Record of Decision

Revolution Wind Farm and Revolution Wind Export Cable Project Construction and Operations Plan

August 21, 2023

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

U.S. Department of Defense
U.S. Army Corps of Engineers

U.S. Department of Commerce
National Oceanic and Atmospheric Administration
National Marine Fisheries Service

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1. Introduction

This document constitutes the Bureau of Ocean Energy Management's (BOEM), the National Oceanic and Atmospheric Administration (NOAA) National Marine Fisheries Service's (NMFS)[1], and the U.S. Army Corps of Engineers' (USACE) joint record of decision (ROD) for the final environmental impact statement (FEIS) prepared for the Revolution Wind Farm (RWF) and the Revolution Wind Export Cable Project (the Project) Construction and Operations Plan (COP). The ROD addresses BOEM's action to approve the COP under subsection 8(p)(4) of the Outer Continental Shelf Lands Act (OCSLA; 43 U.S.C. § 1337(p)), NMFS' action to issue a Letter of Authorization (LOA) to Revolution Wind, LLC (Revolution Wind) (the Lessee) under section 101(a)(5)(A) of the Marine Mammal Protection Act, as amended (MMPA; 16 U.S.C. § 1371(a)(5)(A)), and USACE's action to issue a permit under section 10 of the Rivers and Harbors Act of 1899 (RHA; 33 U.S.C. § 403) and section 404 of the Clean Water Act (CWA; 33 U.S.C. § 1344). This ROD was prepared following the requirements of the National Environmental Policy Act (NEPA; 42 U.S.C. §§ 4321 *et seq*.) and 40 CFR §§ 1500–1508.[2]

BOEM prepared the RWF FEIS with the assistance of a third-party contractor, SWCA. NMFS, USACE, U.S. Coast Guard (USCG), Bureau of Safety and Environmental Enforcement (BSEE), and U.S. Environmental Protection Agency (USEPA) were cooperating agencies during the development and review of the document. Cooperating state agencies included the Commonwealth of Massachusetts, Massachusetts Office of Coastal Zone Management, and the State of Rhode Island's Rhode Island Department of Environmental Management, and Rhode Island Coastal Resources Management Council.

NMFS received a request for authorization to take marine mammals incidental to construction activities related to the Project, which NMFS may authorize under the MMPA. NMFS's issuance of an MMPA incidental take authorization in the form of a LOA for Incidental Take Regulations (ITRs) is a major Federal action and, in relation to BOEM's action, is considered a connected action (40 CFR § 1501.9(e)(1)). The purpose of the NMFS action—which is a direct outcome of Revolution Wind's request for authorization to take marine mammals incidental to specified activities associated with the Project (e.g., pile driving)—is to evaluate Revolution Wind's request pursuant to specific requirements of the MMPA and its implementing regulations administered by NMFS, considering impacts of the applicant's activities on relevant resources, and if appropriate, issue the permit or authorization. NMFS needs to render a decision regarding the request for authorization due to NMFS's responsibilities under the MMPA (16 U.S.C. § 1371(a)(5)(A)) and its implementing regulations.

In addition to analyzing the potential impacts resulting from BOEM's approval of the COP pursuant to subsection 8(p)(4) of OCSLA, the FEIS also analyzed impacts resulting from the Proposed Action that are relevant to USACE permitting actions under section 10 of the RHA and section 404 of the CWA, and NMFS' action of issuing a LOA for the harassment of small

[1] For purposes of this ROD, NMFS, as an action agency, has been delegated authority to issue marine mammal incidental take authorizations.

[2] The associated FEIS was prepared using the 2020 Council on Environmental Quality (CEQ) NEPA regulations; therefore, this ROD follows those regulations.

numbers of marine mammals incidental to the Project under the MMPA (16 U.S.C. § 1371(a)(5)(A); see also 40 CFR § 1501.9(e)(1)).

1.1. Background

In 2009, the U.S. Department of the Interior (DOI) announced final regulations for the Outer Continental Shelf (OCS) Renewable Energy Program, which was authorized by the Energy Policy Act of 2005. The Energy Policy Act provisions implemented by BOEM provide a framework for issuing renewable energy leases, easements, and rights-of-way for OCS activities (see FEIS Section 1.3). BOEM's renewable energy program occurs in four distinct phases: (1) regional planning and analysis, (2) lease issuance, (3) site assessment, and (4) construction and operations. Table 1.1 summarizes the history of BOEM's planning and leasing activities offshore Rhode Island and Massachusetts.

Table 1.1 History of BOEM Planning and Leasing Offshore Rhode Island and Massachusetts Related to Lease OCS-A 0486

Year	Milestone
2009	BOEM established the BOEM Rhode Island Intergovernmental Renewable Energy Task Force (Task Force) and the BOEM Massachusetts Task Force at the request of the Governors of Rhode Island and Massachusetts, respectively, to facilitate coordination among affected Federal agencies and tribal, state and local governments throughout the entire leasing process. BOEM convened the BOEM Rhode Island and Massachusetts Task Forces for its first meetings in November 2009.
2010	BOEM began to work on and intended to issue a Request for Interest with the Rhode Island Task Force for an area offshore Rhode Island. However, the States of Rhode Island and Massachusetts developed a partnership that resulted in a Memorandum of Understanding (MOU) in July 2010, signed by the Governors of Rhode Island and Massachusetts. The MOU identified an Area of Mutual Interest for BOEM to consider for leasing and set a framework for the two states to collaborate on issues concerning offshore wind development on the OCS. In December 2010, BOEM held a joint BOEM Rhode Island and Massachusetts Task Force meeting to continue discussion on potential wind farm development offshore Rhode Island and Massachusetts with Call for Information and Nominations (Call).
2011	In May and June 2011, BOEM convened joint BOEM Rhode Island and Massachusetts Task Force meetings to present a draft Call and to discuss comments received from Task Force members resulting in BOEM's proposed changes to the draft Call, respectively. On August 18, 2011, BOEM published a Call for commercial leasing for wind power on the OCS offshore Rhode Island and Massachusetts (76 Fed. Reg. 51,383). The public comment period for the Call closed on October 3, 2011. In conjunction with the Call, BOEM published a notice of intent (NOI) to prepare an environmental assessment (EA) on the proposed leasing and on-site characterization and assessment activities in the offshore area under consideration in the Call. BOEM received eight indications of interest to obtain a commercial lease for a wind energy project, 81 comments on the Call, and 24 comments in response to the NOI.

Year	Milestone
2012	On February 24, 2012, BOEM announced the Rhode Island/Massachusetts (RI/MA) Wind Energy Area (WEA),[3] which comprises approximately 164,750 acres within an area of mutual interest identified by Rhode Island and Massachusetts in a memorandum of understanding (MOU) between the two states in 2010 (State of Rhode Island and the Commonwealth of Massachusetts 2010). In August 2012, BOEM convened a joint Rhode Island and Massachusetts Task Force meeting to discuss the next steps in the commercial wind leasing process. BOEM published a proposed sale notice in the *Federal Register* on December 3, 2012, for a 60-day public comment period (77 Fed. Reg. 71,612).
2013	On June 4, 2013, BOEM made available a revised EA for the RI/MA WEA. As a result of the analysis in the revised EA, BOEM issued a finding of no significant impact (FONSI), which concluded that reasonably foreseeable environmental effects associated with the commercial wind lease issuance and related activities would not significantly affect the environment. On June 5, 2013, BOEM published a final sale notice to auction two leases in the RI/MA WEA for commercial wind energy development (78 Fed. Reg. 33,898). On July 31, 2013, BOEM auctioned the two lease areas announcing Deepwater Wind New England LLC as the winner of both. BOEM issued Renewable Energy Lease Area OCS-A 0486 (Lease Area) to the applicant on October 1, 2013, containing 97,498 acres offshore Rhode Island (BOEM 2013).
2016	A site assessment plan (SAP) for Lease Area OCS-A 0486 was filed on April 1, 2016, with revisions filed in July, September, and November 2016. BOEM determined the SAP was complete on October 7, 2016.
2017	On October 12, 2017, BOEM approved the SAP for Lease Area OCS-A 0486.
2020	On January 10, 2020, a request was made to BOEM to segregate Lease Area OCS-A 0486 to accommodate both the RWF and RWEC Project, and the South Fork Wind Farm (SFWF) and South Fork Export Cable (SFEC) Project. BOEM approved a lease segregation on March 23, 2020, and 83,798 acres were retained with Lease OCS-A 0486. The RWF and RWEC Project retained lease number OCS-A 0486, whereas a new lease number was assigned for the SFWF and SFEC Project (OCS-A 0517) for 13,700 acres. Revolution Wind submitted its initial COP to BOEM on March 13, 2020.
2021	Revolution Wind submitted its updated COP on April 29, 2021. On April 30, 2021, BOEM published in the *Federal Register* an NOI to prepare an Environmental Impact Statement (EIS) for Revolution Wind's proposed wind energy facility offshore Rhode Island (86 Fed. Reg. 22,972). On June 4, 2021, BOEM issued a correction to the NOI with a reopening of the public scoping period (86 Fed. Reg. 30,068). The correction addressed and clarified two statements in the NOI regarding the energy capacity of the proposed wind farm and its distance from shore. In addition, the NOI correction reopened the comment period, allowing for comments to be received by June 11, 2021. An updated version of the COP was submitted on December 15, 2021.
2022	Revolution Wind submitted an updated version of the COP on July 21, 2022. On September 2, 2022, BOEM published a notice of availability (NOA) in the *Federal Register* for the Draft EIS for public review and comment (87 Fed. Reg. 54,248). See Figure 1.1 for an overview of the proposed project area. The NOA included times and locations for public hearings and a comment period end date of October 17, 2022.

[3] BOEM works with its Federal, state, local, and Tribal partners to identify WEAs of the OCS that appear most suitable for commercial wind energy activities, while presenting the fewest apparent environmental and user conflicts (BOEM 2022). After WEAs are identified, BOEM prepares an Environmental Assessment (EA) under NEPA to determine potential impacts associated with activities reasonably expected to follow the issuance of one or more leases within a WEA. BOEM may then move forward with steps to hold a competitive lease sale for commercial wind development within the WEAs. The Project is located in BOEM Lease Area OCS-A 0486, which is located in the RI/MA WEA. The RI/MA WEA is adjacent to and west of the MA WEA. More information on BOEM WEAs, including maps, are found at https://www.boem.gov/renewable-energy/state-activities.

Year	Milestone
2023	Revolution Wind submitted an updated version of the COP on March 1, 2023. On May 30, 2023, the U.S. Fish and Wildlife Service issued a letter of concurrence and a Biological Opinion for Endangered Species Act (ESA)-listed species within their jurisdiction. On July 21, 2023, NMFS issued a Biological Opinion considering all effects of the proposed actions on ESA-listed species and designated critical habitat. On July 21, 2023, BOEM published a Notice of Availability of a FEIS in the Federal Register (88 Fed. Reg. 41,171) initiating a minimum 30-day mandatory waiting period, during which BOEM is required to pause before issuing a ROD. On August 15, 2023, BOEM published an errata on its website that included certain edits to the summary of impacts by alternative tables in the Executive Summary and Chapter 2 of the FEIS to include species-specific impact determinations for North Atlantic Right Whale at the request of NOAA. The errata also provides numbering corrections, and text and footnotes and table note clarifications in Chapter 3, Appendix E-2, and Appendix F. None of these edits or corrections are substantive or affect the analysis or conclusions in the FEIS.

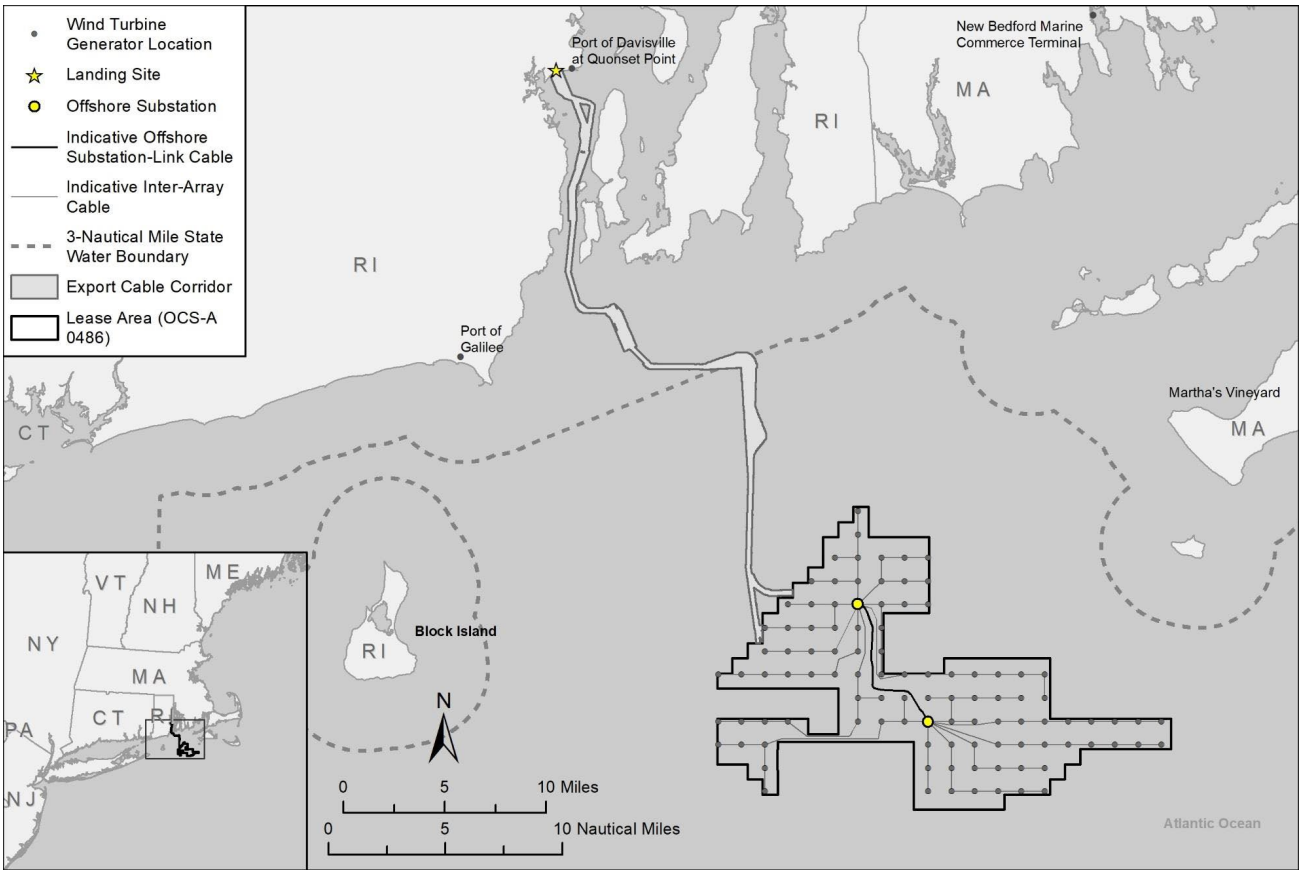

Figure 1.1 Proposed Project Area and Facilities

1.2. Authorities

The following summarizes BOEM's authority regarding the approval of the proposed Project, NMFS's authority to authorize the take by harassment, of marine mammals incidental to the proposed Project, and USACE's authority under section 10 of the RHA, prohibiting the

obstruction or alteration of navigable waters of the United States and the OCS[4] without a permit from USACE, and to issue a permit under section 404 of the CWA authorizing the discharge of dredged or fill material into waters of the United States. The FEIS includes a description of consultations, authorizations, and permits related to the Project in Appendix A, Table A-1. The agencies adopting the FEIS are those agencies that have defined authorizations and permitting responsibilities for the Project itself or for effects related to the Project. The NMFS MMPA LOA is briefly discussed here; its decision and supporting rationale are discussed in Section 5.2. NMFS is serving as a cooperating agency pursuant to 40 CFR § 1501.8 because the scope of the Proposed Action and alternatives involves activities that could affect marine resources and due to its jurisdiction by law and special expertise. Issuance of an LOA under the MMPA triggers independent NEPA compliance obligations, which may be satisfied by adopting the FEIS prepared by BOEM. The USACE is serving as a cooperating agency pursuant to 40 CFR § 1501.8 because the scope of the Proposed Action and alternatives involves activities that could affect resources under its jurisdiction by law and special expertise pursuant to section 10 of the RHA and section 404 of the CWA. Issuance of section 10 or section 404 permits requires NEPA compliance, which will be met via adoption of BOEM's FEIS and issuance of the ROD. The USACE permitting action is briefly discussed here; its decision and supporting rationale are discussed in Section 5.3. Other agencies either are not required to authorize the Project or have completed any authorizations that are required of them; or their actions are exempt from NEPA (e.g., USEPA's Clean Air Act permitting) and are, therefore, reviewed separately.

1.2.1. BOEM Authority

The Energy Policy Act of 2005, Pub. L. No. 109-58, amended OCSLA (43 U.S.C. §§ 1331 *et seq*.) by adding a new subsection 8(p) to authorize the Secretary of the Interior (Secretary) to issue leases, easements, and rights-of-way in the OCS for renewable energy development, including wind energy projects.

The Secretary delegated to BOEM the authority to decide whether to approve COPs. Final regulations implementing this authority were promulgated by BOEM's predecessor agency, the Minerals Management Service, on April 29, 2009 (74 Fed. Reg. 19,637). These regulations prescribe BOEM's responsibility for determining whether to approve, approve with modifications, or disapprove Revolution Wind's COP. In accordance with CEQ NEPA regulations (40 CFR part 1501), BOEM served as the lead Federal agency for the preparation of the EIS.

The Secretary's authorization must comply with OCSLA subsection 8(p)(4) (43 U.S.C. § 1337(p)(4)), which "imposes a general duty on the Secretary to act in a manner providing for the subsection's [various policy] goals."[5] According to M-Opinion 37067, "[t]he subsection does not require the Secretary to ensure that the goals are achieved to a particular degree, and she retains

[4] Section 4(f) of the OCSLA of 1953, as amended, extended USACE's authority to prevent obstructions to navigation in navigable waters of the United States to artificial islands, installations, and other devices located on the seabed to the seaward limit of the OCS. *See* 43 U.S.C. § 1333(e).
[5] Sol. Op. M-37067, "Secretary's Duties under Subsection 8(p)(4) of the Outer Continental Shelf Lands Act When Authorizing Activities on the Outer Continental Shelf" (Apr. 9, 2021).

wide discretion to determine the appropriate balance between two or more goals that conflict or are otherwise in tension" (Sol. Op. M-37067).

1.2.2. NMFS Authority

Sections 101(a)(5)(A) and (D) of the MMPA allow NMFS to authorize, upon request, the incidental (but not intentional) take of small numbers of marine mammals, including incidental take by harassment, provided certain determinations are made and statutory and regulatory procedures are met (16 U.S.C. § 1371(a)(5)(A), (D)). To authorize the incidental take of marine mammals, NMFS evaluates the best available scientific information to determine whether the take would have a negligible impact on affected species or stocks and whether the activity would have an unmitigable adverse impact on the availability of the species or stocks for subsistence use (if applicable). NMFS cannot issue an authorization if NMFS finds the taking would result in more than a negligible impact on marine mammal species or stocks, or would result in an unmitigable adverse impact on the species or stocks for subsistence uses. NMFS also must prescribe the permissible methods of take and other means of effecting the least practicable adverse impact on the species or stocks of marine mammals and their habitat, paying particular attention to rookeries, mating grounds, and other areas of similar significance. All incidental take authorizations include additional requirements pertaining to monitoring and reporting.

Pursuant to the Endangered Species Act (ESA) Section 7(a)(2), NMFS also must ensure that issuing the marine mammal incidental take authorization is not likely to jeopardize the continued existence of listed species or result in the destruction or adverse modification of critical habitat (16 U.S.C. § 1536(a)(2)). For those marine mammal species that are listed under the ESA, NMFS Office of Protected Resources (OPR) must also consult with NMFS Greater Atlantic Regional Fisheries Office (GARFO) Protected Resources Division to receive an exemption for the take of those species and adhere to the requirements listed under Section 7 of the ESA to ensure that the MMPA-authorized incidental take is not likely to jeopardize the continued existence of those species. The ESA Section 7 consultation for this action resulted in issuance of a Biological Opinion (BiOp) that concluded the proposed Federal actions are not likely to jeopardize the continued existence of any ESA-listed species or result in the destruction or adverse modification of any critical habitat. The BiOp includes an Incidental Take Statement (ITS), which exempts that incidental take from ESA prohibitions subject to specified reasonable and prudent measures and implementing terms and conditions considered necessary and appropriate for NMFS OPR to minimize the effects of take on ESA-listed marine mammals. The BiOp and ITS also identify measures, which may be specific to the regulatory authorities of each action agency, to ensure compliance with the MMPA ITA with respect to the incidental take of ESA-listed marine mammals (i.e., measures in the Proposed Action and those identified as reasonable and prudent measures and terms and conditions, respectively).

NMFS promulgated regulations to implement the MMPA (50 CFR part 216), including application instructions for incidental take authorizations. Applicants must comply with these regulations, the application instructions, and the MMPA. The decision being made by NMFS, including its decision to adopt BOEM's FEIS, is discussed in Section 5.2 of this ROD.

1.2.3. USACE Authority

This permit action is being undertaken through authority delegated to the District Engineer by 33 CFR § 325.8 pursuant to section 10 of the RHA and section 404 of the CWA. Section 10 of the RHA prohibits the obstruction or alteration of navigable waters of the United States without a permit from USACE. The navigable waters of the United States include all coastal waters within a zone 3 nautical miles seaward of the baseline of the territorial seas. Jurisdiction extends shoreward to the line on the shore reached by the plane of the mean high water. Section 4(f) of the OCSLA of 1953, as amended, extended USACE's authority under section 10 to artificial islands, installations, and other devices located on the seabed, to the seaward limit of the OCS. USACE also issues permits under section 404 of the CWA authorizing the discharge of dredged or fill material into waters of the United States. The limit of section 404 jurisdiction is measured from the baseline of the territorial seas in a seaward direction, a distance of 3 nautical miles. The landward limits of jurisdiction extend to the high tide line. The term high tide line means the line of intersection of the land with the water's surface at the maximum height reached by a rising tide. The applicant proposes to discharge fill below the high tide line of waters of the United States out to the 3-mile limit and to perform work and place structures below the mean high-water mark of navigable waters of the United States and on the OCS. These activities require authorization from USACE under section 10 of the RHA and section 404 of the CWA.

USACE participated in development of the Revolution Wind EIS as a cooperating agency under the CEQ NEPA regulations. USACE reviewed and evaluated the information in the FEIS in accordance with 40 CFR § 1506.3 and 33 CFR part 325, Appendix B. USACE finds the actions covered by the Revolution Wind FEIS and those regulated by USACE under section 10 of the RHA and section 404 of the CWA are substantially the same, and that USACE's cooperating agency comments and suggestions have been satisfied by BOEM. Therefore, USACE adopts the FEIS as appropriate for the purposes of NEPA and public interest review required by 33 CFR § 320.4, and the alternatives analysis required by 40 CFR part 230. Issuance of section 10 or section 404 permits requires NEPA compliance, which USACE will meet via adoption of BOEM's FEIS and issuance of the ROD. The permit decision being made by USACE is discussed in Section 5.3 of this ROD.

2. Proposed Project

2.1. Project Description

The Proposed Action will construct and install, operate, maintain, and include the eventual decommissioning of a wind energy facility within the Project Design Envelope (PDE) and implementation of applicable environmental protection measures (EPM) as described in the RWF COP (Revolution Wind 2023). The Proposed Action includes up to 100 wind turbine generators (WTGs) ranging in nameplate capacity of 8 to 12 megawatts (MW) sufficient to fulfill, at a minimum, the three existing power purchase agreements (PPAs) (totaling a nameplate capacity of 704 MW) with a potential nameplate capacity of up to 880 MW, the maximum capacity identified in the PDE.

The WTGs would be connected by a network of inter-array cables; up to two offshore substations,[6] an offshore cable linking the two substations; up to two submarine export cables co-located within a single corridor; up to two underground transmission circuits located onshore; one onshore interconnection facility (ICF); and one onshore substation (OnSS) inclusive of up to two interconnection circuits connecting to the existing Davisville Substation in North Kingstown, Rhode Island, which connects to the New England transmission system managed by ISO New England. The Proposed Action includes the burial of offshore export cables below the seafloor in both the OCS and Rhode Island state waters and a uniform east-west and north-south grid of 1 × 1-nm spacing between WTGs.[7] The COP contains additional details on the Project and is located on the BOEM webpage at https://www.boem.gov/renewable-energy/state-activities/revolution-wind. The Proposed Action in the FEIS (Alternative B) is to approve the proposed Project as described in the COP.

2.2. Purpose and Need for the Proposed Action

Through a competitive leasing process under 30 CFR § 585.211, Deepwater Wind New England, LLC was awarded commercial Renewable Energy Lease OCS-A 0486 (Lease) covering an area offshore Rhode Island. Subsequent to the award of the Lease, BOEM approved an application to assign a portion of the Lease to Deepwater Wind South Fork, LLC, which resulted in the segregation of the Lease and a new lease number, OCS-A 0517, for that portion. Deepwater Wind South Fork, LLC changed its name to South Fork Wind, LLC. The remaining portion of Lease OCS-A 0486 was assigned to DWW Rev I, LLC. DWW Rev I, LLC changed its name to Revolution Wind, LLC (Revolution Wind). Under the terms of the Lease, Revolution Wind has the exclusive right to submit a COP for activities within the Lease Area, and it has submitted a COP to BOEM proposing the construction and installation, operations and maintenance (O&M), and conceptual decommissioning of an offshore wind energy facility in the Lease Area (the RWF) in accordance with BOEM's COP regulations under 30 CFR §§ 585.626 *et seq*. Revolution Wind's goal is to develop a commercial-scale offshore wind energy facility in the Lease Area with WTGs; a network of inter-array cables (IACs); up to two offshore substations

[6] Each OSS has a maximum nominal capacity of 440 MW; therefore, two OSSs are required to achieve the PPA obligations of 704 MW.

[7] In accordance with 30 CFR § 585.634(c)(6), micrositing of WTG foundations may occur within 500 feet from each proposed WTG location. WTG micrositing would be performed on a case-by-case basis to avoid significant seafloor hazards such as surface and subsurface boulders (see COP Section 2.2.1.1).

(OSSs) (OSS1 and OSS2); up to two export cables making landfall in North Kingstown, Rhode Island; one OnSS; and one ICF.

The Project would contribute to Connecticut's mandate of 2,000 MW of offshore wind energy by 2030, as outlined in Connecticut Public Act 19-71, and to Rhode Island's 100% renewable energy goal by 2030, as outlined in Rhode Island Governor's EO 20-01 of January 2020. The Project would have the capacity to deliver up to 880 MW of power to the New England energy grid, satisfying the current PPA total of 704 MW. Specifically, Revolution Wind's goal to construct and operate a commercial-scale offshore wind energy facility in the Lease Area is intended to fulfill the following three PPAs: a 200-MW contract with the State of Connecticut approved in January 2019, a 400-MW contract with the State of Rhode Island approved in June 2019, and a 104-MW contract with the State of Connecticut approved in December 2019.

The purpose of BOEM's action is to determine whether to approve, approve with modifications, or disapprove Revolution Wind's COP based on BOEM's authority under the OCSLA to authorize renewable energy activities on the OCS; Executive Order 14008; the Administration's goal to deploy 30 gigawatts (GW) of offshore wind energy capacity in the United States by 2030 while protecting biodiversity and promoting ocean co-use;[8] and in consideration of Revolution Wind's goals. BOEM is making this determination after weighing the factors in subsection 8(p)(4) of the OCSLA that are applicable to plan decisions and in consideration of the above goals. BOEM's action is needed to fulfill its duties under the Lease, which require BOEM to make a decision on the Lessee's plans to construct and operate a commercial-scale offshore wind energy facility within the Lease Area.

NMFS, which has MMPA authorization decision responsibilities in addition to serving as a cooperating agency, has reviewed BOEM's purpose and need statement above and has determined that it aligns with NMFS' purpose and need (more specific statements of the purpose and need for the actions by NMFS are found in Section 5.2). Section 5.3 describes the purpose and need in relation to USACE's permit action.

3. Alternatives

The FEIS considered a reasonable range of alternatives to the Proposed Action.[9] BOEM considered a total of 18 action alternatives during the preparation of the draft EIS (DEIS), then included 3 additional alternatives based on public comments received on the DEIS, and carried forward 7 alternatives for further analysis in the FEIS. These 7 alternatives include detailed analysis (including potential beneficial and adverse impacts) for 6 action alternatives and the No Action Alternative. Fourteen action alternatives were not further analyzed because they did not

[8] Fact Sheet: Biden Administration Jumpstarts Offshore Wind Energy Projects to Create Jobs | The White House: https://www.whitehouse.gov/briefing-room/statements-releases/2021/03/29/fact-sheet-biden-administration-jumpstarts-offshore-wind-energy-projects-to-create-jobs/.

[9] DOI's implementing NEPA regulations state that the term "reasonable alternatives" "includes alternatives that are technically and economically practical or feasible and meet the purpose and need of the proposed action." 43 CFR § 46.420(b).

meet the purpose and need, or did not meet other screening criteria (see FEIS, Section 2.1.8, *Alternatives Considered but Dismissed from Detailed Analysis*, and Appendix K, *Supplemental Information on Alternatives Development*). All action alternatives for the Revolution Wind project would have impacts to visual, cultural, and fishery resources. As part of the scoping process, and during the preparation of the EIS, BOEM received input from Tribes regarding their concerns over visual impacts to culturally significant resources. This input was used to develop Alternative E, which reduces visual impacts to culturally significant resources. BOEM and cooperating agencies developed Alternatives C and D to address navigation and commercial fisheries concerns, and Alternative F was also developed to compare and analyze impacts of a reduced number of WTGs. After analysis of public comments received on the DEIS and technical feasibility information provided by the Lessee, BOEM developed Alternative G. Alternative G reduces impacts to benthic habitat, visual impacts to the sunset view from the Aquinnah Overlook on the northwest side of the Lease Area, and visual impacts near the shore of Martha's Vineyard on the northeast side of the Lease Area.

3.1 Alternatives Carried Forward for Detailed Analysis

Table 3.1 Description of Alternatives

Alternative	Description
A: No Action Alternative	Under the No Action Alternative, BOEM would not approve the COP; USACE would not issue a permit for the proposed work under section 10 of the RHA and section 404 of the CWA; the Project construction and installation, O&M, and decommissioning would not occur; and no additional permits or authorizations for the Project would be required. However, all other past and ongoing impact-producing activities, including approved offshore wind projects (SFWF and Vineyard Wind) would continue. Under the No Action Alternative, impacts to marine mammals incidental to construction activities would not occur. Therefore, NMFS would not issue the requested authorization under the MMPA to the applicant. The current resource condition, trends, and impacts from ongoing activities under the No Action Alternative serve as the baseline against which all action alternatives are evaluated. Over the life of the Project, other reasonably foreseeable future impact-producing offshore wind and non-offshore wind activities would be implemented, which would cause changes to the affected environment even in the absence of the Proposed Action. The continuation of all other existing and reasonably foreseeable future activities described in Appendix E of the FEIS without the Proposed Action or the Preferred Alternative serves as the baseline against which the cumulative impacts of all alternatives are evaluated.

Alternative	Description
B: Proposed Action Alternative (Proposed Action)	Under Alternative B, the construction and installation, O&M, and eventual decommissioning of a wind energy facility within the PDE described in the COP would be developed in the Lease Area and applicable EPMs would be implemented. The Proposed Action would include up to 100 WTGs ranging in nameplate capacity of 8 to 12 MW sufficient to fulfill at a minimum the existing PPAs (total of 704 MW) up to 880 MW, the maximum capacity identified in the PDE. The WTGs would be connected by a network of IACs; up to two OSSs[10] connected by one OSS-link cable; up to two submarine export cables co-located within a single corridor; up to two underground transmission circuits located onshore; one onshore ICF; and one OnSS inclusive of up to two interconnection circuits connecting to the existing Davisville Substation in North Kingstown, Rhode Island. The Proposed Action includes the burial of offshore export cables below the seafloor in both the OCS and Rhode Island state waters and a uniform east-west and north-south grid of 1 × 1-nm spacing between WTGs.[11]
C: Habitat Impact Minimization Alternative	Under Alternative C, the construction and installation, O&M, and eventual decommissioning of a wind energy facility within the PDE described in the COP would be developed in the Lease Area, subject to applicable EPMs. To reduce impacts to complex fisheries habitats most vulnerable to permanent and long-term impacts from the Proposed Action, however, certain WTG positions would be eliminated while maintaining a uniform east-west and north-south grid of 1 × 1-nm spacing between WTGs. The placement of WTGs would be supported by location-specific benthic and habitat characterizations conducted in close coordination with NMFS. Under Alternative C, fewer WTG locations (and potentially fewer miles of IACs) than the Proposed Action would be approved by BOEM. Under this alternative, there would be five "spare" WTGs: • Alternative C1: This alternative allows for the fulfillment of the existing three PPAs, which total 704 MW, while omitting WTGs in locations to maintain a uniform east-west and north-south grid of 1 × 1-nm spacing between WTGs. Under this alternative, up to 35 WTGs and associated IACs would be removed from consideration, resulting in up to 65 WTGs and associated IACs being approved. • Alternative C2: This alternative allows for the fulfillment of the existing three PPAs, which total 704 MW, while omitting WTGs in locations to maintain a uniform east-west and north-south grid of 1 × 1-nm spacing between WTGs. Under this alternative, up to 36 WTGs and associated IACs would be removed from consideration, resulting in up to 64 WTGs and associated IACs being approved. Refer to Appendix K of the FEIS for background information on the development of the Alternative C1 and C2 layouts.

[10] Each OSS has a maximum nominal capacity of 440 MW; therefore, two OSSs are required to achieve the PPA obligations of 704 MW.

[11] In accordance with 30 CFR § 585.634(c)(6), micrositing of WTG foundations may occur within 500 feet from each proposed WTG location. WTG micrositing would be performed on a case-by-case basis to avoid significant seafloor hazards such as surface and subsurface boulders (see COP Section 2.2.1.1).

Alternative	Description
D: No Surface Occupancy in One or More Outermost Portions of the Project Area Alternative	Under Alternative D, the construction and installation, O&M, and eventual decommissioning of a wind energy facility within the PDE described in the COP would be developed in the Lease Area, subject to applicable EPMs. However, to reduce conflicts with other competing space-use vessels, WTGs adjacent to or overlapping transit lanes proposed by stakeholders or the Buzzard's Bay Traffic Separation Scheme Inbound Lane would be eliminated while maintaining the uniform east-west and north-south 1 × 1-nm grid spacing between WTGs. Under Alternative D, BOEM could select one, all, or a combination of the following three alternatives, while still allowing for the fulfillment of existing PPAs and up to the maximum capacity identified in the PDE (i.e., 880 MW). Under this alternative, fewer WTG locations (and potentially fewer miles of IACs) than the Proposed Action would be approved by BOEM. Under this alternative, there would be up to six "spare" WTGs: • Alternative D1: Removal of the southernmost row of WTGs that overlap the 4-nm east-west transit lane proposed by the Responsible Offshore Development Alliance (RODA), as well as portions of Cox Ledge. Under this alternative, up to seven WTGs and associated IACs would be removed from consideration, resulting in up to 93 WTGs and associated IACs being approved. • Alternative D2: Removal of the eight easternmost WTGs that overlap the 4-nm north-south transit lane proposed by RODA. Under this alternative, up to eight WTGs and associated IACs would be removed from consideration, resulting in up to 92 WTGs and associated IACs being approved. • Alternative D3: Removal of the northwest row of WTGs adjacent to the Inbound Buzzards Bay Traffic Lane. Under this alternative, up to seven WTGs and associated IACs would be removed from consideration, resulting in up to 93 WTGs and associated IACs being approved. The selection of all three alternatives (i.e., D1, D2, and D3) would eliminate up to 22 WTG locations and associated IACs, resulting in up to 78 WTGs and associated IACs being approved while maintaining the 1 × 1-nm grid spacing proposed in the COP and as described in Alternative B. Based on the design parameters outlined in the COP, allowing for the placement of 78 to 93 WTGs and two OSSs would still allow for the fulfillment of up to the maximum capacity identified in the PDE (e.g., 880 MW = 74 WTGs needed if 12 MW WTGs are used).
E: Reduction of Surface Occupancy to Reduce Impacts to Culturally Significant Resources Alternative	Under Alternative E, the construction and installation, O&M, and eventual decommissioning of a wind energy facility within the PDE described in the COP would be developed in the Lease Area, subject to applicable EPMs. However, to reduce the visual impacts on culturally important resources on Martha's Vineyard and in Rhode Island, certain WTG positions would be eliminated while maintaining the uniform east-west and north-south 1 × 1-nm grid spacing between WTGs. Under Alternative E, fewer WTG locations (and potentially fewer miles of IACs) than the Proposed Action would be approved by BOEM. Under this alternative, there would be up to five "spare" WTGs: • Alternative E1: Allows for the fulfillment of the existing three PPAs totaling 704 MW, while eliminating WTG locations to reduce visual impacts on these culturally important resources. Under this alternative, up to 36 WTGs and associated IACs would be removed from consideration, resulting in up to 64 WTGs and associated IACs being approved. • Alternative E2: Allows for a power output delivery identified in the PDE of up to 880 MW while eliminating WTG locations to reduce visual impacts on these culturally important resources. Under this alternative, up to 19 WTGs and associated IACs would be removed from consideration, resulting in up to 81 WTGs and associated IACs being approved. Refer to Appendix K of the FEIS for background information on the development of the Alternative E1 and E2 layouts.

Alternative	Description
F: Selection of a Higher Capacity Wind Turbine Generator	Under Alternative F, the construction and installation, O&M, and eventual decommissioning of a wind energy facility would be developed in the Lease Area implementing a higher nameplate capacity WTG (up to 14 MW) than what is proposed in the COP. This higher capacity WTG must fall within the physical design parameters of the PDE and be commercially available to the Project proponent within the time frame for the construction and installation schedule proposed in the COP. The number of WTG locations under Alternative F would be sufficient to fulfill the minimum existing PPAs (total of 704 MW and 56 WTGs, including up to five "spare" WTG locations). Using a higher capacity WTG would potentially reduce the number of foundations constructed to meet the purpose and need and thereby potentially reduce impacts to marine habitats and culturally significant resources and potentially reduce navigation risks.
G: Preferred Alternative	Under Alternative G, the construction and installation, O&M, and eventual decommissioning of a wind energy facility within the PDE described in the COP would be developed in the Lease Area, subject to applicable EPMs. Alternative G (the Preferred Alternative) was designed to reduce impacts to visual resources and benthic habitat. This alternative would include up to 79 possible positions for the installation of 65 WTGs, which would range in nameplate capacity of 8 to 12 MW sufficient to fulfill at a minimum the existing PPAs (total of 704 MW) while maintaining the uniform east-west and north-south 1 × 1-nm grid spacing between WTGs. Under this alternative, there would be up to 14 "spare" WTG positions available for use if unforeseen siting conditions occur necessitating relocation of any of the 65 WTGs from the possible positions. Two of the 65 WTGs could be located in three different spots within the 79 WTG possible positions. As a result, Alternative G includes the analysis of three alternatives for installation of the 65 WTGs, G1–G3. This flexibility in design could allow for further refinement for visual resources impact reduction on Martha's Vineyard and Rhode Island, or for habitat impact reduction in the NMFS Priority 1 area. • Alternative G1: Allows for the fulfillment of the existing three PPAs totaling 704 MW, while relocating two WTG locations from a NMFS Priority 1 area to reduce fishery and Essential Fish Habitat (EFH) impacts. Under this alternative, 35 WTGs and associated IACs would be removed from consideration, resulting in 65 WTGs and associated IACs being installed in the positions identified under this alternative. • Alternative G2: Allows for the fulfillment of the existing three PPAs totaling 704 MW, while relocating two WTG locations to reduce visual impacts on the horizon from the Aquinnah Overlook, a culturally important resource. Under this alternative, 35 WTGs and associated IACs would be removed from consideration, resulting in 65 WTGs and associated IACs being installed in the positions identified under this alternative. • Alternative G3: Allows for the fulfillment of the existing three PPAs totaling 704 MW, while relocating two WTG locations closest to the shore of Martha's Vineyard to reduce visual impacts to this culturally important resource. Under this alternative, 35 WTGs and associated IACs would be removed from consideration, resulting in 65 WTGs and associated IACs being installed in the positions identified under this alternative. All other components of Alternative G are the same as the Proposed Action: two OSSs connected by an OSS-link cable; up to two submarine export cables co-located within a single corridor; up to two underground transmission circuits located onshore within a single corridor; and an OnSS, inclusive of up to two interconnection circuits within a single corridor connecting to the existing Davisville Substation in North Kingstown, Rhode Island. Refer to Appendix K of the FEIS for background information on the development of Alternative G: G1, G2 and G3.

3.2. Environmental Consequences of Alternatives

Table 3.2 summarizes and compares the potential impacts under the No Action Alternative and the impacts of each action alternative assessed in Chapter 3 of the FEIS. Under the No Action Alternative, BOEM would not approve the COP. Therefore, any potential environmental and socioeconomic impacts, including benefits, associated with the Project would not occur; however, impacts could occur from other ongoing and planned activities.

The impacts of each action alternative exclusive of baseline conditions and ongoing activities are summarized in Table 3.2. This table also provides a summary of the overall cumulative impacts by environmental resource and alternative. Each resource has two rows: one for the comparison of impacts and one for the overall cumulative impacts. The overall cumulative impacts for each resource include the alternative impacts combined with all planned activities (including other offshore wind activities). Each resource section in Chapter 3 of the FEIS includes descriptions and details for impact-producing factors (IPF); specific impact determinations differ because they could be less or more than the overall impact determination summary shown in Table 3.2.

In Table 3.2, green cell color represents negligible to minor adverse overall impact. Yellow cell color represents moderate adverse overall impact. Orange cell color represents major adverse overall impact. Resources with beneficial incremental impacts are denoted by an asterisk (*), and alternatives within those resource rows with beneficial incremental impacts are denoted by a bolded blue outline and an asterisk (*). More detailed comparisons of impacts by environmental resource and alternative, as well as evaluation of impacts across alternatives, are provided in Chapter 3 of the FEIS.

Table 3.2 Comparison of Alternatives and Overall Cumulative Impacts by Alternative[12]

Resource	Alternative A (No Action Alternative)	Alternative B (Proposed Action)	Alternative C (Habitat Alternative)	Alternative D (Transit Alternative)	Alternative E (Viewshed Alternative)	Alternative F (Higher Capacity Turbine Alternative)	Alternative G (Preferred Alternative)
Air quality – Alternative impacts*	Continuation of current air quality trends and sources of air pollution would be **moderate** adverse.	**Minor** adverse; **minor** beneficial*	**Minor** adverse; **minor** beneficial*	**Minor** adverse; **minor** beneficial*	**Minor** adverse; **minor** beneficial*	**Minor** adverse; **minor** beneficial*	**Minor** adverse; **minor** beneficial*
Air quality: – Cumulative impacts*	**Minor** to **moderate** adverse; **minor** to **moderate** beneficial*	**Moderate** adverse	**Moderate** adverse	**Moderate** adverse	**Moderate** adverse	**Moderate** adverse	**Moderate** adverse
Bats: Alternative impacts	Continuation of population trends and continuation of effects to species from natural and human-caused stressors would be **negligible** adverse.	**Negligible** to **minor** adverse	**Negligible** to **minor** adverse	**Negligible** to **minor** adverse	**Negligible** to **minor** adverse	**Negligible** to **minor** adverse	**Negligible** to **minor** adverse
Bats: Cumulative impacts	**Negligible** adverse	**Minor** adverse	**Minor** adverse	**Minor** adverse	**Minor** adverse	**Minor** adverse	**Minor** adverse
Benthic habitat and invertebrates: Alternative impacts*	Continuation of population trends and continuation of effects to species from natural and human-caused stressors would be **minor** to **moderate** adverse.	**Moderate** adverse; **moderate** beneficial*	**Moderate** adverse; **moderate** beneficial*	**Moderate** adverse; **moderate** beneficial*	**Moderate** adverse; **moderate** beneficial*	**Moderate** adverse; **moderate** beneficial*	**Moderate** adverse; **moderate** beneficial*
Benthic habitat and invertebrates: Cumulative impacts*	**Minor** to **moderate** adverse; **moderate** beneficial*	**Moderate** adverse; **moderate** beneficial*	**Moderate** adverse; **moderate** beneficial*	**Moderate** adverse; **moderate** beneficial*	**Moderate** adverse; **moderate** beneficial*	**Moderate** adverse; **moderate** beneficial*	**Moderate** adverse; **moderate** beneficial*
Birds: Alternative impacts	Continuation of population trends and continuation of effects to species from natural and human-caused stressors would be **minor** adverse.	**Minor** adverse	**Minor** adverse	**Minor** adverse	**Minor** adverse	**Minor** adverse	**Minor** adverse
Birds: Cumulative impacts	**Minor** adverse	**Minor** adverse	**Minor** adverse	**Minor** adverse	**Minor** adverse	**Minor** adverse	**Minor** adverse
Coastal habitats and fauna: Alternative impacts	Continuation of population trends and continuation of effects to species from natural and human-caused stressors would be **negligible** adverse.	**Negligible** to **minor** adverse	**Negligible** to **minor** adverse	**Negligible** to **minor** adverse	**Negligible** to **minor** adverse	**Negligible** to **minor** adverse	**Negligible** to **minor** adverse
Coastal habitats and fauna: Cumulative impacts	**Negligible** to **minor** adverse	**Minor** adverse	**Minor** adverse	**Minor** adverse	**Minor** adverse	**Minor** adverse	**Minor** adverse

[12] Alternative impacts conclusions summarized in Table 3.2 for the No Action Alternative are inclusive of the current resource condition, trends, and impacts from ongoing activities, except where noted. Alternative impacts conclusions summarized in Table 3.2 for each action alternative are exclusive of the current resource condition, trends, and impacts from ongoing activities. Cumulative impact conclusions summarized in Table 3.2 for each action alternative are inclusive of the current resource condition, trends, and impacts from ongoing and future activities.

Resource	Alternative A (No Action Alternative)	Alternative B (Proposed Action)	Alternative C (Habitat Alternative)	Alternative D (Transit Alternative)	Alternative E (Viewshed Alternative)	Alternative F (Higher Capacity Turbine Alternative)	Alternative G (Preferred Alternative)
Commercial fisheries and for-hire recreational fishing: Alternative impacts*	Continuation of current trends would be **moderate** to **major** adverse for commercial fisheries and **minor** to **moderate** adverse and **minor** beneficial for for-hire recreational fishing.*	**Negligible** to **major** adverse; **minor** beneficial*	**Negligible** to **major** adverse; **minor** beneficial*	**Negligible** to **major** adverse; **minor** beneficial*	**Negligible** to **major** adverse; **minor** beneficial*	**Negligible** to **major** adverse; **minor** beneficial*	**Negligible** to **major** adverse; **minor** beneficial*
Commercial fisheries and for-hire recreational fishing: Cumulative impacts*	**Moderate** to **major** adverse for commercial fisheries; **minor** to **moderate** adverse and **minor** beneficial for for-hire recreational fishing*	**Major** adverse	**Major** adverse	**Major** adverse	**Major** adverse	**Major** adverse	**Major** adverse
Cultural resources: Alternative impacts	Continuation of individual IPF impacts to cultural resources from past and current activities would be **negligible** to **major** negative.†	**Negligible** to **major** negative†	**Negligible** to **major** negative†	**Negligible** to **major** negative†	**Negligible** to **major** negative†	**Negligible** to **major** negative†	**Negligible** to **major** negative†
Cultural resources: Cumulative impacts	**Negligible** to **major** negative†	**Negligible** to **major** negative†	**Negligible** to **major** negative†	**Negligible** to **major** negative†	**Negligible** to **major** negative†	**Negligible** to **major** negative†	**Negligible** to **major** negative†
Demographics, employment, and economics: Alternative impacts*	Continuation of current trends would be **moderate** to **major** adverse and **minor** to **moderate** beneficial.*	**Negligible** to **moderate** adverse; **minor** beneficial*	**Minor** beneficial*	**Minor** beneficial*	**Minor** beneficial*	**Minor** beneficial*	**Minor** beneficial*
Demographics, employment, and economics: Cumulative impacts*	**Major** adverse; **minor** to **moderate** beneficial*	**Major** adverse; **moderate** beneficial*	**Major** adverse; **moderate** beneficial*	**Major** adverse; **moderate** beneficial*	**Major** adverse; **moderate** beneficial*	**Major** adverse; **moderate** beneficial*	**Major** adverse; **moderate** beneficial*
Environmental justice: Alternative impacts*	Continuation of current trends would be **negligible** to **major** adverse and **negligible** to **moderate** beneficial.*	**Minor** to **moderate** adverse; **negligible** to **moderate** beneficial*	**Minor** to **moderate** adverse; **negligible** to **moderate** beneficial*	**Minor** to **moderate** adverse; **negligible** to **moderate** beneficial*	**Minor** to **moderate** adverse; **negligible** to **moderate** beneficial*	**Minor** to **moderate** adverse; **negligible** to **moderate** beneficial*	**Minor** to **moderate** adverse; **negligible** to **moderate** beneficial*
Environmental justice: Cumulative impacts	**Major** adverse	**Major** adverse	**Major** adverse	**Major** adverse	**Major** adverse	**Major** adverse	**Major** adverse
Finfish and essential fish habitat: Alternative impacts*	Continuation of population trends and continuation of effects to species from natural and human-caused stressors would be **moderate** adverse.	**Moderate** adverse; **moderate** beneficial*	**Moderate** adverse; **moderate** beneficial*	**Moderate** adverse; **moderate** beneficial*	**Moderate** adverse; **moderate** beneficial*	**Moderate** adverse; **moderate** beneficial*	**Moderate** adverse; **moderate** beneficial*
Finfish and essential fish habitat: Cumulative impacts*	**Moderate** adverse; **moderate** beneficial*	**Moderate** adverse; **moderate** beneficial*	**Moderate** adverse; **moderate** beneficial*	**Moderate** adverse; **moderate** beneficial*	**Moderate** adverse; **moderate** beneficial*	**Moderate** adverse; **moderate** beneficial*	**Moderate** adverse; **moderate** beneficial*

Resource	Alternative A (No Action Alternative)	Alternative B (Proposed Action)	Alternative C (Habitat Alternative)	Alternative D (Transit Alternative)	Alternative E (Viewshed Alternative)	Alternative F (Higher Capacity Turbine Alternative)	Alternative G (Preferred Alternative)
Land use and coastal infrastructure: Alternative impacts*	Continuation of current trends would be **minor** adverse.	**Minor** adverse; **minor** beneficial*	**Minor** adverse; **minor** beneficial*	**Minor** adverse; **minor** beneficial*	**Minor** adverse; **minor** beneficial*	**Minor** adverse; **minor** beneficial*	**Minor** adverse; **minor** beneficial*
Land use and coastal infrastructure: Cumulative impacts	**Minor** adverse	**Minor** adverse	**Minor** adverse	**Minor** adverse	**Minor** adverse	**Minor** adverse	**Minor** adverse
Marine mammals: Alternative impacts*	Not approving the COP would have no additional incremental effect on marine mammals (i.e., no effect)[13]. Continuation of population trends and continuation of effects to species from natural and human-caused stressors would be **moderate** adverse for all marine mammals except for the North Atlantic right whale (NARW). Continuation of population trends and human-caused stressors would be **major** for NARW.	**Moderate** adverse for NARWs, and **minor** to **moderate** adverse for other mysticetes, odontocetes, and pinnipeds; **minor** beneficial*	**Moderate** adverse for NARWs, and **minor** to **moderate** adverse for other mysticetes, odontocetes, and pinnipeds; **minor** beneficial*	**Moderate** adverse for NARWs, and **minor** to **moderate** adverse for other mysticetes, odontocetes, and pinnipeds; **minor** beneficial*	**Moderate** adverse for NARWs, and **minor** to **moderate** adverse for other mysticetes, odontocetes, and pinnipeds; **minor** beneficial*	**Moderate** adverse for NARWs, and **minor** to **moderate** adverse for other mysticetes, odontocetes, and pinnipeds; **minor** beneficial*	**Moderate** adverse for NARWs, and **minor** to **moderate** adverse for other mysticetes, odontocetes, and pinnipeds; **minor** beneficial*
Marine mammals: Cumulative impacts*	**Moderate** adverse; **minor** beneficial* (**Major** adverse for NARW)	**Moderate** adverse; **minor** beneficial* (**Major** adverse for NARW)	**Moderate** adverse; **minor** beneficial* (**Major** adverse for NARW)	**Moderate** adverse; **minor** beneficial* (**Major** adverse for NARW)	**Moderate** adverse; **minor** beneficial* (**Major** adverse for NARW)	**Moderate** adverse; **minor** beneficial* (**Major** adverse for NARW)	**Moderate** adverse; **minor** beneficial* (**Major** adverse for NARW)
Navigation and vessel traffic: Alternative impacts	Continuation of current trends would be **minor** to **moderate** adverse.	**Moderate** adverse	**Moderate** adverse	**Moderate** adverse	**Minor** to **moderate** adverse	**Moderate** adverse	**Minor** to **moderate** adverse
Navigation and vessel traffic: Cumulative impacts	**Minor** to **moderate** adverse	**Moderate** adverse	**Moderate** adverse	**Moderate** adverse	**Moderate** adverse	**Moderate** adverse	**Moderate** adverse
Other marine uses: aviation and air traffic: Alternative impacts	Continuation of current trends would be **negligible** adverse.	**Negligible** adverse	**Negligible** adverse	**Negligible** adverse	**Negligible** adverse	**Negligible** adverse	**Negligible** adverse
Other marine uses: aviation and air traffic: Cumulative impacts	**Minor** adverse	**Minor** adverse	**Minor** adverse	**Minor** adverse	**Minor** adverse	**Minor** adverse	**Minor** adverse
Other marine uses: land-based radar: Alternative impacts	Continuation of current trends would be **negligible** adverse.	**Minor** adverse	**Minor** adverse	**Minor** adverse	**Minor** adverse	**Minor** adverse	**Minor** adverse
Other marine uses: land-based radar: Cumulative impacts	**Moderate** adverse	**Moderate** adverse	**Moderate** adverse	**Moderate** adverse	**Moderate** adverse	**Moderate** adverse	**Moderate** adverse
Other marine uses: military and national security: Alternative impacts	Continuation of current trends would be **negligible** adverse.	**Minor** adverse	**Minor** adverse	**Minor** adverse	**Minor** adverse	**Minor** adverse	**Minor** adverse

[13] Species specific incremental impacts of the No Action Alternative are provided for marine mammals in Table 3.2 to support NMFS' decision in this ROD.

Resource	Alternative A (No Action Alternative)	Alternative B (Proposed Action)	Alternative C (Habitat Alternative)	Alternative D (Transit Alternative)	Alternative E (Viewshed Alternative)	Alternative F (Higher Capacity Turbine Alternative)	Alternative G (Preferred Alternative)
Other marine uses: military and national security: Cumulative impacts	**Moderate** adverse	**Moderate** adverse	**Moderate** adverse	**Moderate** adverse	**Moderate** adverse	**Moderate** adverse	**Moderate** adverse
Other marine uses: scientific research and surveys: Alternative impacts	Continuation of current trends would be **moderate** adverse.	**Major** adverse	**Major** adverse	**Major** adverse	**Major** adverse	**Major** adverse	**Major** adverse
Other marine uses: scientific research and surveys: Cumulative impacts	**Major** adverse	**Major** adverse	**Major** adverse	**Major** adverse	**Major** adverse	**Major** adverse	**Major** adverse
Other marine uses: undersea cables: Alternative impacts	Continuation of current trends would be **negligible** adverse.	**Negligible** adverse	**Negligible** adverse	**Negligible** adverse	**Negligible** adverse	**Negligible** adverse	**Negligible** adverse
Other marine uses: undersea cables: Cumulative impacts	**Negligible** adverse	**Negligible** adverse	**Negligible** adverse	**Negligible** adverse	**Negligible** adverse	**Negligible** adverse	**Negligible** adverse
Recreation and tourism: Alternative impacts	Continuation of current trends would be **minor** adverse.	**Minor** adverse	**Minor** adverse	**Minor** adverse	**Minor** adverse	**Minor** adverse	**Minor** adverse
Recreation and tourism – Cumulative impacts*	**Minor** adverse	**Minor** adverse; **minor** beneficial*	**Minor** adverse; **minor** beneficial*	**Minor** adverse; **minor** beneficial*	**Minor** adverse; **minor** beneficial*	**Minor** adverse; **minor** beneficial*	**Minor** adverse; **minor** beneficial*
Sea turtles: Alternative impacts*	Continuation of population trends and continuation of effects to species from natural and human-caused stressors would be **minor** adverse.	**Minor** adverse; **minor** beneficial*	**Minor** adverse; **minor** beneficial*	**Minor** adverse; **minor** beneficial*	**Minor** adverse; **minor** beneficial*	**Minor** adverse; **minor** beneficial*	**Minor** adverse; **minor** beneficial*
Sea turtles: Cumulative impacts*	**Minor** adverse; **minor** beneficial*	**Minor** adverse	**Minor** adverse	**Minor** adverse	**Minor** adverse	**Minor** adverse	**Minor** adverse
Visual resources: Alternative impacts	Continuation of impacts to viewsheds from past and current activities would be **negligible** to **moderate** adverse.	**Negligible** to **major** adverse	**Negligible** to **major** adverse	**Negligible** to **major** adverse	**Negligible** to **major** adverse	**Negligible** to **major** adverse	**Negligible** to **major** adverse
Visual resources: Cumulative impacts	**Moderate** adverse	**Negligible** to **major** adverse	**Negligible** to **major** adverse	**Negligible** to **major** adverse	**Negligible** to **major** adverse	**Negligible** to **major** adverse	**Negligible** to **major** adverse
Water quality – Alternative impacts	Continuation of current water quality trends and sources of pollution would be **minor** adverse.	**Minor** adverse	**Minor** adverse	**Minor** adverse	**Minor** adverse	**Minor** adverse	**Minor** adverse
Water quality – Cumulative impacts	**Minor** adverse	**Minor** adverse	**Minor** adverse	**Minor** adverse	**Minor** adverse	**Minor** adverse	**Minor** adverse

Resource	Alternative A (No Action Alternative)	Alternative B (Proposed Action)	Alternative C (Habitat Alternative)	Alternative D (Transit Alternative)	Alternative E (Viewshed Alternative)	Alternative F (Higher Capacity Turbine Alternative)	Alternative G (Preferred Alternative)
Wetlands and non-tidal waters: Alternative impacts	Continuation of current wetland resources trends and sources of pollution would be **negligible** adverse.	**Negligible** to **minor** adverse	**Negligible** to **minor** adverse	**Negligible** to **minor** adverse	**Negligible** to **minor** adverse	**Negligible** to **minor** adverse	**Negligible** to **minor** adverse
Wetlands and non-tidal waters: Cumulative impacts	**Minor** adverse	**Minor** adverse	**Minor** adverse	**Minor** adverse	**Minor** adverse	**Minor** adverse	**Minor** adverse

* Resources with beneficial impacts are denoted by an asterisk, and alternatives within those resource rows with beneficial impacts are denoted by a bolded blue outline and an asterisk.

† The term "adverse" has a specific meaning under the National Historic Preservation Act (NHPA) Section 106 regulations (in 36 CFR § 800.5) and, therefore, to remove confusion in the Cultural Resources section, the terms "negative" and "beneficial" are used in the identification of impacts under NEPA.

^ The impacts considered do not involve activities regulated by USACE under section 404 of the CWA.

3.3. Environmentally Preferable Alternatives

BOEM is required by CEQ regulations to identify in the ROD the *environmentally preferable alternative(s)* (40 CFR § 1505.2). Upon considering and weighing the long- and short-term impacts to and protection of these resources (43 CFR § 46.30), the DOI's responsible official, who is approving this ROD, has determined that the environmentally preferable alternatives are Alternative A (No Action), Alternative C (Habitat Impact Minimization), and Alternative G (Preferred Alternative).

Adverse environmental impacts in the Project area would generally be less under Alternative A (No Action) because construction and installation, O&M, and decommissioning activities and disturbances related to the proposed Project would not occur and, hence, impacts on physical, biological, or cultural resources from the Proposed Action would be avoided. Nonetheless, the No Action Alternative would probably result in moderate, long-term, adverse impacts on regional air quality because other energy generation facilities would be needed to meet the energy demands that would have otherwise been satisfied by the Project. These facilities might be fueled with natural gas, oil, or coal, all of which would emit more pollutants than wind turbines and would have more adverse impacts on air quality and contribute greenhouse gases that cause climatic change. Adverse impacts on air quality also tend to disproportionally impact environmental justice communities, which often include low-income and minority populations. These air quality impacts might be compounded by other impacts because selection of the No Action Alternative could negatively impact future investment in U.S. offshore wind energy facilities, potentially resulting in the loss of beneficial cumulative impacts such as increased employment, improvements in air quality, and reductions in greenhouse gas emissions. Comments received on the DEIS from representatives of the offshore wind industry have noted that public and private investors have committed substantial amounts of new funding to offshore wind development, including commitments to develop manufacturing facilities, and that advancement of the Project is critical to continue to attract investment in the U.S. offshore wind market.[14]

Alternative C (Habitat Impact Minimization) and Alternative G (Preferred Alternative) would reduce impacts to complex habitat on Cox Ledge as described in Sections 3.6 and 3.13 of the FEIS. Complex habitat is more vulnerable to long-term and permanent impacts and has been identified by NOAA as essential fish habitat for a number of federally managed species, including Atlantic cod.

The difference between Alternative C (Habitat Impact Minimization) and Alternative G (Preferred Alternative) is that Alternative G is a hybrid alternative combining elements of Alternatives C (Habitat Impact Minimization), Alternative D (Transit), and Alternative E (Viewshed). Alternative G (Preferred Alternative), in comparison to Alternative B (Proposed Action), would reduce benthic habitat impacts in areas deemed critical by NOAA NMFS (Alternative C), reduce transit and access impacts in areas of active marine use (Alternative D), reduce visual impacts to culturally important resources (Alternative E), and address design concerns voiced by the applicant, striking a reasonable balance between these varied resources.

[14] See, e.g., Business Network for Offshore Wind, Comments on Revolution Wind Draft Environmental Impact Statement, October 17, 2022, available at https://www.regulations.gov/comment/BOEM-2022-0045-0092.

Alternative G1 maximizes the avoidance of complex benthic habitat and cod spawning areas within NMFS priority areas. Alternative G2 provides the greatest reduction of impacts to the sunset viewshed from key observation points on Martha's Vineyard, as well as to points along the Rhode Island coastline. Alternative G3 provides the greatest reduction of impacts to the proximate to shore viewshed from Martha's Vineyard, as well as to points along the Rhode Island coastline. All three configurations of Alternative G (G1, G2, G3) include the same reduction in WTGs to minimize navigation risks and conflicts with other competing space uses.

Offshore wind has been identified as a key factor for Atlantic states to reach their greenhouse gas emission reduction goals. It is presently an irreplaceable component in state, Federal, and international strategies to reduce and reverse global climate change over the coming decades. In comparison to the No Action Alternative, Alternative C (Habitat Impact Minimization) and Alternative G (Preferred Alternative) allow for the generation of electricity from sources that do not adversely affect the air quality in the region. Also, in contrast to the No Action Alternative, selection of Alternative C (Habitat Impact Minimization) and Alternative G (Preferred Alternative) could encourage investment in U.S. offshore wind energy facilities, which could in turn result in beneficial cumulative impacts such as increased employment, improvements in air quality, and reductions in greenhouse gas emissions.

4. Mitigation, Monitoring, and Reporting

Appendix F of the FEIS[15] identifies measures to avoid, minimize, and mitigate adverse environmental impacts that could result from the proposed activities as well as the anticipated enforcing agency. BOEM is adopting all the measures identified in Tables F-1, F-2, and F-3 of Appendix F of the FEIS, except for those that are identified as outside of BOEM's or BSEE's authority to enforce and one measure in Table F-3 related to a visual impacts monitoring plan. Adoption of the visual impacts monitoring plan measure would not provide a means to minimize adverse environmental impacts resulting from Alternative G because while the monitoring would document differences between photo simulations and as-built conditions, monitoring would not reduce visual impacts. Visual impact monitoring may be addressed by BOEM after ROD issuance and/or programmatically across multiple leases. The mitigation, monitoring, and reporting measures that BOEM intends to include as conditions of approval are identified in this ROD in Appendix A. BOEM has modified some measures identified in the FEIS as an outcome of consultation under Section 106 of NHPA documented in the final Memorandum of Agreement (MOA), which concluded after publication of the FEIS. This appendix clarifies the language of certain measures that were identified in the FEIS to ensure that they are enforceable. This appendix also reflects other updates to and additions of measures resulting from the completion of the EFH consultation under the Magnuson-Stevens Fishery Conservation and Management Act with NMFS (completed August 7, 2023), those required by the BiOp issued by NMFS under Section 7 of the ESA (issued July 21, 2023), and those being considered by NMFS for the final ITR and associated LOA.

[15] Appendix F of the FEIS separately identifies measures proposed by the Lessee as a part of its COP. The Lessee is required as a condition of BOEM's approval to conduct activities as proposed in its approved COP, which BOEM considers to include all applicant-proposed mitigation measures identified in Appendix F.

5. Final Agency Decisions

5.1 The Department of the Interior Decision

After carefully considering the FEIS alternatives, including comments on the DEIS from Tribal Nations, the public, cooperating agencies, key stakeholder groups (commercial fishermen), and the applicant, DOI has decided to approve, with modifications, the COP for Revolution Wind adopting the Preferred Alternative (Alternative G - Habitat and Viewshed Minimization Hybrid). Alternative G is a hybrid alternative combining elements of Alternatives C, D, and E and will minimize impacts to visual resources and benthic habitat. By selecting Alternative G, hereinafter referred to as the "selected alternative," DOI will allow for up to 79 possible positions for the installation of 65 WTGs and two OSS on the OCS offshore Rhode Island within Lease Area OCS-A 0486, with export cables making landfall in North Kingstown, Rhode Island. The selected alternative will maintain the uniform east-west and north-south 1 × 1-nm grid spacing between WTGs, which is designed to minimize impacts to navigation and vessel traffic and commercial and recreational fishing. There will be up to 14 "spare" WTG positions available for use if unforeseen siting conditions occur necessitating relocation of any of the 65 WTGs from the possible positions.

BOEM received additional information from Revolution Wind (1) regarding geotechnical feasibility for Alternatives C1, C2, D1+D2, D1+D2+D3, E1, and E2; and (2) that the larger capacity WTG model (12 MW) for Alternative F is not commercially available. In response, BOEM conducted an independent review of the information, including engagements with National Renewable Energy Laboratory, BOEM's Engineering and Technical Review Branch, and BOEM's Economics Division. Revolution Wind also provided geotechnical feasibility and electrical engineering information and analysis regarding 21 of the 100 WTG positions included in the Proposed Action. BOEM's independent review confirmed that the 21 WTG positions identified by Revolution Wind as infeasible are technically and economically infeasible for use in the RWF:

- Alternatives C1 and C2 relied on the use of 11 WTG positions that are infeasible for use in the RWF. Without those 11 WTG positions, the RWF would not have enough WTGs to meet its PPAs. Alternative C1 would have only 54 WTGs, and Alternative C2 would have only 53 WTGs when 65, are needed for the PPAs. Alternatives D1 through D3 are still feasible *if selected individually*. However, Alternatives D1+D2 together would be infeasible because the RWF would not have enough WTGs to meet its PPAs. Alternatives D1+D2 together would only have 64 WTGs when 65 are needed for the PPAs.

- Similarly, Alternatives D2+D3 together would be infeasible because the RWF would not have enough WTGs to meet its PPAs. Alternatives D2+D3 together would only have 64 WTGs when 65 are needed for the PPAs.

- Alternatives D1+D2+D3 together would be infeasible because the RWF would not have enough WTGs to meet its PPAs. Alternatives D1+D2+D3 together would only have 59 WTGs when 65 are needed for the PPAs.

- Alternative E1 relied on the use of 16 WTG positions that are infeasible for use in the RWF. Without those 16 WTG positions, the RWF would not have enough WTGs to meet its PPAs. Alternative E1 would only have 48 WTGs when 65 are needed for the PPAs.

- Alternative E2 relied on the use of 19 WTG positions that are infeasible for use in the RWF. Without those 19 WTG positions, the RWF would not have enough WTGs to meet its PPAs. Alternative E2 would only have 62 WTGs when 65 are needed for the PPAs.

- Alternative F would require the use of WTGs larger than 11 MW. Revolution Wind selected Siemens Gamesa as their WTG manufacturer. Siemens Gamesa verified in a signed letter that no WTG models with a nameplate capacity larger than 11 MW were available for use in the RWF (Revolution Wind 2022). Specifically, "…after evaluating the anticipated installation schedules and required certification timelines; as well as a lack of production capacity available from Siemens Gamesa, the change in platform was, and is still not a possibility" (Revolution Wind 2022). While preparing the FEIS, BOEM conducted its own market research regarding other potentially available WTG models for the RWF and found that there are no models available with a larger capacity than the 11-MW model selected by Revolution Wind.[16] Therefore, Alternative F was not an economically or technically feasible or practicable alternative for DOI to select.

For the reasons described above, BOEM has not selected Alternatives B, C, D, E, and F in this ROD.

Under Alternative A (the No Action Alternative), DOI would not approve the Revolution Wind project. In addition, no other permits or authorizations for this proposed Project would be issued. The No Action Alternative is one of the three environmentally preferable alternatives identified in this ROD because adverse environmental impacts across resources would generally be less under the No Action Alternative (i.e., no construction, installation, operation, or decommissioning activities will occur on the OCS) than under other action alternatives. Hence, impacts on physical, biological, or cultural resources from the selected alternative would be avoided. However, the No Action Alternative would still be expected to result in moderate, long-term, adverse impacts on regional air quality because other energy generation facilities would be needed to meet future power demands. These facilities might be fueled with natural gas, oil, or coal, which would emit more pollutants than wind turbines and would have more adverse impacts on air quality and contribute greenhouse gases that cause climate change. The No Action Alternative was not selected in this ROD because it would not allow for the development of DOI-managed resources and would not meet the purpose and need. Like the other action

[16] The U.S. Department of Energy's *Offshore Wind Market Report: 2022 Edition* identifies General Electric (GE), Siemens Gamesa, and Vestas as the three manufacturers of WTGs that could theoretically be available for the Project under Alternative F (U.S. Department of Energy, Office of Energy Efficiency & Renewable Energy 2022). However, GE's Haliade-X WTG was unavailable during the planning for the project because it has been "subject to a permanent injunction, issued Sept. 7, 2022, which bars the U.S. firm from selling the 12-MW to 14-MW turbine in the American market, except for exemptions granted for the Vineyard Wind 1 project off Massachusetts and the Ocean Wind project off southern New Jersey" (Powers 2022). Given the uncertainty regarding the future availability of the GE model at the time of FEIS development and the length of time needed to order WTGs and prepare WTG-specific engineering, BOEM determined the Haliade-X was not economically feasible for consideration under Alternative F. Finally, the Vestas WTG has a rotor diameter that is larger (236 m) than the PDE for the RWF (220 m), rendering it inconsistent with the parameters for the alternative established in the DEIS (Vestas 2023).

alternatives analyzed in the EIS, Alternative G would occur within the range of design parameters outlined in the COP and is subject to applicant-committed EPMs as well as possible additional agency-proposed mitigation measures to avoid or reduce impacts, including those listed in Appendix A to the ROD.

In summary, DOI considered which of the action alternatives would result in fewer environmental impacts and use conflicts. Alternative G as defined by BOEM would include the construction, O&M, and eventual decommissioning of 65 WTGs at a capacity of 11 MW within 79 possible WTGs positions (including Alternatives G1, G2, and G3) and up to two offshore substations on the OCS offshore Rhode Island within Lease Area OCS-A 0468. Alternative G, with export cables, would extend from Lease Area OCS-A 0468 to the mainland, making landfall in North Kingstown, Rhode Island. The FEIS found that the selected Alternative G would result in fewer impacts than other action alternatives considered and is consistent with the purpose and need. Accordingly, DOI has selected Alternative G in this ROD.

DOI coordinated with NMFS and USACE and weighed all concerns in making decisions regarding this Project and has determined that all practicable means within its authority have been adopted to avoid or minimize environmental and socioeconomic harm associated with the selected alternative and the approval of the COP. Appendix A of this ROD identifies the mitigation, monitoring, and reporting requirements that will be adopted as terms and conditions of COP approval. The mitigation and monitoring measures identified in Appendix A are the anticipated terms and conditions of BOEM's approval of the COP and representative of those included in Appendix F of the FEIS. BOEM conducted a thorough NHPA Section 106 review of the Project with federally recognized Tribes, the Connecticut State Historic Preservation Office, the Rhode Island State Historic Preservation Officer, the New York State Historic Preservation Officer, the Massachusetts State Historic Preservation Officer, the Advisory Council on Historic Preservation, and consulting parties concurrent with the NEPA process and, through the Section 106 review, identified historic properties and assessed potential effects to historic properties, and identified measures to resolve adverse effects. Draft measures to resolve adverse effects were described and analyzed in the DEIS and FEIS. After the FEIS was made available to the public, BOEM addressed consulting party comments on the MOA and distributed the MOA for signature by the consulting parties. The Section 106 review concluded with the execution and implementation of the MOA, which was signed by BOEM, the Connecticut State Historic Preservation Officer, the Rhode Island State Historic Preservation Officer, the New York State Historic Preservation Officer, the Massachusetts State Historic Preservation Officer, the Advisory Council on Historic Preservation, and the Lessee on August 18, 2023. The MOA memorializes measures that will resolve the selected alternative's adverse effects to historic properties including avoidance, minimization, and mitigation measures.

As set forth in the FEIS, Alternative G is anticipated to have major adverse impacts to NMFS Northeast Fisheries Science Center (NEFSC) scientific surveys (hereinafter "NMFS surveys"). NMFS and BOEM have developed the *NOAA Fisheries and BOEM Federal Survey Mitigation Implementation Strategy – Northeast U.S. Region* (Hare et al. 2022) to address the adverse impacts. BOEM and NMFS are of the view that the solution is a collaborative effort between both agencies and the offshore wind industry to establish project-specific monitoring programs following specific guidelines that would allow the information to be combined regionally into a programmatic approach and to implement regional programmatic survey mitigation actions to

address the cumulative impacts from offshore wind development in the region (see FEIS Section 3.17.1.4). There are 14 NMFS scientific surveys that overlap with wind energy development in the northeast region, and nine of these surveys overlap with the Project. BOEM is including term and condition 6.3 (see ROD Appendix A) to address this issue. Consistent with NMFS and BOEM Survey Mitigation strategy actions 1.3.1, 1.3.2, 2.1.1, and 2.1.2 *NOAA Fisheries and BOEM Federal Survey Mitigation Implementation Strategy - Northeast US Region*, the Lessee must submit to BOEM a survey mitigation agreement between NMFS and the Lessee. The survey mitigation agreement must describe how the Lessee will mitigate the Project impacts on the nine NMFS surveys. The Lessee must conduct activities in accordance with such agreement. If the Lessee and NMFS fail to reach a survey mitigation agreement, then the Lessee must submit a survey mitigation plan to BOEM and NMFS.

Additional engineering and technical terms and conditions that will be required with COP approval are included in Appendix B of this ROD.[17] The Lessee will be required to certify annually that the Lessee is in compliance with the terms and conditions of its approved COP (30 CFR § 285.633(b)). The Lessee must also comply with all other applicable requirements of 30 CFR parts 285 and 585, including, but not limited to, the submission of a Facility Design Report and a Fabrication and Installation Report, before beginning construction activities.

Today's decision balances the orderly development of OCS renewable energy with the prevention of interference with other uses of the OCS and the protection of the human, marine, and coastal environments. A decision that balances these goals where they conflict and does not hold one as controlling over all others is consistent with the duties required under subsection 8(p)(4) of OCSLA, which requires the Secretary to ensure that approved activity is carried out in a manner that provides for Congress's enumerated goals.

My approval of this decision constitutes the final decision of the DOI. The action taken herein is pursuant to an existing delegation of authority.

_____ _____

Laura Daniel-Davis
Principal Deputy Assistant Secretary
Land and Minerals Management

Date

[17] All mitigation measures and terms and conditions adopted by BOEM as part of this ROD will be included in the COP authorization letter to be issued to Revolution Wind, LLC.

5.2. National Marine Fisheries Service Decision

This section documents NMFS' planned determination to issue an ITR and an incidental take authorization in the form of an LOA to Revolution Wind pursuant to its authorities under the MMPA. It also references NMFS' decision to adopt the BOEM FEIS to support NMFS' anticipated decision to issue the ITR and associated LOA. NMFS prepared and signed a separate memorandum independently evaluating the sufficiency and adequacy of the BOEM FEIS. That memorandum provides NMFS' rationale to adopt the FEIS to satisfy its independent NEPA obligations related to the ITR and LOA. In that memorandum, NMFS concluded the following: (1) the action analyzed in the FEIS covers NMFS's proposed decision to issue an LOA to Revolution Wind and meets all NEPA requirements under 40 CFR § 1506.3 (adopting an EIS); (2) the analysis includes the appropriate scope and level of environmental impact evaluation for NMFS' proposed action and alternatives; and (3) NMFS' comments and suggestions related to primary environmental effects of concern from the proposed action (i.e., effects to marine mammals), submitted in its role as a cooperating agency, have been satisfied.

On October 8, 2021, NMFS received an application from Revolution Wind pursuant to MMPA section 101(a)(5)(A) for an authorization to take small numbers of marine mammals, by harassment, incidental to the construction of an offshore wind energy project on the OCS off of Rhode Island and Massachusetts in OCS-A 0486, for a period of 5 years. NMFS reviews applications and, if appropriate, issues incidental take authorizations pursuant to the MMPA. Incidental take authorizations may be issued as either (1) regulations and associated LOAs under section 101(a)(5)(A) of the MMPA or (2) Incidental Harassment Authorizations under section 101(a)(5)(D) of the MMPA. In addition, 40 CFR parts 1500–1508 and NOAA policy and procedures require all proposals for major Federal actions to be reviewed with respect to their effects on the human environment. Issuance of an incidental take authorization to Revolution Wind is a major Federal action, triggering NMFS' independent NEPA compliance obligation as represented by NMFS in this instance. When serving as a cooperating agency, NMFS may satisfy its independent NEPA obligations by either preparing a separate NEPA analysis for its issuance of an incidental take authorization or, if appropriate, by adopting the NEPA analysis prepared by the lead agency. After NMFS determined the application was adequate and complete, it had a corresponding duty to determine whether and how to authorize take of marine mammals incidental to the activities described in the application in accordance with standards and determinations set forth in the statute and its implementing regulations. Thus, the purpose of NMFS' action—which was a direct outcome of Revolution Wind's request for authorization to take marine mammals incidental to specified activities associated with the Project (e.g., pile driving and acoustic surveys)—was to evaluate Revolution Wind's request under requirements of the MMPA (16 U.S.C. § 1371(a)(5)(A)) and its implementing regulations (50 CFR part 216) administered by NMFS and to decide whether to issue the authorization. NMFS needs to render a decision regarding the request for authorization due to NMFS' responsibilities under the MMPA (16 U.S.C. § 1371(a)(5)(A)) and its implementing regulations. In addition to its opportunity to comment on the DEIS, the public was also involved in the MMPA decision-making process through its opportunity to comment on NMFS' proposed rulemaking, which was published in the *Federal Register* (87 Fed. Reg. 79,072 [Dec. 23, 2022]). NMFS' final action takes into account those comments, as well as the corresponding formal consultation process under Section 7 of the ESA for issuance of the final ITR and LOA.

5.2.1. NMFS Decision (40 CFR § 1505.2(a)(1))

Pending completion of all statutory processes, NMFS plans to issue the final ITR and an LOA to Revolution Wind authorizing take of marine mammals incidental to construction activities associated with the proposed Project, specifically pile driving, unexploded ordnances/munitions of concern (UXOs/MECs) detonation, and marine site assessment surveys, for 5 years. NMFS' final decision to issue the requested ITR and LOA will be documented in a separate Decision Memorandum prepared in accordance with internal NMFS policy and procedures. The LOA will authorize the incidental take of marine mammals while prescribing the amount and means of incidental take, as well as mitigation, monitoring, and reporting requirements, including those mandated by the BiOp, which completes the formal Section 7 consultation process under the ESA. NMFS will publish a final ITR in the *Federal Register*. Subsequently, a Notice of Issuance of the LOA will be published in the *Federal Register* within 30 days of issuance of the LOA. The *Federal Register* notice will describe how NMFS concluded the requirements set forth in the MMPA and its implementing regulations were met and issuance of the LOA was warranted.

5.2.2. Alternatives NMFS Considered (40 CFR § 1505.2(a)(2))

NMFS is required to consider a reasonable range of alternatives to a proposed action in accordance with NEPA and 40 CFR § 1502.10(a)(5) and § 1502.14. NMFS considered two alternatives, the No Action Alternative, in which NMFS would deny Revolution Wind's request for an authorization, and an action alternative, in which it would issue an LOA to Revolution Wind with mitigation, monitoring, and reporting requirements.

Consistent with BOEM's No Action Alternative, NMFS would not issue the requested authorization to Revolution Wind, in which case NMFS assumes Revolution Wind would not proceed with their proposed Project as described in the application because it would be likely to cause harassment of marine mammals in contravention of the MMPA (unless modification to the Project was undertaken that would negate the need for the authorization). Since NMFS is also required by 40 CFR § 1505.2(a)(2) to identify an environmentally preferable alternative, NMFS considers the No Action Alternative to be the environmentally preferable alternative as the incidental take of marine mammals would be avoided since no construction activities resulting in harassment would occur.

The other alternative NMFS considered was its Proposed Action, the issuance of the LOA to Revolution Wind, which would authorize take of marine mammals incidental to 5 years of construction activities as noted above, subject to specified mitigation, monitoring, and reporting measures. As part of that alternative, and through the public and agency review process, NMFS considered a range of mitigation measures to carry out its duty to identify other means of effecting the least practicable adverse impact on the species or stocks. These measures were initially identified in the proposed LOA (87 Fed. Reg. 79,072) and may be modified in the final LOA in response to public comment, agency review, and ESA Section 7 consultation. The Proposed Action alternative evaluated by NMFS (i.e., the issuance of the LOA to Revolution Wind) will provide the incidental take authorization necessary to undertake the activities identified in the Preferred Alternative that BOEM evaluated in the FEIS and selected in this ROD.

5.2.3. Primary Factors NMFS Considers Favoring Selection of the Proposed Action (40 CFR § 1505.2(a)(2))

As noted earlier, NMFS intends to issue an LOA to Revolution Wind in response to their request for an LOA, after completing all required statutory and regulatory processes. NMFS' Proposed Action to issue an LOA for BOEM's Preferred Alternative effectively meets NMFS' stated purpose and need for acting. NMFS has an obligation to issue a requested LOA if certain statutory and regulatory determinations are made after providing for proper public review and comment. Denying issuance of the requested LOA, as described under NMFS' No Action Alternative, would be contrary to NMFS' responsibilities, given the results of the analysis conducted under the MMPA demonstrates the authorized take would meet statutory and regulatory requirements and would thus not support NMFS' ability to meet the purpose and need for acting.

5.2.4 Mitigation, Monitoring and Reporting Considered by NMFS (40 CFR § 1505.2(a)(3))

NMFS has a statutory and regulatory process to prescribe the permissible methods of take and other means of effecting the least practicable adverse impact on the species or stocks of marine mammals and their habitat, paying particular attention to rookeries, mating grounds, and other areas of similar significance. All incidental take authorizations must also include requirements pertaining to monitoring and reporting. Mitigation, monitoring, and reporting requirements related to marine mammals were preliminarily identified in the proposed ITR and LOA (87 Fed. Reg. 79,072). Those measures may be modified in the final ITR and LOA in consideration of public comments, additional analysis, and based on the outcome of the formal ESA Section 7 consultation. When it issues the LOA to the applicant, NMFS will include the necessary mitigation to effect the least practicable adverse impact on marine mammals, as well as monitoring and reporting requirements to be implemented by Revolution Wind. In summary, the mitigation, monitoring, and reporting measures include the following: vessel strike avoidance measures; seasonal moratorium on impact pile driving and detonations of UXOs/MECs; usage of Protected Species Observers (PSOs) and Passive Acoustic Monitoring (PAM) operators; establishment of clearance and shutdown zones; soft-start and ramp-up procedures for impact pile driving and acoustic source use during high-resolution geophysical surveys, respectively; use of sound attenuation measures and PAM during impact pile driving and UXO/MEC detonations; requirements to conduct sound field verification (SFV) during impact pile driving and UXO/MEC detonations; fishery survey mitigation to avoid interactions and entanglements; and various situational and incremental (i.e., weekly, monthly, annual) reporting requirements. Appendix A includes a listing of mitigation, monitoring, and reporting measures that have been considered by BOEM in formulating its NEPA analysis. Many of these measures align with those to be included in the final ITR and LOA; however, the final LOA may contain additional, more protective measures than those listed in Appendix A.

_____ _____

Samuel D. Rauch, III Date
Deputy Assistant Administrator for Regulatory Programs

5.3. U.S. Army Corps of Engineers Decision

In accordance with 40 CFR § 1505.2, this section constitutes the Record of Decision (ROD) of the United States Army Corps of Engineers (USACE) New England District to issue a Department of the Army (DA) permit pursuant to section 10 of the Rivers and Harbors Act of 1899 (RHA; 33 U.S.C. § 403) and section 404 of the Clean Water Act (CWA; 33 U.S.C. § 1344) for the construction and maintenance of the Revolution Wind, LLC Offshore Wind Energy Facility proposed by Revolution Wind, LLC. This document is prepared in accordance with the Council on Environmental Quality's (CEQ) regulations implementing the National Environmental Policy Act (NEPA) (40 CFR Parts 1500-1508).[18] This section also constitutes the USACE's CWA Section 404(b)(1) Guidelines Evaluation (40 CFR Part 230), and the Public Interest Review (33 CFR § 320.4) under the authority delegated to the District Engineer by 33 CFR § 325.8.

This ROD incorporates by reference the U.S. Department of Interior, Bureau of Ocean Energy Management (BOEM) 2021 Draft Environmental Impact Statement (DEIS), and the 2023 Final Environmental Impact Statement (FEIS) for the "Revolution Wind Farm and Revolution Wind Export Cable Project." USACE has been a cooperating agency under 40 CFR § 1501.8, with BOEM as lead agency under 40 CFR § 1501.7, for purposes of complying with NEPA. Additionally, BOEM has been the lead agency the purposes of complying with Section 7 of the Endangered Species Act (ESA), Section 106 of the National Historic Preservation Act (NHPA), and Section 305 of the Magnuson-Stevens Fishery Conservation and Management Act.

USACE concurs with BOEM that this project constitutes a major federal action significantly affecting the quality of the human environment, and that therefore an environmental impact statement (EIS) was required. As a cooperating agency in accordance with NEPA, USACE provided appropriate input and review comments during the EIS process. USACE has independently reviewed the EIS and concludes that its comments and suggestions have been satisfied. USACE has reviewed and evaluated the information in the FEIS in accordance with 40 CFR § 1506.3, and 33 CFR Part 325, Appendix B, and finds that the actions covered by the FEIS and those regulated by USACE under section 10 of the RHA and section 404 of the CWA are substantially the same. The FEIS and associated NEPA documents prepared by BOEM, with referenced materials, and comments received in response to them, are hereby adopted in full and in accordance with 40 CFR §1506.3, for purposes of NEPA, the public interest review required by 33 CFR § 320.4, and the 404(b)(1) Guidelines analysis required by 40 CFR Part 230.

This section documents the decision of USACE to issue a DA permit pursuant to Section 404 of the CWA and Section 10 of the RHA to Kellan Ingalls representing Orsted/Revolution Wind, LLC. The DA permit will authorize the construction and maintenance of an offshore wind energy facility within BOEM's Renewable Energy Lease Area OCS-A 0486 in the Atlantic Ocean that would provide up to 704 megawatts (MW) of clean energy to the states of Connecticut and Rhode Island. The project to be permitted includes up to 65 wind turbine generators (WTGs) connected by inter-array cables (IACs), up to two offshore substations (OSSs) connected by an OSS-link cable and up to two export cables within a single 42-mile long cable corridor extending from the lease area up through the West Passage of Narragansett Bay to

[18] As noted in Footnote 2, above, this ROD follows the 2020 CEQ Regulations.

a landfall site at Quonset Point in North Kingstown, RI. The WTGs and OSSs will require scour protection and the cables will require secondary cable protection in areas where burial cannot occur, where burial is not achieved to a sufficient depth, or where the cables cross existing submarine assets such as cables or pipelines. Scour and cable protection could take the form of rock berms, concrete mattresses, fronded mattresses, and/or rock bags.

5.3.1 USACE Authorities and Jurisdictional Activities

5.3.1.1 USACE Authority and Jurisdiction under Section 404 of the CWA

Under section 404 of the CWA, USACE regulates the discharge of dredged or fill material into the waters of the United States. The USACE's section 404 jurisdiction in tidal waters extends from the high tide line to the seaward limits of the territorial seas. The limit of jurisdiction in the territorial seas is measured from the baseline in a seaward direction a distance of three nautical miles (see 33 CFR § 328.4(a) & (b)). The baseline from which the three-mile limit of the territorial seas is measured is generally the line on the shore reached by the ordinary low tides but may also lie across the mouth of bays or elsewhere when the coast is not in direct contact with the open sea. For this project the USACE's seaward limit of section 404 jurisdiction in tidal waters coincides with the limits of Rhode Island state waters.

The limit of section 404 jurisdiction in non-tidal waters (33 CFR § 328.4(c)) is as follows: (1) In the absence of adjacent wetlands, the jurisdiction extends to the ordinary high water mark, or (2) When adjacent wetlands are present, the jurisdiction extends beyond the ordinary high water mark to the limit of the adjacent wetlands. When the water of the United States consists only of wetlands the jurisdiction extends to the limit of the wetland.

Up to 23 miles of the offshore export cable corridor would be located in waters of the United States regulated by USACE under Section 404 of the CWA. Within Section 404 waters, the applicant is proposing to install up to two export cables within this corridor using simultaneous lay and burial technology. In terms of seabed preparation, the applicant is not proposing to perform sand wave dredging or to use a boulder plow within the limits of Section 404 waters.

Therefore for this project USACE has determined that the discharges of dredged or fill material subject to Section 404 jurisdiction and their associated impacts include the following:

Placement of secondary cable protection over approximately 5% of the export cables as well as in seven locations with existing cables or pipelines. Cable protection will consist of a rock berm, concrete mattresses, fronded mattresses, and/or rock bags. This will result in 32.9 acres of subtidal impacts.

The refilling of the two horizontal directional drilling (HDD) exit pits to be excavated for the work associated with the shore to landfall transition resulting in up to 0.95 acre of temporary subtidal impacts.

None of these impacts will involve conversion of aquatic habitat to uplands nor will they involve impacts to wetlands.

USACE has determined that the onshore work, which includes the installation of onshore cables, and construction of a new onshore substation and a new interconnection facility adjacent to the

existing Davisville substation, does not involve a discharge of dredged or fill material into waters of the United States Therefore, the onshore work does not require a permit under Section 404 of the CWA. The up to 4,370 sf of proposed tree cutting activities in wetlands at the Davisville substation are not regulated under Section 404 of the CWA because they do not involve a discharge of dredged or fill material. As described in USACE's February 11, 2022 "No Permit Required" letter, the proposed tree cutting will involve removal of trees within wetlands via handheld chainsaws used by workers on the ground, handheld chainsaws used by workers in bucket trucks staged in uplands, or tree shears used by workers in the uplands.

5.3.1.2 USACE Authority and Jurisdiction under Section 10 of the RHA

5.3.1.2.1 USACE Section 10 Jurisdiction in Navigable Waters of the U.S.

Under Section 10 of the RHA, USACE regulates construction of any structures and work that are located in or that affect "navigable waters of the U.S." In tidal waters, the shoreward limit of navigable waters extends to the mean high water line while the seaward limit coincides with the limit of the territorial seas.

For this project USACE has determined that the proposed structures and work within navigable waters subject to Section 10 jurisdiction will occur within a 23 mile section of the export cable corridor located within navigable waters of the U.S. Work and structures within navigable waters and their associated impacts include the following:

Excavation and refilling of the HDD pits for the landfall cable transition resulting in up to 0.95 acre of subtidal waters impacts.

Boulder relocation, cable lay and burial trials, the pre-lay grapnel run, the installation of the two cables and cable joints, and the placement of secondary cable protection as needed. This work will occur within a general disturbance corridor that is 131 feet wide for each of the two cables and would be estimated to result in a disturbance area involving up to 603 acres of subtidal waters. The applicant is planning to avoid any unexploded ordinances (UXOs), but should any unexpected UXOs be found and need to be dealt with, this work would also be regulated under Section 10 of the RHA.

5.3.1.2.2 USACE Section 10 Jurisdiction on the Outer Continental Shelf

The USACE's authority to prevent obstructions to navigation in navigable waters of the United States was extended to artificial islands, installations, and other devices located on the seabed, to the seaward limit of the outer continental shelf (OCS), by section 4(f) of the Outer Continental Shelf Lands Act of 1953 as amended (43 U.S.C. § 1333(e) and 33 CFR § 320.2). Structures that would be located on the seabed of the OCS and therefore regulated under Section 10 of the RHA and their estimated impacts include the following:

65 WTGs, two OSSs, and associated scour protection resulting in 55 acres of subtidal seabed impacts;

inter-array cables and the OSS link cable resulting in 155 miles of cables attached to the seabed.

secondary cable protection over the inter-array cables and the onshore substation link resulting in 74.1 acres of subtidal seabed impacts.

up to two export cables within the 19 mile long corridor on the OCS resulting in 38 miles of cables attached to the seabed; and

secondary cable protection over the two export cables on the OCS, resulting in 17.8 acres of subtidal seabed impacts.

5.3.2 USACE Public Notice and Comments

USACE published a 45-day public notice for this project on September 22, 2022 and the comment period ended on October 17, 2022. The public notice was posted on the New England district website. The public notice was also sent out electronically and/or mailed to all interested parties/stakeholders listed in the New England Public Notice Worksheet, including adjacent property owners. In addition, USACE sent an email to the recipients on the public notice mailing list notifying them that USACE posted the public notice on the New England District website.

USACE received requests for an extension of the comment period from the U.S. Environmental Protection Agency (EPA) and the National Oceanic and Atmospheric Administration (NOAA) National Marine Fisheries Service (NMFS) and granted the extensions. USACE received four comment letters and one of these commenters requested a public hearing. However, USACE determined that a public hearing was not required.

Comments received in response to the USACE public notice:

Comment 1: Cultural Heritage Partners (CHP) is a law firm representing the Town of New Shoreham, the City of Newport, the Southeast Lighthouse Foundation, the Newport Restoration Foundation, the Preservation Society of Newport County, and Salve Regina University. CHP submitted comments on their behalf on October 17, 2022, asserting that the project as proposed in the DEIS was contrary to the public interest. CHP also requested that USACE conduct a public hearing. The commenter's concerns with the proposed project related to the potential impacts to cultural and historic resources. CHP sent USACE a copy of the detailed comment letter submitted to BOEM as the lead federal agency for NEPA. This comment letter contained three main assertions: 1) The DEIS was inadequate because it failed to take a hard look at impacts to historic and cultural resources. 2) The DEIS failed to consider adequately the cumulative effects of Revolution Wind, South Fork Wind, Sunrise Wind, and other reasonably foreseeable wind farms; and 3) BOEM inappropriately classified key technical reports and other documents associated with the review process and is therefore thwarting public understanding of the project's true impacts.

USACE Response: CHP also submitted the same comments to BOEM in response to the DEIS, which were addressed in Appendix L of the FEIS and were considered in the preparation of the FEIS and in the Section 106 process. Regarding the request for a USACE public hearing, BOEM held five public meetings on the proposed project- three in-person and two virtually. Written comments were solicited throughout the comment period by mail or by utilizing the regulations.gov website. In addition, the groups represented by CHP all participated as consulting parties to the Section 106 process which resulted in a Memorandum of Agreement (MOA) to resolve adverse effects to historic properties. USACE therefore determined that holding a public hearing would not provide any new or substantive information beyond what was already in the record, nor would it aid in USACE's understanding of the relevant facts and

issues. Therefore USACE denied the public hearing request. Additionally, USACE has adopted the FEIS' evaluation of the project, assessed the impacts—including cumulative impacts—of the proposed project and its intended use on the public interest, and determined that granting a permit is not contrary to the public interest.

Comment 2: The United States Coast Guard (USCG) emailed USACE a copy of the comment letter it had submitted to BOEM on October 14, 2022, in response to the publication of the DEIS. In the comment letter USCG stated that the DEIS sufficiently evaluated the impacts to navigation and that the project would result in minor to moderate adverse impacts. The USCG voiced support for the proposed action in the draft EIS (Alternative B) which would maintain an east-west and north-south 1 nautical mile by 1 nautical mile spacing and layout for the WTGs and the OSSs in the lease area. USCG also voiced support for Alternative D3 which would remove the northwest row of positions for WTGs adjacent to the inbound Buzzards Bay traffic lane. USCG said they supported that alternative because those WTG positions would be less than 2 nautical miles from the Buzzards Bay approach lane. USCG also stated that it was imperative that the navigation mitigation measures in Appendix F of the DEIS be made mandatory. USCG also suggested consideration of the following additional measures: 1) periodic review of wind farm operations by USCG and participation in emergency response exercises 2) not counting safety zones as a key mitigating factor when considering navigation risks 3) timely receipt by USCG of construction plans for activities that could impact USCG missions 4) opportunity for USCG to suggest amendments to mitigation measures as needed and 5) USCG ability to re-evaluate any analysis submitted by the applicant or to require additional analysis after project installation.

USACE Response: As the lead federal agency, BOEM considered this comment letter in the preparation of the FEIS. Section 3.16 of the FEIS provides an in-depth analysis of the impacts of the project on navigation and Table 3.16-5 lists mitigation and monitoring measures resulting from consultations on navigation. BOEM also addressed this comment letter in Appendix L of the FEIS.

Comment 3: NMFS submitted a comment letter to USACE on November 21, 2022. NMFS recognized BOEM as the lead agency for NEPA review, Section 7 ESA consultation and essential fish habitat (EFH) consultation under section 305 of the Magnuson-Stevens Fishery Conservation and Management Act but stated they were offering this letter for technical assistance in the permitting process. These comments were addressed later during the EFH consultation and primarily involved the following topics: 1) avoiding impacts in Narragansett Bay and in habitat areas of particular concern (HAPCs) 2) siting cables and structures to avoid complex and sensitive habitats 3) limiting impacts to Atlantic Cod spawning on the OCS via siting and time-of-year restrictions 4) avoiding submerged aquatic vegetation impacts 5) utilizing time of year restrictions to protect sensitive life stages of winter flounder, diadromous fish, horseshoe crabs, and shellfish resources and 6) mitigating for unavoidable impacts to aquatic habitats. As these comments were addressed during the EFH consultation, they are not addressed here.

Comment 4: EPA requested and received an extension on the commenting deadline. On November 30, 2022, EPA emailed USACE a copy of the comment letter sent to BOEM relative to the DEIS. In this letter, EPA provided a critique of various analyses in the DEIS, voiced support for Alternative F, commented on environmental justice, air quality, and the climate

change risk analysis, and voiced support for additional research. As the lead federal agency, BOEM considered this comment letter in the preparation of the FEIS. In addition, BOEM specifically addressed the comments in this letter in Appendix L of the FEIS. USACE finds that BOEM's responses and subsequent analysis in the FEIS sufficiently address these issues.

EPA did provide one USACE-specific comment in the email containing the letter to BOEM. EPA indicated it was interested in USACE's position regarding alternate onshore export cable routes (e.g., along road rights of way (ROWs)) in order to avoid and minimize aquatic impacts to Narragansett Bay, similar to the onshore cable route alternatives that were being considered for a nearby proposed offshore wind project.

USACE Response: This comment was appropriate for USACE to address as it dealt specifically with work within Narragansett Bay, which is not on the OCS and is therefore out of BOEM's geographical jurisdiction. The proposed export cable route- Davisville Alternative 2- would extend from the lease area north into the West Passage of Narragansett Bay and make landfall at Quonset Point in North Kingstown, RI. USACE requested that the applicant evaluate an export cable corridor route that would make landfall further south to limit impacts to Narragansett Bay. As the applicant had already obtained easements to tie in with the existing Davisville Substation, the applicant submitted an analysis of two more overland cable routes, Davisville Overland Alternate 1 and Davisville Overland Alternate 2. The location, aquatic impacts, and analysis of practicability of these two routes can be found in section 5.3.4 below. USACE determined that these two alternate routes were not practicable.

5.3.3 Alternatives Considered by USACE Under the National Environmental Policy Act (NEPA)

5.3.3.1 Determination of USACE scope of analysis for NEPA

The scope of analysis for USACE's NEPA review is described in 33 CFR Part 325 Appendix B § 7.b. For this action, USACE's NEPA scope includes the specific activity requiring a DA permit. The scope of analysis also includes other aspects of the overall project because USACE and BOEM have sufficient control and responsibility to warrant federal review. Accordingly, the USACE scope of analysis under NEPA includes the areas within the 83,798-acre lease area (OCS-A 0486) that will be impacted by turbine and transmission cable installation, the 42-mile offshore export cable corridor, the onshore transmission cable route, the new onshore substation, and the new interconnection facility which will deliver the generated electricity to the existing Davisville substation. In addition, under NEPA reasonably foreseeable activities within the larger overall wind energy area were considered to account for potential cumulative effects.

5.3.3.2 Determination of Purpose and Need for USACE NEPA Review

For purposes of USACE NEPA review, the project purpose is to construct and maintain a commercially viable offshore wind energy project within Lease Area OCS-A 0486 to provide clean electrical energy to the Connecticut and Rhode Island power grids. For purposes of USACE NEPA review, the project need is to help Connecticut meet its mandate of 2,000 MW of offshore wind energy by 2030, as outlined in Connecticut Public Act 19-71, and to help Rhode Island meet its goal of 100% renewable energy by 2030, as outlined in Rhode Island Governor's Executive Order 20-01 by providing at least 704 MW of clean energy in accordance with the applicant's existing power purchase agreements.

5.3.3.3 USACE Identification of Alternatives Under NEPA

USACE has determined that the below criteria apply to any proposed NEPA alternative.

1. Any proposed alternative must provide renewable energy via the use of offshore wind turbines as BOEM designated the lease areas specifically for renewable wind energy.

2. Any alternative must tie in with the Connecticut and Rhode Island power grids and deliver a minimum of 704 MW of electrical energy to meet contractual obligations.

3. All NEPA alternatives other than the no action alternative propose the same export cable route, landing, and onshore work. Other cable routes, landings, and onshore work were considered by the applicant in the COP and analyzed by USACE in the 404(b)(1) Guidelines alternatives analysis below. However USACE determined that they were not the least environmentally damaging practicable alternative. Therefore only the proposed cable route was carried forward for NEPA analysis.

One no action alternative (Alternative A) and five action alternatives (Alternatives B, C, D, E, F, and G) were analyzed in-depth in the FEIS. For a full description of each alternative, see Table 3-1.

Alternative A is the no action alternative. Under this alternative, USACE would not issue a permit under Section 10 of the RHA and Section 404 of the CWA.

Alternative B is the applicant's originally proposed action which would include the installation of up to 100 WTGs within the lease area connected by inter-array cables, up to two offshore substations connected by an offshore substation link cable, up to two export cables within a 42-mile offshore export cable corridor with a landing at Quonset Point in North Kingstown, RI, onshore cables, an onshore substation and an interconnection facility.

Alternative C is the habitat minimization alternative which would remove between 35 and 36 WTGs from 100 proposed WTGs to reduce impacts to complex fisheries habitats associated with Cox Ledge. Alternative C would include the same export cable corridor, landing, and onshore work as Alternative B.

Alternative D is the transit alternative which would remove between seven and 22 WTGs from the 100 proposed WTGs in Alternative B to reduce navigation risks. Alternative D would include the same export cable corridor, landing, and onshore work as Alternative B.

Alternative E was the viewshed alternative, which would remove between 19 and 36 WTGs from the 100 proposed WTGs in Alternative B to reduce the visual impacts to culturally important resources on Martha's Vineyard and in Rhode Island. Alternative E would include the same export cable corridor, landing, and onshore work as Alternative B.

Alternative F was the higher capacity turbine alternative that would remove up to 44 turbines from the 100 proposed WTGs in Alternative B in the lease area. Alternative F would include the same export cable corridor, landing, and onshore work as Alternative B.

Alternative G was the preferred alternative and would allow for the installation of 65 turbines within 79 possible positions. Two of the 65 turbines could be located in three different configurations. In addition, the other 14 positions would be spare locations that could be utilized if unforeseen siting issues made any of the 65 turbine positions infeasible. Alternative G was a hybrid alternative that would reduce impacts to both visual resources and benthic habitat. Alternative G would include the same export cable corridor, landing, and onshore work as Alternative B.

5.3.3.4 USACE Specification of Environmentally Preferable Alternatives

USACE is required by CEQ regulations, 40 CFR § 1505.2(a)(2), to specify the alternative or alternatives considered environmentally preferable. USACE may discuss preferences among alternatives based on relevant factors including economic and technical considerations. USACE shall identify and discuss all such factors that it balanced in making its decision and state how those considerations entered into its decision.

USACE identified three environmentally preferable alternatives: (1) Alternative A, the no action alternative; (2) Alternative C, the habitat minimization alternative; and 3) Alternative G, which is the preferred alternative in the FEIS.

Under the No Action Alternative, USACE would not issue any permits under Section 404 of the CWA or Section 10 of the RHA regarding the proposed project. Therefore, no WTGs, offshore substations, or inter-array cables would be installed out in Lease Area OCS- A 0486. No export cables would be installed within the Atlantic Ocean and Narragansett Bay to carry electricity from the lease area to a grid interconnection point onshore. There would be no aquatic impacts from the proposed work. However, this alternative would not meet the project purpose of providing clean offshore wind energy to the CT and RI power grids. As the very nature of an offshore wind project involves siting in a waterbody, there is no way for the applicant to shift the project location to get outside of USACE jurisdiction. In addition, even in the absence of the proposed action, other reasonably foreseeable future impact-producing offshore wind and non-offshore wind activities would be implemented, which would cause changes to the affected environment. Therefore, USACE did not choose the no action alternative.

Alternative C is an environmentally preferable alternative because it would reduce impacts to complex habitats on Cox ledge by reducing the number of turbine positions in priority areas. Complex habitat is more vulnerable to long-term and permanent impacts and has been identified by NOAA as EFH for a number of federally managed species, including Atlantic cod. During geotechnical survey work in support of the project, the applicant determined that 21 of the 100 turbine positions were no longer technically feasible. The applicant stated that a minimum of 65 turbines were needed for a viable project, to meet the power purchase agreements. If the turbine positions proposed for removal in Alternatives C1 or C2 were removed and the turbine positions that were no longer technically feasible were removed there would not be enough turbine positions left to support a viable project. Therefore USACE did not choose Alternative C.

Alternative G is an environmentally preferable alternative as it would also reduce the number of turbines within complex habitats on Cox ledge. However this alternative balances concerns regarding fisheries habitat, navigation, and visual impacts while also allowing for the minimum number of turbines to meet the project purpose of providing 704 MW of clean renewable energy

to the CT and RI power grids. As noted by BOEM in Section 3.3, offshore wind has been identified as a key factor for Atlantic states to reach their greenhouse gas emission reduction goals. Therefore USACE has chosen Alternative G, which is the preferred alternative in the FEIS.

5.3.3.5 Mitigation, Monitoring, and Reporting (40 CFR § 1505.2(a)(3)

USACE is required by CEQ regulations to state whether it has adopted all practicable means to avoid or minimize environmental harm from the alternative selected, and if not, why the agency did not. The agency shall adopt and summarize, where applicable, a monitoring and enforcement program for any enforceable mitigation requirements or commitments.

USACE has adopted all practicable means to avoid or minimize environmental harm from Alternative G, including the following:

- Appendix F of the FEIS identifies environmental protection measures (EPMs) committed to by the applicant to avoid and minimize environmental impacts that could result from the proposed activities. USACE has adopted these measures as part of the proposed action that would be subject to the USACE permit authorization.

- USACE has adopted certain conservation recommendations (CRs) resulting from the essential fish habitat (EFH) consultation under the Magnuson-Stevens Act (see 5.3.7.2).

- Under Section 7 of the ESA, USACE has adopted the reasonable and prudent measures and the terms and conditions found in the biological opinion issued by USFWS for terrestrial species in the action area and in the biological opinion issued by NMFS for marine species within the action area (see 5.3.7.1).

- USACE has adopted certain conservation recommendations received from NMFS in accordance with the Fish and Wildlife Coordination Act (FWCA) (see 5.3.6.1 under Fish and Wildlife Values).

- USACE has adopted all mitigation measures identified in the MOA resulting from the Section 106 consultation process under the NHPA (see 5.3.7.3).

5.3.4 Alternatives Evaluation Under the Section 404(b)(1) Guidelines:

Any discharge of dredged or fill material into waters of the United States authorized under Section 404 of the CWA must comply with guidelines established by the Administrator of the US EPA under Section 404(b)(1) of the CWA (the 404(b)(1) Guidelines) in 40 CFR Part 230. For the proposed project, USACE has determined that the activities in waters of the United States regulated under Section 404 of the CWA include the following: 1) the discharge of fill material for secondary cable protection over the two export cables along the 23 mile export cable corridor located within the 3 nautical mile limit of the territorial seas, and 2) the discharge of dredged material to refill the two HDD exit pits associated with the cable landing work at Quonset Point in North Kingstown, Rhode Island.

Except as provided under section 404(b)(2) of the CWA, no discharge of dredged or fill material

shall be permitted if there is a practicable alternative to the proposed discharge which would have less adverse impact on the aquatic ecosystem, so long as the alternative does not have other significant adverse environmental consequences. An alternative is practicable if it is available and capable of being done after taking into consideration cost, existing technology, and logistics in light of overall project purposes.

For the Revolution Wind project, USACE has determined that the overall project purpose is the construction of a commercial-scale offshore wind energy project, including all associated export cables, for renewable energy generation and distribution to the Connecticut and Rhode Island energy grids.

According to the 404(b)(1) Guidelines, when the activity associated with a discharge which is proposed for a special aquatic site (as defined in 40 CFR Part 230 subpart E) does not require access or proximity to or siting within the special aquatic site in question to fulfill its basic purpose (i.e., is not ‘‘water dependent’’), practicable alternatives that do not involve special aquatic sites are presumed to be available, unless clearly demonstrated otherwise. In addition, where a discharge is proposed for a special aquatic site, all practicable alternatives to the proposed discharge which do not involve a discharge into a special aquatic site are presumed to have less adverse impact on the aquatic ecosystem, unless clearly demonstrated otherwise. For the Revolution Wind project, USACE has determined that the basic project purpose is offshore wind energy generation. However, as the applicant's proposed activity does not involve a discharge into a special aquatic site, this part of the Guidelines is not applicable to the USACE evaluation of the applicant's proposed discharge of dredged or fill material into waters of the United States.

This 404(b)(1) Guidelines alternatives analysis is not identical to the NEPA alternatives analysis discussed elsewhere in this ROD. The 404(b)(1) Guidelines only look at alternatives to a discharge of dredged or fill material in waters of the United States regulated by USACE under Section 404 of the CWA. Alternative placements of turbines on the OCS analyzed under NEPA are not subject to the 404(b)(1) Guidelines analysis because activities on the OCS necessarily do not involve a discharge of dredged or fill material into waters of the United States, which, as described in Section 5.3.1.1 above, only extend to the 3 nautical mile limit of the territorial seas.

5.3.4.1 Site Selection/Screening Criteria

The proposed discharges of dredged and fill material are directly related to the export cable route as the route would determine how much of the cables would require the discharge of fill for secondary cable protection and the location of the HDD pits. Depending on the alternative, there could also be non-tidal waters or wetland impacts associated with the onshore work. USACE has determined that any alternative regarding the cable route and associated onshore work must meet the following criteria:

- Within tidal waters, any alternative must have geological substrate characteristics that would allow for adequate burial of the cable below the substrate. However, it is expected that there would be a small percentage of the route that might not allow for adequate burial.
- Any alternative must allow the transmission cables coming from the lease area to tie into

the CT and RI power grids and to deliver 704 MW of electricity.

5.3.4.2 Description of Section 404 Alternatives And Their Impacts

This alternatives analysis considered nine export cable corridor routes and associated onshore work as well as a "no action alternative." Seven of the export cable corridor routes were considered when the applicant was developing the Construction and Operations Plan for submittal to BOEM. During the EIS process, USACE requested that the applicant also evaluate an export cable corridor route that would involve less subtidal impacts in Narragansett Bay. The applicant submitted information on two additional routes using the Davisville substation as the proposed grid connection. The nine export cable corridor routes plus the "no action alternative" are analyzed below. Additional information can be found in Appendix K of the FEIS, including figures of the proposed routes and a table comparing alternatives.

This alternatives analysis assumes the following of the nine proposed cable corridor routes and associated onshore work within Section 404 waters.

1) Up to two cables, each approximately 11.8 inches in diameter, would be installed in the offshore export cable corridor. Within Section 404 waters, the applicant is proposing to use simultaneous cable lay and burial technology to a target depth of 4 to 6 feet below the substrate. USACE has determined that this cable installation method does not involve a discharge of dredged or fill material regulated under Section 404 of the CWA (see 33 CFR § 323.2(d)(3)(i)).
2) Fill impacts regulated under Section 404 of the CWA are associated with secondary cable protection. In areas where burial could not occur or where sufficient burial depth could not be achieved due to seabed conditions, cable protection in the form of hard armoring would be installed. This armoring would consist of rock berms, concrete mattresses, fronded mattresses, or rock bags. It is estimated that 5% to 10% of each export cable would require cable protection based on issues with burial. In addition, secondary cable protection would be installed where the export cables crossed another cable or pipeline. As the applicant is planning to install the cable in soft sediments and to avoid complex habitat to the extent practicable, it is assumed that the subtidal impacts from secondary cable protection would be similar in nature across all alternatives.
3) At the landfall site, the cables would be installed using HDD technology to limit impacts to the nearshore environment. This work would require excavation of two HDD pits in subtidal waters. The excavated material would be stored on a barge and then backfilled into the pits once the HDD cable installation was completed. This would result in a maximum of 0.95 acre of subtidal fill impacts. As this impact would occur across all alternatives except the no action alternative and would involve the same acreage of regulated impact, this impact will not be addressed in the alternatives analysis below.
4) For some of the alternatives, the onshore work would also involve impacts to waters of the United States regulated under Section 404 of the CWA. If so, those impacts are referenced below.

No Action Alternative: Under this alternative, USACE would not issue a permit under Section 404 of the CWA and the applicant would not discharge any dredged or fill material into waters

of the United States. Therefore, no secondary cable protection would be placed over the offshore export cables in waters of the United States and no HDD work would occur that would require refilling of the HDD pits. Without secondary cable protection, 5% to 10% of the cables within waters of the United States would either lie directly on the substrate or would be buried to an insufficient depth. This would subject the cables to damage by tidal forces and scour. The cables would also be subject to damage by fishing gear and boat anchors. Without the discharge of dredged material associated with the HDD work, the export cables would have to lie directly on the substrate in the nearshore environment and in the intertidal zone. The cables would be subject to damage by tidal forces, people, and animals and could pose a safety hazard to people walking along the shoreline. Therefore, it is infeasible to install the export cables without the addition of secondary cable protection and the HDD work. Because the export cable work could not be performed without any discharge of dredged or fill material into waters of the United States, the no action alternative is not practicable under the 404(b)(1) Guidelines because it is inconsistent with the overall project purpose.

Offsite Alternative 1- Brayton Point Route 1 (BPR1): This export cable route would run from the lease area north into Narragansett Bay. The route would then pass through the upper East Passage into Mount Hope Bay and terminate on the west side of Brayton Point in Somerset, Massachusetts. The BPR1 export cable route would run approximately 35.9 miles through waters of the United States from the 3 nautical mile seaward limit to the landfall at Brayton Point. See FEIS Appendix K for further details on the BPR1 alternative.

Impacts associated with this alternative regulated under Section 404 of the CWA consist of 61.1 acres of fill in subtidal waters for cable protection. This alternative involved the longest cable lengths and greatest amount of fill in waters of the United States. Under this alternative there would be no impacts to wetlands or other special aquatic sites.

This alternative is practicable.

Offsite Alternative 2- Brayton Point Route 2 (BPR2): This export cable route would run from the lease area north into Narragansett Bay through the lower East Passage. The route would then pass through the upper East Passage into Mount Hope Bay and terminate on the west side of Brayton Point in Somerset, Massachusetts. The BPR2 export cable route would run approximately 29.1 miles through waters of the United States from the 3 nautical mile seaward limit to the landfall at Brayton Point. See FEIS Appendix K for further details on the BPR2 alternative.

Impacts associated with this alternative regulated under Section 404 of the CWA consist of 54.1 acres of fill in subtidal waters for cable protection. There would be no impacts to wetlands or other special aquatic sites such as mudflat or eelgrass.

An alternative is practicable if it is available and capable of being done after taking into consideration cost, existing technology, and logistics in light of overall project purposes. This alternative is not practicable because it is not available. This alternative involves Department of Defense (DOD) use conflicts. The lower East Passage of Narragansett Bay contains three restricted areas designated by USACE under 33 CFR Part 334. A restricted area is a defined

water area for the purpose of prohibiting or limiting public access to the area. Restricted areas generally provide security for Government property and/or protection to the public from the risks of damage or injury arising from the Government's use of that area. Any cable route through the lower East Passage of Narragansett Bay would cross the Narragansett Bay, RI, restricted area established in 33 CFR § 334.80. Per 33 CFR § 334.80(b)(1), anchoring, fishing, or towing a drag of any kind is prohibited in the restricted area because of the extensive cable system located therein. The three restricted areas are enforced by the United States Navy, Commanding Officer Naval Station Newport. In previous meetings with the applicant the Navy requested that the cable route avoid the lower East Passage of Narragansett Bay.

Offsite Alternative 3- Riverside Avenue Route (RAR): This export cable would run from the lease area north into Narragansett Bay through the Sakonnet River. The cable would continue north through Mount Hope Bay into the Taunton River and terminate near the former Montaup Power Plant on the east side of Somerset. The RAR export cable route would run approximately 25.8 miles through waters of the United States from the 3 nautical mile seaward limit to the landfall at Montaup. See FEIS Appendix K for further details on the RAR alternative.

Impacts associated with this alternative regulated under Section 404 of the CWA consist of 47.9 acres of fill in subtidal waters for cable protection. There would be no impacts to wetlands or other special aquatic sites such as mudflat or eelgrass.

This alternative is practicable.

Offsite Alternative 4- Kent County Route 1 (KCR1): This export cable route would run from the lease area north into Narragansett Bay through the Lower East Passage. The route would then pass through the Upper West Passage and terminate near Chipewanoxet Point in Warwick, Rhode Island. The KCR1 export cable route would run approximately 28.9 miles through waters of the United States from the 3 nautical mile seaward limit to the landfall at Chipewanoxet Point. See FEIS Appendix K for further details on the KCR1 alternative.

Impacts associated with this alternative regulated under Section 404 of the CWA consist of 53.7 acres of subtidal waters for cable protection and 0.7 acre of non-tidal wetland impacts for construction of the onshore substation. No impacts to other special aquatic sites are anticipated.

This alternative is not practicable because it is not available due to the same DOD use conflicts as described in BPR2.

Offsite Alternative 5- Kent County Route 2 (KCR2): This export cable route would run from the lease area north into Narragansett Bay through the lower West Passage. The route would then pass through the upper West Passage and terminate near Chipewanoxet Point in Warwick, Rhode Island. The KCR2 export cable route would run approximately 30 miles through waters of the United States from the 3 nautical mile seaward limit to the landfall at Chipewanoxet Point. See FEIS Appendix K for further details on the KCR2 alternative.

Impacts associated with this alternative regulated under Section 404 of the CWA consist of 50.2 acres of subtidal waters for cable protection and 0.7 acre of non-tidal wetland impacts for construction of the onshore substation. No impacts to other special aquatic sites are anticipated.

This alternative is practicable.

Offsite Alternative 6- Davisville Route 1 (DR1): This export cable route would run from the lease area north into Narragansett Bay through the Lower East Passage between the Towns of Jamestown, and Newport and Middletown, Rhode Island on Aquidneck Island and terminate at the south side of Quonset Point in North Kingstown, Rhode Island. The DR1 export cable route would run approximately 21 miles through waters of the United States from the 3 nautical mile seaward limit to the landfall at Quonset Point. See FEIS Appendix K for further details on the DR1 alternative.

Impacts associated with this alternative regulated under Section 404 of the CWA consist of 39.0 acres of fill in subtidal waters for cable protection.

There would be no impacts to wetlands or other special aquatic sites regulated under Section 404 of the CWA with this alternative. The applicant is proposing up to 0.1 acre of tree cutting in non-tidal wetlands at the Davisville substation. As described in USACE's February 11, 2022 "No Permit Required" letter, the proposed tree cutting would involve removal of trees within wetlands via handheld chainsaws used by workers on the ground, handheld chainsaws used by workers in bucket trucks staged in uplands, or tree shears used by workers from the uplands. Per 33 CFR § 323.2(d)(2)(ii), this activity does not constitute a discharge of dredged or fill material into waters of the United States.

This alternative is not practicable because it is not available due to the same DOD use conflicts as described in BPR2.

Onsite Alternative 1- the applicant's proposed alternative- Davisville Route 2 (DR2): This export cable route would run from the lease area north into Narragansett Bay through the lower West Passage between the Towns of Jamestown, Narragansett and North Kingstown, Rhode Island and terminate at the south side of Quonset Point in North Kingstown, Rhode Island. The DR2 export cable route would run approximately 23 miles through waters of the United States from the 3 nautical mile seaward limit to the landfall at Quonset Point. See FEIS Appendix K for further details on the DR2 alternative.

Impacts associated with this alternative regulated under Section 404 of the CWA consist of 32.9 acres of fill in subtidal waters for cable protection. Approximately 11 acres of the subtidal waters impacts would be associated with secondary cable protection due to burial issues. The other 21.9 acres of subtidal impacts would be from secondary cable protection related to the crossing of existing cables or pipelines. These areas would already have been impacted previously when the original cable or pipeline was installed.

There would be no impacts to wetlands or other special aquatic sites regulated under Section 404 of the CWA with this alternative. The applicant is proposing up to 0.1 acre of tree cutting in non-tidal wetlands at the Davisville substation. As described in USACE's February 11, 2022 "No Permit Required" letter, the proposed tree cutting would involve removal of trees within wetlands via handheld chainsaws used by workers on the ground, handheld chainsaws used by workers in bucket trucks staged in uplands, or tree shears used by workers from the uplands. Per

33 CFR 323.2(d)(2)(ii), this activity does not constitute a discharge of dredged or fill material into waters of the United States.

This alternative is practicable.

Offsite Alternative 7- Davisville Overland Alternate 1 (DOA1): This export cable route would run from the lease area north into Narragansett Bay and terminate at Scarborough State Beach in Narragansett, Rhode Island. The DOA1 export cable route would run approximately 11.5 miles through waters of the United States from the 3 nautical mile seaward limit to the landfall at Narragansett. Onshore, the cables would be installed in an underground duct bank that would follow existing paved roadways including Burnside Road, State Route 108 and US Route 1 in the towns of Narragansett, South Kingstown and North Kingstown. It would then join the Narragansett Electric Company (TNEC) 115 kV Davisville Tap Right-Of-Way (ROW) and follow it to the Davisville Substation for an overall onshore distance of approximately 17 miles. Between the Davisville Substation and the Onshore Substation, the underground duct bank would be collocated in the overhead ROW. See FEIS Appendix K for further details on the DOA1 alternative.

Impacts associated with this alternative regulated under Section 404 of the CWA include 5.4 acres of fill in subtidal waters for secondary cable protection due to burial challenges. It is uncertain how much secondary cable protection would be needed due to the crossing of existing cables or pipelines as the applicant did not perform geotechnical survey work on this route. Therefore, there may be additional impacts from cable or pipeline crossings that are not accounted for in the estimated 5.4 acres of subtidal impacts.

There would also be approximately 0.3 acre of non-tidal wetlands impacts for installation of the onshore cable route. There are no anticipated impacts to other special aquatic sites.

In addition, per 33 CFR §167.103, there is a restricted area, two miles wide, extending from the southern limit of the Narragansett Bay Approach separation zone - the separation zone between the inbound and outbound lanes of the USCG traffic separation scheme- to a latitude of 41°24.70' N. This restricted area is utilized as a DOD torpedo range during certain periods of daylight and optimal weather conditions, when it may be closed to ship traffic by the Naval Underwater System Center. The applicant indicated that the DOA1 cable route would also have to cross this restricted area and torpedo range and they do not have permission to do so. The over land part of this cable route would also require numerous authorizations and/or easements- which the applicant does not possess- from the Rhode Island State Properties Commission, the Rhode Island Department of Transportation, the Town of Narragansett, and other private property owners. Accordingly, this alternative is not practicable because it is not available.

Offsite Alternative 8- Davisville Overland Alternate 2 (DOA2): This export cable route would run from the lease area north into Narragansett Bay and terminate at Scarborough State Beach in Narragansett, Rhode Island. The DOA2 export cable route would run approximately 11.5 miles through waters of the United States from the 3 nautical mile seaward limit to the landfall at Narragansett. Onshore, the cables would be installed in an underground duct bank that would follow existing paved roadways (Burnside Road, State Route 108 and US Route 1) in the towns

of Narragansett, South Kingstown and North Kingstown before joining a TNEC 34.5 kV distribution ROW. The cables would run through the TNEC distribution ROW to the Davisville Tap ROW and eventually terminate at the Davisville Substation for an overall onshore distance of approximately 18.8 miles. Between the Davisville Substation and the Onshore Substation, the underground duct bank would be collocated in the Overhead ROW. See FEIS Appendix K for further details on the DOA2 alternative.

Impacts associated with this alternative regulated under Section 404 of the CWA include 5.4 acres of fill in subtidal waters for secondary cable protection due to burial challenges. It is uncertain how much secondary cable protection would be needed due to the crossing of existing cables or pipelines as the applicant did not perform geotechnical survey work on this route. Therefore, there may be additional impacts from cable or pipeline crossings that are not accounted for in the estimated 5.4 acres of subtidal impacts.

There would be approximately 3.2 acres of wetland fill impacts (1.25 acres of non-tidal wetlands and 1.9 acres of tidal wetlands) regulated under Section 404 of the CWA associated with this alternative. No impacts to other special aquatic sites such as mudflat or eelgrass are anticipated.

This alternative is not practicable because it is not available for the same reasons as described for DOA1 above.

5.3.4.3 Determination of the Least Environmentally Damaging Practicable Alternative under the 404(b)(1) Guidelines:

Of the alternatives considered above, the no action alternative as well as alternatives BPR2, KCR1, DR1, DOA1, and DOA2 are not practicable. Therefore, they will not be considered further.

Of the four practicable alternatives BPR1 would result in 61.1 acres of subtidal impacts. KCR2 would result in 50.2 acres of subtidal impacts and 0.7 acre of non-tidal wetland impacts. RAR would result in 47.9 acres of subtidal impacts. DR2 would result in 32.9 acres of subtidal impacts. Of these alternatives, DR2 would result in the least aquatic impacts and has no other significant adverse environmental consequences. The subtidal areas where cable protection would be placed consist primarily of soft substrates, limiting potential impacts to complex habitats. In addition, there would be no permanent loss of waters of the United States from the fill placement. Therefore, DR2 was determined to be the least environmentally damaging practicable alternative (LEDPA). All environmental impacts of alternative DR2 were addressed in the NEPA process by BOEM in the FEIS, which USACE has adopted. The other cable route alternatives were not carried forward for analysis under NEPA. They were not permittable by USACE under Section 404 of the CWA because they were not the LEDPA.

5.3.5 Evaluation of the Discharge of Dredged and Fill Material Under the 404(B)(1) Guidelines (40 CFR Part 230, Subparts B through H)

The following sequence of evaluation is consistent with 40 CFR § 230.5. The impact assessment below may differ from the impact assessment in the FEIS in that the NEPA analysis assessed impacts from the Project as a whole, whereas this analysis considers only a subset of the Project, specifically the impacts from the discharge of dredged and fill material into waters of the United

States. As noted above in Section 5.3.1.1, waters of the United States subject to the CWA only extend to the three-mile limit of the territorial seas. It has been determined that there are no practicable alternatives to the proposed discharge (Alternative DR2) that would be less environmentally damaging (40 CFR § 230.10(a)). There is no practicable alternative to the proposed discharge that would have less adverse impact on the aquatic ecosystem, and the proposed discharge does not have other significant environmental consequences. Therefore, this section evaluates the discharge proposed in Alternative DR2.

5.3.5.1 Candidate disposal site delineation (Subpart B, 40 CFR § 230.11(f)

Each disposal site shall be specified through the application of these Guidelines. The general disposal site is within Narragansett Bay, which is a temperate, well-mixed estuary covering 147 square miles. Geologically, the bay is a drowned river valley consisting of the Sakonnet valley, the East Passage, and the West Passage with water up to 100 feet deep at the mouth of the bay near the seaward limits of section 404 waters. Salinity within the bay ranges from 27 parts per thousand (ppt) in the Providence River to 32 ppt at the mouth of the bay. The disposal site is contained within the 23-mile-long section of the offshore export cable corridor that extends from the 3 nautical mile seaward limit of waters of the United States up through the West Passage of Narragansett Bay to the landfall site at Quonset Point in North Kingstown, Rhode Island. There are no special aquatic sites as defined in 40 CFR Part 230 Subpart E (wetlands, mud flats, vegetated shallows, sanctuaries and refuges, coral reefs, or riffle and pool complexes) located within the export cable corridor, and there is no proposed discharge of dredged or fill material into a special aquatic site.

5.3.5.2 Potential Impacts on Physical and Chemical Characteristics of the Aquatic Ecosystem (Subpart C 40 CFR § 230.20-230.25)

Substrate: USACE anticipates that the proposed discharges of dredged and fill material within the 3 nautical mile limit of jurisdiction would have a minor long-term effect on the substrate. A maximum of 32.9 acres of substrate in waters of the United States would be modified due to the installation of secondary cable protection within Narragansett Bay. The majority of the substrate to be impacted is soft bottom sediment consisting of sand and mud. This substrate would be converted to hard bottom by the placement of the rock or concrete mattresses. Although there would be a conversion of habitat type, this fill placement will not result in a loss of waters of the United States. As the overall size of Narragansett Bay is approximately 95,000 acres in size, the fill impact area of 32.9 acres represents only 0.03% of the total Narragansett Bay area, which is a minor impact overall. In addition, 21.9 acres of the proposed secondary cable protection is necessary due to the proposed cables crossing existing cables or pipelines. Therefore, these areas have been previously disturbed by other cable or pipeline installations. Up to 0.95 acre of substrate would be impacted by the refilling of the two HDD pits once the landfall work has been completed. However, as this work would be limited to the refilling of the pits with the excavated material, no habitat conversion would occur, and impacts are expected to be temporary.

Suspended particulates/turbidity: USACE anticipates that the proposed discharges of dredged and fill material within the 3 nautical mile limit of jurisdiction would have a minor short-term effect on suspended particulates and turbidity. The placement of secondary cable protection over the export cables in the form of rock or concrete mattresses could cause localized, short-term turbidity. The refilling of the HDD pits when the landfall work has been completed would also cause localized, short-term turbidity.

Water: USACE anticipates that the proposed discharges of dredged and fill material within the 3 nautical mile limit of jurisdiction would have no effect on the surrounding water as there would be no addition of contaminants that would cause changes to the water that would reduce its suitability for populations of aquatic organisms, recreation, or aesthetics.

Current patterns and water circulation: USACE anticipates that the proposed discharges of dredged and fill material within the 3 nautical mile limit of jurisdiction would have no effect on current patterns or water circulation. The fill to be discharged for secondary cable protection would be the minimum required to protect the cables and would not be of an amount or height to cause changes in current patterns or water circulation within Narragansett Bay.

Normal water fluctuations: USACE anticipates that the proposed discharges of dredged and fill material within the 3 nautical mile limit of jurisdiction would have no effect on tidal fluctuations in the project area as the fill to be discharged for secondary cable protection would be the minimum required to protect the cables.

Salinity gradients: USACE anticipates that the proposed discharges of dredged and fill material within the 3 nautical mile limit would have no effect on salinity gradients. The fill to be discharged for secondary cable protection would be the minimum required to protect the cables and should not impact salinity gradients.

5.3.5.3 Potential Impacts on the Biological Characteristics of the Aquatic Ecosystem (Subpart D 40 CFR § 230.30-230.32)

Threatened and endangered species: USACE anticipates that the proposed discharges of dredged and fill material within the 3 nautical mile limit of jurisdiction would result in minor impacts to threatened and endangered species. Threatened and endangered terrestrial species that could occur in the vicinity of the proposed discharges of dredged and fill material include the northern long-eared bat (NLEB) and the roseate tern. USACE anticipates that there would be negligible impacts to these species resulting from the proposed discharges. Threatened and endangered marine species that could occur in Narragansett Bay include Atlantic sturgeon, shortnose sturgeon, Kemps ridley sea turtles, loggerhead sea turtles, green sea turtles, and leatherback sea turtles. USACE does not anticipate that the discharge of fill material for the secondary cable placement or the refilling of the HDD pits would bury or kill sturgeon or sea turtles. However the modification of bottom habitat through the discharge of fill for secondary cable protection and the subsequent habitat conversion could displace some foraging habitat. It is anticipated that a maximum of 32.9 acres of primarily soft bottom would be converted to hard bottom habitat as a result of the secondary cable protection placement. When considering the overall size of Narragansett Bay (95,000 acres) this habitat conversion represents impacts to only 0.03% of the total Narragansett Bay area. In addition, 21.9 acres of the proposed secondary cable protection would be necessary due to crossings of existing cables or pipelines. Therefore, these foraging areas have been previously impacted. Consultation with the USFWS and NMFS on the overall project was performed under Section 7 of the ESA and is referenced below. See Sections 3.13, 3.15. and 3.19 of the FEIS for an analysis of impacts to threatened and endangered species from the overall project.

Fish, crustaceans, mollusks, and other aquatic organisms: USACE anticipates that the proposed discharges of dredged and fill material within the 3 nautical mile limit of jurisdiction would

result in moderate impacts to mollusks, fish, and crustaceans in the project area. The discharge of fill in the form of rock, concrete mattresses, fronded mattresses, or rock bags for secondary cable protection would result in the smothering of any sessile species present on the substrate. The placement of fill material has the potential to have adverse effects on egg and larval stages of fish and crustaceans that may be present in the area but are unable to avoid smothering due to their inability to relocate. However, the USACE authorization would include seasonal restrictions on the discharges of dredged and fill material within the western passage of Narragansett Bay. These include overlapping restrictions on in-water work from February 1 to June 30 to protect winter flounder eggs and larvae, from February 15 to June 30 to protect anadromous fish spawning and from April 1 to June 30 to protect horseshoe crab spawning.

Regarding shellfish, the USACE authorization would include measures to limit impacts to these species: There would be a partial seasonal restriction from April 1 to August 31 on the secondary cable protection placement and from April 1 to July 31 on the HDD work to limit impacts to shellfish spawning. In addition USACE would require the applicant to perform a shellfish survey in the location of the proposed HDD pits prior to excavation. The Rhode Island Department of Environmental Management (RIDEM) will review the survey to determine whether the applicant will be required to relocate shellfish resources prior to the HDD work. USACE anticipates there would be some benefits to fish and crustacean species from the placement of secondary cable protection in the form of rock, as rocky habitats can create structure that some species prefer as opposed to soft substrates. See Sections 3.6 and 3.13 of the FEIS for analysis of impacts to fish, crustaceans, mollusks, and other aquatic organisms from the overall project.

Other wildlife: USACE anticipates that the proposed discharges of dredged and fill material within the 3 nautical mile limit of jurisdiction would have minor long-term impacts to other wildlife that have not been considered above. The placement of cable protection could have minor secondary effects on seals and sea birds, as direct impacts to fish, crustaceans, and mollusks from the secondary cable protection could result in an impact to available forage for these species.

5.3.5.4 Potential impacts on special aquatic sites (Subpart E 40 CFR § 230.40-230.45)
Sanctuaries and refuges, wetlands, mud flats, vegetated shallows, coral reefs, riffle and pool complexes: USACE anticipates that the proposed discharges of dredged and fill material within the 3 nautical mile limit of jurisdiction would have no direct effect on sanctuaries and refuges, wetlands, mud flats, vegetated shallows, coral reefs or riffle and pool complexes as the proposed discharges would not occur within any of these special aquatic sites. The distance of the proposed HDD pits in relation to identified eelgrass beds along the shoreline should minimize the likelihood of any indirect impacts from turbidity.

5.3.5.5 Potential impacts on human use characteristics (Subpart F 40 CFR § 230.50-230.54)
Municipal and private water supplies: USACE anticipates that the proposed discharges of dredged and fill material within the 3 nautical mile limit of jurisdiction would have no effect on municipal or private water supplies as they will occur in Narragansett Bay, a tidal waterbody. No water supply is being sourced from the Narragansett Bay.

Recreational and commercial fisheries: USACE anticipates that the proposed discharges of dredged and fill material within the 3 nautical mile limit of jurisdiction would have moderate

adverse impacts on recreational and commercial fisheries. Fish may be negatively affected by the discharge of fill, as non-mobile larvae and eggs cannot disperse to avoid smothering. However, there will be permit conditions requiring seasonal restrictions on the proposed discharges of dredged and fill material in Narragansett Bay to lessen impacts to fisheries. The proposed discharge of fill to protect the cable could ensnare or damage fishing gear. To offset potential losses, the applicant has committed to establishing a direct compensation program for impacted fisherman. It is anticipated that the cable protection may be minorly beneficial to recreational fisheries, as additional structure on featureless bottom tends to serve as an artificial reef that attracts higher concentrations of fish. See Section 3.9 of the FEIS for an in-depth analysis of impacts to commercial fisheries and for-hire recreational fishing from the proposed cable protection.

The applicant's proposed activities in the Lease Area would occur on the OCS and are thus outside of the waters of the United States regulated by USACE under section 404 of the CWA. USACE-regulated waters of the United States only extend seaward to the three-nautical-mile limit of the territorial seas. As a result, although regulated by USACE under section 10 of the RHA, the applicant's proposed activities in the Lease Area do not involve any discharge of dredged or fill material into waters of the United States and are not subject to the requirements of the 404(b)(1) Guidelines. This 404(b)(1) Guidelines Subpart F analysis of potential impacts to recreational and commercial fisheries thus only considers the potential impacts of the discharge of dredged or fill material regulated under section 404 of the CWA, i.e., the 32.9 acres of secondary cable protection along the 23-mile section of export cable corridor within the waters of the United States and the 0.95 acres of dredged material used to backfill the HDD pits.

Water-related recreation: USACE anticipates that the proposed discharges of dredged and fill material within the 3 nautical mile limit of jurisdiction would have negligible impacts on water-related recreation. USACE estimates that water-related recreation within the 3 nautical mile limit would consist of recreational fishing and boating. The placement of fill over the cables for secondary cable protection would only have a short-term effect on the navigation of recreational boaters while the work vessel was performing the fill. There would be no change in the ability of vessels to utilize the waters above the fill once it has been placed over the cable. Also the proposed discharge of fill could provide structure to the substrate in areas currently consisting of soft sediments which could have a minor, positive effect on recreational fishing.

Aesthetics: USACE anticipates that the proposed discharges of dredged and fill material within the 3 nautical mile limit of jurisdiction would have minimal effects on aesthetics. Any turbidity impacts are anticipated to be minor and short in duration. A barge would be visible from the shore while the HDD pit material was temporarily stored prior to refilling the pits but that would be a short-term minor impact. Once the secondary cable protection is discharged, it would be located at sufficient depths such that it would not be visible from the water surface.

Parks, national and historical monuments, national seashores, wilderness areas, research sites, and similar preserves: No effect. The proposed discharge of dredged and fill material should have no effect on parks, national and historical monuments, national seashores, wilderness areas, research sites, or similar preserves as no proposed discharges will occur within or directly adjacent to these areas.

5.3.5.6 Evaluation and Testing (Subpart G, 40 CFR § 230.60-230.61)

The discharges being evaluated in this section consist of the refilling of the two HDD exit pits after the cable landfall work is complete and the placement of secondary cable protection over sections of the cable that do not achieve burial or adequate burial or that cross existing submarine assets such as cables or pipelines. The applicant performed sediment sampling in the vicinity of the proposed HDD exit pits approximately 800 feet off the landing site at Quonset Point, and the physical characteristics of the dredged material were evaluated. The habitats within the Western Passage of Narragansett Bay—including near the Quonset Point cable landing where the HDD pits would be excavated—were determined to primarily consist of depositional muds and sandy muds. These materials would be excavated, placed temporarily on a barge, and then backfilled into the exit pits once the HDD work was complete. Testing is not required for the HDD pit material because it is going back into its original location. Although the discharge material could be a carrier of contaminants, it is not likely to degrade the disposal site. The secondary cable protection would consist primarily of rock berms and/or concrete mattresses. It has been determined that testing is not required for these materials because they will be comprised of clean inert material.

5.3.5.7 Actions to Minimize Adverse Effects (Subpart H, 40 CFR §§ 230.70 – 230.77)

- Actions concerning the location of the discharge: The applicant has sited the cable, and therefore cable protection, in soft sediments to the degree practicable to limit impacts to complex habitat. The applicant has also sited the HDD pits and cables to avoid special aquatic sites.
- Actions concerning the material to be discharged: The cable protection materials would consist of clean rock and concrete mattresses. The dredged material used to refill the HDD pits would consist of the same material excavated from the pits.
- Actions controlling the material after discharge: N/A
- Actions affecting the method of dispersion: Instead of being temporarily sidecast, the dredged material from the HDD pits would be stored on a barge prior to being used to refill the pits. This should limit temporary benthic impacts.
- Actions related to technology: HDD technology will be used at the landfall transition rather than open trenching and backfill. This will limit nearshore impacts as eelgrass has been identified east and west of the landfall site.
- Actions affecting plant and animal populations: The applicant has sited the cable to avoid special aquatic sites. There will be seasonal restrictions on the discharges to limit impacts to spawning for winter flounder, anadromous fish, and horseshoe crabs. The applicant will perform a shellfish survey prior to the HDD work to determine if shellfish resources are present. If RIDEM deems it necessary, the shellfish will be moved prior to commencement of the work.
- Actions affecting human use: N/A
- Other actions: N/A

5.3.5.8 Factual Determinations (Subpart B, 40 CFR § 230.11)

- Physical substrate determination: Based on the evaluation in 5.3.5.2, USACE anticipates that the discharges of dredged and fill material within the 3 nautical mile limit of jurisdiction would have a minor long-term effect on the physical substrate.

- Water circulation, fluctuation, and salinity determination: Based on the evaluation in 5.3.5.2, USACE anticipates that the discharges of dredged and fill material within the 3 nautical mile limit of jurisdiction would have no effect on water circulation, fluctuation, and salinity.

- Suspended particulate/turbidity determination: Based on the evaluation in 5.3.5.2, USACE anticipates that the discharges of dredged and fill material within the 3 nautical mile limit of jurisdiction would have a minor short-term effect on suspended particulates and turbidity.

- Contaminant determination: The proposed discharge of dredged material consists of refilling HDD pits with the same materials that were excavated to create the pits. The proposed discharge of fill consists of the placement of rock and concrete mattresses. Neither of these discharges should introduce contaminants. Therefore, USACE anticipates that the proposed discharges will have no effect on contaminants.

- Aquatic ecosystem and organism determination: Based on the evaluation in 5.3.5.3, USACE anticipates that the discharges of dredged and fill material within the 3 nautical mile limit of jurisdiction would have a minor long-term effect on the aquatic ecosystem and organisms.

- Proposed disposal site determination: Based on the evaluations in 5.3.5.2 through 5.3.5.6 USACE anticipates that the discharges of dredged and fill material within the 3 nautical mile limit of jurisdiction would have a minor long-term effect on the disposal site.

Determination of cumulative effects on the aquatic ecosystem: USACE has authorized numerous permits for discharges associated with cable installation, such as secondary cable protection and HDD work. In fact, the proposed cable route for this project requires the crossing of seven existing cables or pipelines in Narragansett Bay. Typically, cables have been sited within soft sediments for ease of burial and to limit the amount of needed cable protection. This would be anticipated to occur on future cable projects as well. This siting in soft sediments limits impacts to complex habitats preferred by many fish species. Typically, cables have not been sited within special aquatic sites as the 404(b)(1) Guidelines would require evaluating alternative routes that do not include special aquatic sites when choosing the LEDPA. This would be anticipated to occur on future cable projects as well. Most cables require at least a small percentage of cable protection due to burial challenges. When cable protection is necessary it typically consists of clean materials such as rock or concrete mattresses as these are the industry standard. It is anticipated that this would be the case on future cable projects. The impacts from cable protection, while long-term, do not cause a loss of waters of the United States. Due to state

coastal management plans, future development within the three nautical mile limit of jurisdiction involving loss of waters of the United States would be extremely limited. Therefore, USACE anticipates that cumulatively there would be long-term minor impacts to the aquatic ecosystem.

- Determination of secondary effects on the aquatic ecosystem: Secondary effects from refilling of the HDD pits would consist of short-term elevated turbidity levels in the nearby water column. Secondary effects from the placement of rock and concrete mattresses for secondary cable protection would include a change in the aquatic organisms that would utilize the substrate. USACE anticipates there would be minor long-term secondary effects on the aquatic ecosystem.

5.3.5.9 Findings of Compliance or Non-compliance with the Restrictions on Discharges (40 CFR § 230.10(a-d) and 230.12)

Based on the information above, including the factual determinations, the proposed discharges of dredged and fill material have been evaluated to determine whether any restrictions on discharge would occur:

Is there a practicable alternative to the proposed discharge that would be less damaging to the environment (any alternative with less aquatic resource effects, or an alternative with more aquatic resource effects that avoids other significant adverse environmental consequences?)

No, as evaluated above, there is no practicable alternative that would be less damaging to the environment.

Will the discharge cause or contribute to violations of any applicable water quality standards?

No. The proposed discharge will not cause or contribute to violations of any applicable water quality standards. RIDEM issued an individual 401 water quality certification (WQC) for the proposed discharges of dredged and fill material on April 28, 2023 indicating that the project meets the state's water quality standards. RIDEM issued an amendment on July 7, 2023, changing the seasonal restriction for the HDD work.

Will the discharge violate any toxic effluent standards (under Section 307 of the CWA)?

No, the proposed discharge will not violate any toxic effluent standards under Section 307 of the CWA.

Will the discharge jeopardize the continued existence of endangered or threatened species or their critical habitat?

No. BOEM as the lead federal agency completed Section 7 consultation under the ESA for the overall project. USFWS issued a biological opinion on May 302023 for terrestrial species and NMFS issued a biological opinion on July 21, 2023, for marine species. Both biological opinions indicated that the overall project would not jeopardize the continued existence of threatened and endangered species and/or their critical habitat and BOEM and USACE agreed with these opinions. The proposed discharges of dredged and fill material within the 3 nautical mile limit of jurisdiction are a subset of the overall project and were therefore considered within the biological opinions.

Will the discharge violate standards set by the Department of Commerce to protect marine sanctuaries designated under title III of the Marine Protection, Research, and Sanctuaries Act of 1972?

No. The proposed discharge will not occur within any marine sanctuaries and will not violate any standards set by the Department of Commerce.

Will the discharge cause or contribute to significant degradation of waters of the United States?

No. The proposed discharge should not cause or contribute to significant degradation of waters of the United States.

Have all appropriate and practicable steps (Subpart H, 40 CFR § 230.70-230.77) been taken to minimize the potential adverse impacts of the discharge on the aquatic ecosystem?

Yes. All appropriate and practicable steps have been taken to minimize the potential adverse impacts of the proposed discharge on the aquatic ecosystem. There will be seasonal restrictions on the work to limit impacts to aquatic organisms. In addition, the cable location has been sited to be installed in soft sediments and to avoid impacting complex habitats to the degree possible. The cable work has also been designed to avoid impacts to special aquatic sites.

Is compensatory mitigation required to offset environmental losses resulting from proposed unavoidable impacts to waters of the United States?

No. The discharge of dredged material for the refilling of the HDD pits would only result in a temporary impact as the dredged material would be returned to its original location. The discharge of fill in the form of rock and concrete mattresses for the secondary cable protection would be a long-term impact, but there would be no loss of waters of the United States. In addition, the proposed discharge of fill for the secondary cable protection and the discharge of dredged material to refill the HDD pits would not be located in any special aquatic sites.

5.3.6 USACE Public Interest Review (33 CFR § 320.4 and RGL 84-09)

In accordance with 33 CFR Part 320, USACE's decision whether to issue a permit is based on an evaluation of the probable impacts, including cumulative impacts, of the proposed activity and its intended use on the public interest. Evaluation of the probable impact which the proposed activity might have on the public interest required a careful weighing of all those factors which were relevant to this project. The benefits which reasonably may be expected to accrue from this project have been balanced against its reasonably foreseeable detriments. The decision whether to authorize a proposal, and if so, the conditions under which it will be allowed to occur, was therefore determined using this general balancing process. The decision reflects the national concern for both protection and utilization of important resources. All factors which may be relevant to the proposal have been considered including the cumulative effects thereof: among those are conservation, economics, aesthetics, general environmental concerns, wetlands, historic properties, fish and wildlife values, flood hazards, floodplain values, land use, navigation, shore erosion and accretion, recreation, water supply and conservation, water quality, energy needs,

safety, food and fiber production, mineral needs, considerations of property ownership and, in general, the needs and welfare of the people. These public interest factors are addressed below.

5.3.6.1 USACE Review of Public Interest Factors (33 CFR § 320.4(a)(1))

Conservation: USACE anticipates that the project (Alternative G) would have no effect on conservation. Broadly defined, conservation is the planned management of natural resources in order to prevent or minimize exploitation, destruction, or neglect. The proposed project will not result in conservation of land to prevent or minimize exploitation destruction. The project will also not impact any currently conserved land. It is anticipated that applicants on other offshore wind projects will also try to avoid conservation land when looking for a landing site and an over land cable route to connect to existing power grids because it can be a challenge to obtain an easement to disturb these areas. Therefore, when considering past, present, and reasonably foreseeable future offshore wind projects, it is anticipated that these projects will have no effect on conservation either. When looking for a landing site and an over land cable route to connect to existing power grids, it is anticipated that applicants will try to avoid conservation land as it can be a challenge to obtain an easement to disturb these areas.

Economics: USACE anticipates that the project (Alternative G) would have a minor beneficial impact on economics (see Table 3-2 under Demographics, Employment, and Economics). When also considering past, present, and reasonably foreseeable future offshore wind projects, USACE anticipates that the cumulative impacts to economics would also be minor long-term beneficial. See Section 3.11 of the FEIS for an in-depth analysis of all relevant factors.

Aesthetics: USACE anticipates that the project (Alternative G) would result in long term moderate adverse to long term major adverse impacts to aesthetics (See Table 3-2 under Visual Resources). The visual impacts would be substantial to dominant for the life of the project (up to 35 years), but the resource would be expected to recover completely after decommissioning. When also considering past, present, and reasonably foreseeable future offshore wind projects, USACE anticipates that the cumulative visual impacts would range from negligible to major adverse although the impacts would end after decommissioning of the projects. See Section 3.20 of the FEIS for an in-depth analysis of all relevant factors.

Some applicant-proposed mitigation measures include the following:

1) Installation of no more than 65 turbines.

2) Elimination of the six most northern turbine locations within the lease area under the preferred Alternative G1/G2/G3 from the FEIS.

3) Uniform turbine spacing of 1 nautical mile which will decrease visual clutter.

4) Use of a paint color on the WTGs that is no lighter than RAL 9010 pure white and no darker than RAL 7035 light gray to help reduce potential visibility of the turbines against the horizon during daylight hours.

5) Use of an aircraft detection lighting system (ADLS) which will only activate lights when aircraft approach.

General Environmental Concerns: USACE anticipates that the project (Alternative G) would result in beneficial impacts to general environmental concerns. At full operation, Revolution Wind would produce at least 704 MW of renewable energy for the Connecticut and Rhode Island power grids. The addition of this energy would reduce emissions produced by current energy production methods and contribute towards Connecticut's mandate of 2,000 MW of offshore wind energy by 2030, as outlined in Connecticut Public Act 19-71, and to Rhode Island's 100% renewable energy goal by 2030, as outlined in Rhode Island Governor's EO 20-01 of January 2020. After subtracting the annual estimated CO2 emissions caused by the project, it is estimated that the construction of Revolution Wind would result in a net avoidance of 1,378,102 tons of carbon dioxide emissions annually, which is equivalent to taking 278,206 cars off the road each year. Over the lifetime of the project (35 years) the FEIS anticipates that avoided CO2 emissions will total 48,233,570 tons. A reduction in carbon emissions and other greenhouse gas emissions has the potential to contribute towards the slowing of climate change and sea level rise, both of which could impact multiple environmental factors. When also considering past, present, and reasonably foreseeable future offshore wind projects, USACE anticipates that the cumulative impacts would be beneficial as well.

Wetlands: USACE anticipates that the overall project (Alternative G) could result in negligible to minor adverse effects on wetlands (see Table 3-2) based on the impact-producing factors assessed in the FEIS. When also considering past, present, and reasonably foreseeable future offshore wind projects, USACE anticipates that the cumulative impacts would be minor adverse. See Section 3.22 of the FEIS for an in-depth analysis of various factors. However, impact-producing factors discussed in the FEIS include accidental spills and impacts to a wetland from soil disturbance activities outside of the wetland but nearby, neither of which trigger USACE jurisdiction. The Project does not involve wetland impacts that would require a permit from USACE under Section 404 of the CWA or Section 10 of the RHA.

Historic Properties: USACE anticipates that the project (Alternative G) would result in negligible to major negative impacts on historic properties (see Table 3-2 under Cultural Resources). Section 3.10 of the FEIS contains an in-depth analysis of relevant factors. USACE anticipates that the majority of adverse impacts- which are visual in nature- would cease after project decommissioning. When also considering past, present, and reasonably foreseeable future offshore wind projects, USACE anticipates that the cumulative impacts would be negligible to major negative. Impacts to historic properties were also required to be assessed under Section 106 of the NHPA. USACE designated BOEM as the lead federal agency and consultation was completed. Adverse effects were resolved via an MOA, which USACE signed as a concurring party.

Fish and Wildlife Values: USACE anticipates that the project (Alternative G) would result in minor to moderate impacts to fish and wildlife values. The FEIS analyzed impacts to wildlife, fish, and other marine fauna including the following: Bats (negligible adverse), birds (minor adverse), benthic invertebrates (minor to moderate adverse), finfish (moderate adverse), marine mammals (moderate adverse for all except for the North Atlantic Right Whale which is major adverse), and sea turtles (minor adverse). This information can be found in Table 3-2. Therefore, the project would result in minor adverse impacts to terrestrial species and moderate adverse

impacts for marine species. When considering past, present, and reasonably foreseeable offshore wind projects, USACE anticipates that cumulatively there would still be minor adverse impacts to terrestrial species and moderate adverse impacts to marine species. However, the FEIS estimates that cumulatively there would also be minor to moderate beneficial impacts to marine species via the reef effect created by the turbine foundations.

33 CFR § 320.4(c) also discusses the FWCA and the need for USACE to consider input from USFWS, NMFS, and state fish and wildlife agencies with a view to the conservation of wildlife resources by prevention of their direct and indirect loss and damage due to the proposed project. The RIDEM 401 WQC, which is part of the USACE permit, took into account input from state fish and wildlife agencies. USFWS did not specifically provide FWCA recommendations for review on this project. However, NMFS provided four FWCA recommendations for consideration.

USACE determined that two of the recommendations will be fully implemented and the other two will be partially implemented. These implemented recommendations will be reflected in the USACE permit conditions.

USACE anticipates that the concerns of state fish and wildlife agencies, the USFWS and NMFS in relation to the FWCA will be fully considered and implemented to the degree practicable and appropriate on future offshore wind projects as well.

Flood Hazards: USACE anticipates that the project (Alternative G) would have a negligible beneficial effect on flood hazards. There are no design project elements that would impact impoundments, levees, hurricane barriers, etc. In addition, as sea level rise is a component of climate change and sea levels are a component of coastal flooding, projects such as this which are aimed at reducing greenhouse gas emissions could help limit flooding. When looking at past, present, and reasonably foreseeable offshore wind projects, there could be a proposal to impact an impoundment, levee, hurricane barrier, etc. but it is anticipated that applicants would try to avoid these structures due to potential permitting complications. Therefore, when considering past, present, and reasonably foreseeable future offshore wind projects, USACE anticipates that cumulatively there would be a minor beneficial impact to flood hazards.

Floodplain Values: No effect. The project (Alternative G) would not impact floodplains as the onshore components are in the coastal zone. Due to the nature and siting of these projects, USACE estimates that this would be the case for reasonably foreseeable offshore wind projects as well.

Land Use: USACE anticipates that the project (Alternative G) would have minor adverse impacts on land use (see Table 3-2 under Land Use and Coastal Infrastructure). Section 3.14 of the FEIS contains an in-depth analysis of all relevant factors. When considering past, present, and reasonably foreseeable future offshore wind projects, USACE anticipates that there would still be minor adverse impacts on land use.

Navigation: USACE anticipates that the project (Alternative G) would have minor to moderate adverse impacts to navigation (see Table 3-2 under Navigation and Vessel Traffic). Section 3.16

of the FEIS contains an in-depth analysis of all relevant factors. Cumulatively when considered along with recently permitted and reasonably foreseeable offshore wind projects the project would have moderate adverse impacts to navigation.

Mitigation measures would include but not be limited to the following:

- Siting of all WTGs in a grid with approximately 1.15-mi (1-nm) by 1.15-mi (1-nm) spacing. This layout will help allow for safer navigation within the lease area. This layout will also provide a uniform spacing among structures to facilitate search and rescue operations.
- Installing private aids to navigation (PATONs) as part of construction to ensure that all structures (turbines and service platforms) are clearly marked for mariners.
- Coordinating project construction, O&M, and decommissioning activities with appropriate contacts at the USCG, Naval Undersea Warfare Center -Newport RI, the Northeast Marine Pilots Association, and DOD command headquarters.
- Establishing a comprehensive mariner communication plan during offshore construction to inform all mariners, including commercial and recreational fishermen and recreational boaters of construction activities and vessel movements. Communication will be facilitated through a Fisheries Liaison, the project website, and public notices to mariners and vessel float plans in coordination with the USCG.
- Limiting construction activities to periods of good weather conditions.
- Reporting to USCG and the harbormaster the locations of any boulders protruding 2 meters or more above the seafloor that were moved during cable installation activities.

Shoreline Erosion and Accretion: USACE anticipates that the project (Alternative G) would have no effect on shoreline erosion or accretion as the project would not be anticipated to alter hydrodynamics that would affect these shoreline processes. Looking at recently permitted and reasonably foreseeable offshore wind projects in the vicinity, none of them appear to contain design elements that would be expected to cause shoreline erosion or accretion either. Therefore cumulatively, USACE anticipates no effect on shoreline erosion and accretion.

Recreation: USACE anticipates that the project (Alternative G) would result in minor adverse impacts to recreation (see Table 3-2 under Recreation and Tourism). When also considering recently permitted and reasonably foreseeable offshore wind projects, the cumulative impacts to recreation would be minor adverse and minor beneficial. See Section 3.18 of the FEIS for an in-depth analysis of all relevant factors.

Water Supply and Conservation: USACE anticipates that the project (Alternative G) would have no effect on water supply and conservation because it would have no effect on water quantities available for water supplies. When considering recently permitted and reasonably foreseeable offshore wind projects in the vicinity, none of them appear to contain design elements that would impact water quantities either. Therefore, cumulatively USACE anticipates that there would be no effect on water supply and conservation.

Water Quality: USACE anticipates that the project (Alternative G) would result in short term minor adverse impacts to water quality (see Table 3-2). Section 3.21 of the FEIS contains an in-

depth analysis of all relevant factors. When considered along with recently permitted and reasonably foreseeable offshore wind projects USACE anticipates that the project would cumulatively result in minor adverse impacts to water quality. RIDEM issued a 401 WQC for the project on April 28, 2023, and an amendment on July 7, 2023, indicating that the project meets the state's water quality standards.

Energy Needs: USACE anticipates that the project (Alternative G) would result in beneficial impacts to energy needs. The project would provide a total of 704 MW of renewable energy to the Connecticut and Rhode Island energy grids once it was operational. This project would contribute towards Connecticut's mandate of 2,000 MW of offshore wind energy by 2030, as outlined in Connecticut Public Act 19-71, and to Rhode Island's 100% renewable energy goal by 2030, as outlined in Rhode Island Governor's EO 20-01 of January 2020. This addition of reliable, renewable energy to these states' power grids is anticipated to have beneficial effects on energy needs. Based on previously permitted and reasonably foreseeable future offshore wind projects, the FEIS estimates that the projects along the Atlantic seaboard could generate up to 46 GW of clean energy by 2030. Cumulatively these impacts would be beneficial to energy needs.

Safety: USACE anticipates that the project (Alternative G) would have a minor adverse impact on safety. As the project is expected to impact navigation it could also impact safety. However, the mitigation measures described above under Navigation should limit adverse impacts to safety. When considering recently permitted and reasonably foreseeable offshore wind projects, USACE anticipates that these projects would have similar navigation concerns and implement similar safety measures. Therefore cumulatively USACE anticipates that the project would have a minor adverse impact to safety.

Food and Fiber Production: USACE anticipates that the project (Alternative G) would have a minor adverse impact on food and fiber production. USACE anticipates that commercial fishing is the aspect of food and fiber production that would be impacted by the project. Section 3.9 of the FEIS for an in-depth analysis of estimated impacts to commercial fishing. The FEIS estimates that impacts to commercial fishing would vary from short term to long term and from negligible to major adverse, with the duration and intensity of impacts varying by project phase and fishery and fishing operations due to differences in target species, gear type, and predominant location of fishing activity. However with the environmental protection measures the applicant has committed to implementing, the FEIS estimates that most vessels would only have to adjust somewhat to account for disruptions due to impacts. As commercial fishing is only one aspect of food and fiber production and does not include aquaculture and farming- neither of which are proposed to be impacted by the project- USACE estimates that the impacts to food and fiber production would be less than the impacts to commercial fishing. When considered along with previously permitted and reasonably foreseeable offshore wind projects, USACE anticipates that the cumulative impacts to food and fiber production would still be minor adverse.

Mineral Needs: USACE anticipates that the project (Alternative G) would have no effect on mineral needs. The project is not located within any federal sand or mineral lease areas. As BOEM authorizes offshore mineral lease areas, the wind energy lease area designation determination took into account the presence or potential for offshore sand or mineral extraction. As recently permitted and reasonably foreseeable future wind projects would also occur within

lease areas designated by BOEM, USACE anticipates that cumulatively there would be no effect on mineral needs.

Considerations of Property Ownership: USACE anticipates that the project (Alternative G) would have no effect on property ownership. The applicant has obtained a lease from BOEM to utilize the offshore area where the wind farm would be located for the life of the project (up to 35 years). The applicant has received authorization from the state of Rhode Island to install the offshore export cables within state waters. The applicant has obtained all real estate easements required for the onshore part of the work. As other recently permitted and reasonably foreseeable offshore wind projects would be expected to obtain the same authorizations and easements, USACE anticipates that cumulatively there would be no effect on property ownership.

Needs and Welfare of the People: USACE anticipates that the project would be in the interest of the people as the authorization of the project, with the required mitigation, would result in increased energy reliability and environmental benefits in the form of a net reduction in greenhouse gas emissions (see General Environmental Concerns above). The project has received approval from the Rhode Island Coastal Resources Management Council (RI CRMC), RIDEM, and the Massachusetts Office of Coastal Zone Management (CZM) indicating support for the project at the state level. Regarding public input on the federal permitting process, USACE only received four comments on the project, which are addressed above. However, as the lead federal agency, BOEM received numerous comments from the public, agencies, interested groups, and stakeholders. As summarized in Appendix L of the FEIS, BOEM received a total of 123 individual comment submissions. This includes comments submitted online via www.regulations.gov, transcripts of comments by individual speakers at BOEM's five public meetings, and written comments submitted by mail. BOEM counted each public hearing transcript as a single submission but pulled out the individual comments and addressed them separately in the EIS. In terms of comments received that BOEM primarily categorized as being in support of or against the project, 67 comments (81%) were in favor of the project while 16 comments (19%) were against the project. The other comments submitted to BOEM were substantive comments regarding information in the draft EIS and were all addressed and considered in the determination of the preferred alternative (Alternative G) in the FEIS. These comments were summarized and addressed by BOEM in Appendix L of the FEIS.

5.3.6.2 USACE Evaluation of the Relative Extent of the Public and Private Need for the Proposed Structure or Work (33 CFR § 320.4(a)(2)(i))

In terms of the public need for the proposed work, this project would contribute towards Connecticut's mandate of 2,000 MW of offshore wind energy by 2030, as outlined in Connecticut Public Act 19-71. It would also contribute to Rhode Island's 100% renewable energy goal by 2030, as outlined in Rhode Island Governor's EO 20-01 of January 2020. In terms of the private need, in addition to providing financial gain to the companies investing in the project, the FEIS indicates that the project would have a minor beneficial impact on employment and economics (see Table 3-2).

5.3.6.3 If there are Unresolved Conflicts as to Resource Use, USACE Evaluation of the Practicability of Using Reasonable Alternative Locations and Methods to Accomplish the Objective of the Proposed Structure or Work (33 CFR § 320.4(a)(2)(ii))

To the extent that there may be unresolved resource use conflicts among offshore wind energy generation, vessel navigation, and commercial fishing, USACE has determined that there are no reasonable alternative locations or methods to accomplish the proposed work that would lessen potential resource conflicts. USACE has determined that Alternative G is the only environmentally preferable alternative that satisfies the project purpose and need and is technically feasible.

5.3.6.4 USACE Evaluation of the Extent and Permanence of the Beneficial and/or Detrimental Effects Which the Proposed Structure or Work is Likely to Have on the Public and Private uses to Which the Area is Suited

The tidal waters within which the proposed work would be located are also suited for navigation by vessels as well as recreational and commercial fishing. As indicated in Table 3-2, the project would be expected to have minor to moderate adverse impacts to navigation, and moderate to major adverse impacts to commercial fishing. The project would be expected to have minor to moderate adverse impacts but also minor beneficial impacts to for hire recreational fishing. The positive impacts would be due to the reef effect created by the structural foundations. The project components that could impact public and private uses would be in place for the life of the project, which is up to 35 years.

5.3.7 Compliance With Other Laws, Policies, and Executive Orders:

5.3.7.1 Section 7(a)(2) of the Endangered Species Act

The "USACE action area" for Section 7 of the ESA includes all areas in the NEPA scope of analysis. The action area includes all areas to be affected directly or indirectly by the federal action and not merely the immediate area involved in the action. USACE designated BOEM as the lead federal agency for Section 7 consultation and BOEM completed consultation with both USFWS and NMFS.

USACE accepts the USFWS biological opinion dated May 30, 2023, including its Incidental Take Statement (ITS), which states that the proposed action is not likely to jeopardize listed terrestrial species or destroy or adversely modify critical habitat under USFWS jurisdiction. The requirement for the applicant to adhere to the terms and conditions of the ITS will be included as a binding condition of the USACE authorization. The consultation has been found to be sufficient to ensure that the activity requiring USACE authorization is in compliance with Section 7 of the ESA.

USACE accepts the NMFS biological opinion dated July 21, 2023, including its ITS, which states that the proposed action is not likely to jeopardize listed marine species or destroy or adversely modify critical habitat under NMFS jurisdiction. The terms and conditions of the ITS relevant to the USACE action will be included as binding conditions of the USACE authorization. The consultation has been found to be sufficient to ensure the activity requiring USACE authorization is in compliance with Section 7 of the ESA.

5.3.7.2 Magnuson-Stevens Fishery Conservation and Management Act, Essential Fish Habitat

USACE designated BOEM as the lead federal agency for complying with the consultation requirements of Section 305(b)(2) of the Magnuson-Stevens Act regarding EFH. Accordingly, BOEM consulted with NMFS on USACE's behalf by submitting an EFH assessment on 02/06/23 and an EFH assessment addendum on 03/23/23. However BOEM and USACE came to the following agreement regarding the analysis of EFH conservation recommendations (CRs) provided by NMFS:

1) USACE agreed to address any EFH CRs that only applied to work within the 3 nautical mile jurisdictional limit of navigable waters and waters of the United States as this area is outside of BOEM's geographic authority.

2) As the lead federal agency, BOEM agreed to address any EFH CRs that specifically applied to work on the OCS even though BOEM and USACE both have geographic authority in this location.

3) BOEM agreed to address any EFH CRs that involved both the OCS and work within the 3 nautical mile limit of jurisdiction, coordinating with USACE if needed.

NMFS provided BOEM with twenty-two EFH CRs for the proposed project on June 16, 2023. USACE analyzed seven of the EFH CRs that were related to work within Narragansett Bay which is outside of BOEM's geographic authority. For each of these seven EFH CRs, USACE determined whether to adopt or not adopt the recommendation. For the EFH CRs that USACE did not adopt USACE provided a detailed rationale. For the EFH CRs that USACE did adopt, USACE committed to addressing them via special conditions in the USACE authorization. USACE put this information in an EFH CR response letter to BOEM dated 07/27/23. This USACE letter was an enclosure to BOEM's EFH CR response letter that addressed the other fifteen EFH CRs. This combined EFH CR response was submitted to NMFS on 08/07/23.

5.3.7.3 Section 106 of the National Historic Preservation Act

The USACE permit area for Section 106 of the NHPA on the Revolution Wind project includes those areas comprising waters of the United States, navigable waters of the United States, and the OCS that will be directly affected by the proposed work or structures, as well as activities outside of these waters because all three tests identified in 33 CFR Part 325, Appendix C § 1 (g)(1) have been met. USACE designated BOEM as the lead federal agency for complying with Section 106 of the NHPA. The USACE permit area has been addressed within the "area of potential effect" (APE) defined by BOEM in the FEIS.

BOEM made an adverse effect determination for 101 above-ground historic properties (which included five National Historic Landmarks) in the visual APE, nine ancient submerged landforms in the marine APE, and, and two terrestrial properties in the terrestrial APE.

BOEM- in conjunction with consulting parties- developed a MOA to resolve the adverse effects. USACE signed the MOA as a concurring party.

USACE has determined that the consultation was sufficient to confirm Section 106 compliance for this permit authorization, and additional consultation is not necessary. As lead federal agency, BOEM has fulfilled USACE's responsibilities under section 106.

5.3.7.4 Tribal Trust Responsibilities

As the lead federal agency for NEPA and for Section 106 consultation, BOEM also took the lead on government-to-government consultation with federally-recognized Tribes. BOEM began government-to-government consultation with federally recognized Tribes as early as August 2018 when BOEM conducted a meeting with the Narragansett Indian Tribe, the Mashantucket Pequot Tribal Nation, and the Mohegan Tribe of Indians of Connecticut to present an overview of planned wind projects off the coast of southern New England. Subsequent government-to-government meetings with these and other Tribes occurred. April 2021, BOEM invited by individual letter and email the Mashpee Wampanoag Tribe, Shinnecock Indian Nation, Mashantucket (Western) Pequot Tribal Nation, Wampanoag Tribe of Gay Head (Aquinnah), Mohegan Tribe of Indians of Connecticut, Narragansett Indian Tribe, Delaware Tribe of Indians, and Delaware Nation to join the EIS process as cooperating agencies, to participate in scoping, to meet government-to-government on the proposed project, and to consult under Section 106 of the NHPA. Almost all of the Tribes accepted the invitation to consult. Government-to-government meetings continued into 2023.

Consultation with the Tribes has been completed and found to be sufficient by USACE. Additional consultation by USACE is not necessary, as it would not provide additional value to the BOEM led consultation. A summary of government-to-government meetings held by BOEM regarding this project are included in Appendix A of the FEIS.

5.3.7.5 Section 401 of the Clean Water Act – Water Quality Certification

An individual 401 WQC was required and was issued by RIDEM on April 28, 2023. The EPA determined there were no neighboring jurisdiction issues with the project. RIDEM issued an amendment to the 401 WQC on July 7, 2023. The conditions of the 401 WQC and its amendment will be conditions of the USACE authorization as well.

5.3.7.6 Coastal Zone Management (CZM) Act

An individual Massachusetts CZM consistency statement was required and was issued by the Massachusetts Office of CZM on May 10, 2023.

An individual Rhode Island CZM consistency statement was required and was issued by the Rhode Island Coastal Resources Management Council on May 12, 2023.

5.3.7.7 Wild and Scenic Rivers Act

The project is not located in a component of the National Wild and Scenic River System or in a river officially designated by Congress as a "study river" for possible inclusion in the National Wild and Scenic River System. USACE has determined that it has fulfilled its responsibilities under the Wild and Scenic Rivers Act.

5.3.7.8 Effects on USACE Civil Works Projects (33 U.S.C. 408)

There are no USACE Civil Works projects in or near the vicinity of the proposal. Therefore the project does not require review under Section 14 of the RHA (33 U.S.C. § 408).

5.3.7.9 USACE Wetland Policy (33 CFR § 320.4(b))

The proposed project does not involve any wetland impacts regulated under Section 404 of the CWA or Section 10 of the RHA. Therefore, USACE Wetland Policy does not apply.

5.3.7.10 Presidential Executive Orders

E.O. 13175, Consultation with Indian Tribes, Alaska Natives, and Native Hawaiians:

As the lead federal agency for NEPA and for Section 106 consultation, BOEM also took the lead on government-to-government consultation with federally recognized Tribes. See the section above on Tribal Trust Responsibilities for a summary of the consultations.

E.O. 11988, Floodplain Management: The proposed project is not located in a floodplain. Therefore E.O. 11988 is not applicable.

E.O. 12898, Environmental Justice: As the lead federal agency for NEPA, BOEM was also the lead for assessing environmental justice impacts from the proposed project. The Project is anticipated to have minor to moderate adverse impacts on environmental justice populations as well as negligible to moderate beneficial impacts (see Table 3-2). An in-depth analysis of environmental justice communities within the geographic analysis area and anticipated impacts to those communities from the proposed project can be found in Section 3.12 of the FEIS which USACE has adopted in this ROD.

E.O. 13112, Invasive Species: There are no anticipated invasive species issues involved with this proposed project. Therefore E.O. 13112 is not applicable.

E.O. 13212 and E.O. 13302, Energy Supply and Availability: Actions were taken to the extent permitted by law and regulation to accelerate completion of the review of this energy related project while maintaining safety, public health and environmental protections.

5.3.8 U.S. Army Corps of Engineers Approval

I find that the issuance of the USACE permit, as described by regulations published in 33 CFR Parts 320 through 332, for the work proposed in Alternative G of the FEIS and described above, is based on a thorough analysis and evaluation of all issues set forth in this ROD. Having completed the evaluation above, I have determined that the proposed discharge of dredged or fill material complies with the 404(b)(1) Guidelines. The issuance of this permit is consistent with national policy, statutes, regulations, and administrative directives; and on balance, issuance of a USACE permit to construct the Revolution Wind Project is not contrary to the public interest. As explained above, all practicable means to avoid and/or minimize environmental harm from the selected, permitted alternative have been adopted and will be required by the terms and conditions of the USACE permit.

8/21/23

Date

Justin R. Pabis, P.E.
Colonel, Corps of Engineers
District Engineer

6. References

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Appendix A. Anticipated Terms and Conditions of COP Approval

Appendix B. OCSLA Compliance Review of the Construction and Operations Plan for the Revolution Wind Farm and Revolution Wind Export Cable Project

Appendix B.1. ETRB Review Memorandum