park KOP (KOP Field ID 23 in COP, Appendix I-1; Dominion Energy 2022) represents views to the nearest Project component, which is 27.9 miles (44.9 kilometers) east of the property. From the slightly elevated park, views toward the Project would be unobstructed, particularly from elevated viewpoints. The introduction of modern elements into the setting of the lighthouse would draw the attention of viewers due to the movement of the blades and the contrast of the thin white lines along the horizon (COP, Appendix I-1; Dominion Energy 2022).

With the Project, the station's integrity of setting, feeling, and association would be further diminished. The integrity of location, workmanship, design, and materials would not be affected. The unobstructed ocean views and maritime setting are character-defining features of the property and were essential to the placement, design, and historic function of the station. The introduction of modern elements would interfere with the historic ocean viewscape. Therefore, the Project would result in an adverse effect on the Seatack Lifesaving Station/U.S. Coast Guard Station.

As described in the *Cumulative Historic Resources Visual Effects Analysis – Coastal Virginia Offshore Wind Commercial Project*, this property is 27.8 miles (44.7 kilometers) from the nearest WTG associated with the Project and 44.9 miles (72.3 kilometers) from the nearest potential WTG location for other offshore wind energy development activities. The total number of theoretically visible WTGs from this property is 220; 205 theoretically visible WTGs (93.2 percent) would be visible from the proposed Project. As such, BOEM determined the Proposed Action 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 2022).

### **O.3.1.3.24 Second Cape Henry Lighthouse, Virginia Beach, Virginia**

The Second Cape Henry Lighthouse (DHR ID: 134-0079/114-5250/134-0660) is listed in the NRHP under Criteria A and C in the areas of Maritime History, Transportation, and Architecture (COP, Appendix H-1; Dominion Energy 2022). The lighthouse was built on a hill near the First Cape Henry Lighthouse, directly along the ocean coastline. Unobstructed ocean views were required for the lighthouse's historic function. The lighthouse is reliant on its maritime setting and views of the ocean for its historic significance.

Currently, the lighthouse has full, unobstructed views of the ocean from the top of the 163-foot (50-meter) tower. Ground-level ocean views are obstructed by vegetation and buildings. The Cape Henry

Lighthouse/Fort Story Military Base KOP (KOP Field ID 13 in COP, Appendix I-1; Dominion Energy 2022) represents views to the nearest Project component, which is 29.1 miles (46.8 kilometers) east of the property. Although there is vegetation at the ground level along the shoreline of the district, views toward the Project would be unobstructed, particularly from elevated viewpoints. The introduction of modern elements into the setting of the lighthouse property would draw the attention of viewers due to the movement of the blades and the contrast of the thin white lines along the horizon (COP, Appendix I-1; Dominion Energy 2022).

With the Project, the lighthouse's integrity of setting, feeling, and association would be diminished. The integrity of location, workmanship, design, and materials would not be affected. The unobstructed ocean views and maritime setting are character-defining features of the property that contribute to its significance because they were integral considerations in the placement, design, and historic function of the lighthouse. The introduction of modern elements would interfere with the historically and currently unadulterated ocean viewscape. Therefore, the Project would result in an adverse effect on the Second Cape Henry Lighthouse.

As described in the *Cumulative Historic Resources Visual Effects Analysis – Coastal Virginia Offshore Wind Commercial Project*, this property is 29.08 miles (45.80 kilometers) from the nearest WTG associated with the Project and 49.43 miles (79.55 kilometers) from the nearest potential WTG location for other offshore wind energy development activities. The total number of theoretically visible WTGs from this property is 228; 205 theoretically visible WTGs (89.9 percent) would be visible from the proposed Project. As such, BOEM determined the Proposed Action 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 2022).

#### **O.3.1.3.25 Virginia House, Virginia Beach, Virginia**

As described in the Section O.3.1.3.8, the Virginia House (DHR ID: 134-5865) was constructed within the historic context documented and described in the *National Register of Historic Places Multiple Property Listing: Virginia Beach Oceanfront Resort Motels and Hotels* (McClane and Kirchen 2020). However, it was not considered NRHP eligible in the Multiple Property Listing because it was not built originally or primarily to accommodate summer tourists (McClane and Kirchen 2020). It is considered potentially eligible for the purposes of this Project as a recreational lodging resource with a historic maritime setting; today the property is used for condominiums (COP, Appendix H-1; Dominion Energy 2022). Virginia House is set on the west side of Atlantic Avenue. Its unique Y-shaped design mirrors that of the nearby Cavalier Hotel, which is only a few blocks to the north. This design maximized ocean views from the private rooms and balconies.

Ground-level and lower-story views toward the ocean from the Virginia House are obscured by the Holiday Inn Virginia Beach. Elevated views are very likely at least partially obscured by the Holiday Inn and the 3800 Oceanfront property, both of which sit on the east side of Atlantic Avenue between the Virginia House and the ocean. The Marriott Virginia Beach Oceanfront Hotel KOP (KOP Field ID 26 in COP, Appendix I-1; Dominion Energy 2022) represents views from the approximate location of the Virginia House to the nearest Project component, which is 28 miles (45 kilometers) to the east. From here, views toward the Project would be unobstructed. The introduction of these modern elements into the setting would draw the attention of viewers due to the movement of the blades and the contrast of the thin white lines along the horizon (COP, Appendix I-1; Dominion Energy 2022).

Ocean views and a maritime setting are character-defining features of the Virginia House that contribute to its significance. They were integral to the design, placement, and historic amenities associated with the property. The property takes full advantage of the ocean views from the rooms and balconies. The Project

would not affect the integrity of location, workmanship, design, and materials for the property. However, the integrity of setting, feeling, and association would be diminished due to the introduction of modern elements that would interfere with the historically and currently unobstructed ocean viewscape. Therefore, the Project would result in an adverse effect on the Virginia House.

As described in the *Cumulative Historic Resources Visual Effects Analysis – Coastal Virginia Offshore Wind Commercial Project*, this property is 27.9 miles (44.9 kilometers) from the nearest WTG associated with the Project and 45.12 miles (72.61 kilometers) from the nearest potential WTG location for other offshore wind energy development activities. The total number of theoretically visible WTGs from this property is 249; 205 theoretically visible WTGs (82.3 percent) would be visible from the proposed Project. As such, BOEM determined the Proposed Action 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 2022).

### **O.3.1.4 Summary of Adversely Affected Historic Properties**

#### **O.3.1.4.1 Adverse Effects on Historic Properties in the Marine APE**

The Project would have adverse effects on 36 known historic properties in or near the marine APE: 31 marine archaeological resources and 5 ASLFs. Dominion Energy intends to prioritize avoidance of the 31 marine archaeological resources (Targets 01–31) and their associated recommended avoidance buffers. Dominion Energy’s preferred method for addressing potential effects on ASLFs is through avoidance. Avoidance of a historic property would result in no effect on the historic property. However, development of the final Project design is ongoing, and it is currently unclear whether Dominion Energy would be able to avoid adverse effects. Therefore, BOEM has determined the undertaking would have adverse effects on historic properties in the marine APE. BOEM anticipates that the number of adversely affected historic properties in the marine APE may be refined through ongoing Section 106 consultations.

#### **O.3.1.4.2 Adverse Effects on Historic Properties in the Terrestrial APE**

The Project would have adverse effects on 14 known historic properties in the terrestrial APE: 13 terrestrial archaeological resources and 1 historic aboveground resource. Dominion Energy is committed to minimizing effects on historic properties through the siting, routing, and design process of the Onshore Project components to the extent practicable. Avoidance of a historic property would result in no effect on the historic property. However, development of the final Project design is ongoing, and it is currently unclear whether Dominion Energy would be able to avoid adverse effects. Therefore, BOEM has determined the undertaking would have adverse effects on historic properties in the terrestrial APE.

Additional terrestrial archaeological resources subject to adverse effects from the Project may be identified during Dominion Energy’s process of phased identification and evaluation of historic properties as defined in 36 CFR 800.4(b)(2) (Section O.6, *Phased Identification and Evaluation*). As detailed in the Section 106 PIP (COP, Appendix DD; Dominion Energy 2022), avoidance, minimization, and mitigation measures will be determined following the completion of the remaining terrestrial archaeological survey and analysis. BOEM will use an 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. BOEM anticipates that the number of adversely affected historic properties in the terrestrial APE may be refined through the phased process and ongoing Section 106 consultations.

### **O.3.1.4.3 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 25 aboveground historic properties, including 1 NHL: the First Cape Henry Lighthouse (see Table O-8). The undertaking would affect the character of the properties' settings that contributes to their historic significance by introducing visual elements that are out of character with the historic setting of the properties. BOEM did, however, determine that, due to the distance and open viewshed, the integrity of the properties would not be so diminished as to disqualify any of them for NRHP eligibility. The adverse effects on the viewshed of the aboveground historic properties would occur for approximately 33 years and would be unavoidable for reasons discussed in Section O.3.1.3, *Assessment of Effects on Historic Properties in the Visual APE*. Both this application of the Criteria of Adverse Effect and the determination that the effects would be direct are based on pertinent NRHP bulletins, subsequent clarification, and guidance from the National Park Service (NPS) and ACHP, along with other documentation, including professionally prepared viewshed assessments and computer-simulated photographs.

Where BOEM found adverse visual effects on historic properties in the visual APE for Offshore Project components (see Table O-8), BOEM also determined that the undertaking would cause cumulative visual effects (BOEM 2022). Cumulative effects are additive effects. Where BOEM has determined adverse effects would occur from Offshore Project actions on historic properties, BOEM then assessed if those effects would add to the potential adverse effects of other reasonably foreseeable actions and thereby result in cumulative effects.

## **O.4. National Historic Landmarks and the NHPA Section 106 Process**

NPS, which administers the NHL program for the Secretary of the Interior, describes NHLs and requirements for NHLs as follows:

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

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

- Requires the agency official, to the maximum extent possible, to undertake such planning and actions as may be necessary to minimize harm to any NHL that may be directly and adversely affected by an undertaking;
- Requires the agency official to request the participation of ACHP in any consultation conducted

under 36 CFR 800.6 to resolve adverse effects on NHLs; and

- Directs the agency to notify the Secretary of the Interior of any consultation involving an NHL and invite the Secretary of the Interior to participate in consultation where there may be an adverse effect.

The HRVEA identified two NHLs in the visual APE for the Project: First Cape Henry Lighthouse and Eyre Hall (COP, Appendix H-1; Dominion Energy 2022). BOEM has determined that only one of the two NHLs in the visual APE, the First Cape Henry Lighthouse, would be adversely affected by the Project.

The First Cape Henry Lighthouse (134-0007/134-0660) is located on a steep sand dune within the Fort Story Historic District in Virginia Beach, Virginia. The octagonal sandstone lighthouse was constructed in 1792. It is the first commissioned public works building in the United States and the first lighthouse authorized, completed, and lit by the federal government. It is also the third-oldest lighthouse in the United States. The tower is 72 feet (22 meters) in height, and the diameter ranges from 26 feet (8 meters) at the base to 16.5 feet (5 meters) at the top. The base walls are 6 feet (1.8 meters) thick, and a glass observation tower is located at the top of the tower. The tower was later lined with brick, and a metal staircase was added to the interior. The lighthouse was listed as an NHL in 1964, in the NRHP in 1966, and in the Virginia Landmarks Register (VLR) in 1969 under Criteria A and C. The property is identified as possessing a significant maritime setting and significant views to the ocean (COP, Appendix H-1; Dominion Energy 2022).

Eyre Hall (065-0008) is located on a 467.3-acre (189.1-hectare) rural lot north of Cheriton in Northampton County, Virginia. The property is defined by a mile-long drive that divides the property and provides access to the different buildings on the complex. The original one-and-one-half-story portion of Eyre Hall was constructed in 1759 by Littleton Eyre. Littleton Eyre's son, Severn, inherited the property in 1773; Severn Eyre was a member of the Virginia House of Burgesses between 1766 and 1773. The house was enlarged to two stories and converted into a wing of the present gambrel roof primary block between 1796 and 1800 by Severn's son John Eyre. Eyre Hall is notable for utilizing a vocabulary typical of less-affluent properties, including wood weatherboard, gambrel roof, and three-room side-hall plan. However, its scale and interior finishes signify the wealth and status of its historic owners. The primary dwelling is a Vernacular-style example of a Colonial-period house in the Chesapeake. Eyre Hall is listed as a NHL under Criterion 4 for its exceptional visual character and preservation of its historic architecture landscape (COP, Appendix H-1; Dominion Energy 2022).

BOEM considered prudent and feasible alternatives to avoid adverse effects on the Cape Henry Lighthouse NHL, applying *The Secretary of the Interior's Standards and Guidelines for Federal Agency Historic Preservation Programs Pursuant to the National Historic Preservation Act* (NPS 2013), which is presented by the NPS Federal Preservation Institute under Standard 4; as such:

Where such 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). In doing so, the agency 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.

BOEM considered three alternatives to the Proposed Action. Among these, Alternative B would consider the construction of up to 176 WTGs and 3 OSSs. Alternative C would remove up to 5 WTGs, resulting in up to 172 WTGs and 3 OSSs being constructed. Although both alternatives could lessen the visual effect of the wind farm on First Cape Henry Lighthouse due to a reduced number of WTGs, the overall visual effect of the wind farm would still result in an adverse effect on the NHL.

BOEM is taking action to minimize harm, as required by NHPA Section 110(f) at 36 CFR 800.10, to the First Cape Henry Lighthouse NHL. Descriptions of the actions to minimize or mitigate adverse effects will be discussed in greater detail in an MOA. Actions to minimize the visual adverse effects on First Cape Henry Lighthouse include using non-reflective white and light-gray paint on offshore structures (i.e., WTGs and OSSs) and a navigational lighting system (e.g., ADLS) that minimizes the visibility of the WTGs and OSSs. Implementation of a mitigation measure to resolve the visual adverse effects on First Cape Henry Lighthouse would be compensatory and consistent with the nature, scope, size, and magnitude of visual effects, including cumulative visual effects, caused by the undertaking.

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

## **O.5. Actions to Avoid, Minimize, or Mitigate Adverse Effects**

BOEM will consult with federally recognized tribes, SHPOs, the ACHP, and consulting parties to develop measures to avoid, minimize, or mitigate adverse effects for certain historic properties identified in the APE as adversely affected by the Project. Specifically, BOEM's consultation will develop measures to avoid physical effects on known historic properties and minimize visual effects on aboveground historic properties. BOEM will also consult to develop mitigation measures, which would be triggered in cases where avoidance of physical adverse effects on known historic properties is not feasible. The Project's post-review discovery plans will include a consultation process to determine appropriate mitigation in cases where there is unanticipated discovery of a previously unknown marine or archaeological resource that is not currently found to be subject to adverse effects from the Project.

As part of the NRHP Section 106 process, Dominion Energy has identified applicant-proposed measures (APMs) as conditions for approval of issuance of BOEM's permit (COP, Section 4.3; Dominion Energy 2022), including:

1. Dominion Energy will develop an operations plan prior to construction, to ensure that construction activities adhere to the recommended avoidance buffers.
2. Design and construction methods, including micro-siting opportunities, will continue to be evaluated in order to avoid or minimize the extent of seabed disturbance and adverse effects on historic properties.
3. Disturbance to known resources that cannot practicably be avoided would only occur with appropriate consultations (i.e., BOEM, SHPOs, Tribal Historic Preservation Offices) and approvals.
4. Additional archaeological investigation of resources that cannot be avoided may be needed to determine whether they are historic properties and to fully assess Project effects on them.
5. Dominion Energy would develop and implement an Unanticipated Discoveries Plan to avoid and mitigate impacts on unknown resources. Repairs and other future activities will only occur within previously disturbed portions of the APE which have been previously assessed by the QMA.
6. Adherence to the QMA recommended avoidance buffers would remain in effect during operations.

7. Dominion Energy is committed to minimizing impacts on cultural resources through the siting, routing, and design process of the Onshore Project components to the extent practicable.
8. Dominion Energy plans to have an Unanticipated Discoveries Plan for Terrestrial Archaeological Resources in place throughout construction, O&M, and decommissioning of the Project.
9. Dominion Energy will explore the use of an ADLS to minimize nighttime effects by only activating the FAA required warning lights when an aircraft is in the vicinity of the Wind Farm Area.
10. Dominion Energy will use non-reflective pure white (RAL Number 9010) or light-gray (RAL Number 7035) paint on offshore infrastructure to minimize daytime visual effects.
11. Dominion Energy plans to limit WTG lighting in number and illumination to meet the requirements for marine and aviation safety. No commercial signage will be included on the WTGs.
12. Dominion Energy would fund mitigation measures, as outlined in the COP (COP Volume 1, Section 4.3.3.5; Dominion Energy 2022), for properties adversely affected by the Project to resolve these adverse effects per 36 CFR 800.6, which may include the following:
  - a. Support for preparation of NRHP nominations for Chesapeake Beach, Doyletown, or Queen City, Virginia Beach.
  - b. Support for planning and design studies for the rehabilitation of the St. Teresa's Chapel and/or the 1902 Railroad Station.
  - c. Support for the preservation of historic properties associated with African American history, including Seatack Elementary School and the Mount Olive Baptist Church.
  - d. Support for updating the publication, *50 Most Significant Houses and Structures in Virginia Beach*.
  - e. Support for interpretive signs in the Historic Kempsville mini park in Virginia Beach.
  - f. Support for preservation planning for 302 22<sup>nd</sup> Street—the C & P Telephone Building.
  - g. Support for the survey and designation of resources associated with underrepresented communities in the region.
  - h. Support for a public lecture series on preservation topics to support regional historic preservation planning objectives.
  - i. Support for documentation and public outreach on the history of the State Military Reservation (formerly Camp Pendleton).
  - j. If determined appropriate through the Section 106 process, Dominion Energy suggests a donation of \$50,000 to be made prior to the completion of the Project to a private, non-profit preservation group, such as the United States Lighthouse Society or Preservation Virginia, to support qualified projects in the Chesapeake Bay region for the preservation and rehabilitation of historic lighthouses. It is anticipated that up to four competitive grants may be supported and that the issuing organization will widely publicize the availability of the targeted grant program. Applications might include the current owner of the Chesapeake Light Tower dependent on the provisions of the grant application requirements.
13. Dominion Energy proposes to determine specific treatment options through consultation with BOEM, the Virginia SCC, VDHR, property owners, and consulting parties, as outlined in COP, Appendix H-3, for properties adversely affected by onshore impacts to resolve adverse effects per 36 CFR 800.6. These may include detailed site documentation, historic research, and historic preservation studies; preparation of digital media or museum-type exhibits for public interpretation; installation of

historic markers or signs; installation of vegetative screening; protective fencing for the YMCA building foundations associated with the Camp Pendleton/State Military Reservation Historic District; or contributions to historical preservation organizations or specific preservation projects. Additional mitigation options could be identified through consultation with BOEM, the Virginia SCC, VDHR, the SMR, and other consulting parties. Site-specific plans would be prepared for agency review and approval.

The NHPA Section 106 consultation process is ongoing for the Project and will culminate in an MOA detailing avoidance, minimization, and mitigation measures to resolve adverse effects on historic properties, including cumulative adverse visual effects caused by the Project. BOEM will continue to consult in good faith with VDHR, the North Carolina SHPO, and other consulting parties to resolve adverse effects.

## **O.6. Phased Identification and Evaluation**

In consultation with BOEM and the relevant SHPO, Dominion Energy 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 presently unsurveyed areas of the terrestrial APE that would require phased identification of historic properties and any Project alternatives that may require phased identification of historic properties.

Dominion Energy has developed a Section 106 PIP for the process of completing additional required cultural resource investigations (COP, Appendix DD; Dominion Energy 2022). As of September 2022, efforts to identify and evaluate terrestrial archaeological resources in the terrestrial APE have encompassed areas proposed for Onshore Project components in Virginia. However, the identification and evaluation of historic properties for the entire terrestrial APE is incomplete. Additional archaeological surveys conducted during the phased process may lead to the identification of additional archaeological resources and historic properties in the terrestrial APE. In addition, if any Project alternatives are approved, the SCC approves an alignment not currently under consideration, or 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 would be required. Although additional information regarding the identification of historic properties may be obtained after the publication of the Draft EIS and may be presented in the Final EIS, additional information may not be available until after the Final EIS.

BOEM will use an MOA to establish commitments for reviewing the sufficiency of any updated studies and reports as phased identification and evaluation of historic properties in the APE, amending the APE per the final Project design, as necessary, and consulting on the post-ROD finding of effects. Information pertaining to the identification of historic properties for some Project alternatives may not be available until after the ROD is issued and the COP is approved. The approach for phased identification and evaluation will be in accordance with BOEM's existing *Guidelines for Providing Archaeological and Historic Property Information Pursuant to Title 30 Code of Federal Regulations Part 585* and ensure potential historic properties are identified, effects are assessed, and adverse effects are resolved prior to construction.

## O.7. References Cited

Bureau of Ocean Energy Management (BOEM). 2020. *Guidelines for Providing Archaeological and Historic Property Information Pursuant to 30 CFR Part 585*. May 27. Available:

<https://www.boem.gov/sites/default/files/documents/about-boem/Archaeology%20and%20Historic%20Property%20Guidelines.pdf>.

Bureau of Ocean Energy Management (BOEM). 2021. *Coastal Virginia Construction and Operations Plan Scoping Report*. June.

Bureau of Ocean Energy Management (BOEM). 2022. *Cumulative Historic Resources Visual Effects Analysis – Coastal Virginia Offshore Wind Commercial Project*. Prepared by ICF.

Dominion Energy Services, Inc. (Dominion Energy). 2022. *Construction and Operations Plan, Coastal Virginia Offshore Wind Commercial Project, Introduction, Project Siting and Design Development, Description of Proposed Activity*. May. Available: <https://www.boem.gov/renewable-energy/state-activities/cvow-construction-and-operations-plan>.

McClane, Debra A. and Kristin H. Kirchen. 2020. National Register of Historic Places Multiple Property Documentation Form: Virginia Beach Oceanfront Resort Motels and Hotels (1955-1970). Prepared for National Park Service, Washington, D.C.

Nationwide Environmental Title Research, LLC (NETR). 1970. Virginia Beach, Virginia, 23451, Aerial Photograph. Available: <https://www.historicaerials.com/viewer>.

Newbill, Michael B. 1988. National Register of Historic Places Nomination Form: de Witt Cottage. Prepared for National Park Service, Washington, D.C.

Pollard, Marcus R. 2013. National Register of Historic Places Nomination Form: Cavalier Hotel. Prepared for National Park Service, Washington, D.C.

Taylor, Robert J. 2018. National Register of Historic Places Nomination Form: Cavalier Shores Historic District. Prepared for National Park Service, Washington, D.C.

## **ATTACHMENT A FIGURES**

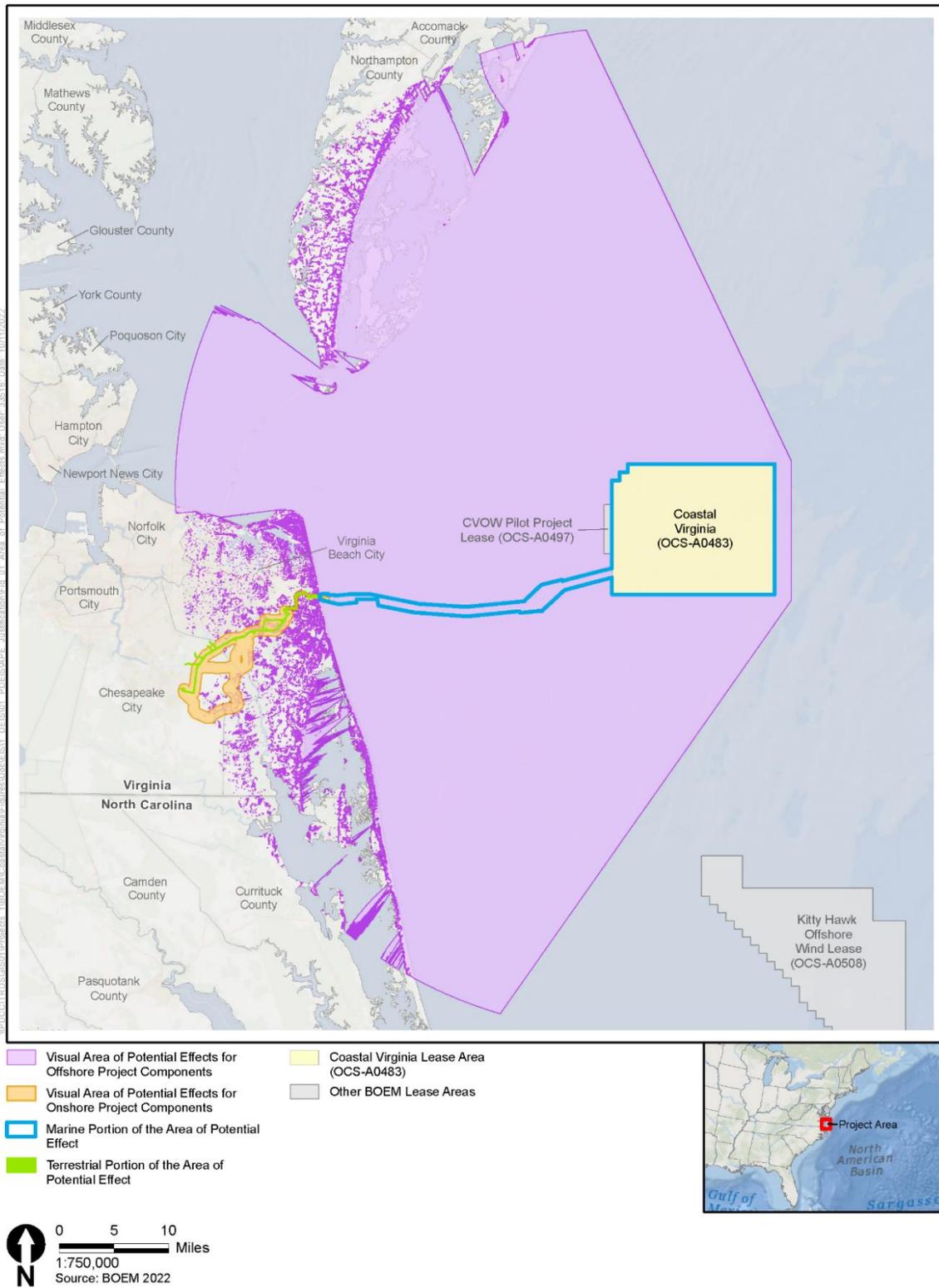


Figure O.A-1 Project APE

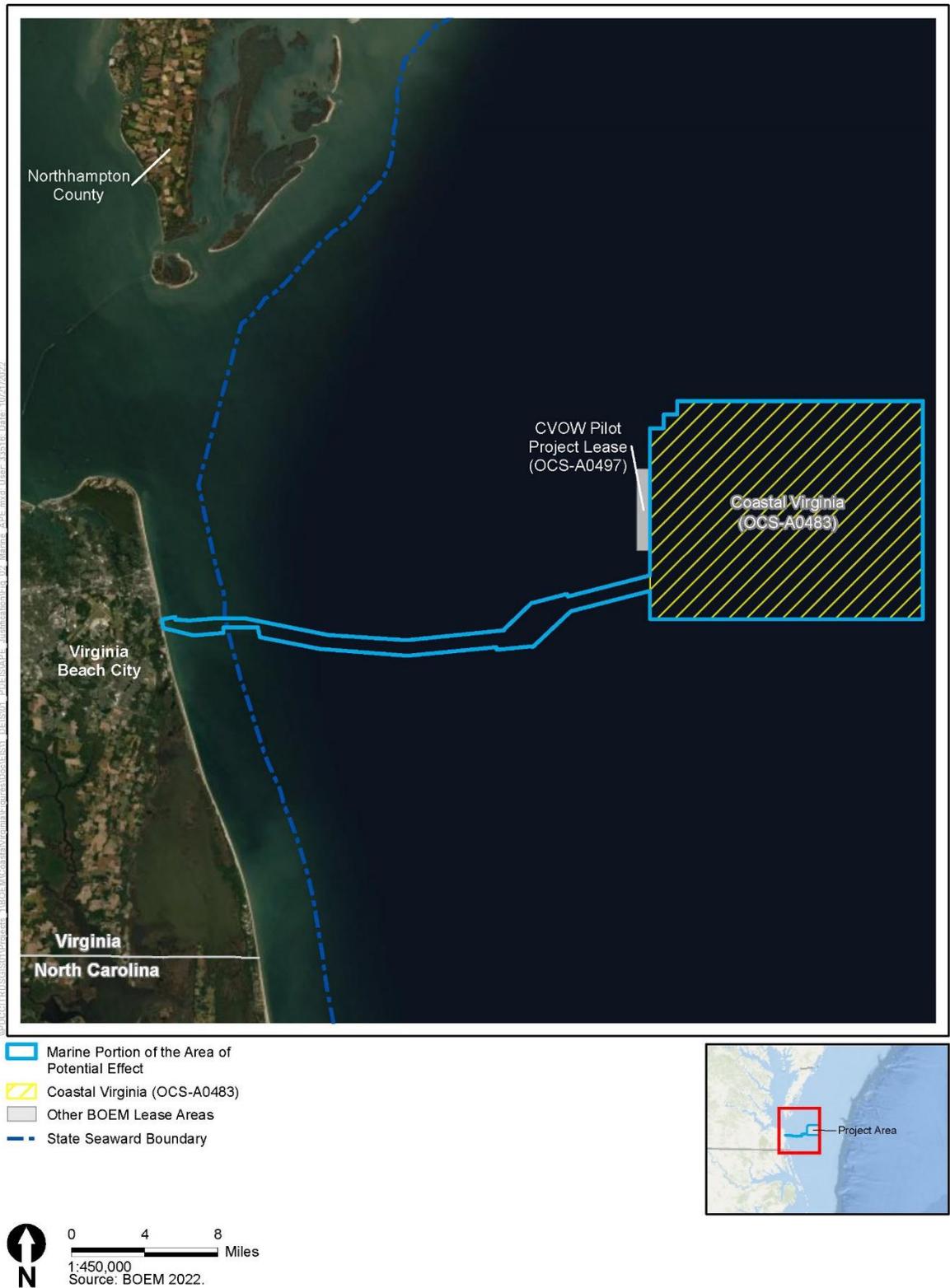


Figure O.A-2 Marine APE

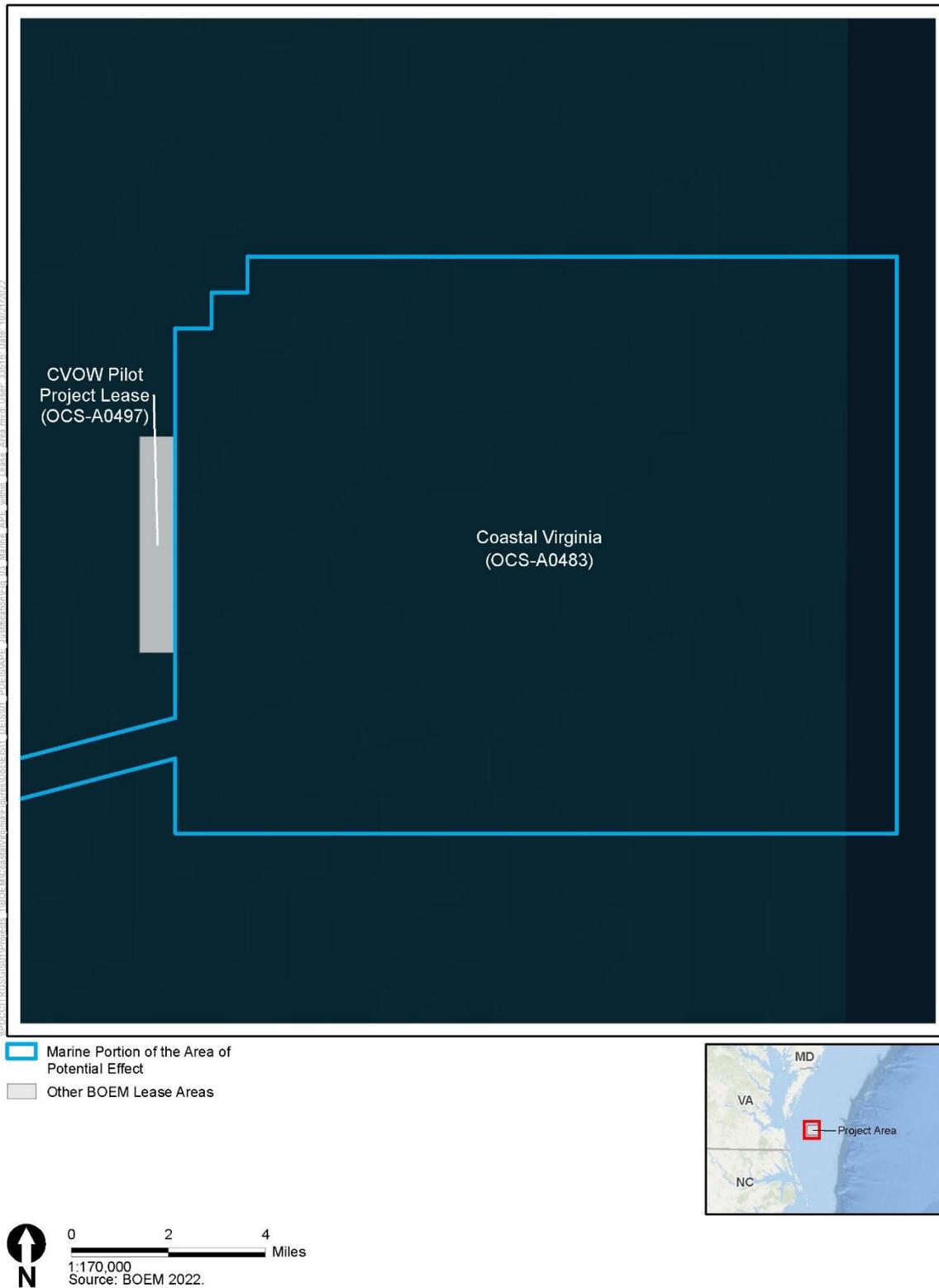
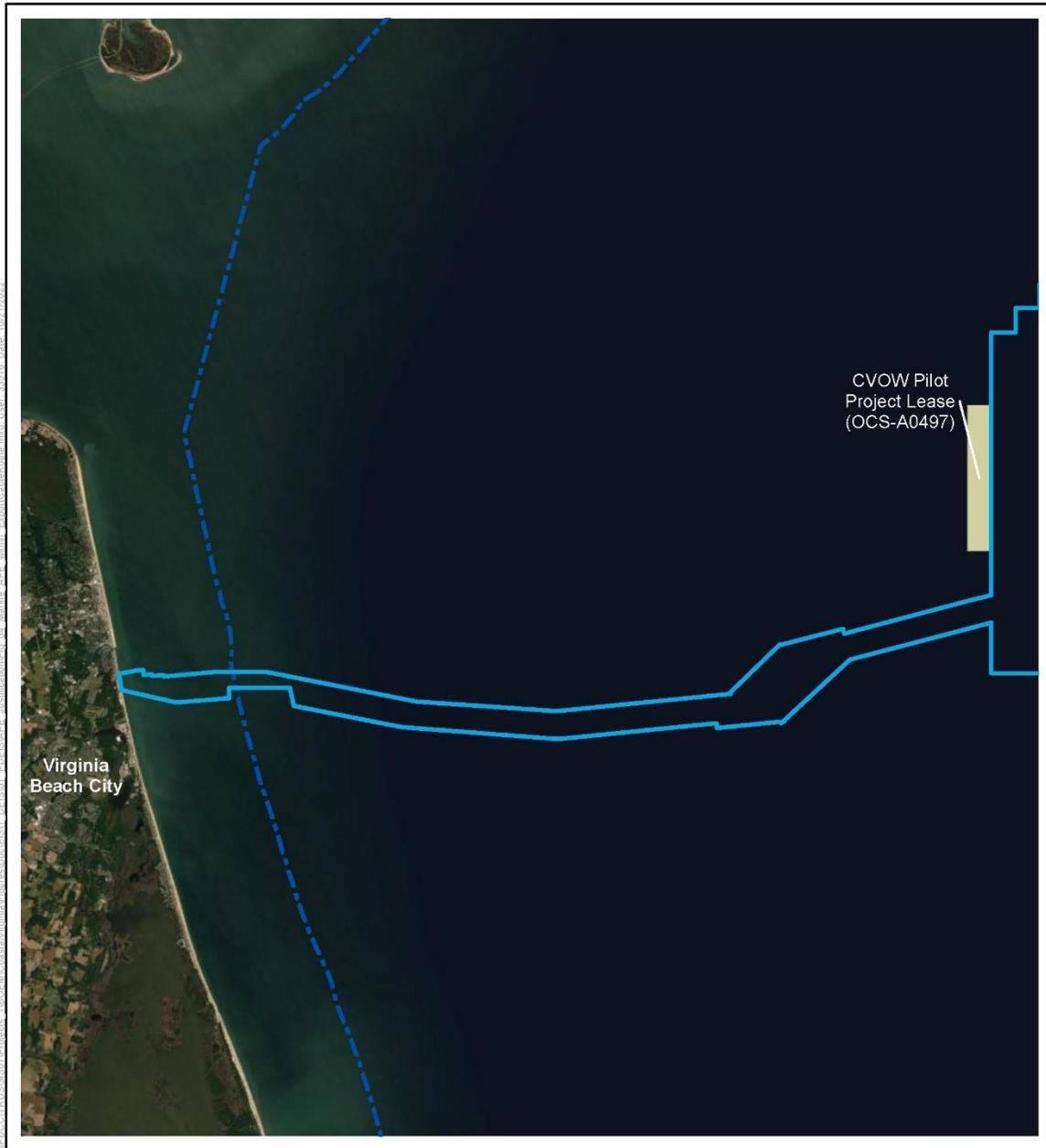
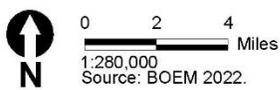


Figure O.A-3 Detail of Marine APE Within the Lease Area



- Marine Portion of the Area of Potential Effect
- Other BOEM Lease Areas
- State Seaward Boundary



**Figure O.A-4 Detail of Marine APE Within Export Cable Route Corridor**



Figure O.A-5 Terrestrial APE



Terrestrial Portion of the Area of Potential Effect

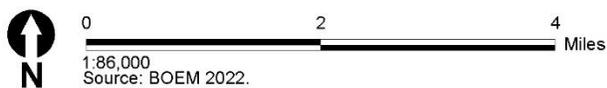
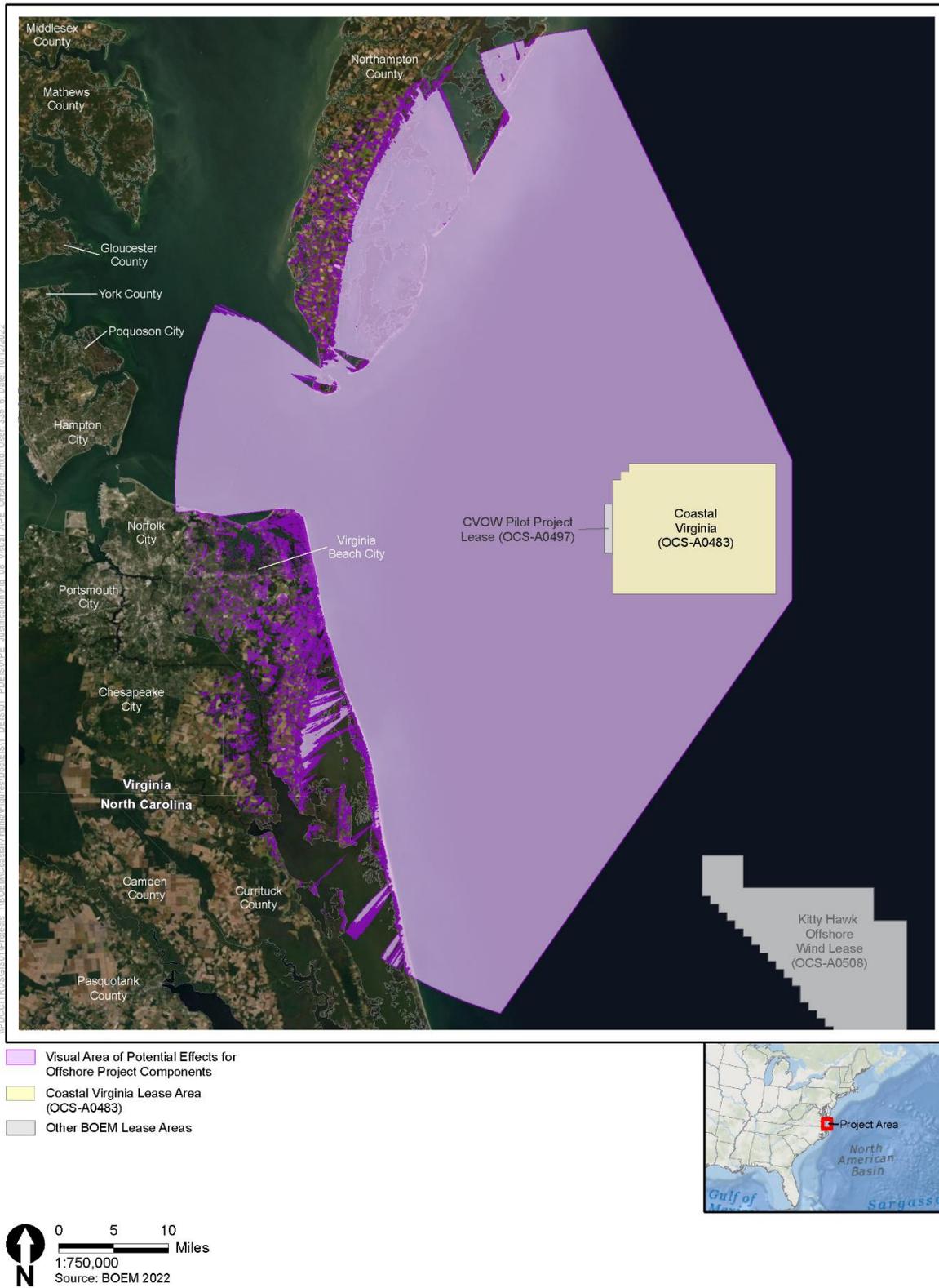


Figure O.A-6 Detail of Easternmost Portion of the Terrestrial APE



Figure O.A-7 Detail of Westernmost Portion of the Terrestrial APE



**Figure O.A-8 Visual APE for Offshore Project Components**



Figure O.A-9 Detail of Northernmost Portion of Visual APE for Offshore Project Components

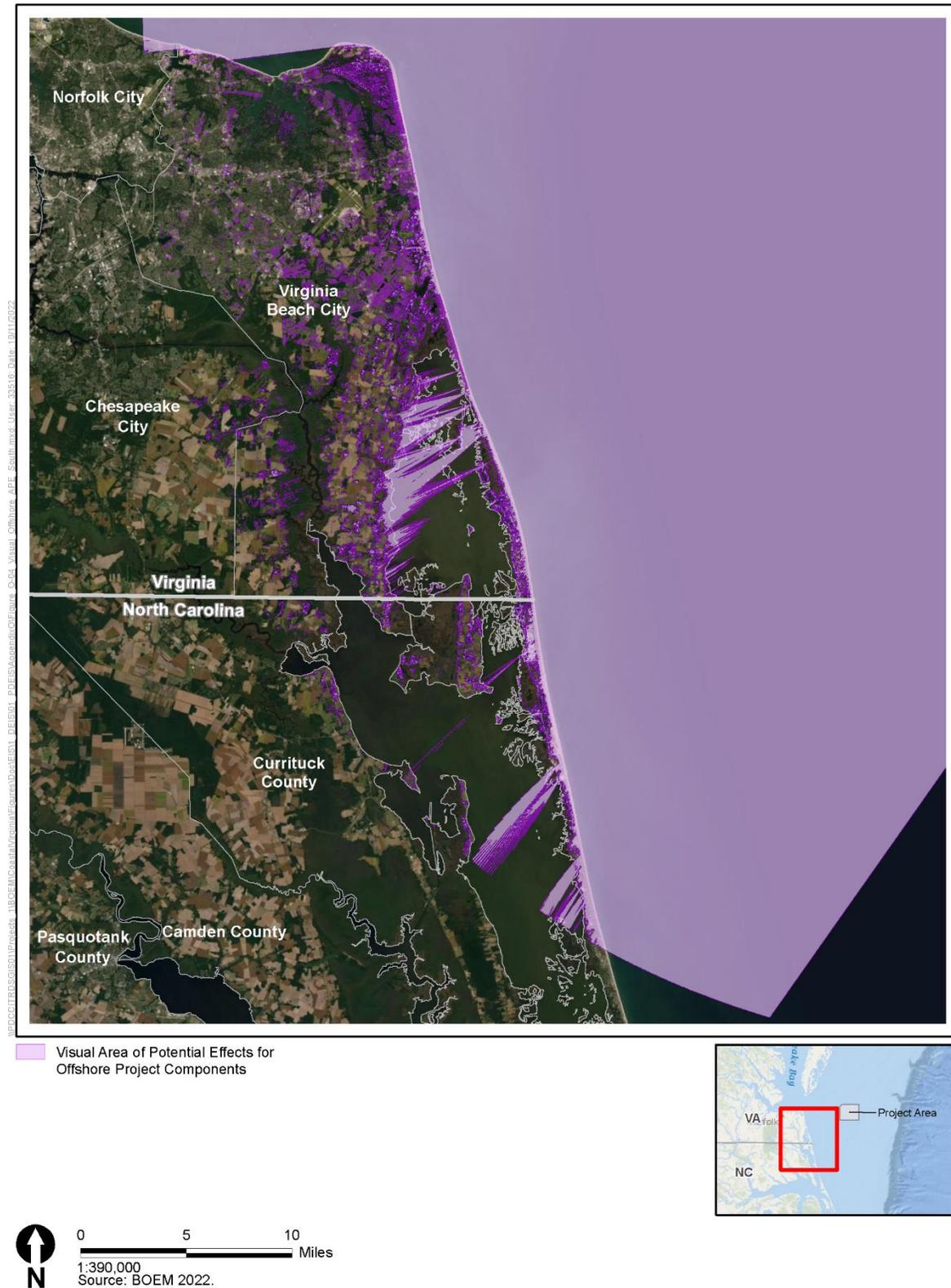


Figure O.A-10 Detail of Southernmost Portion of Visual APE for Offshore Project Components



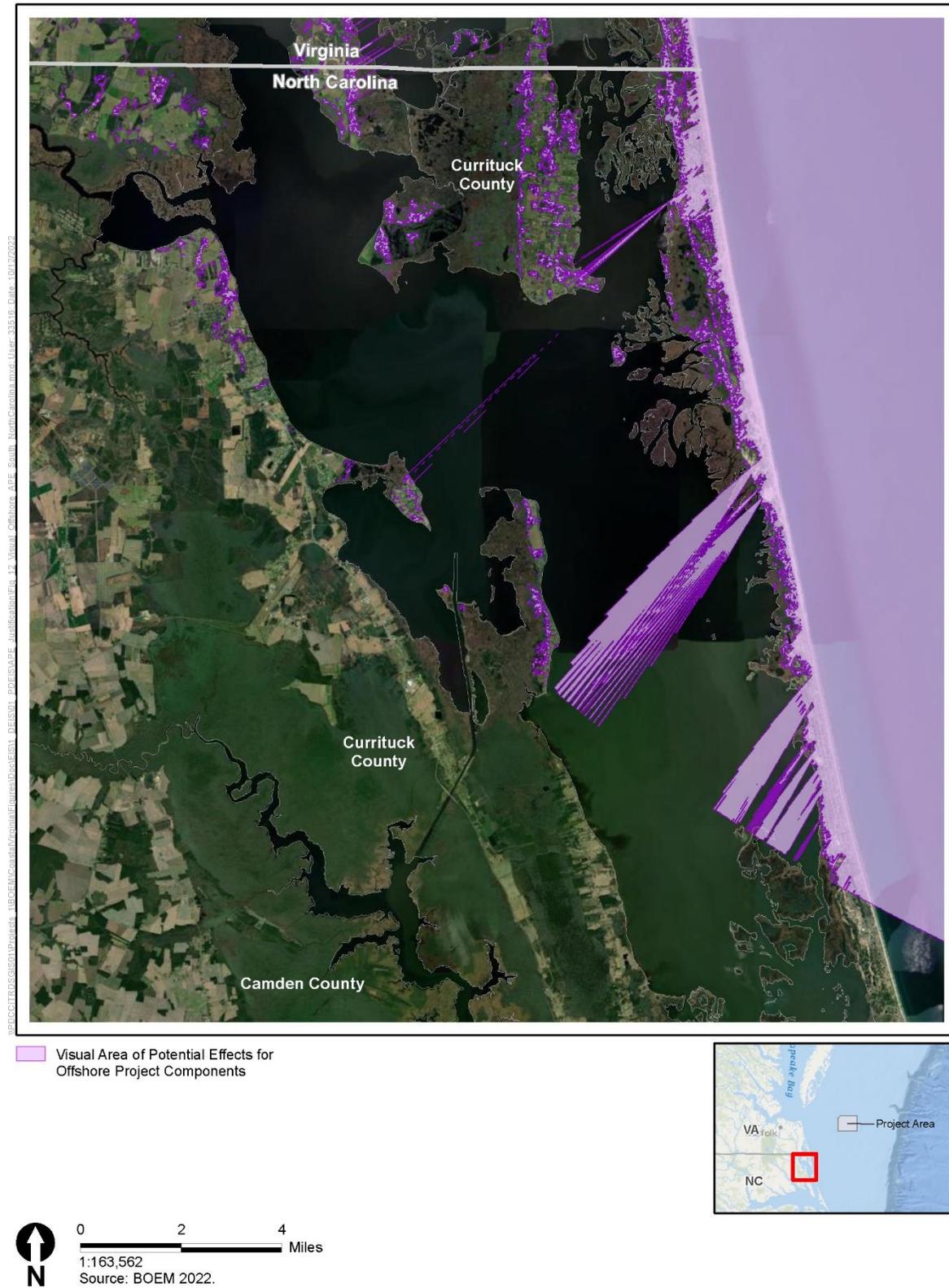


Figure O.A-12 Detail of Visual APE for Offshore Project Components in North Carolina



Visual Area of Potential Effects for Onshore Project Components

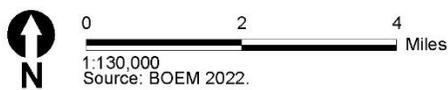
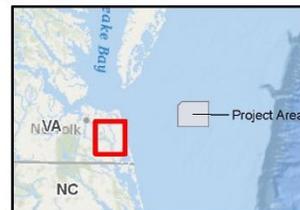


Figure O.A-13 Visual APE for Onshore Project Components



Visual Area of Potential Effects for Onshore Project Components

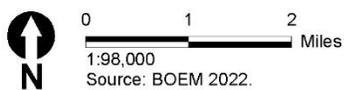


Figure O.A-14 Detail of Northernmost Portion of Visual APE for Onshore Project Components

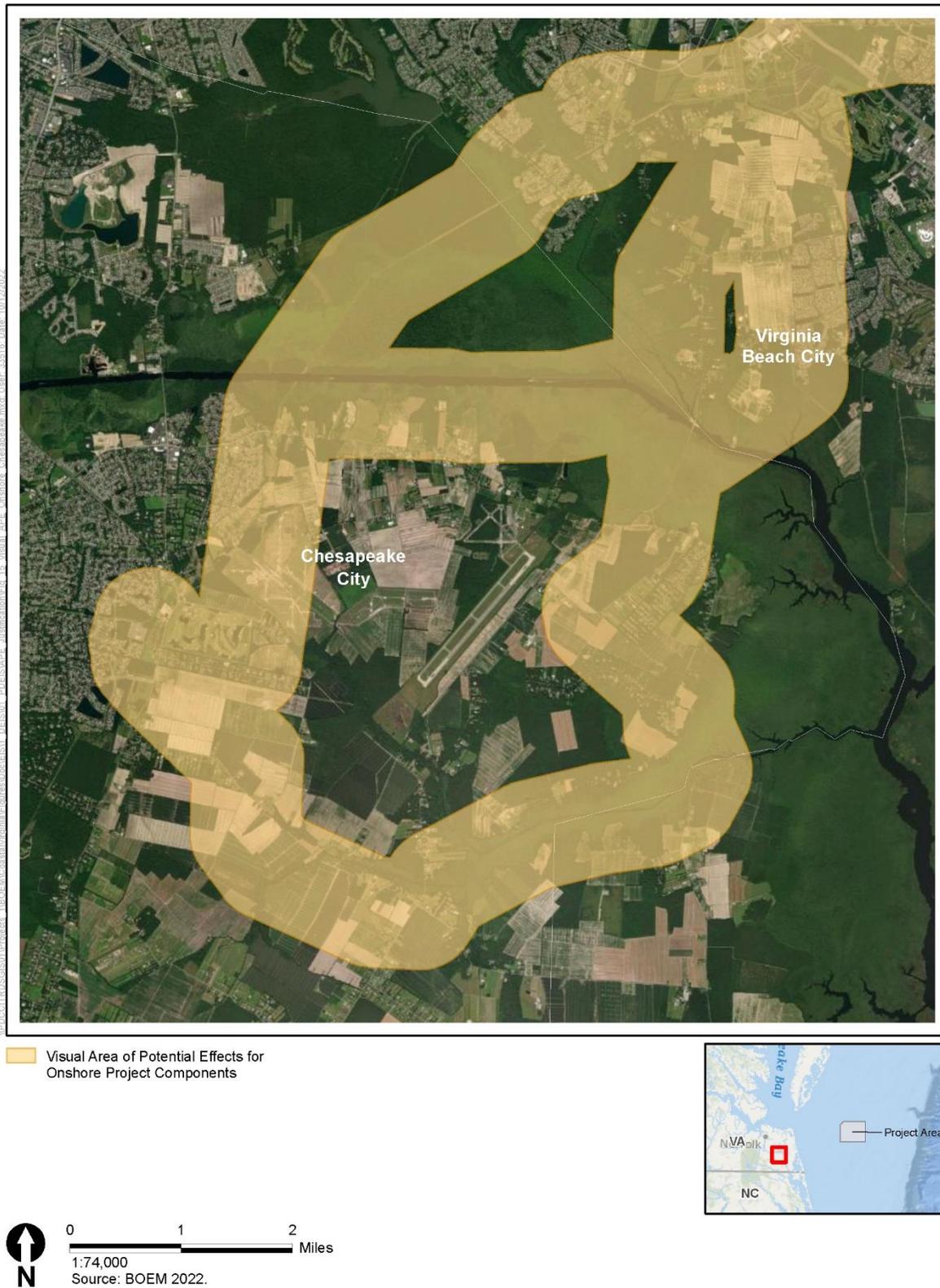


Figure O.A-15 Detail of Southernmost Portion of Visual APE for Onshore Project Components

## ATTACHMENT B 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 CVOW-C Project, in July and August 2021. During the consultations, additional parties were made known to BOEM and were added as they were identified.

Government or Organization
100 Black Men of Virginia Peninsula
Absentee-Shawnee Tribe of Indians of Oklahoma
Accomack County
Advisory Council on Historic Preservation (ACHP)
African American Heritage Trail
American Battlefield Trust
Assateague Island National Seashore
Cape Charles Historical Society
Captain John Smith Chesapeake National Historic Trail
Cheroenhaka Nottoway Indian Tribe
Cherokee Nation
Chickahominy Indian Tribe
Chickahominy Indian Tribe- Eastern Division
City of Chesapeake
City of Norfolk
City of Virginia Beach
Colonial National Historic Park
Council of Virginia Archaeologists
Cultural Heritage Partners, PLLC
Currituck County
Currituck County Historic Preservation Commission
Currituck County Historical Society
Delaware Tribe of Indians
Downtown Norfolk Council
Eastern Band of Cherokee Indians
Eastern Shawnee Tribe of Oklahoma
Eastern Shore of Virginia Barrier Islands Center
Eastern Shore of Virginia Historical Society
False Cape State Park
First Landing State Park
Fort Monroe Authority
Fort Monroe National Monument

<b>Government or Organization</b>
Haliwa-Saponi Indian Tribe
Hampton Roads Community Action Program
Kiptopeke State Park
Lumbee Tribe of North Carolina
Meherrin Indian Tribe
Monacan Indian Nation
Museum of Chincoteague Island
NAACP Currituck County Branch
Nansemond Indian Nation
Nansemond River Preservation Alliance
NASA Wallops Flight Facility
National Park Service
Naval Air Station Oceana
Naval Facilities Engineering Systems Command, Atlantic
Navy Region Mid-Atlantic
Norfolk County Historical Society of Chesapeake, VA
Norfolk Historical Society
North Carolina Department of Natural and Cultural Resources, Division of Historical Resources
North Carolina Maritime History Council
Northampton County
Northampton County Department of Planning, Permitting & Enforcement
Northampton Historic Preservation Society
Nottoway Indian Tribe of Virginia
Occaneechi Band of the Saponi Nation
Pamunkey Indian Tribe
Patawomeck Indian Tribe of Virginia
Piedmont Environmental Council
Preservation North Carolina
Preservation Virginia
Princess Anne County / Virginia Beach Historical Society
Rappahannock Tribe
Scenic Virginia
Seminole Tribe of Florida
Shawnee Tribe
The Coharie Tribe
The Delaware Nation
The Mattaponi Nation
The Narragansett Indian Tribe
The Sappony
The Shinnecock Indian Nation

<b>Government or Organization</b>
Town of Accomac
Town of Cape Charles
Town of Cheriton
Town of Chincoteague
Town of Eastville
Town of Exmore
Town of Onancock
Town of Onley
Town of Parksley
Town of Saxis
Town of Wachapreague
Tuscarora Nation
U.S. Army Corps of Engineers, Eastern Virginia Regulatory Section
U.S. Army Corps of Engineers, Southern Virginia Regulatory Section
U.S. Coast Guard
U.S. Fish and Wildlife Service
U.S. Fish and Wildlife Service, Back Bay National Wildlife Refuge
U.S. Fish and Wildlife Service, Chincoteague National Wildlife Refuge
U.S. Fish and Wildlife Service, Eastern Shore of Virginia National Wildlife Refuge
U.S. Fish and Wildlife Service, Mackay Island National Wildlife Refuge and Currituck National Wildlife Refuge
U.S. Fleet Forces Command
U.S. Navy Region Mid-Atlantic
United Keetoowah Band of Cherokee Indians in Oklahoma
Upper Mattaponi Indian Tribe
Urban League of Hampton Roads
Virginia African American Cultural Center
Virginia Army National Guard
Virginia Department of Historic Resources (VDHR)
Volgenau Virginia Coast Reserve
Waccamaw Siouan Tribe

## ATTACHMENT C CONSULTING PARTIES TO THE CVOW-C PROJECT

The following is a current list of consulting parties to the NHPA Section 106 review of the CVOW-C Project, as of October 25, 2022.

Government or Organization	Contact Person
Accomack County	G. Christian Guvernator IV
Advisory Council on Historic Preservation	Christopher Daniel
Chickahominy Indian Tribe	Wayne Adkins Dana Adkins Stephen Adkins
Chickahominy Indian Tribe – Eastern Division	Jessica Phillips Doris Austin Gerald A. Stewart
City of Norfolk	Kenneth C. Alexander Susan McBride
City of Virginia Beach	Mark Reed Robert Tajan
Colonial National Historic Park	Kym Hall
Council of Virginia Archaeologists	Eleanor Breen
Cultural Heritage Partners, PLLC	Marion Werkheiser Will Cook Jessica Krauss Claire O'Brien Olga Symeonoglou Peyton Lindley
Eastern Shore of Virginia Historical Society	Hilary Harnett-Wilson
Lumbee Tribe of North Carolina	Karen Bird Tammy Maynor Kevin Melvin
Monacan Indian Nation	Kenneth Branham Kaleigh Pollak Pamela Johns Thompson
Nansemond Indian Nation	Keith Anderson
Nansemond River Preservation Alliance	Elizabeth Taraski
NASA Wallops Flight Facility	Randall Stanley Shari Miller
National Park Service	Mary Krueger Kathryn Schlegel
Nottoway Indian Tribe of Virginia	Lynette Allston
Pamunkey Indian Tribe	Robert Gray Shaleigh Howells

<b>Government or Organization</b>	<b>Contact Person</b>
Patawomeck Indian Tribe of Virginia	Charles Bullock Minnie Lightner
Preservation Virginia	Sonja Ingram Elizabeth Kostelny
Rappahannock Tribe	Anne Richardson Woodie Walker
Seminole Tribe of Florida	David Echeverry
The Coharie Tribe	Greg Jacobs Phillip Bell
The Delaware Nation	Deborah Dotson Carissa Speck Katelyn Lucas
Town of Chincoteague	J. Arthur Leonard Michael T. Tolbert
Town of Eastville	Jim Sturgis
U.S. Army Corps of Engineers, Southern Virginia Regulatory Section	Nicole Woodward Todd Miller
U.S. Coast Guard	Matthew Creelman CDR Stephen West Maureen Kallgren CD Matt Meskun George Detweiler
U.S. Fish and Wildlife Service	Amy Wood
U.S. Fish and Wildlife Service Back Bay National Wildlife Refuge	Kathryn Owens Lauren Mowbray
U.S. Fish and Wildlife Service Chincoteague National Wildlife Refuge	John Kasbohm
U.S. Fish and Wildlife Service Eastern Shore of Virginia National Wildlife Refuge	Meta Griffin
U.S. Fleet Forces Command	James Casey Laura Busch Dan Hurley
U.S. Navy Region Mid-Atlantic	Heather Robbins Clay Swindell Catherine Lantzas-Olson
Upper Mattaponi Indian Tribe	Frank Adams Leigh Mitchell Reggie Tupponce
Virginia African American Cultural Center	Amelia Ross-Hammond Wayne Jones
Virginia Army National Guard	Susan Smead Lisa Jordan

<b>Government or Organization</b>	<b>Contact Person</b>
Virginia Department of Historic Resources	Roger Kirchen Julie Langan Adrienne Birge-Wilson