CRMC File No. 2022-03-080

RI CRMC Federal Consistency Review of the SouthCoast Wind Export Cable Project

Staff Recommendation for Concurrence

December 12, 2023

Table of Acronyms

BOEM	Bureau of Ocean Energy Management
CRMC	Coastal Resources Management Council
CZMA	Coastal Zone Management Act
COP	Construction and Operation Plan
DEIS	Draft Environmental Impact Statement
ECC	Export Cable Corridor
EPA	Environmental Protection Agency
FAB	Fishermen's Advisory Board
FCP	Fisheries Communication Plan
GLD	Geographic Location Description
HAB	Habitat Advisory Board
HVDC	High Voltage Direct Current
MW	Megawatt
NEPA	National Environmental Policy Act
NM	Nautical mile
NMFS	(NOAA) National Marine Fisheries Service
NOAA	National Oceanic and Atmospheric Administration
OCM	(NOAA) Office for Coastal Management
OCS	Outer Continental Shelf
PDE	Project Design Envelope
ROD	Record of Decision
SAMP	Special Area Management Plan
SCW	SouthCoast Wind Energy LLC (Developer)

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1 CRMC Policy Statement Regarding the Ocean SAMP and Offshore Wind Development.

The Coastal Resources Management Council (CRMC) recognizes the importance of offshore wind renewable energy sources to combat and reduce adverse climate change impacts, and to meet state, regional and national greenhouse gas reduction goals as detailed within the Ocean SAMP.[1] One of the CRMC's primary goals is to facilitate cooperative coexistence between the offshore renewable energy industry and existing stakeholders that benefits Rhode Island while maintaining the integrity and health of the marine ecosystem, coastal resources, and coastal uses.[2] The development of offshore wind under the Ocean SAMP was envisioned as a controlled and scientifically supported process under the guidance of adaptive management with a regional view.[3] This process began with demonstration projects in both state and federal waters which led to scientific and technological advancements. As a result of this progress, several full-scale commercial projects have gone forward which CRMC has participated in through the Coastal Zone Management Act (CZMA) and the National Environmental Policy Act (NEPA) processes. Lessons learned include both scientific and stakeholder relations. This process allows for proactive planning based on scientific best practices.

2 R.I. CRMC's Federal Consistency Review Authority

The SouthCoast Wind Farm (SCWF or Project) is an offshore renewable energy facility proposed by SouthCoast Wind Energy LLC (SCW or Developer), formally Mayflower Wind Energy LLC.[4] The Project is a 50:50 joint venture between Shell New Energies US LLC and Ocean Winds North America LLC. SCW will be responsible for the construction, operation, and decommissioning of all project components.

The proposed SCWF is subject to CRMC review authority pursuant to the federal CZMA, 16 USC § 1456(c)(3)(A) and the CZMA's implementing regulations at 15 CFR Part 930 Subpart D - Consistency for Activities Requiring a Federal License or Permit and Subpart E -

[1] *See* Ocean Special Area Management Plan Vol. I at 11.9.2(A). [hereinafter Ocean SAMP] http://www.crmc.ri.gov/samp_ocean/finalapproved/RI_Ocean_SAMP.pdf
[2] *See generally* Ocean SAMP Vol. I at 11.6; 11.9.
[3] *Id*. at 11.7.
[4] SCW changed its name on February 1, 2023 to "better reflect[] the company's commitment to the people businesses and communities of the SouthCoast." https://southcoastwind.com/mayflower-wind-changes-name-to-southcoast-wind-energy-llc/

Consistency for Outer Continental Shelf (OCS) Exploration, Development and Production Activities. In this matter, the Developer is seeking a federal license/permit from the Bureau of Ocean Energy Management (BOEM), which is the lead federal agency for renewable energy projects on the OCS. CRMC's review authority extends into federal waters because the SCWF ECC is a listed activity within the Ocean Special Area Management Plan (Ocean SAMP)[5] and is located within Rhode Island's 2011 and 2018 GLD[6] areas as approved by the National Oceanic and Atmospheric Administration (NOAA) Office for Coastal Management (OCM).

Accordingly, pursuant to 15 C.F.R. Part 930 subpart E, the CRMC as the State's authorized coastal zone management agency must make a determination and issue a written decision as to whether the Project is consistent with Rhode Island's federally approved enforceable policies[7] contained in the CRMC's Ocean SAMP codified in the Rhode Island Code of Regulations at 650-RICR-20-05-11. The CRMC's concurrence with SCW's consistency certification for the SCWF project is required before BOEM may approve, disapprove, or approve with conditions the SCW Construction and Operation Plan (COP) pursuant to 30 C.F.R. § 585.682(f).

2.1 CZMA Procedural History

The CRMC's six-month federal consistency review period commenced on May 27, 2022,[8] upon SCW meeting its necessary data and information requirements with the CRMC pursuant to 15 C.F.R. §§ 930.57-930.58 and 930.76. Subsequently, on August 26, 2022, the CRMC issued its three-month notice[9], as required by 15 C.F.R. § 930.78(a), to SCW and BOEM describing the status of the CRMC's ongoing federal consistency review. The three-month notice specified issues the Developer needed to address in order to be consistent with the CRMC's enforceable policies and requested additional information necessary for CRMC's review. The

[5] *See* 650-RICR-20-05-11.
[6] *See* 15 C.F.R. § 930.53(a)(1). GLDs encompass areas outside of the coastal zone where coastal effects from federal license or permit activities are reasonably foreseeable.
[7] *See* 15 C.F.R. § 930.11(h) defining "enforceable policy" as "State policies which are legally binding through constitutional provisions, laws, regulations land use plans, ordinances, or judicial or administrative decisions, by which a State exerts control over private and public land and water uses and natural resources in the coastal zone."
[8] *See* Appendix 3 – CRMC CZMA Review Commencement Letter. SCW filed its consistency certification with CRMC on March 18, 2022, and CRMC subsequently issued its 30-day letter informing SCW what additional information was needed for the CZMA 6-month review to start.
[9] *See* Appendix 4 – CRMC Three-Month CZMA Review Status Letter.

specific information requested confirmation as to the types of cable installation equipment will be utilized, a Fisheries Monitoring Plan detailing the species targeted by commercial and recreational fishers, a Benthic Habitat Monitoring Plan, access toa digital benthic mapping/geophysical tool, detailed graphic(s) that clearly delineate glacial moraine and complex bottom habitats as they relate to the ECC, fisheries economic exposure and impacts assessments that consider project impacts to the Rhode Island-based fishing sector within the lease area and export cable routes and avoidance, minimization, and mitigation measures intended to be taken. Over the course of the review period, the CRMC received the above stated information.

CRMC and SCW mutually agreed to **four (4)** separate stay agreements[10] over the course of CRMC's review period as follows:

- **1st** stay agreement began on June 27, 2022, with a CRMC decision date of June 27, 2023
- **2nd** stay agreement began on March 17, 2023, with a CRMC decision date of October 27, 2023.
- **3rd** stay agreement began on June 16, 2023, with a CRMC decision date of December 1, 2023.
- **4th** stay agreement began on November 15, 2023, with a CRMC decision date of December 29, 2023

Accordingly, the CRMC federal consistency decision is due no later than **December 29, 2023,** pursuant to 15 C.F.R. §§ 930.77 and 930.78. If the CRMC fails to issue a decision on or before December 29, 2023, a concurrence "*shall be conclusively presumed*" (emphasis added) and no mutually agreed upon conditions will be applicable to the Project.[11]

To inform the federal consistency review, CRMC reviewed the SCWF COP, BOEM Draft Environmental Impact Statement (DEIS) published in the Federal Register on February 17, 2022, and developed pursuant to the NEPA and the CZMA, the SCWF federal consistency certification, Requests for Information (RFI) solicited by CRMC, and additional supplemental information provided by SCW throughout the review period. In addition, the CRMC also considered information previously provided by the CRMC's Fishermen's Advisory Board

[10] *See* Appendix 6.
[11] *See* 15 C.F.R. § 930.78(b).

(FAB).[12] In furtherance of CRMC's role as a designated cooperating agency in the NEPA review process, CRMC will continue to monitor the Project and review/comment on future BOEM submissions regarding the Project including the Final Environmental Impact Statement.

2.2 Concurrence with Conditions

Based on the Staff's review, the conditions below would permit the CRMC to issue a concurrence in this matter because the conditions are mutually agreed to and provide appropriate assurances that the SCWF project is consistent with Ocean SAMP enforceable policies. State agencies and applicants are encouraged "to develop conditions that, if agreed to during the State agency's consistency review period…would allow the State agency to concur with [activities requiring a federal permit or license]."[13] Conditions are premised on whether a consistency certification submitted by an applicant to the State agency adequately demonstrates how a proposed project will be consistent with a state's enforceable policies.[14]

SCW filed a consistency certification with CRMC on March 18, 2022[15], stating "SouthCoast Wind is confident that the Brayton Point ECC within the GLDs will be developed in a manner consistent with enforceable polices of Rhode Island's approved CRMP."[16] The consistency certification includes a response for each applicable Ocean SAMP enforceable policy stating how the Project is consistent with said policies. Staff determined the consistency certification did not adequately demonstrate how the proposed Project is consistent with Ocean SAMP enforceable policies. To resolve consistency issues, Staff and the Developer engaged in continued review of the consistency certification, provided additional information and information requests, and held weekly detailed consultations. As a result of these efforts, Staff and SCW have mutually agreed to the following conditions which, if approved by the Council,

[12] *See* Ocean SAMP §§ 11.10.1(D), (G), (H), (J); *see infra* pp. 21. The FAB resigned en mass following the issuance of the Council's federal consistency decision for the Sunrise Wind Farm project.
[13] *See* 15 C.F.R §§ 930.4(a); 930.62(d).
[14] *See* 15 C.F.R. §§ 930.57; 930.76(a)(2). Specified proposed activities within offshore waters that are subject to federal consistency review for federal licenses or permits must be consistent with enforceable policies of the approved state management program.
[15] *See* Appendix 1 (SCW Consistency Certification). SCW provided an updated Consistency Certification in early November 2023 to reflect the Developer's name change and to better represent the project's status pertinent to the CRMC's federal consistency review.
[16] *Id.* at 1-2.

would allow the Project to be consistent with Ocean SAMP enforceable policies and permit a concurrence in this matter.

2.3 Conditions mutually agreed upon pursuant to 15 C.F.R. §§ 930.4 & 930.62.

1. Regarding all export cable installation activity subject to the Council's federal consistency review authority, SouthCoast Wind Energy LLC shall use all reasonable efforts to locate and install export cables outside complex and sensitive benthic habitat areas and, where siting outside of such areas is not possible, use reasonable efforts to micro-site cable locations to minimize adverse impacts to pertinent coastal resources. In any circumstance, SouthCoast Wind Energy LLC is not required to act against its own business interests by taking every possible action to avoid impacts, incur unlimited costs, or take unlimited time in meeting this condition. Avoidance, minimization, and mitigation will reduce the reasonably foreseeable effects to Rhode Island coastal resources and uses, including effects to those resources and uses with the same characteristics, values, and resources as found in Rhode Island State Waters.

2. In furtherance of using reasonable efforts to avoid and minimize impacts to complex and sensitive benthic habitat areas, SouthCoast Wind Energy LLC shall provide notice to the Council of locations where the target cable burial depth range of 3.2 feet to 13.1 feet has not been achieved and the locations of secondary cable protection (i.e., mattresses, rock bags, etc.). Such notice shall consist of a written description of the area and a map(s) sufficient to see details of the project cable burial paths in order to overlay with tow lines. At a minimum, the written description must include the cable burial depth achieved and a description of the surrounding benthic conditions. Notice shall be provided to the Council within 30 days of SouthCoast Wind completing the as-built survey for each export cable.

3. Where applicable, SouthCoast Wind Energy LLC shall make all reasonable efforts to relocate boulders within the same area/environment and group boulders with nearby existing boulders. Furthermore, where boulders are relocated, SouthCoast Wind Energy LLC shall provide notice to the Council of the original boulder locations as well as the new boulder locations. Notice shall be the same as the notice requirement stated in

Condition 2. The relocation/grouping of boulders with existing boulders will further avoid, minimize, and mitigate impacts to resource habitats and minimize the creation of new hangs for the fishing industry to the extent practicable.

4. Cables shall be no further apart than necessary for installation, maintenance, and operational activities in order to minimize unnecessary impacts to coastal uses and resources.

5. SouthCoast Wind Energy LLC shall conduct the fisheries research and monitoring plan and the benthic habitat research and monitoring plan that receive final approval from the Bureau of Ocean Energy Management as part of the Record of Decision approving SouthCoast Wind Construction and Operations Plan. Findings from each relevant monitoring plan shall be supplied to the Council on an annual basis once reports are available to SouthCoast Wind. This information will facilitate the Coastal Resources Management Council's continued monitoring of activities described in the Outer Continental Shelf (OCS) plans to make certain that activities continue to conform to both federal and State requirements. *See* 15 C.F.R. 930.85.

Therefore, based on the conditions above, and the analysis provided below in Section 4, and pursuant to 15 C.F.R. § 930.62(d), the CRMC Staff is recommending a **concurrence** in this matter based on the mutually agreed upon conditions detailed herein.

3 Scope of the CRMC's Federal Consistency Review and SouthCoast Wind Farm Project Description.

3.1 Scope of CRMC's Federal Consistency Review.

The CRMC's federal consistency review is limited to Project activities located within Rhode Island's 2011 and 2018 geographic location description (GLD) areas. Certain activities that occur within the GLD areas are automatically subject to federal consistency review by the CRMC. CRMC may review activities occurring outside of the GLD areas by requesting review

authority from the National Oceanic and Atmospheric Administration (NOAA) or if a developer voluntarily submits to federal consistency review.[17]

For the 2011 and 2018 GLDs, automatic review authority exists for "authorization[s]… for the construction, operation, maintenance, and/or support activities related to OCS [(Outer Continental Shelf)] energy development"[18] and "authorizations made by [BOEM] for wind energy facilities and associated cables."[19] As shown in Figure 1, the SCWF lease area is located within BOEM Lease Area OCS-A 0521 which is outside of Rhode Island's GLD areas. SCW did not voluntarily submit to federal consistency review for these activities. However, a large portion of the proposed Brayton Point export cable corridor (ECC) will cross through both GLD areas. Therefore, the CRMC's federal consistency review is limited to the proposed ECC and does not consider activities outside of the 2011 and 2018 GLD areas.

3.2 SouthCoast Wind Farm Project Description.

As shown in Figure 1, the Brayton Point ECC will cross both the 2011 and 2018 GLD areas. The ECC enters the 2018 GLD southeast of Marthas Vineyard, Massachusetts and travels west through the 2011 GLD to the Rhode Island state water line. The ECC itself is defined as a 1,640 ft to 2,300 ft wide surveyed corridor in which installation activities will occur.[20] The two cable bundles will have a target separation of approximately 328 ft within the construction corridor.[21] The entirety of the surveyed corridor will not be occupied by project infrastructure. Each export cable will span 27 miles and 22.7 miles through the 2011 and 2018 GLDs respectively, or 49.7 miles total.[22] Benthic conditions throughout the ECC include coarse material, gravelly sand to sandy gravel, boulders, glacial moraine/ till, and other hardbottom

[17] The CRMC did not request review authority from NOAA because the data and information used to establish the 2018 GLD did not show reasonably foreseeable coastal effects to R.I. coastal uses and resources for activities occurring beyond the current GLD boundary.
[18] *See* U.S. Dep't of Com., Nat'l Oceanic and Atmospheric Admin., Nat'l Ocean Service, Off. of Ocean and Coastal Res. Mgmt., Approval Letter for R.I. 2011 Geographic Location Description Area, Sept. 29, 2011, at 3-4. http://www.crmc.ri.gov/windenergy/overview/NOAA_Approval_GLD_09-29-11.pdf
[19] *See* U.S. Dep't of Com., Nat'l Oceanic and Atmospheric Admin., Nat'l Ocean Service, Off. of Ocean and Coastal Res. Mgmt., Approval Letter for R.I. 2018 Geographic Location Description Area, Dec. 12, 2018, at 1-2. http://www.crmc.ri.gov/news/pdf/RI_Amended_GLD_NOAA_Approval_120718.pdf
[20] *See* Mayflower Wind COP Vol. I at 3-51 [hereinafter COP].
[21] *Id.* at 3-60.
[22] *See* Appendix 1 – SouthCoast Wind R.I. CZMA Consistency Certification Table 2-1 at 2-2.

substrate.[23] SCW mapped "over 90 percent of benthic habitat as sand or finer" in federal waters.[24]

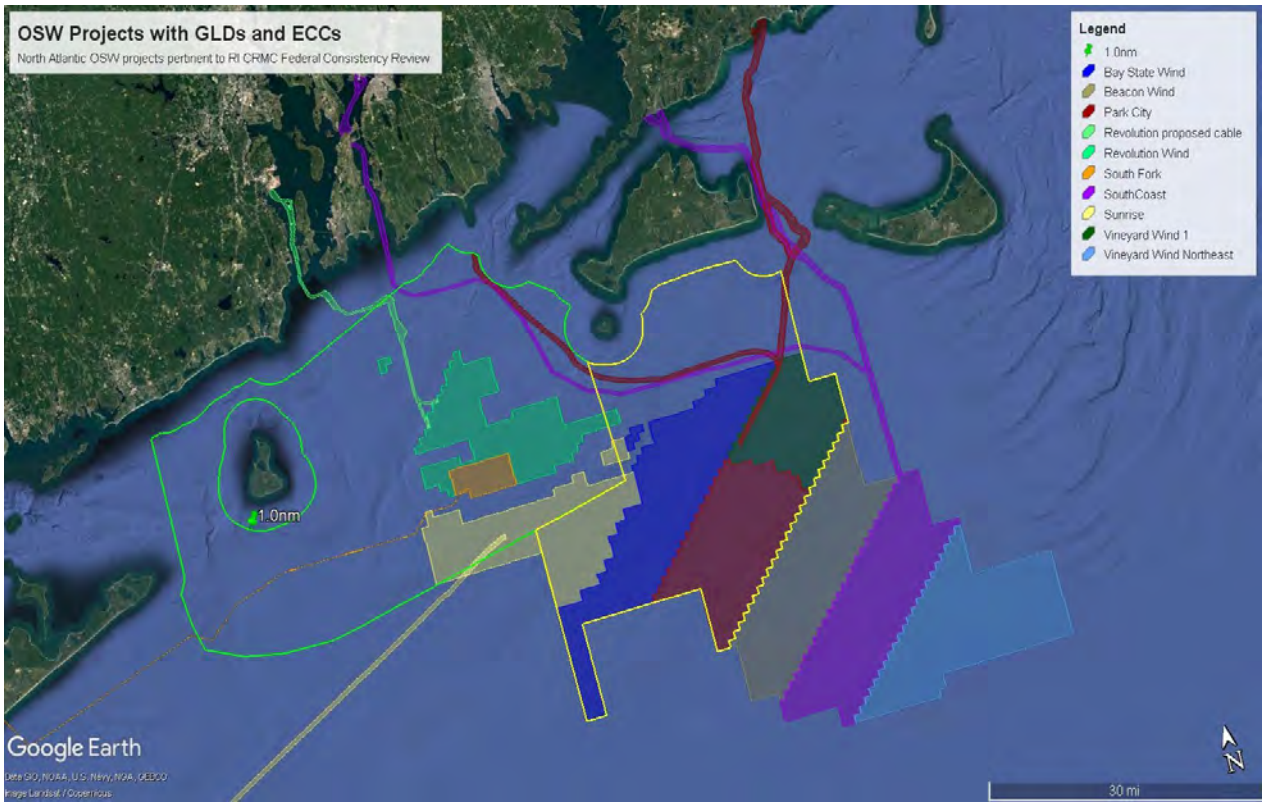

Figure 1: The SouthCoast Wind lease area (Purple) is located outside of the 2018 GLD area. A portion of the ECC (Purple) passes through the 2018 and 2011 GLD before entering Rhode Island state waters south of the Sakonnet River.

[23] *See* SCW DEIS at 3.5.2-4.
[24] *Id*.

SCW is proposing the installation of up to six cables consisting of two cable bundles within the ECC in two separate stages. Each cable bundle will consist of two High Voltage Direct Current (HVDC) cables and one communications cable and with a maximum diameter of 13.8 inches.[25] The Developer will look to achieve a target burial depth of 3.2 ft to 13.1 ft.[26]

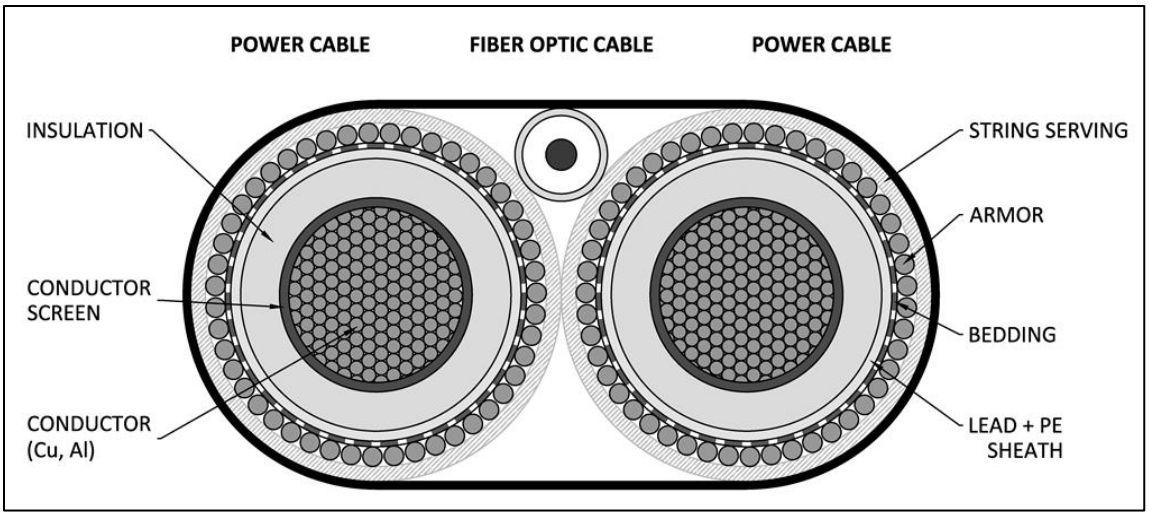

Figure 2: Cross section of the proposed HVDC cable bundle consisting of two power cables and one communications cable. Each cable bundle will have a diameter of 13.8 inches.

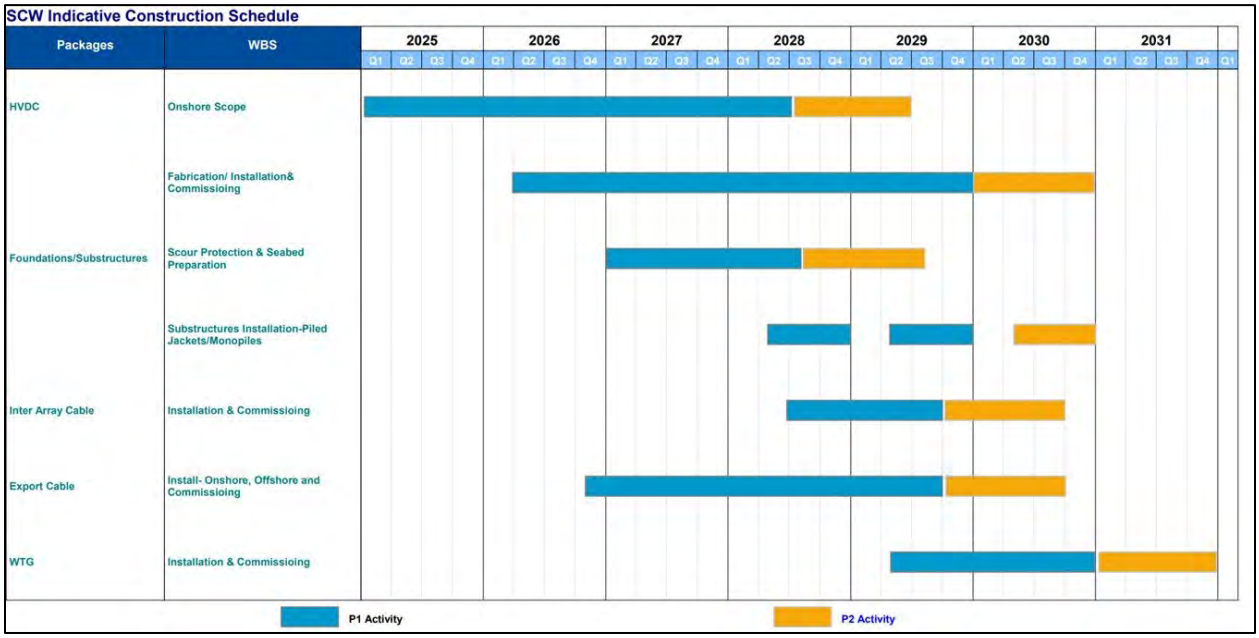

Figure 4: Indicative construction schedule for SouthCoast Wind.

[25] *See* COP Table 3-14 at 3-50.
[26] *Id*.

4 Review of State Enforceable Policies and Analysis

This section will analyze and discuss relevant Ocean SAMP enforceable policies, corresponding consistency certification statements, and the necessity of the conditions above. An enforceable policy is defined within the federal consistency regulations to mean "State policies which are legally binding through constitutional provisions, laws, regulations, land use plans, ordinances, or judicial or administrative decisions, by which a State exerts control over private and public land and water uses and natural resources in the coastal zone."[27] The regulation further states that an enforceable policy "shall contain standards of sufficient specificity to guide public and private uses."[28] The CRMC's enforceable policies for purposes of offshore renewable energy development as approved by NOAA OCM are contained within Ocean SAMP Chapter 11 and codified as 650-RICR-20-05-11. Specified proposed activities within offshore waters that are subject to federal consistency review for federal licenses or permits must be consistent with enforceable policies of the approved state management program.[29]

As required by 15 C.F.R. §§ 930.57 and 930.76(a)(2), SCW filed a consistency certification with CRMC on March 18, 2022, stating "SouthCoast Wind is confident that the Brayton Point ECC within the GLDs will be developed in a manner consistent with enforceable polices of Rhode Island's approved CRMP." In addition, the Developer provided responses to each of the Ocean SAMP enforceable policies attached to this document as Appendix 1. The corresponding SCW response and the CRMC analysis are shown below for pertinent Ocean SAMP enforceable policy analysis and discussion as to whether the SCWF project meets the respective enforceable policy.

4.1 Enforceable Policy § 11.10.1(C):

Offshore developments shall not have a significant adverse impact on the natural resources or existing human uses of the Rhode Island coastal zone, as described in the Ocean SAMP. In making the evaluation of the effect on human uses, the Council will determine, for example, if there is an overall net benefit to the Rhode Island marine economic sector from the development

[27] *See* 15 C.F.R. § 930.11(h).
[28] *Id*.
[29] *See* 15 C.F.R. §§ 930.57(a); 930.76(c).

of the project or if there is an overall net loss. Where the Council determines that impacts on the natural resources or human uses of the Rhode Island coastal zone through the pre-construction, construction, operation, or decommissioning phases of a project constitute significant adverse effects not previously evaluated, the Council shall, through its permitting and enforcement authorities in state waters and through any subsequent CZMA federal consistency reviews, require that the applicant modify the proposal to avoid and/or mitigate the impacts or the Council shall deny the proposal.

SouthCoast Wind Consistency Certification Response:

With respect to the SCWF Brayton Point Export Cable Corridor, the Developer states:

> SouthCoast Wind states "potential impacts to natural resources and existing marine uses are primarily associated with construction period impacts," that the "installation of cables within the ECC will result in temporary disturbance of bottom habitats through direct disturbance or indirect effects of sedimentation to adjacent areas," and that SouthCoast Wind has sited the Project in a way that would ensure minimal displacement of water dependent industries and minimize environmental impact." (*See* Appendix 1 – SouthCoast Wind R.I. CZMA Consistency Certification at 3-2 to 3-3)

4.1.1 CRMC Analysis:

Enforceable policy § 11.10.1(C) requires Staff to conduct a two-part analysis. The first part requires the Council to determine whether "there is an overall net benefit to the Rhode Island marine economic sector from the development of the project or if there is an overall net loss." The second part requires the Council to determine whether the applicant has adequately modified the proposal to avoid and/or mitigate impacts. If the Council determines adequate modifications to avoid and/or mitigate impacts have not been made, the Council is obligated to deny the proposal. In the context of a federal consistency review, a denial by the Council would take the form of an objection to the SCWF project. Alternatively, the Council could propose additional conditions not previously agreed to by the Developer if the Council opines such conditions would further avoid, minimize, and/or mitigate impacts so that the Project is consistent with enforceable policies.

4.1.1.1 Description of the cable installation process.

A description of the cable installation process is necessary to put potential Project benefits and losses in context. As previously stated, the Brayton Point ECC consists of a maximum 2,300 ft wide surveyed corridor that spans 49.7 miles across the 2011 and 2018 GLD areas.[30] A narrower construction corridor(s) will be defined within the surveyed corridor as the final cable route and micro-siting decisions are made. Additionally, up to 13 existing cable and pipeline crossings will be necessary in federal waters and will require additional secondary cable protection.[31]

Once a cable route has been finalized, SCW and its cable contractor[32] will follow a multi-step process to bury cables within the target burial depth range. This process begins with seafloor preparation which includes a boulder relocation campaign via a boulder grab and boulder plow, save wave removal/dredging where applicable, seabed leveling, and a pre-lay grapnel run.[33] SCW has not yet finalized its boulder relocation plan but has outlined the principles that will guide the plan's development. These principles include minimizing the need for boulder relocation through micro-siting efforts, use of a boulder grab over a boulder plow to minimize habitat impacts, avoid boulder fields where possible, relocated boulders to areas within the ECC with similar seabed conditions or other areas deemed to be beneficial, and provide the coordinates and approximate size of boulders that are relocated to the CRMC and fishery stakeholders.[34]

Following seabed preparation, will begin the cable installation process which may use multiple cable burial tools. The type of burial tools used will depend on the results of cable installation surveys that are ongoing and seabed conditions. Possible tools include but are not limited to a vertical injector, jetting sled (i.e., jet-plow), jetting ROV, pre-cut plow, and a mechanical cutting ROV system.[35] SCW "anticipates that jet-sled… technology will be the

[30] *Supra* pp. 10 n. 20.
[31] *See* COP Vol. I at 3-51 to 3-53.
[32] SCW has yet to select a cable contractor for the installation of the Brayton Point export cables.
[33] *See* COP Vol. I at 3-54 to 3-60.
[34] *See* Appendix 10 – SCW RFI Response, July 12, 2023 at Response 1.
[35] *See* Appendix 9 – SCW Cable Installation Presentation, November 9, 2023 at Slide 5.

primary method employed for cable burial; this would be a simultaneous lay and burial method."[36]

Post-cable lay and bury, remedial burial efforts will be made where necessary and secondary cable protection will be installed. Remedial burial will occur in areas where a cable was not buried to an acceptable target burial depth. Remedial burial is the preferred method for addressing an initial shallow burial depth and may be done using a jet trenching or controlled flow excavation tool.[37] According to the SCW COP, cable protection is conservatively estimated to be needed for 15 percent of the Brayton Point ECC, however secondary cable protection will be used only "when all remedial burial solutions have been ruled out." [38] The type of cable protection options used will be determined locally and may include the creation of a rock berm, concrete mattress placement, rock placement, and fronded mattresses.[39] Concrete mattresses are commonly used in the industry for existing cable and pipeline crossings.

4.1.1.2 It is unclear whether there will be an overall net benefit to the Rhode Island marine economic sector from the Project or if there will be an overall net loss.

The first part of the enforceable policy requires that the Council determine whether "there is an overall net benefit to the Rhode Island marine economic sector from the development of the project or if there is an overall net loss." The SCWF project is anticipated to provide potential direct and indirect benefits to the Rhode Island marine sector. These benefits include but are not necessarily limited to economic, environmental, and energy diversification benefits.

4.1.1.3 Anticipated Benefits

Economic benefits are anticipated to be realized through the use of ports, job creation, and other economic activities. The Project includes the potential use of two ports in Rhode Island where construction activities may occur. These ports include facilities in Providence and in Narragansett Bay. Other regional ports may also be used including facilities in New Bedford and Somerset, Massachusetts.[40] Rhode Island is also included as an area for potential operation and maintenance port facilities, though the Developer prefers Massachusetts based ports for this state

[36] *See* Appendix 10 – SCW RFI Response, July 12, 2023 at Response 9.
[37] *See* COP Vol. I at 3-59.
[38] *Id*.
[39] *Id*.
[40] *See* COP Vol. I at 3-77; *see also* Id. Figure 3-39 at 3-78.

of the Project's life.[41] Employment and economic benefits from the Project will likely be realized by Southern New England as a region. Over the life of the Project, SCW expects 11,280 fulltime equivalent jobs to be created through direct and indirect project impacts.[42]

Some of the largest benefits from the SCWF project are the environmental and clean energy benefits. SCW states the project will remove 1.6 million metric tons of CO2 annually once the project is fully operational; equivalent to taking 347,968 cars off the road.[43] Additionally, by contributing to emission reductions goals, the SCWF project will assist in the mitigation of adverse climate change impacts such as sea level rise, extreme weather events, and ocean acidification which is of particular concern in Rhode Island Sound.[44]

4.1.1.4 Potential Adverse Impacts

4.1.1.4.1 SCW DEIS Alternative B (Proposed Action) impacts are the only DEIS impacts considered in this analysis.

The SCW Draft Environmental Impact Statement (DEIS) provides multiple project alternatives and associated impacts, however Staff only considered Alternative B – Proposed Action in its analysis along with information provided in the SCW COP. The DEIS includes alternatives A through F.[45] Alternative A is the "No Action" alternative which considers overall impacts to resources and users from previous and ongoing activities in the absence of the proposed SCW project. This alternative acts as a baseline by which to compare impacts from all other project alternatives. Alternative B, the Proposed Action, considers Project impacts assuming the full SCW project will be built. Alternatives C through F do not implicate or alter the Brayton Point ECC within the GLD areas, therefore the Proposed Action alternative is the most appropriate scope of impacts to consider.

The SCW DEIS was developed through the NEPA process and includes analysis of various Project impacts to marine resources and uses. Potential adverse impacts relevant to

[41] *Id*.; *see also Id.* Figure 3-40 at 3-79.
[42] *See* Appendix 1 – SouthCoast Wind R.I. CZMA Consistency Certification at 1-1 to 1-2.
[43] *Id*.
[44] NOAA Fisheries, *Understanding Ocean Acidification*. Stating Long Island Sound and Narragansett Bay are identified hotspots for higher rates of acidification. https://www.fisheries.noaa.gov/insight/understanding-ocean-acidification
[45] *See* SCW DEIS Vol. I at ES-6 to ES-10 providing a brief description of each project alternative.

enforceable policy § 11.10.1(C) include impacts to benthic resources, finfish and invertebrates, and commercial/for-hire recreational fishing. BOEM states the impacts to benthic resources, finfish, and invertebrates from the Project as a whole will be negligible to moderate adverse with some moderate beneficial impacts.[46] BOEM states impacts to commercial and for-hire recreational fishers from the Project as a whole will be minor to major adverse.[47] Because these impact levels are considered in the context of the entire SCWF project (i.e., project activities in and outside of the GLD areas), CRMC Staff reasonably believe impact levels will be to a lesser degree within the Brayton Point ECC given the nature of cable installation operations as compared to lease area construction activities.

4.1.1.4.2 Potential adverse impacts to benthic resources, finfish/invertebrates, and commercial/for-hire recreational fishers.

Effects to benthic resources from cable installation activities and operation and maintenance of the ECC are expected to range from short to long-term. As shown below in Figure 5, the ECC is comprised of a mix of gravelly sand to sandy gravel, including boulder and glacial moraine/till.[48] SCW has identified 90 percent of the benthic habitat in federal waters as being comprised of sand or finer material.[49] The ECC does cross areas of large grained complex habitat, complex habitat, and boulder fields west southwest of Martha's Vineyard and Nomans Land, Massachusetts.[50] Complex and sensitive habitat areas would experience the greatest impacts as they generally take longer to form and to recover. Marine organisms that rely on these habitats would also experience mortality, injury or displacement in the immediate area. BOEM states these "impacts would be localized"[51] and mortality from physical contact and displacement would be short-term." Benthic recovery for complex hard bottom habitats could take up to three years. However, "the area affected within the ECC[] would… represent a small fraction of available benthic habitat."[52]

[46] *Id.* at Table ES-2 (Summary and comparison of impacts among alternatives with no mitigation measures).
[47] *Id*.
[48] *See* COP Vol. I at 3.5.2-3.
[49] *Id*.; *see also* COP Appendix M – Benthic and Shellfish Resources Characterization Report.
[50] *See* Appendix 10 – SCW RFI Response, July 12, 2023 at 7-11. SCW provided maps showing benthic habitat conditions throughout the ECC within the GLD areas.
[51] *See* SCW DEIS Vol. I at 3.5.2-18.
[52] *Id*. at 3.5.2-23.

Finfish and invertebrates would experience similar impacts to benthic resources within the ECC. Impacts from anchoring expected to be higher in areas of complex hardbottom habitat and result in turbidity, displacement, and mortality. Alterations to these habitat areas "could be long term to permanent."[53] Seabed alteration from cable installation, "including habitat disturbance would be negligible" according to BOEM.[54] BOEM further states that disturbances to sand waves, sand ripples, and boulders from export cable installation would be "temporary and short-term."[55]

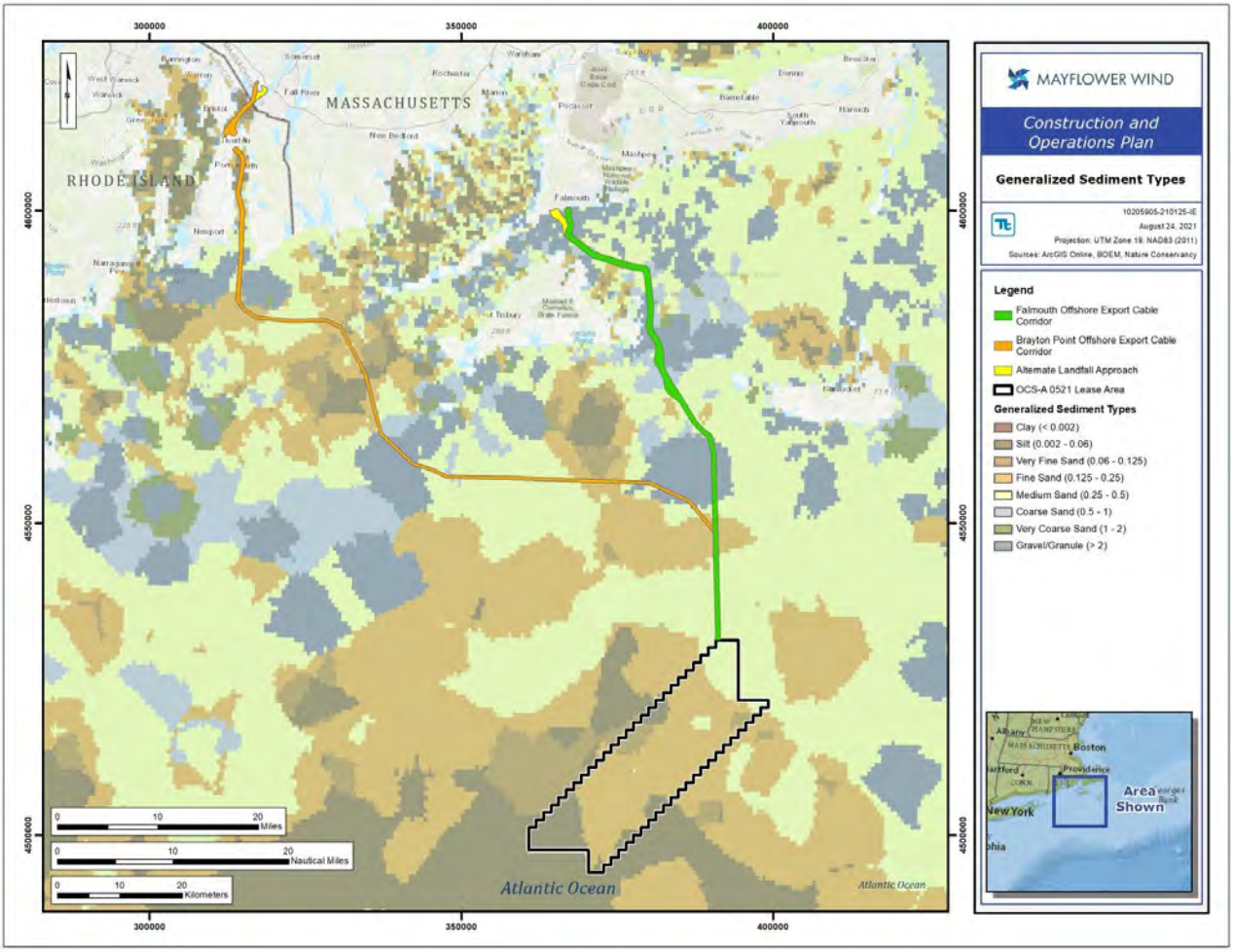

Figure 5: Generalized sediment types of the continental shelf. See COP Vol. II Figure 6-20 at 6-133.

[53] *Id*. at 3.5.5-39. BOEM may require an anchoring plan that, along with other mitigation measures, would reduce and avoid some anchoring impacts.
[54] *Id*. at 3.5.5-45; *see also* Table 3.5.5.2 defining a "negligible" impact level as "impacts on species or habitat would be so small as to be unmeasurable" or as having "no effect or no measurable effect."
[55] *Id*. at 3.5.5-45.

Commercial and for-hire charter fisheries are expected to be impacted during the construction, and operation/maintenance phase of the ECC because of safety buffer zone restrictions. Seabed preparation, boulder relocation, and cable installation will require safety buffer zones to allow construction/maintenance activities to be conducted safely. Although fishers will be precluded within those buffer zones, they will not be precluded from navigating or fishing within other parts of the ECC where the cable has been laid/buried or has yet to be laid/buried. BOEM characterizes these impacts to navigation as "potentially long-term, though periodic in nature, and moderate."[56] Reference Appendix 12 of the Staff Recommendation for figures demonstrating the commercial and recreational fishing effort by species, gear type, and location throughout the ECC.

Construction activities may cause behavioral changes in commercially and recreationally targeted species which could also adversely impact fishers. Seabed preparation and cable laying is expected to disturb approximately 555 acres within the ECC "assuming two 19.7 ft wide corridors for each cable bundle."[57] These activities can disturb the seabed, reduce water quality through sediment resuspension, and cause injury or death to finfish, invertebrates, and less-mobile benthic species such as scallops, surfclams, and ocean quahogs. Boulder relocation also has the potential to alter the seabed and complex bottom habitats which may decrease catchability for a fishery through resource behavioral responses. This could occur because of a change in species composition where seabed profiles are changed or disturbed. Note, BOEM considers potential impacts to commercially and recreationally targeted species as being confined in time and space and repopulation is expected to quick once construction is complete.[58]

The creation of new snags and hangs will also create navigational and fishing hazards that could adversely affect commercial and for-hire charter fishing operations. Areas where target burial depth is not achieved will increase the risk of cable strikes if appropriate avoidance and minimization measures are not taken. Note the BOEM DEIS cites a study which found "hydraulic dredges penetrated the ocean floor the deepest at 6.3 inches," well above the ECC

[56] *Id*. at 3.6.1 at 47.
[57] *Id*. at 3.6.1-48.
[58] *Id*.

target burial depth range of 3.2 ft to 13.1 ft.[59] Additionally, relocated boulders and the presence of secondary cable protection will alter seabed conditions and create snag risks for commercial fishing gear. The Brayton Point export cables are conservatively estimated to require up to 15 percent cable protection.[60] As was stated in the Staff Recommendations for previous offshore wind projects, Rhode Island fishers possess irreplaceable generational territorial knowledge which factors into their ability to be successful in their trade. FAB members have previously described how they know the locations of certain "hangs" and boulders with such precision that they can fish within feet of a *known* obstacle. The Developer will be indicating the export cable on nautical charts and a gear claims process for lost or damaged fishing gear has been established, but there will still be a learning curve for the Rhode Island fishing sector when actively fishing the ECC.

4.1.1.5 Notwithstanding unknown impacts, SouthCoast Wind has adequately modified the project to avoid, minimize, and/or mitigate reasonably foreseeable impacts.

The second part the enforceable policy requires that "the applicant modify the proposal to avoid and/or mitigate the impacts or the Council shall deny the proposal." As previously stated, in the context of a federal consistency review, a denial by the Council would take the form of an objection to the project or the Council could propose additional conditions not agreed to by the Developer if the Council opines such conditions would further avoid/minimize/mitigate impacts so that the project is consistent with enforceable policies.

4.1.1.6 Developer Mitigation Measures

Immediately after the Sunrise Wind Federal Consistency Decision, the members of the FAB as constituted resigned en masse, just as Staff turned its entire focus towards the final review of other offshore wind projects including the SCWF project. In so doing, Staff did not have direct access to FAB input on the Project's possible impacts to Rhode Island's coastal uses and resources at this late stage of review. Regardless, Staff provided each former FAB member as well as other interested parties from the fishing industry and general public access to all materials and meetings under review including mitigation and compensation proposals, with an

[59] *Id*. at 3.6.1-47.
[60] *See* COP Vol. I at 3-59.

open-door invitation to provide any input whatsoever that would be helpful to mitigating impacts from the SCW project.

SCW has incorporated appropriate avoidance, minimization, and mitigation measures for the construction and operation/maintenance phases of the Project. During construction, vessel transit will be limited to safety buffer zones around cable installation locations. These preclusion areas will be temporary in nature and vessels will not be restricted from the ECC altogether. Additionally, PCW will continue to issue Offshore Wind Mariner Update Bulletins and coordinate with the U.S. Coast Guard to provide Notice to Mariners. Information provided in these bulletins and notices will allow recreational and commercial vessels to plan trips/routes accordingly so to avoid unnecessary loss of fishing effort.

SCW's Fisheries Communication Plan (FCP) will also serve as a vital impact avoidance, minimization, and mitigation tool. The FCP "will provide the current state of [SCW's] efforts and methods of communication with the fishing industry" with a focus on providing information in an accessible manner and continuing to learn and adapt with the industry.[61] Through FCP, SCW will also continue to utilize Port Hours in Point Judith, Rhode Island and New Bedford, Massachusetts to meet with commercial and recreational fishers to gather input directly from stakeholders. The FCP and Fisheries Representative network are anticipated to facilitate the flow of information to and from fishing interests and the Developer allowing for some impacts to be avoided or minimized.

The Developer will continue its avoidance and mitigation strategies surrounding fishing gear loss by employing scout vessels and maintaining a commercial gear claims process. As discussed previously, commercial fishers face an increased risk of gear entanglement or loss as result of offshore wind activities in general. These risks are a result of gear interactions during survey work, snags or hangs created by project infrastructure, among others. To minimize the risk of gear loss, SCW employs scout vessels (local fishers) to keep lookout for any fishing gear that may be in the path of a Project vessel. Additionally, the commercial gear claims process is in place to compensate any commercial fishermen impacted by SCW activities.

[61] *See* Appendix 11 – SCW Fisheries Communication Plan at 4.

Micro-siting efforts will minimize and/or mitigate effects to marine life and habitats. Based on Staff's discussions with the Developer, all reasonable efforts will be made to minimize impacts to complex benthic habitats including boulder fields and glacial moraine. The ECC west southwest of Martha's Vineyard and Nomans Land, Massachusetts includes areas characterized by extremely complex bottom conditions which also serve as critical habitat for marine resources important to Rhode Island recreational and commercial fishers. In various meetings, the Developer demonstrated how cable routes will likely be able to be micro-sited to largely avoid complex hard bottom conditions. Additionally, the Developers boulder relocation strategy prioritizes the use of a boulder grab tool, rather than a boulder plow, which is highly precise and will allow the for greater micro-siting capabilities.[62]

Cable installation within the ECC will have minimal impacts because the construction corridor is relatively narrow. The width of the ECC surveyed corridor is 1,640 ft to 2,300 ft and the two cable bundles will be installed within a narrower construction corridor. Each cable will have a construction corridor that also encompasses a disturbance area where the trenching tool will lay the cable approximately 19.7 ft wide[63]. The two cable bundles will have a target separation of approximately 328 ft within the ECC itself to allow for optimal flexibility, micro-siting, and room for maintenance or repairs. Cable separation may be locally narrower to accommodate bottom conditions. In total, SCW estimates approximately 727 acres of seabed disturbance for both cable bundles.[64] As previously stated, BOEM anticipates impacts to benthic species/habitat areas, finfish and invertebrates, and marine users to be generally short-term with quick recovery times. Therefore, the cable would have minimal environmental impacts and could have a larger degree of micro-siting flexibility.

Target cable burial depth within the lease area and ECC has been chosen to avoid and minimize gear and anchor strikes. SCW will achieve a target cable burial depth of between 3.2 and 13.1 ft. Areas within the ECC show evidence of trawl marks from hydraulic fishing operations were observed ranging from 3-4 m wide and less than 10 cm deep.[65] However, an

[62] *See supra* pp. 15 discussing SCW's intent to avoid using a boulder plow, if possible, to avoid/minimize impacts to complex bottom habitat areas.
[63] *See* COP Vol. I Table 3-29 at 3-93. Note e/ stating seabed disturbance from cable installation conservatively assumes a width of surface impact of 19.7 ft around each cable.
[64] *See* COP Vol. I Table 3-29 at 3-93.
[65] *See* Appendix 7 – King & Oakley Reports at 22, 28.

independent analysis of geologic and benthic conditions of the ECC indicates the Developer's target burial depth makes "impacts to the cable…[avoidable] as long as project depth is reached."[66] As previously stated, the BOEM DEIS cites a study which found "hydraulic dredges penetrated the ocean floor the deepest at 6.3 inches," well above the ECC target burial depth range of 3.2 ft to 13.1 ft.[67] Thus, impacts to fisheries utilizing hydraulic dredges will largely be avoided and/or minimized.

The Developer understands there will be a need to remove/relocate boulders within the ECC and has committed to modified boulder relocation operations where practicable. All boulders will remain within the surveyed cable corridor and where technically feasible, boulders will be co-located or placed in similar benthic conditions to avoid and minimize the creation of new hangs. Additionally, "where a boulder grab is employed to relocate individual boulders, the coordinates and approximate size of the boulder will be recorded prior to and following relocation."[68] That information will then be provided to CRMC and stakeholders. The modified boulder relocation plan will further avoid and minimize the creation of new hangs and reduce the learning curve commercial fishers will have in adjusting to altered hard bottom areas. The grouping and placing of boulders into similar nearby areas was a recommendation provided by the FAB for previous offshore wind federal consistency reviews.

SCW has provided a compensatory mitigation package to address unavoidable impacts to the Rhode Island marine sector. On behalf of SCW, the Woods Hole Oceanographic Institution (WHOI) provided a report assessing the economic exposure to Rhode Island based commercial and for-hire recreational fishers may face as result of Project activities in the Brayton Point ECC. "Economic exposure" for the Project involved an "estimate [of] the annual landed weight and value of fish and invertebrates from the portion of the [SCW] Project Area that overlaps with the 2011 and 2018 GLD areas, and then [an estimation of] the fraction of this annual value that may be exposed to wind farm construction, operation, and decommissioning."[69] An analysis for Rhode Island for-hire charter boat fishing activity was also conducted. The exposure analysis found the total economic impact to Rhode Island commercial fishing to be $182,000 (2023$) and

[66] *Id.*
[67] *Id*. at 3.6.1-47.
[68] *See* Appendix 10 – SCW RFI Response, July 12, 2023 at Response 12.
[69] *See* Appendix 9 – WHOI Fisheries Exposure Analysis for Rhode Island for the SouthCoast Wind Brayton Point Export Cable Route and Rhode Island GLDs at 8.

$52,000 (2023$) for for-hire charter fishing totaling $234,000 in economic exposure to the Rhode Island fishing sector. These exposure amounts include adjustments for underreported fisheries such as lobster and Jonah Crab.

As a result of the above analysis, SCW provided a total direct compensation amount to the Rhode Island fishing industry totaling $280,000 (net present value). Of that amount, $250,000 is direct financial mitigation to the Rhode Island commercial and for-hire fishing sectors. The remaining $30,000 is provided to "support Rhode Island commercial fishermen, for-hire charter fishermen, and recreational fishermen."[70]

The enforceable policy at § 11.10.1(C) requires an applicant "modify the proposal to avoid and/or mitigate the impacts." CRMC Staff has determined that the above Project modifications avoid, minimize and mitigate impacts to the Rhode Island marine sector and permit the proposed SCW project to be consistent with enforceable policy § 11.10.1(C).

4.2 Enforceable Policy § 11.10.1(E):

The Council shall prohibit any other uses or activities that would result in significant long-term negative impacts to Rhode Island's commercial or recreational fisheries. Long-term impacts are defined as those that affect more than one or two seasons.

SouthCoast Wind Consistency Certification Response:

With respect to the SCWF Brayton Point Export Cable Corridor, the Developer states:

> "The ECC cable construction and operation will not prohibit fish movements, present an obstacle to migration, and/or displace large populations of fish." "Correspondingly, the Project is not anticipated to cause long-term or permanent negative impacts to commercial or recreational fisheries." (*See* Appendix 1 – SouthCoast Wind R.I. CZMA Consistency Certification at 3-3)

4.2.1 CRMC Analysis:

As shown in Figure 4 on page 12 of the Staff Recommendation, export cable installation for both cable bundles will take approximately four years. This timeframe is likely to be shorter

[70] *See* SCW Compensatory Mitigation Term Sheet.

for the portion of the cable bundles located solely within the 2011 and 2018 GLD areas. Efforts to install the first cable bundle are planned to begin in late 2026 and end in late 2029. This timeframe encompasses cable installation, onshore interconnection construction activities, activities in Rhode Island state waters not subject to this review, and offshore commissioning. The second cable bundle is expected to be installed from late 2029 to mid to late 2030.

Without knowing the exact cable burial tool and cable contractor to be utilized, Staff rely on prior experience with offshore cable installation timeframes to inform whether installation activities will cause long-term impacts to Rhode Island marine users. For prior offshore wind project utilizing a jet trenching installation tool and simultaneous lay and bury methods, cable installation was estimated to take approximately 9-13.5 months. Although these are tentative timeframes and many of these activities will occur simultaneously, impacts from construction activity may persist beyond the three-year mark and affect more than one or two seasons. However, Staff believe that cable installation activities alone do not amount to significant long-term negative impacts affecting more than one or two seasons.

Additionally, as previously discussed, impacts to various resources and uses are expected to be short-term and highly localized. BOEM states impacts to benthic resources from cable installation "impacts would be localized"[71] and mortality from physical contact and displacement would be short-term." Similarly, BOEM characterizes impacts to finfish, invertebrates, and navigation for commercial and for-hire charter fishing as "potentially long-term, though periodic in nature, and moderate."[72] Regardless, the impacts will be highly localized and resource recovery times are anticipated to be quick.

Enforceable policy § 11.10.1(E) requires the Council to prohibit, or in this case object to, any activity that amounts to a significant, long-term impact in that the impact exceeds one or two seasons. Based on the information provided in the SCW COP, SCW DEIS, and other Project materials, Staff believe Project impacts do not amount to significant, long-term impacts and that the Project is consistent with the enforceable policy § 11.10.1(E).

[71] *See* SCW DEIS Vol. I at 3.5.2-18.
[72] *See* SCW DEIS at 3.6.1 at 47.

4.3 Enforceable Policy § 11.10.1(F):

The Council shall require that the potential adverse impacts of offshore developments and other uses on commercial or recreational fisheries be evaluated, considered and mitigated as described in § 11.10.1(G) of this Part.

SouthCoast Wind Consistency Certification Response:

With respect to the SCWF Brayton Point Export Cable Corridor, the Developer states:

> "The Brayton Point ECC has been evaluated for technical and environmental considerations, as well as the amount of dredging required." "Construction related impacted are expected to be temporary," and "additional details on avoidance, minimization, and mitigation measures for specific resources [are located in] COP Section 16.0." (*See* Appendix 1 – SouthCoast Wind R.I. CZMA Consistency Certification at 2-4; 3-3)

4.3.1 CRMC Analysis:

As shown above in the analyses for §§ 11.10.1(C) and (E), CRMC Staff has determined that Project impacts do not amount to significant, long-term impacts lasting more than one or two seasons. However, Staff has considered Project mitigation measures proposed by SCW under this enforceable policy and in accordance with § 11.10.1(G).

4.4 Enforceable Policy § 11.10.1(G):

For the purposes of fisheries policies and standards as summarized in Ocean SAMP Chapter 5, Commercial and Recreational Fisheries, §§ 5.3.1 and 5.3.2 of this Subchapter, mitigation is defined as a process to make whole those fisheries user groups, including related shore-side seafood processing facilities, that are adversely affected by offshore development proposals or projects. Mitigation measures shall be consistent with the purposes of duly adopted fisheries management plans, programs, strategies and regulations of the agencies and regulatory bodies with jurisdiction over commercial and recreational fisheries, including but not limited to those set forth above in § 11.9.4(B) of this Part. Mitigation shall not be designed or implemented in a manner that substantially diminishes the effectiveness of duly adopted fisheries management programs. Mitigation measures may include, but are not limited to, compensation, effort

reduction, habitat preservation, restoration and construction, marketing, and infrastructure and commercial fishing fleet improvements. Where there are potential impacts associated with proposed projects, the need for mitigation shall be presumed (see § 11.10.1(F) of this Part). Mitigation shall be negotiated between the Council staff, the FAB, the project developer, and approved by the Council. The final mitigation will be the mitigation required by the CRMC and included in the CRMC's Assent for the project or included within the CRMC's federal consistency decision for a project's federal permit application.

SouthCoast Wind Consistency Certification Response:

With respect to the SCWF Brayton Point Export Cable Corridor, the Developer states:

> "The Brayton Point ECC has been evaluated for technical and environmental considerations, as well as the amount of dredging required." "Construction related impacted are expected to be temporary," and "additional details on avoidance, minimization, and mitigation measures for specific resources [are located in] COP Section 16.0." (*See* Appendix 1 – SouthCoast Wind R.I. CZMA Consistency Certification at 2-4; 3-3)

4.4.1 CRMC Analysis:

Based on information provided by the Developer, Staff believe the avoidance, minimization, and mitigation measures will "make whole those fisheries user groups…adversely affected" by project activities within the ECC in accordance with enforceable policy § 11.10.1(G). There are large uncertainties regarding impacts from large-scale offshore wind developments according to BOEM, NOAA, and RODA.[73] Some of those uncertainties include how commercial and recreational fishers will adapt to fishing in and around offshore wind infrastructure and whether stock assessments can be conducted with enough accuracy to avoid negative economic consequences. However, as previously discussed under enforceable policy § 11.10.1(C), many of the impacts to marine resources and uses will be limited in time and space.

The developer has made modifications to the Project that avoid, minimize, and/or mitigate impacts which align with the enforceable policy's description of mitigation measures.

[73] *See* Hogan et al., 2023 at 55.

Enforceable policy § 11.10.1(G) states mitigation measures may include, but are not limited to, compensation, effort reduction, habitat preservation, restoration and construction, marketing, and infrastructure and commercial fishing fleet improvements. As presented under enforceable policy § 11.10.1(C), the SCW project has committed making all reasonable efforts to site project infrastructure outside of complex and sensitive bottom habitat to the extent possible. Additionally, the Developer will modify their boulder relocation plan in order to avoid, minimize, and mitigate the creation of new hangs and impacts to Rhode Island fishers. Furthermore, additional mitigation measures will be taken as discussed in the Staff Report appendices and others will be required through the remainder of the federal permitting process for the Project.

Considerable discussions have occurred over the past several months regarding Project modifications and mitigation measures between CRMC Staff and SCW. Both sides agree project modifications and mitigation are necessary to reach a consensus on what may constitute adequate mitigation measures. For several months, CRMC Staff and SCW held weekly meetings, typically meeting twice a week, to discuss various mitigation measures including compensatory mitigation and project modifications. CRMC also solicited Requests for Information which SCW responded to and discussed in detail. Despite the resignation of the FAB, CRMC Staff assumes the FAB would stand by its prior assertions that any aspect of a wind farm project does not meet the standards of the Ocean SAMP enforceable policies.

A key part of these meetings were discussions analyzing the WHOI report titled "*Fisheries Exposure Analysis for Rhode Island for the SouthCoast Wind Brayton Point Export Cable Route and Rhode Island GLDs*"[74] (Exposure Report). This report considers the potential effects of the construction, operations, and decommissioning of all Project phases on commercial and recreational for-hire fishing industries in Rhode Island. As a result of the above analysis, SCW provided a total direct compensation amount to the Rhode Island fishing industry totaling $280,000 (net present value). Of that amount, $250,000 is direct financial mitigation to the Rhode Island commercial and for-hire fishing sectors. The remaining $30,000 is provided to

[74] *See* Appendix 5.

"support Rhode Island commercial fishermen, for-hire charter fishermen, and recreational fishermen."[75]

The CRMC cannot require monetary compensation as part of its CZMA federal consistency review and decision. Therefore, the CRMC cannot object to the SCW Consistency Certification solely for a failure to reach a compensatory mitigation agreement. The CRMC and an applicant can, however, mutually agree that a compensation amount is sufficient in-part to meet enforceable policies §§ 11.10.1(C), (G), and (H). CRMC Staff believe the Project could be deemed to be consistent with enforceable policy § 11.10.1(G) solely based on the developer's proposed mitigation measures as they amount to a "process to make whole those fisheries user groups…that are adversely affected by offshore development." Staff are also of the opinion that the Project could be deemed to be consistent with the enforceable policy if a compensatory mitigation agreement were agreed to.

In addition to discussing the compensatory mitigation component, Staff and PCW considered past FAB input on previous projects as their comments had been relatively consistent across project reviews. This previous input directly influenced the mutually agreed upon conditions, the Requests for Information, and conversations regarding compensatory mitigation. Despite the FAB's resignation, their prior input has been crucial in the review of the SCW project and the effort to meet enforceable policy § 11.10.1(G).

4.5 Enforceable Policy § 11.10.1(H):

The Council recognizes that moraine edges, as illustrated in Figures 3 and 4 in § 11.10.2 of this Part, are important to commercial and recreational fishermen. In addition to these mapped areas, the FAB may identify other edge areas that are important to fisheries within a proposed project location. The Council shall consider the potential adverse impacts of future activities or projects on these areas to Rhode Island's commercial and recreational fisheries. Where it is determined that there is a significant adverse impact, the Council will modify or deny activities that would impact these areas. In addition, the Council will require assent holders for offshore developments to employ micro-siting techniques in order to minimize the potential impacts of such projects on these edge areas.

[75] *See* SCW Compensatory Mitigation Term Sheet.

SouthCoast Wind Consistency Certification Response:

With respect to the SCWF Brayton Point Export Cable Corridor, the Developer states:

> "The Brayton Point ECC has been evaluated for technical and environmental considerations, as well as the amount of dredging required." "Construction related impacted are expected to be temporary," and "additional details on avoidance, minimization, and mitigation measures for specific resources [are located in] COP Section 16.0." (*See* Appendix 1 – SouthCoast Wind R.I. CZMA Consistency Certification at 2-4; 3-3)

4.5.1 CRMC Analysis:

The SCW Brayton Point ECC was originally sited to avoid glacial moraine and sensitive habitats to the extent possible. The ECC itself is located west of Cox Ledge and areas characterized by large expanses of glacial moraine and dense boulders that dominate other offshore wind projects in the region. The ECC is characterized by mostly sandy sediments of varying densities and the length of the corridor is considered to be 90 percent sandy sediment or finer.[76] However, the ECC does include areas of dense boulder fields and glacial moraine which are identified as being important to Rhode Island based commercial and recreational fishers. An independent review of benthic geologic habitat conditions found cables will likely be able to be micro-sited in many of these areas and where impacts to moraine are unavoidable additional minimization/mitigation measure should be taken to limit impacts.[77] This review also provided new insights indicating that areas previously identified and mapped as glacial moraine are not in-fact moraine.[78]

As previously stated, SCW will be employing avoidance, minimization, and mitigation techniques to reduce potential adverse impacts to sensitive habitat areas. Detailed cable route micro-siting efforts are ongoing to determine the most efficient route with sensitive habitats in mind. Boulder relocation efforts will be limited to the extent possible to only relocate boulders

[76] *See* SCW DEIS at 3.5.2-4.
[77] *See* Appendix 7 – King & Oakley Reports at 10-19; 26-27.
[78] *Id*. at 27. Dr. King's report stating that Kilometer Posts 56-50 are areas mapped as glacial moraine in the OSAMP. However, new data has found the area to have sandy sediments and should no longer be considered an area of glacial moraine.

where necessary. This campaign entails prioritizing the use of a boulder grab over a boulder plow where possible. The Developer also intends to limit the extent of secondary cable protection to the extent possible while achieving a target burial depth range of 3.2 ft to 13.1 ft. Secondary cable protection would only be deployed as a last result if remedial cable burial efforts were not successful. These efforts, along with others that may be required by federal agencies through the COP approval, will greatly minimize the impacts to glacial moraine and moraine edge within the ECC in accordance with enforceable policy § 11.10.1(H).

4.6 Enforceable Policy § 11.10.1(I):

The finfish, shellfish, and crustacean species that are targeted by commercial and recreational fishermen rely on appropriate habitat at all stages of their life cycles. While all fish habitat is important, spawning and nursery areas are especially important in providing shelter for these species during the most vulnerable stages of their life cycles. The Council shall protect sensitive habitat areas where they have been identified through the Site Assessment Plan or Construction and Operation Plan review processes for offshore developments as described in § 11.10.5(C) of this Part.

SouthCoast Wind Consistency Certification Response:

With respect to the SCWF Brayton Point Export Cable Corridor, the Developer states:

> "The selected Brayton Point ECC seeks to avoid and minimize impacts to glacial moraines, spawning and nursery areas, and marine resources and habitats." "Seafloor features such as moraines have been mapped" and these maps "will be used to optimize the routing of cables within the Brayton Point ECC to avoid or reduce disturbance to sensitive and important habitats." "SouthCoast Wind is completing a habitat mapping analysis in support of the NMFS EFH consultation" and "that analysis will supply additional information needed to provide [avoidance and disturbance measures] with respect to glacial moraines, spawning and nursery areas." (*See* Appendix 1 – SouthCoast Wind R.I. CZMA Consistency Certification at 3-3 to 3-4)

4.6.1 CRMC Analysis:

Several economically and ecologically important species are found within the Brayton Point ECC. These species are listed in COP Appendix N – Essential Fish Habitat Assessment and Protected Fish Species Assessment.[79] Portions of the export cable corridor are designated by NOAA as containing essential fish habitat (EFH) for a number of fish species, including eggs, larvae, juveniles and adults that are listed in the COP Appendix. Note that the entirety of the Brayton Point ECC is considered EFH for juvenile cod.[80] The Appendix further states that impact producing factors may result in direct or indirect impacts to EFH and in some cases conversion to hard bottom may create additional EFH.

Based in-part on anticipated impacts to sensitive habitat areas, the Developer is continuing to conduct resource mapping to avoid and minimize impacts and has agreed to CRMC's recommended conditions which aim to further potential adverse effects to the extent practicable. These include using all reasonable efforts to avoid siting infrastructure in complex and sensitive habitat areas, modifying and adjusting boulder relocation operations to avoid adverse impacts to existing habitat areas while creating additional habitat where possible, conducing the fisheries and benthic monitoring plans approved by BOEM, and minimizing the need for secondary cable protection by achieving target cable burial depth. boulders within the same environment. These conditions, along with other mitigation measures will reduce impacts from the SCW project and allow the Project to be consistent with enforceable policy § 11.10.1(I).

4.7 Enforceable Policy § 11.10.2(B):

The Council has designated the areas listed below in § 11.10.2(C) of this Part in state waters as Areas of Particular Concern [(APC)]. All large-scale, small-scale, or other offshore development, or any portion of a proposed project, shall be presumptively excluded from APCs. This exclusion is rebuttable if the applicant can demonstrate by clear and convincing evidence that there are no practicable alternatives that are less damaging in areas outside of the APC, or that the proposed project will not result in a significant alteration to the values and resources of the APC. When evaluating a project proposal, the Council shall not consider cost as a factor

[79] *See* COP Appendix N. Essential Fish Habitat and Protected Fish Species Assessment at 4-2 to 4-11.
[80] *Id*. at Figure 4-2 depicting juvenile cod EFH and HAPC throughout the ECC.

when determining whether practicable alternatives exist. Applicants which successfully demonstrate that the presumptive exclusion does not apply to a proposed project because there are no practicable alternatives that are less damaging in areas outside of the APC must also demonstrate that all feasible efforts have been made to avoid damage to APC resources and values and that there will be no significant alteration of the APC resources or values. Applicants successfully demonstrating that the presumptive exclusion does not apply because the proposed project will not result in a significant alteration to the values and resources of the APC must also demonstrate that all feasible efforts have been made to avoid damage to the APC resources and values. The Council may require a successful applicant to provide a mitigation plan that protects the ecosystem. The Council will permit underwater cables, only in certain categories of Areas of Particular Concern, as determined by the Council in coordination with the Joint Agency Working Group. The maps listed below in § 11.10.2(C) of this Part depicting Areas of Particular Concern may be superseded by more detailed, site-specific maps created with finer resolution data.

SouthCoast Wind Consistency Certification Response:

With respect to the SCWF Brayton Point Export Cable Corridor, the Developer states:

> "SouthCoast Wind has endeavored to site the ECC to avoid APCs. However complete avoidance of these areas is not feasible." "SouthCoast Wind has completed [analyses]" that provide the demonstrations required in the enforceable policy. "SouthCoast Wind continues to coordinate with local stakeholders and the commercial fishing industry to address areas of high fishing activity with the Brayton Point ECC." (*See* Appendix 1 – SouthCoast Wind R.I. CZMA Consistency Certification at 3-5 to 3-6)

4.7.1 CRMC Analysis:

The enforceable policy's mechanism which presumptively excludes all large-scale, small-scale, or other offshore development, or any portion of a proposed project *is not applicable* in federal waters. States may review, not manage, federal actions under federal consistency in that a state can review a wind developer's consistency certification to determine if adequate

management measures are included to make a project consistent with state enforceable policies.[81] An enforceable policy cannot on its face dictate what a developer can or cannot do. Despite the presumptive exclusion being rebuttable, the notion that a developer would be automatically excluded from placing infrastructure in a specific area equates to the State of Rhode Island taking regulatory action in federal jurisdiction. Therefore, the presumptive exclusion, APC designations, and Ocean SAMP maps indicating where APC are located cannot be used by the State to regulate outside of State Waters. For a federal consistency review, CRMC utilizes the policy rational contained in § 11.10.2(B) to review the SCW project. The enforceable policy's intent is to protect and preserve glacial moraine habitat areas identified within the CRMC's NOAA approved 2011 and 2018 Geographic Location Description areas[82] that have the same characteristics, values, and resources as CRMC designated APC located within State Waters. CRMC can utilize any information submitted by a developer over the course of the review process to determine whether adequate mitigation measures have been taken.

Based on geophysical surveys conducted by SCW and after an independent analysis of those results, Staff were able to consider bottom habitats and site conditions in great detail. As previously stated, the ECC is predominately sand and fine sediment with areas of glacial moraine and boulders. SCW has provided adequate information to demonstrate that reasonably mitigation measures will allow the Project to avoid, minimize, and mitigate much of the adverse impacts. As such, SCW has demonstrated that adequate mitigation measures will be taken to avoid damaging areas of glacial moraine and complex habitat. Therefore, Staff believe the mutually agreed upon conditions, mitigation measure imposed through the federal permitting of the Project, and other mitigation employed by the Developer will reduce impacts from the Project and allow the project to be consistent with enforceable policy § 11.10.2(B).

4.8 Enforceable Policy § 11.10.2(C)(3):

Glacial moraines are important habitat areas for a diversity of fish and other marine plants and animals because of their relative structural permanence and structural complexity. Glacial

[81] *See* Coastal Zone Management Act Review for Offshore Renewable Energy Projects: Intergovernmental Renewable Energy Task Force for the Gulf of Mexico, June 15, 2021, slide 8. https://www.boem.gov/renewable-energy/state-activities/noaa-national-ocean-service-czma-david-kaiser
[82] *See* 15 C.F.R.§ 930.53(a)(1).

moraines create a unique bottom topography that allows for habitat diversity and complexity, which allows for species diversity in these areas and creates environments that exhibit some of the highest biodiversity within the entire Ocean SAMP area. The Council also recognizes that because glacial moraines contain valuable habitats for fish and other marine life, they are also important to commercial and recreational fishermen. Accordingly, the Council shall designate glacial moraines as identified in Figures 3 and 4 in § 11.10.2 of this Part as Areas of Particular Concern.

SouthCoast Wind Consistency Certification Response:

With respect to the SCWF Brayton Point Export Cable Corridor, the Developer states:

> "SouthCoast Wind has endeavored to site the ECC to avoid APCs. However complete avoidance of these areas is not feasible." "SouthCoast Wind has completed [analyses]" that provide the demonstrations required in the enforceable policy. "SouthCoast Wind continues to coordinate with local stakeholders and the commercial fishing industry to address areas of high fishing activity with the Brayton Point ECC." (*See* Appendix 1 – SouthCoast Wind R.I. CZMA Consistency Certification at 3-5 to 3-6)

4.8.1 CRMC Analysis:

For the reasons stated above under CRMC enforceable policy § 11.10.2(B), Staff finds that SCW has mitigated impacts to glacial moraine in the Brayton Point ECC and recommends the Council find the Project to be consistent with Ocean SAMP enforceable policy § 11.10.2(C)(3).

5 Conclusion

Pursuant to 15 C.F.R. §§ 930.4 and 930.78, and for the reasons detailed herein, the CRMC Staff is of the opinion that based on the mutually agreed upon conditions and other mitigation efforts that will be employed by the Developer, the proposed SCWF offshore wind renewable energy project can be deemed to comply with the enforceable policies of the Rhode Island coastal management program. Based on Staff's review of the SCWF project and its effects on Rhode Island coastal resources and uses, Staff recommend the Council issue a **concurrence with conditions** in this matter. Additionally, CRMC Staff has reviewed all other applicable

enforceable policies of the Ocean SAMP at 650-RICR-20-05-11 not specifically identified above and has determined that the SCWF Project is consistent with those enforceable policies.

Appendix 1

SouthCoast Wind CZMA Consistency Certifications

SOUTHCOAST WIND

Appendix D2. Rhode Island Coastal Zone Management Act Consistency Certification

Document Revision	C
Issue Date	October 2023

SOUTHCOAST WIND

Prepared for:
SouthCoast Wind Energy LLC

Rhode Island Coastal Zone Management Act Federal Consistency Certification – Brayton Point POI

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October 2023

AECOM Imagine it. Delivered.

Quality Information

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Revision History

Revision	Revision date	Details	Authorized	Name	Position
0	8/29/2021	Submittal	Yes	Nancy Palmstrom	Project Manager
1	3/16/2022	Revised in response to CRMC comments	Yes	Nancy Palmstrom	Project Manager
2	10/26/2023	Revised in response to CRMC comments	Yes	Kyle Cassidy	Marine Science Permitting Manager

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Acronyms and Abbreviations

Abbreviation or Acronym	Definition
BOEM	Bureau of Ocean Energy Management
CFR	Code of Federal Regulations
COP	Construction and Operations Plan
CRMC	Coastal Resource Management Council
CRMP	Coastal Resource Management Program
CZMA	Coastal Zone Management Act
ECC	Export Cable Corridor
EO	Executive Order
ft	foot/feet
GLD	Geographic Location Description
ha	hectare
HDD	Horizontal Directional Drilling
HVDC	High Voltage Direct Current
HPHC	Rhode Island Historical Preservation & Heritage Commission
km	kilometer
kV	kilovolt
m	meter
mi	mile
nm	nautical mile
NOAA	National Oceanic and Atmospheric Administration
OCS	Outer Continental Shelf
OER	Office of Energy Resources (Rhode Island)
OSP	Offshore Substation Platform
POI	Point of Interconnection
PPA	Power Purchase Agreement
RGGI	Regional Greenhouse Gas Initiative
RICR	Rhode Island Code of Regulations
SAMP	Special Area Management Plan
SAV	Submerged Aquatic Vegetation
SouthCoast Wind	SouthCoast Wind Energy LLC
UXO	Unexploded Ordinance
USC	United States Code
WTG	Wind Turbine Generator

1.0 Introduction

SouthCoast Wind Energy LLC (SouthCoast Wind) proposes an offshore wind renewable energy generation project (the Project) located in federal waters off the southern coast of Massachusetts in the Outer Continental Shelf (OCS) Lease Area OCS-A 0521 (Lease Area). The Project will deliver electricity to the regionally administered transmission system from the Lease Area at up to two points of interconnection (POI); Falmouth Tap in Falmouth Massachusetts, and Brayton Point in Somerset Massachusetts via offshore export cables as well as onshore transmission systems extending to the respective POIs (Figure 1).

The offshore export cable corridor (ECC) for the Brayton Point POI will extend from the Lease Area in federal waters and into Rhode Island state waters (Sakonnet River), cross over Aquidneck Island, and reenter Rhode Island State waters (Mount Hope Bay), before entering waters of the Commonwealth of Massachusetts and ending in Somerset, Massachusetts, at Brayton Point (Figure 2).

This Coastal Zone Consistency Certification is specific to the portions of the Brayton Point export cable corridor (ECC) within the Rhode Island 2011 and 2018 Geographic Location Descriptions (GLDs). SouthCoast Wind expects to separately submit a CRMC Category B State Assent application(s) for the portion of the Brayton Point ECC through Rhode Island state waters. Construction and Operations Plan (COP) Revised Appendix D1 (Massachusetts Coastal Zone Management Act Consistency Certification) covers the remaining portions of the Project. Portions of the Project located within federal waters outside of the GLDs are not addressed by this Consistency Certification.

It should be noted that certain studies and analyses are ongoing which are needed to provide necessary demonstrations for compliance with one or more enforceable policies. SouthCoast Wind has identified in Section 3, where additional information will be provided, and the expected demonstrations that will be made once those data are available.

1.1 Project Objectives

The Project's objective is to provide Massachusetts and neighboring New England states in the region, including Rhode Island, with clean, renewable wind energy. SouthCoast Wind was awarded power purchase agreements (PPAs) for a total of 1,209 megawatts (MW) through Massachusetts offshore wind generation competitive solicitations conducted pursuant to Rounds II and III of Section 83C of c. 169 of the Acts of 2008 et seq., as amended by the Energy Diversity Act, c. 188 of the Acts of 2016 and the Act Driving Clean Energy and Offshore Wind, c. 179 of the Acts of 2022 (Section 83C), and thus has demonstrated its ability to secure awarded PPAs. The Company terminated these existing PPAs because they have become uneconomic due to unforeseen macroeconomic developments affecting the offshore wind industry. As of September 29, 2023, the agreements to terminate Massachusetts PPAs were approved by the Massachusetts Department of Public Utilities (DPU), thereby enabling the Project to compete in the upcoming Rhode Island, Connecticut, and Massachusetts solicitations for up to six gigawatts of offshore wind power. SouthCoast Wind fully expects to have PPAs in place for the full amount of the Project's capacity before significant construction commences.

There are several significant economic, environmental, and social benefits to offshore wind power, including the generation of electricity that does not emit air pollutants and that can replace other more environmentally costly forms of electricity generation. The Project is expected to help achieve environmental and clean/renewable energy goals for the region, including eliminating at least 1.6 million metric tons of CO_2 emissions annually once in operation — the equivalent of taking 347,968 cars off the road per year[1]. The generation of clean renewable energy will reduce the need for greenhouse gas emitting electricity generation which will contribute to a reduction in the harmful effects of climate change such as sea level rise and ocean acidification both of which pose significant harm to the human and natural environment of the New England coastline. Additionally, the Project is expected to bring significant employment and other economic benefits to

[1] Daymark Energy Advisors. (2021). *Massachusetts 83C-III Benefits Report: Mayflower Wind Proposal A.* Prepared for Mayflower Wind Energy, LLC. (2021, September 16).

southern New England. It should be instrumental in creating a thriving, utility scale, domestic offshore wind industry.

In the "Offshore Renewable Energy and Other Offshore Development" Policy[2] of the Rhode Island Ocean Special Area Management Plan (SAMP), the Rhode Island Coastal Resources Management Council (CRMC) acknowledges support for increasing renewable energy production in Rhode Island provided the offshore development is consistent with the goals of the Ocean SAMP. The Project will produce a viable form of renewable energy for southern New England and be a key addition to existing energy mix of the region. The Rhode Island State Energy Plan "Energy 2035"[3] (released in 2015) identifies offshore wind as one of the most significant resources for wind energy available to the State. In addition, the Project complements Rhode Island's "Lead by Example" Executive Order (EO 15-17[4]), in which the Governor tasked the Rhode Island Office of Energy Resources (OER) to identify opportunities to support full transition toward renewable energy sources by 2025.

The 2021 Act on Climate bill signed by Gov. Dan McKee in April 2021 sets mandatory and enforceable targets for reducing greenhouse-gas emissions and transitioning to a low carbon economy. Under the Act on Climate, the State of Rhode Island will develop a plan to incrementally reduce climate emissions to net-zero by 2050. The plan will be updated every 5 years and will address areas such as environmental injustices, public health inequities and a fair employment transition as fossil-fuel jobs are replaced by green energy jobs. The 2021 Act specifically calls for the transition to a cleaner energy future to be just and equitable which includes replacing fossil-fuel-based jobs with renewable-energy jobs that pay prevailing wage delivering renewable energy at lower cost to families and businesses. The Act calls for the inclusion of environmental-justice populations and a process for environmental-justice communities to provide input on concrete plans that identify support for workers in the transition and the development of programs to recruit, train, and retain women, people of color, Indigenous people, veterans, formerly incarcerated people, and people living with disabilities in jobs related to a cleaner energy economy.

Specific environmental and socioeconomic benefits that the Project will provide include:

1. The Project, as planned, is expected to be the region's single greatest contributor to achieving the emissions reduction goals outlined in the Regional Greenhouse Gas Initiative (RGGI) of the Eastern States of the U.S.; both Rhode Island and Massachusetts are members of the RGGI. Further, subject to potential future negotiated PPAs, the Project may also directly support achievement of Rhode Island's greenhouse gas targets for 2035 and 2050 as laid out in the Rhode Island Greenhouse Gas Emissions Reduction Plan[5] (December 2016).
2. The Project is expected to bring significant employment and other economic benefits to the region, including creation of more than 11,280 full time equivalent jobs in the region during the operations, maintenance, and service phases of the Project from both direct, indirect, and induced employment opportunities.[6]

1.2 Regulatory Applicability

In compliance with the Federal Coastal Zone Management Act (CZMA, 16 United States Code [USC] 1451 et seq.), SouthCoast Wind has prepared this consistency certification for the Bureau of Ocean Energy Management (BOEM) to demonstrate compliance with the provisions identified as enforceable by the coastal zone management policies of the State of Rhode Island.[7] Federal Consistency Regulations (15 Code of

[2] Rhode Island Ocean Special Area Management Plan (Title 650-Coastal Resources Management Council; Chapter 20 Coastal Management Program; Subchapter 05 – Ocean Special Area Management Plan; Part 11 - Policies of the Ocean SAMP (650 RICR-20-05-11)
[3] "Energy 2035" Rhode Island State Energy Plan. Rhode Island Division of Planning. State Guide Plan Element Report #120. October 8, 2015. (Link: http://www.planning.ri.gov/documents/LU/energy/energy15.pdf)
[4] https://governor.ri.gov/documents/orders/ExecOrder15-17.pdf
[5] Rhode Island Greenhouse Gas Emissions Reduction Plan, published in December 2016 (Link: http://climatechange.ri.gov/documents/ec4-ghg-emissions-reduction-plan-final-draft-2016-12-29-clean.pdf)
[6] BVG Associates. (BVGA). (2021). *Economic Benefits. A Technical Report to Support Mayflower Wind's Bid for Long-Term Contracts for Offshore Wind Energy Projects.* (2021, August).
[7] State of Rhode Island, Coastal Resources Management Council, Coastal Management Program, Part 1 – Red Book (650-RICR-20-00-1) and associated applicable policies. Available URL: http://www.crmc.ri.gov/regulations.html. Accessed June 30, 2021.

Federal Regulations [CFR] 930.00) require all Federal Actions that involve reasonably foreseeable effects on any land or water use or natural resource of a state's coastal zone to be consistent with all enforceable policies of the state's Coastal Zone Management Program. Federal Actions include the permitting of actions by private entities. This Project involves the installation of energy facilities on the OCS and therefore meets the definition of a Coastal Energy Activity under the CZMA (16 USC 1453 (5)(i)). The Project will require approval of the Construction and Operations Plan (COP) by BOEM and, subsequently, a Record of Decision issued by BOEM under the National Environmental Policy Act in response to a Final Environmental Impact Statement, and a permit from the United States Army Corps of Engineers pursuant to Section 404 of the federal Clean Water Act and Section 10 of the Rivers and Harbors Act of 1899.

Within Rhode Island, the CZMA is administered within the coastal zone by the Rhode Island CRMC. The Rhode Island Coastal Zone includes the lands and waters within an area defined by the seaward limit of the state's territorial sea, to two hundred feet inland from any coastal feature, to watersheds, and to certain activities that occur anywhere within the state. In addition, consistency certification is required for federal authorizations for activities, including offshore wind facilities and underwater cables, proposed in federal waters designated as a geographic location description (GLD). National Oceanic and Atmospheric Administration (NOAA) has approved two GLDs for the State of Rhode Island, one in 2011 and the second in 2018. The 2011 GLD extends seaward 30 nautical miles (nm) from the shoreline and encompasses all waters beyond the seaward limit of Rhode Island state jurisdiction at 3 nm from the shoreline. The 2018 GLD includes a portion of the Massachusetts Wind Energy Area, BOEM lease blocks OCS-A 0500 and 0501, and an area of federal waters south of Martha's Vineyard and immediately north of the lease blocks where Rhode Island-based commercial fisheries operate.[8]

Project facilities to be located within the Rhode Island coastal zone, and thus within the jurisdiction of the CRMC, include the offshore ECC within the 2011 and 2018 GLDs as well as state waters and onshore export cables within Rhode Island (Figure 2). The SouthCoast Wind Lease Area (OCS-A 0521) falls outside of the GLDs. As noted above, this Consistency Certification addresses only those portions of the offshore ECC within the GLDs.

1.3 Necessary Data and Information

In addition to the enforceable policies of the State of Rhode Island identified and addressed in Section 3.0 of this report, the State considers certain background information on a proposed project in their decision-making process.[9] This background and general Project information is summarized in this document and is described in detail within the COP developed by SouthCoast Wind and submitted to BOEM. Table 1-1 below provides details on the required information outlined within the Rhode Island CRMC Federal Consistency Manual (2018), and where that information can be found within this document as well as the COP.

This document is intended to provide background information on portions of the Project relevant to the CZMA to ensure consistency with all applicable regulations of the State of Rhode Island. Applicable review procedures are set forth at 650 Rhode Island Code of Regulations (RICR) Chapter 20 (see 650-RICR-20-00-1).

Table 1-1. Necessary Data and Information

Project Information	Reference Section or Description
The name and location of the project	SouthCoast Wind Energy LLC; OCS Lease Area OCS-A 0521
A detailed description of the site, nature, and extent of the proposed activity and its associated facilities and services,	CZMA Consistency Certification Section 2.0 – Project Description (summary) CZMA Consistency Certification Attachment 1 (Figures) COP Section 1.1 – Project Overview COP Section 3.0 – Description of Proposed Activities

[8]Rhode Island Coastal Resources Management Program, Accessed August 13, 2021: http://www.crmc.ri.gov/news/2018_1218_jurisdiction.html

[9] State of Rhode Island Coastal Resources Management Program Federal Consistency Manual (December 7, 2018 (Revised)). Accessed July 28, 2021: http://www.crmc.ri.gov/regulations/Fed_Consistency.pdf

Project Information	Reference Section or Description
A detailed description and analysis of the project objectives and anticipated benefits	CZMA Consistency Certification Section 1.1 – Project Objectives CZMA Consistency Certification Attachment 1 (Figures) COP Section 1.3 – Purpose and Need
A detailed description of the physical, biological, chemical, economic, and social conditions of the project site, surroundings, and affected environment, including resource area delineations, illustrated with map(s) and site plan(s) depicting both existing and proposed conditions	COP Section 3.0 – Description of Proposed Activities COP Section 4.0 – Site Geology and Environmental Conditions COP Section 5.0 – Physical Resources COP Section 6.0 – Biological Resources COP Section 7.0 – Cultural Resources COP Section 10.0 – Socioeconomic Resources
A timetable and the methods and timing of construction and operation of the project (including types of equipment, temporary impacts associated with construction, monitoring and maintenance plans, proposed reporting schedule)	COP Section 3.2 – Proposed Project Schedule COP Section 3.3 – Project Components and Project Stages COP Section 3.4 – Summary of Impact-Producing Factors
A detailed description and assessment of the negative and positive potential coastal effects of the project	CZMA Consistency Certification Section 3.0 – Rhode Island Coastal Program Policies COP Section 5.1 Air Quality COP Section 5.2 Water Quality COP Section 6.1 Coastal and Marine Birds COP Section 6.2 Bats COP Section 6.3 Terrestrial Vegetation and Wildlife COP Section 6.4 Wetlands and Waterbodies COP Section 6.5 Coastal Habitats COP Section 6.6 Benthic and Shellfish COP Section 6.7 Finfish and Invertebrates COP Section 6.8 Marine Mammals COP Section 6.9 Sea Turtles COP Section 7.1 Marine Archaeology COP Section 7.2 Terrestrial Archaeology COP Section 7.3 Above-Ground Historic Properties
A detailed description of alternatives considered, analysis of the impacts on the resource areas, and justification as to why the preferred alternative was selected	COP Section 2.0 – Project Siting and Design Development COP Section 3.0 – Description of Proposed Activities CZMA Consistency Certification Attachment 1 (Figures)
A description of measures taken to avoid, minimize, and mitigate adverse coastal effects and a description of how the project meets applicable coastal program policies	CZMA Consistency Certification Section 3.0 – Rhode Island Coastal Program Policies COP Section 16.0 – Summary of Avoidance, Minimization, and Mitigation Measures
A brief assessment indicating how the activity will be undertaken in a manner consistent with the Coastal Resources Management Program (CRMP)	CZMA Consistency Certification Section 3.0 – Rhode Island Coastal Program Policies
A brief analysis indicating that the proposed activity, associated facilities, and their effects are consistent with the CRMP.	CZMA Consistency Certification Section 4.0 – Consistency Certification

2.0 Project Information

2.1 Project Timeline

The Project is currently in the planning and engineering design stages. For more details on the Project timeline please see Figure 9 for SouthCoast Wind's indicative construction schedule. The same indicative construction schedule can also be found in COP Section 3.2 – Proposed Project Schedule. The Project will be operational for approximately 30 years, after which time the Project will be decommissioned as per requirements in 30 CFR 585.906-910. Over the 30-year lifespan of the Project, there will be ongoing remote monitoring and maintenance of the offshore and onshore Project facilities.

2.2 Project Overview

The SouthCoast Wind Project includes a Lease Area located in federal waters south of Martha's Vineyard and Nantucket (Figure 2). Wind turbine generators (WTGs) constructed within the Lease Area will deliver power via inter-array cables to the offshore substation platforms (OSPs). The WTG/OSP positions have been established based on a 1 x 1 nm (1.9 x 1.9 kilometer [km]) grid oriented along the cardinal directions to maintain a uniform spacing of WTGs across all the lease areas within the Massachusetts/Rhode Island Wind Energy Area. Submarine offshore export cables will be installed within offshore ECCs to carry the electricity from the OSPs within the Lease Area to the onshore transmission systems via two different ECCs. They Brayton Point ECC will make landfall at Brayton Point, in Somerset, Massachusetts. As noted in Section 1.0, this Consistency Certification is specific to the Project components for the Brayton Point POI located within Rhode Island jurisdiction. Therefore, the balance of the Project description is specific to the Brayton Point ECC and Brayton Point Onshore Project Area, specifically the portion over Aquidneck Island.

The proposed Brayton Point ECC travels north and west from the Lease Area in federal waters through Rhode Island Sound to the Sakonnet River. The ECC travels north up the Sakonnet River and crosses the northern end of Aquidneck Island before returning to Mount Hope Bay. The ECC continues north into Massachusetts state waters to the landfall location at Brayton Point. Portions of the ECC travel through the 2011 and 2018 GLD and Rhode Island state waters.

2.3 Specific Project Details

Each primary Project component is briefly described below in Table 2-1. Additional details may be found in the COP Section 3.0 – Description of Proposed Activities.

Table 2-1. Key Project Details

Project Attribute	Description
Lease Area Size (Federal waters outside GLDs)	127,388 acres (51,552 hectares [ha]) in federal waters (located outside the 2011 and 2018 GLD)
Offshore Export Cables	Cable Type: High voltage direct current (HVDC) Number of export cables: up to 6 Up to 4 export power cables and up to 2 communication cables (to be installed in 1-2 cable bundles, where practicable) Nominal export cable voltage: ±320 kilovolts (kV) Corridor width: Up to 2,300 feet (ft) (700 meters [m]) (may be locally narrower or wider in sensitive or constrained areas, including landfalls) Length per export cable beneath seabed: 97 – 124 mi (156 – 200 km) Length per export cable (within Rhode Island state waters): 20.4 mi (32.9 km) Length per export cable (within Rhode Island 2011 GLD): 27 mi (43.8 km) Length per export cable (within Rhode Island 2018 GLD): 22.7 mi (36.6 km) Cable/pipeline crossings: up to 16 (total) Target burial depth (below level seabed): 3.2 – 13.1 ft (1 – 4 m)
Point of Interconnection	Brayton Point, Somerset, MA; Existing National Grid substation

2.4 Alternatives Considered

SouthCoast Wind has considered alternative ECC routes between the Lease Area and Brayton Point POI. COP Section 2.0 – Project Siting and Design Development provides a discussion of alternatives considered. These alternatives include: Alternative 1 (East Passage of Narragansett Bay), Alternative 2 (West Passage of Narragansett Bay), and Alternative 3 (northern Sakonnet River near Stone Bridge and Railroad Bridge). The portion of the alternative ECCs passing through the 2011 and/or 2018 GLDs is common to all alternatives and the selected ECC. SouthCoast Wind will use ongoing and recently completed survey results and habitat mapping to further demonstrate that the selected route is the least impacting feasible route. Based on available state mapping and 2021 and 2022 survey data, complete avoidance of certain APCs within the GLD is not feasible.

SouthCoast Wind will also, in its siting of the offshore export cables within the Brayton Point ECC, seek to avoid hard or complex seabed conditions, steep slopes, ledges, extensive shallow water areas, glacial moraine, and mobile seabeds to the extent practicable.

Figure 3 illustrates Areas of Concern, Areas to Avoid, and Preliminary Transmission Cable Routes within the Rhode Island GLDs along with the offshore ECC[10]. Locations of glacial moraine mapped for the GLDs are illustrated in Figure 4. However, as illustrated in Figure 3 and Figure 4, complete avoidance of shallow waters and glacial moraines is not feasible given the broad geographic extent of these features. The potential for the offshore export cable installation to affect archaeological resources (e.g., shipwrecks) (Figure 5), shipping lanes (Figure 6), and vessel activity (Figure 7), was also considered in initial siting of the ECC and will be factored into the final routing of the offshore export cables within the ECC as well as the cable burial and protection strategy.

[10] Available from Massachusetts Ocean Management Plan (OMP)

2.5 Affected Environment

SouthCoast Wind has conducted and is conducting marine surveys and related data analysis to characterize the potentially affected resources within the Brayton Point ECC, including the segments within the 2011 and 2018 GLDs. The results of these surveys and analyses will be documented in reports to be filed with BOEM as updates to the SouthCoast Wind COP, and will be discussed in the SouthCoast Wind Rhode Island state permit submittals. In addition, SouthCoast Wind has completed a number of desktop studies which characterize the affected environment. The findings of these desktop studies are documented in technical reports provided in appendices to the COP and are summarized in relevant COP Sections (see Table 1-1).

Recently completed marine surveys and analyses that support a characterization of the affected environment include benthic infaunal sea floor habitat field studies, geophysical and geotechnical (G&G) surveys, and marine archaeological surveys along the offshore export cable corridor. No eelgrass has been mapped by the Rhode Island Department of Environmental Management, CRMC or the Massachusetts Department of Environmental Protection in the vicinity of Brayton Point ECC; therefore, no eelgrass surveys are currently planned. However, surveys may be conducted, if necessary, to support permitting and/or if results of the ongoing benthic surveys reveal evidence of eelgrass beds within the Brayton Point ECC. In addition to field surveys, a number of desktop studies have been completed to further characterize sensitive marine resources in the Brayton Point ECC including: Essential Fish Habitat (EFH) (COP Appendix N), submerged aquatic vegetation (COP Appendix K, Seagrass and Macroalgae), offshore designated protected areas (COP Appendix L1, Designated Protected Areas) and water quality (COP Appendix H, Water Quality). These surveys and studies were used to characterize existing conditions and to evaluate and minimize impacts to sensitive resources within the Brayton Point ECC.

2.6 Potential Project Impacts

Potential Project-related impacts to coastal areas of Rhode Island, including the 2011 and 2018 GLD, may be caused by the installation of the offshore export cables as well as landfall of the export cables, and the installation of the underground onshore export cables. A discussion of Project-related impacts can be found in the COP within the sections identified below:

- COP Section 5.1 – Air Quality
- COP Section 5.2 – Water Quality
- COP Section 6.1 – Coastal and Marine Birds
- COP Section 6.2 – Bats
- COP Section 6.3 – Terrestrial Vegetation and Wildlife
- COP Section 6.4 – Wetlands and Waterbodies
- COP Section 6.5 – Coastal Habitats
- COP Section 6.6 – Benthic and Shellfish
- COP Section 6.7 – Finfish and Invertebrates
- COP Section 6.8 – Marine Mammals
- COP Section 6.9 – Sea Turtles
- COP Section 7.1 – Marine Archaeology
- COP Section 7.2 – Terrestrial Archaeology
- COP Section 7.3 – Above-Ground Historic Properties
- COP Section 8.0 – Visual Resources
- COP Section 9.1 – In-Air Acoustics
- COP Section 9.2 – Underwater Acoustic Environment

- COP Section 10.1 – Demographics, Employment, and Economics
- COP Section 10.2 – Environmental Justice and Minority and Lower Income Groups
- COP Section 10.3 – Recreation and Tourism
- COP Section 11.0 – Commercial and Recreational Fisheries and Fishing Activity
- COP Section 12.0 – Zoning and Land Use
- COP Section 13.0 – Navigation and Vessel Traffic
- COP Section 14.0 – Other Marine Uses

2.7 Avoidance, Minimization, and Mitigation Measures

SouthCoast Wind's design and planning process seeks to avoid and minimize construction-related impacts to the coastal environment. Many of the unavoidable Project-related impacts will be isolated and/or temporary in nature. Temporary impacts within the GLDs will include the installation of the export cables. The COP provides additional details on avoidance, minimization, and mitigation measures for specific resources in COP Section 16.0 – Summary of Avoidance, Minimization, and Mitigation Measures of Potential.

3.0 Rhode Island Coastal Program Policies

Table 3-1 details the enforceable policies of the State of Rhode Island that relate to the Project, and demonstrates how the Project, as proposed, is consistent with each of these policies and their underlying authorities. The enforceable policies and guidelines are found in the CRMP Red Book (650-RICR-20-00-1) and associated guidance document, as well as the Special Area Management Plans and Energy Amendments Policy Guide published October 2011. Enforceable policies are discussed. General policies, which are not enforceable, are omitted. The Legal Authority for the coastal policies detailed in the CRMP Red Book include the federal Coastal Zone Management Act of 1972 (16U.S.C §§ 1451 through 1466) and Rhode Island General Laws Chapter 46-23.

Table 3-1. Enforceable Policies of the CRMP

Policy #	Policy Requirement	SouthCoast Wind Response	COP Section Reference
Ocean SAMP Regulatory Standards			
Overall Regulatory Standards Part 11.10.1 (A)	Offshore renewable energy development in the state waters of the Ocean SAMP, regardless of size are subject to policies and standards outlined in Part 11.10.	The Project meets the definition of Offshore Development under 11.10.1 (A)(3) Underwater Cables.	COP Section 3.0 – Description of Proposed Activities 3.1 – Proposed Project Location 3.3 – Project Components and Project Stages 3.3.5 - Offshore Export Cables 3.3.6 - Sea-to-Shore Transition 3.3.7 - Onshore Underground Export Cable
Overall Regulatory Standards Part 11.10.1 (C)	Offshore development shall not have a significant adverse impact on natural resources or existing human uses, particularly the Rhode Island marine economic sector.	The Project involves the installation of a commercial-scale array of offshore WTGs within an established federal lease area for wind energy generation, which will produce clean, renewable energy for the ISO New England regionally administered electric grid. The generation capacity from the Project would be available for future Power Purchase Agreements (PPAs) that may be negotiated with other New England states, including Rhode Island. Offshore: The federal Lease Area proposed for the Project is outside of Rhode Island state waters and is also beyond the 2011 and 2018 GLD areas. The Brayton Point ECC crosses the 2011 and 2018 GLD and enters State waters. To transmit electricity generated from the offshore WTG array to the onshore administered electrical grid, the shortest practicable path to shore will be utilized while considering engineering feasibility, environmental constraints, existing water uses, and regulatory concerns. SouthCoast Wind has assessed alternative routes for the ECCs, as well as potential landfall locations. The evaluation of these alternatives is detailed within the COP Section 2.0 – Project Siting and Design Development. As noted in Section 2.4, the alternative ECCs considered for the Brayton Point POI share a common route for the portion of the ECC located within the GLDs. Potential impacts to natural resources and existing marine uses are primarily associated with construction period impacts. SouthCoast Wind is and will continue to work closely with commercial and recreational fishing interests on mitigation of potential impacts to their operations. Mitigation of temporary impacts associated with construction safety zone, gear interaction/loss and port usage are described in COP Section 16.0 - Summary of Avoidance, Minimization, and Mitigation Measures of Potential Impacts. Potential impacts to vessels and navigation as well as other marine uses are discussed in COP Section 13 – Navigation and Vessel Traffic and Section 14 - Other Marine Uses (Military Uses, Aviation, Offshore Energy, and Cables and Pipelines). Installation of the cables within the ECC will result in temporary disturbance of bottom habitats through direct disturbance or indirect effects of sedimentation to adjacent areas. As discussed in COP Section 6.6 Benthic and Shellfish and COP Appendix M - Benthic and Shellfish Resources Characterization Report, benthic communities are expected to recolonize the affected area following construction activities. The time period for recolonization varies depending on the substrate/habitat type ranging from less than one year for soft substrates to three years for complex or hard bottom substrates. Further discussion of glacial moraines is provided below in the consistency assessment for Part 11.10.1 (H , I and J). SouthCoast Wind has sited the Project in a way that would ensure minimal displacement of water dependent industries and minimize environmental impact. SouthCoast expects to	COP Section 2.0 – Project Siting and Design Development 2.1 – Offshore Facilities 2.1.6 – Offshore Export Cables 2.1.6.1 – Offshore Export Cable Corridors Selected for PDE 2.2 – Onshore Facilities 2.2.1 – Landfall Location 2.2.1.1 – Landfall Locations Selected for PDE 2.2.2 – Sea-to-Shore Transition 2.2.2.1 – Sea-to-Shore Transition Selected for PDE COP Section 3.0 – Description of Proposed Activities 3.1 – Proposed Project Location 3.3 – Project Components and Project Stages 3.3.5 – Offshore Export Cables 3.3.6 – Sea-to-Shore Transition 3.3.6.6 – HDD Locations on Aquidneck Island (Intermediate Landfall) 3.3.6.7 – Construction and Installation 3.3.6.8 – Operation and Maintenance 3.3.6.9 – Decommissioning 3.4 – Summary of Impact-Producing Factors 3.4.1 – Seabed (or Ground) Disturbance 3.4.1.1 – Offshore Export Cable and Inter-Array Cable Installation 3.4.1.1.1 – Seabed Disturbance – Seabed Preparation and Cable Burial 3.4.1.1.1.1 – Seabed Disturbance – Horizontal Directional Drilling 3.4.9 – Activities that may Displace or Impact Fishing, Recreation, and Tourism COP Section 10.0 – Socioeconomic Resources COP Section 11.0 – Commercial and Recreational Fisheries and Fishing Activity COP Section 13.0 – Navigation and Vessel Traffic COP Section 14.0 – Other Marine Uses (Military Uses, Aviation, Offshore Energy, and Cables and Pipelines) COP Section 16.0 - Summary of Avoidance, Minimization, and Mitigation Measures of Potential Impacts COP Appendix F3 – Hydrodynamic and Sediment Transport Modeling for the Brayton Point Export Cable Burial Assessment COP Appendix L1 - Offshore Designated and Protected Areas Report COP Appendix M - Benthic and Shellfish Resources Characterization Report COP Appendix V – Commercial and Recreational Fisheries Technical Report COP Appendix X - Navigation Safety Risk Assessment

Policy #	Policy Requirement	SouthCoast Wind Response	COP Section Reference
		implement mitigation to address unavoidable adverse impacts. SouthCoast Wind expects to work with CRMC to ensure that the Project is consistent with this policy requiring the assessment of siting project facilities within alternative coastal locations.	
Overall Regulatory Standards Part 11.10.1 (D through G)	A meeting between the Fisherman's Advisory Board (FAB), the applicant and CRMC is required to discuss potential fishery impacts. Uses or activities that would result in significant long-term impacts (i.e., more than 1 or 2 seasons) to commercial or recreational fisheries are prohibited. Mitigation is required for potential adverse impacts on fisheries.	SouthCoast Wind, in coordination with CRMC, held a Project Overview meeting with the RI Fisherman's Advisory Board (FAB) and the RI Habitat Advisory Board (HAB) on May 26, 2022. As part of the ongoing studies, an EFH assessment has been conducted. The EFH Assessment concluded that when Project activities are considered together with the existing EFH in the Offshore Project Area, the potential for negative effects associated with the construction, operation, and decommissioning of the Project on EFH are limited in scale and considered to be very low to low. The Project is not expected to cause population level changes to EFH species or resident, migratory, and/or or protected fish species. The ECC cable construction and operations will not prohibit fish movements, present an obstacle to migration, and/or displace large populations of fish. The Project will not cause long-term or permanent negative impacts to EFH or Habitat Areas of Particular Concern available to support fish of recreational and/or commercial importance. SouthCoast Wind is undertaking a habitat mapping effort based on recently completed G&G and benthic surveys to support consultation with NMFS. It is anticipated that the habitat mapping and anticipated consultation with NMFS will further support this consistency determination. Correspondingly, the Project is not anticipated to cause long-term or permanent negative impacts to commercial or recreational fisheries. SouthCoast Wind continues to coordinate with local stakeholders and the commercial fishing industry and has developed a Fisheries Communication Plan for the Project (see COP Appendix W, SouthCoast Wind Fisheries Communication Plan), which included hiring of an on-staff fisheries liaison officer, conducting outreach to the commercial and recreational fishing industry, and holding regular "port hours" at key ports where the public can communicate and interact with a SouthCoast Wind representative and ask questions about the Project or discuss any concerns related to potential impacts to fisheries. The Brayton Point ECC has been evaluated for technical feasibility and environmental considerations, as well as the amount of dredging required. The ECC crosses some areas mapped as Areas of Concern and Areas to Avoid for Transmission Cables, as well as Glacial Moraines and Fishing Areas (see Figure 3 and Figure 4). The Brayton Point ECC will be up to 2,300 ft (700 m) in width (and may be locally narrower or wider in sensitive or constrained areas) and is intended to allow maximum flexibility to refine siting to avoid sensitive habitats and resources. Not all sensitive habitat and resource areas can be avoided. Export cable installation will temporarily alter the seabed habitat, resulting in some effects associated with mortality and displacement during construction and some effects associated with recovery time from the areas affected by the cable placement. Disturbance of the benthic communities with complex bottom habitat conditions are expected to require from one to three years to recover (COP Appendix M1, Benthic and Shellfish Resources Characterization Report and COP Appendix M3, Summer 2021 Benthic Survey Reports). Construction related impacts are expected to be temporary.	COP Section 6.0 – Biological Resources 6.6 – Benthic and Shellfish 6.6.1 – Affected Environment 6.6.1.4 – Brayton Point Export Cable Corridor 6.6.1.6 – Benthic Seafloor Substrate Classifications 6.6.1.6.4 – Brayton Point Export Cable Corridor 6.6.2 – Potential Effects 6.6.2.1 – Introduced Sound into the Environment (in-Air or Underwater) 6.6.2.2 – Disturbance of Softbottom Habitat and Species 6.6.2.3 – Introduction of Novel Hardbottom Habitat 6.6.2.4 – Change in Ambient EMF 6.6.2.5 – Planned Discharges 6.6.2.6 – Accidental Events 6.7 – Finfish and Invertebrates 6.7.1 - Affected Environment 6.7.2 - Species in the MA/RI WEA and the Offshore Project Area 6.7.3 - Invertebrates in the Offshore Project Area 6.7.4 – Potential Effects 6.7.4.1 – Introduced Sound into the Environment (In-air or Underwater) 6.7.4.2 – Seabed (Or Ground) Disturbance 6.7.4.3 – Habitat Disturbance and Modification 6.7.4.4 – Change in Ambient Lighting 6.7.4.5 – Change in Ambient EMF 6.7.4.6 – Planned Discharges 6.7.4.7 – Accidental Events COP Section 11.0 – Commercial and Recreational Fisheries and Fishing Activity 11.1 – Affected Environment 11.1.2 – Summary of Commercial Fishing in the Offshore Project Area 11.1.3 – Recreational Fishing 11.1.4 – Fisheries Outreach 11.1.5 – Proposed Fisheries Monitoring Research and Activities 11.2 - Potential Effects 11.2.1 – Vessel Activity and Presence of Infrastructure 11.2.3 – Gear Interactions COP Appendix M - Benthic and Shellfish Resources Characterization Report COP Appendix N – Essential Fish Habitat Assessment and Protected Fish Species Assessment COP Appendix V – Commercial and Recreational Fisheries Technical Report COP Appendix W - SouthCoast Wind Fisheries Communication Plan
Overall Regulatory Standards Part 11.10.1 (H, I and J)	Moraine edges, spawning and nursery areas and marine resources and habitats are sensitive and important habitats that shall be protected and impacts to these areas avoided. Coordination with the Habitat	SouthCoast Wind evaluated alternative Brayton Point ECCs with respect to engineering feasibility, environmental constraints, existing water uses, and regulatory concerns. The selected Brayton Point ECC seeks to avoid and minimize impacts to glacial moraines, spawning and nursery areas, and marine resource and habitats. However, as illustrated in Figure 3 the planned ECC does not avoid all CRMC mapped glacial moraines.	COP Section 2.0 – Project Siting and Design Development 2.1 – Offshore Facilities 2.1.6 – Offshore Export Cables 2.1.6.1 – Offshore Export Cable Corridors Selected for PDE 2.2 – Onshore Facilities 2.2.1 – Landfall Location 2.2.1.1 – Landfall Locations Selected for PDE

Policy #	Policy Requirement	SouthCoast Wind Response	COP Section Reference
	Advisory Board (HAB) and the CRMC is required.	Seafloor features such as moraines have been mapped in more detail using acoustic data from recently completed G&G surveys (COP Appendix E.2, Geohazard Report for the Brayton Point Export Cable Corridor]). These maps define the limits and topography of the moraines in more detail and will be used to optimize the routing of cables within the Brayton Point ECC to avoid or reduce disturbance to sensitive and important habitats. As noted above, SouthCoast Wind is completing a habitat mapping analysis in support of the NMFS EFH consultation. That analysis will supply additional information needed to provide the above demonstrations with respect to glacial moraines, spawning and nursery areas.	2.2.2 – Sea-to-Shore Transition 2.2.2.1 – Sea-to-Shore Transition Selected for PDE COP Section 3.0 – Description of Proposed Activities 3.1 – Proposed Project Location 3.3 – Project Components and Project Stages 3.3.5 – Offshore Export Cables 3.3.6 – Sea-to-Shore Transition 3.3.6.6 – HDD Locations on Aquidneck Island (Intermediate Landfall) 3.3.6.7 – Construction and Installation 3.3.6.8 – Operation and Maintenance 3.3.6.9 – Decommissioning 3.4 – Summary of Impact-Producing Factors 3.4.1 – Seabed (or Ground) Disturbance 3.4.1.1 – Offshore Export Cable and Inter-Array Cable Installation 3.4.1.1.1 – Seabed Disturbance – Seabed Preparation and Cable Burial 3.4.1.1.1.1 – Seabed Disturbance – Horizontal Directional Drilling 3.4.1.3 Vessel Anchoring–Construction, Operation, and Decommissioning 3.4.4 - Changes in Ambient Electric and Magnetic Fields 3.4.5 – Planned Discharges 3.4.6 – Accidental Events COP Section 6.0 Biological Resources 6.5 – Coastal Habitats 6.5.1 – Affected Environment 6.5.1.1.1 – Seagrass 6.5.1.1.2 – Macroalgae 6.5.1.1.3 – Submerged Aquatic Vegetation Beds 6.5.2 – Potential Effects 6.5.2.1 – Seabed (or Ground) Disturbance 6.5.2.2 – Changes in Ambient Lighting 6.5.2.3 – Changes in Ambient EMF 6.5.2.4 – Actions that may Displace Biological Resources (Eelgrass and Macroalgae) 6.5.2.5 – Actions that may Cause Direct Injury or Death 6.5.2.6 – Planned Discharges 6.5.2.7 – Accidental Events 6.6 – Benthic and Shellfish 6.6.1 – Affected Environment 6.6.1.4 – Brayton Point Export Cable Corridor 6.6.1.6 – Benthic Seafloor Substrate Classifications 6.6.1.6.4 – Brayton Point Export Cable Corridor 6.6.1.7 – Benthic Epifauna and Infauna 6.6.2 – Potential Effects 6.6.2.1 – Introduced Sound into the Environment (in-Air or Underwater) 6.6.2.2 – Disturbance of Softbottom Habitat and Species 6.6.2.3 – Introduction of Novel Hardbottom Habitat 6.6.2.4 – Change in Ambient EMF 6.6.2.5 – Planned Discharges 6.6.2.6 – Accidental Events COP Appendix E.2 - Geohazard Report for the Brayton Point Export Cable Corridor COP Appendix L1 – Offshore Designated Protected Areas Report COP Appendix M - Benthic and Shellfish Resources Characterization Report

Policy #	Policy Requirement	SouthCoast Wind Response	COP Section Reference
			COP Appendix N – Essential Fish Habitat Assessment and Protected Fish Species Assessment
Overall Regulatory Standards Part 11.10.1 (K, L, and M)	Cultural and Historic Resources. Potential impacts to these resources will be evaluated per the National Historic Preservation Act and Antiquities Act, and the Rhode Island Historical Preservation Act and Antiquities Act, as applicable.	A comprehensive assessment of potential Project impacts to marine cultural and historic resources has been completed as part of Project studies and assessments for the Brayton Point ECC (see COP Section 7.1 and COP Appendix Q –Marine Archaeological Resources Assessment). SouthCoast Wind will continue to coordinate with the Rhode Island Historic Preservation and Heritage Commission and Tribal representatives to ensure that impacts are evaluated, and, if necessary, mitigated for, in accordance with applicable federal and state regulations. The Project has been sited to avoid or minimize direct and indirect impact to cultural and historic resources.	COP Section 7.0 7.1 – Marine Archaeology 7.1.1 – Affected Environment 7.1.1.1 – Shipwrecks and Obstructions 7.1.1.2 – Paleolandscape 7.1.2 – Potential Effects 7.1.2.1 – Seabed (or Ground) Disturbance 7.1.2.2 – Sediment Suspension and Deposition COP Appendix Q –Marine Archaeological Resources Assessment
Overall Regulatory Standards Part 11.10.1 (N and O)	Visual Impact Assessment may be required in relation to potential impacts on cultural or historic resources, as well as for the potential visual impacts of the project overall.	All Project features within the Rhode Island GLDs are below the seabed. Therefore, these policies are not applicable to the Brayton Point ECC.	
Areas of Particular Concern Part 11.10.2	All offshore development shall be presumptively excluded from Areas of Particular Concern (APCs) unless the applicant demonstrates that there are no practicable alternatives that are less damaging outside the APC or that the project will not result in significant alteration to the values and resources of the APC. Avoidance measures must be demonstrated, and mitigation may be required.	APCs in the Ocean SAMP include: • historic shipwrecks, archaeological or historical sites and their buffers, • offshore dive sites, • glacial moraines, • navigation, military and infrastructure areas • areas of high fishing activity • seasonal heavily used recreational boating and sailboat racing areas • naval fleet submarine transit lanes • other areas as identified during pre-application review Additional details for each type of APC are provided below. Shipwrecks - Numerous wrecks are mapped in state and federal waters off the coast of Rhode Island. Additional details on wrecks of cultural/historical significance identified within the Offshore Project Area are addressed in the Marine Archaeological Resources Assessment for the Project (COP Appendix Q). As with all APCs, disturbance to shipwrecks and other submerged historic resources will be avoided and mitigated if avoidance is not feasible. Recently completed G&G surveys provide additional supporting data to allow for micro-siting within the Brayton Point ECC to avoid shipwrecks. Dive Sites: The two closest offshore dive sites to the Brayton Point ECC are the T.C. Teti site located adjacent to but outside the ECC, and the Neptune site located approximately 4 mi (6 km) southwest of the ECC The Brayton Point ECC will not cross directly through any designated offshore dive sites. Glacial Moraines: The Brayton Point ECC passes over known glacial moraines associated with the Buzzards Bay Moraine and the Martha's Vineyard Moraine. Based on review in support of the Summer 2021 benthic habitat survey and geophysical and acoustic survey, the Brayton Point ECC will cross through blocky, boulder, and bounder/cobble/sand moraines mapped in the Ocean SAMP area (Figure 4, Attachment 1). Glacial moraines are broadly distributed within the Ocean SAMP area, as such complete avoidance of glacial moraines is not possible. Seafloor features such as moraines will be mapped in more detail using acoustic data as part of the cable route planning process (COP Appendix E, Marine	COP Section 4.0 - Site Geology and Environmental Conditions 4.1 – Site Geology 4.1.4 – Affected Environment 4.1.4.3 – Brayton Point Export Cable Corridor 4.1.5 – Potential Effects 4.1.5.1 – Seabed Disturbance COP Section 7.0 – Cultural Resources 7.1 – Marine Archaeology 7.1.1 – Affected Environment 7.1.1.1 – Shipwrecks and Obstructions 7.1.1.2 – Paleolandscape 7.1.2 – Potential Effects 7.1.2.1 – Seabed (or Ground) Disturbance 7.1.2.2 – Sediment Suspension and Deposition COP Section 10.0 - Socioeconomic Resources 10.3 – Recreation and Tourism COP Section 11.0 – Commercial and Recreational Fisheries and Fishing Activity 11.1 – Affected Environment 11.1.2 – Summary of Commercial Fishing in the Offshore Project Area 11.1.3 – Recreational Fishing 11.1.4 – Fisheries Outreach 11.1.5 – Proposed Fisheries Monitoring Research and Activities 11.2 - Potential Effects 11.2.1 – Vessel Activity and Presence of Infrastructure 11.2.3 – Gear Interactions COP Section 13.0 – Navigation and Vessel Traffic COP Section 14.0 – Other Marine Uses (Military Uses, Aviation, Offshore Energy, and Cables and Pipelines) COP Appendix E - Marine Site Investigation Report (MSIR)(pending)

Policy #	Policy Requirement	SouthCoast Wind Response	COP Section Reference
		Site Investigation Report [MSIR]). These maps will define the limits and topography of the moraines in more detail and will be used to optimize the routing of cables within the Brayton Point ECC to avoid or reduce disturbance and protect the cables. Navigation: The Brayton Point ECC will cross through two designated shipping lanes and one ferry route (Quonset Point to Martha's Vineyard Fast Ferry Route) within the Ocean SAMP area. The Brayton Point ECC avoids all other mapped navigation, military, and infrastructure areas in the Ocean SAMP area. Unexploded Ordnance (UXO): The Brayton Point ECC will pass in the vicinity of known UXO locations and within 29 miles (47 km) of a UXO disposal site. However, the Brayton Point ECC does not encompass known UXO locations. High Fishing Activity: Areas of high fishing activity can be discussed with the CRMC and RI fishermen during the upcoming meetings with those entities. Figure 4 Illustrates the location of fixed and mobile fishing gear as well as recreational fishing areas. Boating/Racing Areas: The Brayton Point ECC does not pass through any designated boating and sailboat racing areas. Naval Fleet Submarine Transit lanes: The U.S. Navy has designated Submarine Transit Lanes for submerged transit. One of these lanes overlaps with the southern border of the Ocean SAMP area. Based on this description, the Brayton Point ECC does not cross a designated transit lane. Detailed information on submarine transits through the SAMP area is unavailable as this information is classified. Per Ocean SAMP § 11.10.2(B), all offshore development, which includes submerged cables, is presumptively excluded from Areas of Particular Concern (APCs). However, this exclusion is rebuttable if the applicant can demonstrate by clear and convincing evidence that there are no practicable alternatives that are less damaging in areas outside of the APC, or that the proposed Project will not result in a significant alteration to the values and resources of the APC. Figure 4 shows the Brayton Point ECC in relation to glacial moraines and commercial/recreational fishing. Figure 5 illustrates the location of the Brayton Point ECC in relation to shipping channels. SouthCoast Wind has endeavored to site the ECC to avoid APCs. However, complete avoidance of these areas is not feasible. Therefore, SouthCoast Wind is required to demonstrate: 1) There are no practicable alternatives that are less damaging in areas outside of the APC; 2) All feasible efforts have been made to avoid damage to APC resources and values; and 3) There will be no significant alteration of the APC resources or values. SouthCoast Wind has completed a habitat mapping analysis in support of the NMFS EFH consultation (COP Appendix M.3, Benthic Habitat Mapping to Support Essential Fish Habitat Consultation). That analysis has supplied additional information needed to provide the above demonstrations with respect to glacial moraines. SouthCoast Wind continues to coordinate with local stakeholders and the commercial fishing industry to address areas of high fishing activity within the Brayton Point ECC. The results of the above referenced habitat mapping in combination with consultations with commercial and recreational fishing interests, as well as evaluations presented in the BOEM DEIS are intended to provide information needed to support the above demonstrations.	COP Appendix L1 – Offshore Designated Protected Areas Report COP Appendix M.3 – Benthic Habitat Mapping to Support Essential Fish Habitat Consultation COP Appendix Q –Marine Archaeological Resources Assessment COP Appendix V – Commercial and Recreational Fisheries Technical Report COP Appendix X - Navigation Safety Risk Assessment

Policy #	Policy Requirement	SouthCoast Wind Response	COP Section Reference
Prohibitions and Areas Designated for Preservation Part 11.10.3	Areas designated for preservation are designated for the purpose of preserving them for their ecological value. Large-scale offshore development that is in conflict with the intent and purpose of these areas is prohibited. Underwater cables are exempt from this prohibition.	Areas designated for preservation in the Ocean SAMP include: • Sea duck foraging habitat • Critical Habitat under the Endangered Species Act The Ocean SAMP designates sea duck foraging habitat in water depths less than or equal to 65.6 ft (20 m) as an area designated for protection due to the ecological value of these foraging areas to avian species. In lieu of more detailed information on bottom substrate and bivalve density, CRMC preemptively designated all areas within the 65.6 ft (20 m) contour as an area designated for protection until further research allows for a more refined determination (CRMC, 2010). The Brayton Point ECC does not pass through designated sea duck foraging habitat, and as an underwater cable, would be exempt from the prohibition for crossing these areas. Critical habitat for the North Atlantic Right Whale is located along the Atlantic coast, north and west of the SouthCoast Wind Lease Area. The Brayton Point ECC crosses a corner of the North Atlantic Right Whale Seasonal Management Area. Given the abundance and distribution of these whales in the area, there is the potential for North Atlantic Right Whales to co-occur with activities in the Project Area, particularly in the proposed export cable corridor during the winter and spring. However, little, if any, effects to North Atlantic Right Whale critical habitat are anticipated given its position in relation to the Offshore Project Area. Although other Endangered Species Act listed species may be present in the Project Area, there are no other critical habitats designated within the Brayton Point ECC.	COP Section 6.0 – Biological Resources 6.1 – Coastal and Marine Birds 6.1.1 – Affected Environment 6.1.1.2 – Marine Birds 6.1.1.2.5 – Sea Ducks 6.1.2 – Potential Effects 6.1.2.1 – Seabed (or Ground) Disturbance 6.1.2.2 – Introduced Sound 6.1.2.3 – Changes to Ambient Lighting 6.1.2.4 – Vessel Operations 6.1.2.5 – Presence of Structures 6.1.2.6 – Planned Discharges 6.1.2.7 – Accidental Events 6.8 – Marine Mammals 6.8.1 – Affected Environment 6.8.1.2 – Endangered and Threatened Marine Mammals 6.8.2 – Potential Effects 6.8.2.1 – Introduced Sound into the Environment (In-air or Underwater) 6.8.2.2 – Vessel Operations 6.8.2.3 – Seabed (or Ground) Disturbance 6.8.2.4 – Habitat Disturbance and Modification 6.8.2.5 – Entanglement 6.8.2.6 – Planned Discharges 6.8.2.7 – Accidental Events COP Appendix L1 - Offshore Designated Protected Areas Report COP Appendix O – Marine Mammal and Sea Turtle Monitoring and Mitigation Plan
Other Areas Part 11.10.4	Large-scale projects found to be a hazard to commercial navigation shall avoid areas of high intensity commercial marine traffic in state waters.	Areas of high intensity commercial marine traffic in state waters, defined as 50 or more vessel counts within a 1 km by 1 km grid, are identified as an “Other Area” in the Ocean SAMP – i.e., an area for which some offshore developments could represent a hazard to commercial navigation. An area running east to west along the entire coast of Rhode Island registers as high intensity based on the above definition (Figure 7). However, the area crossed by the Brayton Point ECC within the GLD has relatively lower intensity use (at 50 to 250 vessel counts for commercial ship traffic) than most of the Rhode Island coast, in particular the offshore area directly approaching and entering Narragansett Bay (Figure 8). SouthCoast Wind conducted a Navigation Safety Risk Assessment for the Brayton Point ECC, which is included in COP Appendix X.	COP Section 13.0 – Navigation and Vessel Traffic 13.1 – Affected Environment 13.2 – Potential Effects 13.2.2 - Activities that may Displace or Impact Fishing and Recreation and Tourism COP Section 14.0 – Other Marine Uses 14.1 – Affected Environment 14.1.4 – Cables and Pipelines 14.2 – Potential Effects 14.2.2 – Installation and Maintenance of Infrastructure 14.2.3 – Presence of Infrastructure COP Appendix X – Navigation Safety Risk Assessment

4.0 Consistency Certification

SouthCoast Wind has evaluated all applicable enforceable policies of the Rhode Island CRMP for the Project to determine if the activities within the GLD are consistent with those policies.

SouthCoast Wind has collected benthic and geophysical field data within the full marine export cable corridor and has prepared a detailed habitat mapping report (COP Appendix M.3) to support BOEM's EFH consultation with NMFS. This habitat mapping is also intended to further support cable routing and clarify impacts assessment. The EFH Consultation has initiated between BOEM and NMFS the issuance of BOEM's EFH Assessment. These survey data and mapping are also intended to more fully map habitat in the Sakonnet River, Mount Hope Bay, and offshore glacial moraine areas, and to evaluate the potential impacts on Atlantic cod habitat.

SouthCoast Wind is confident that the Brayton Point ECC within the GLDs will be developed in a manner consistent with enforceable policies of Rhode Island's approved CRMP.

Attachment 1 – Figures

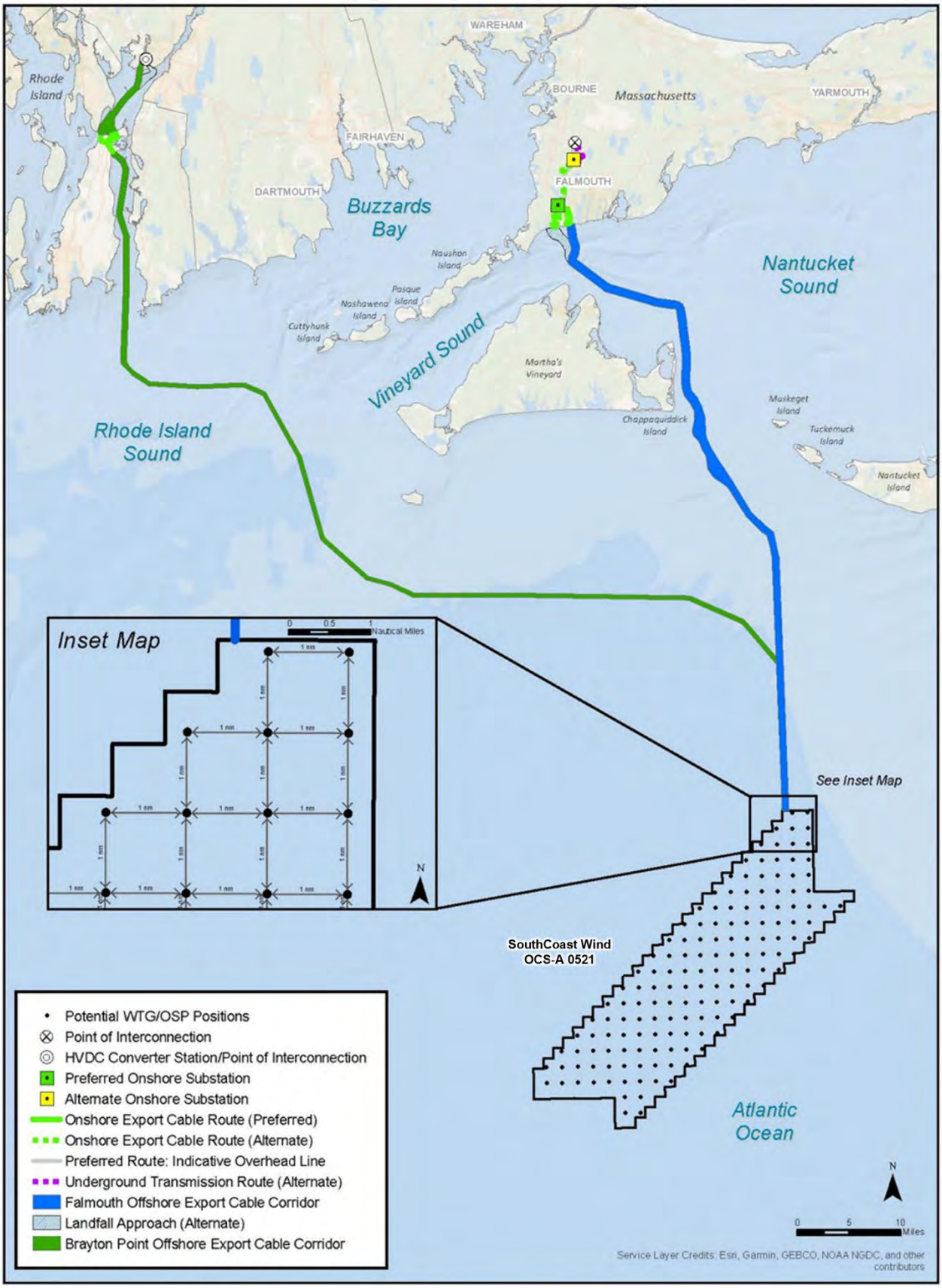


Figure 1. Overview of SouthCoast Wind Offshore Renewable Energy Generation Project

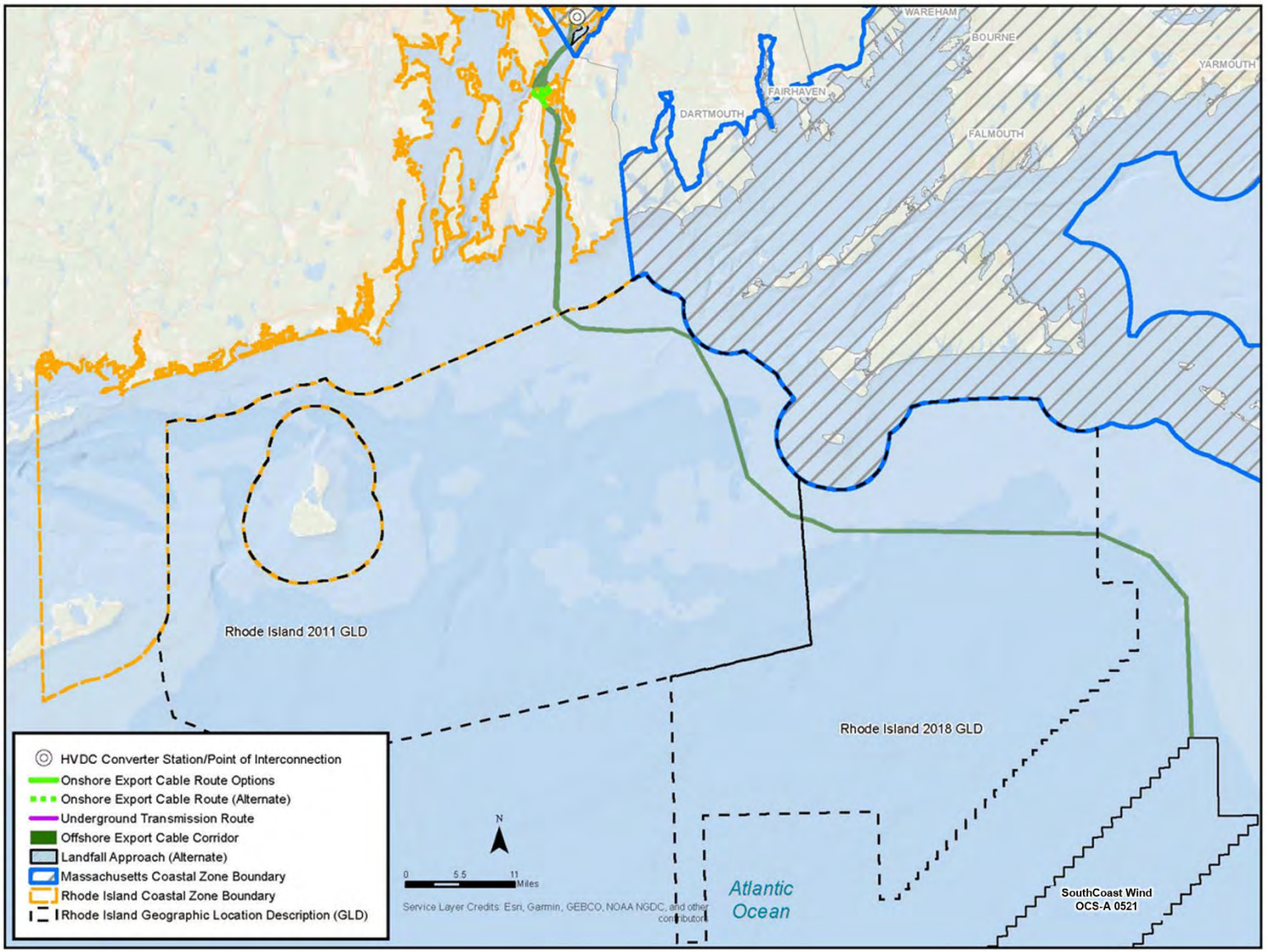


Figure 2. Location of the Brayton Point ECC within the Rhode Island GLD Boundaries

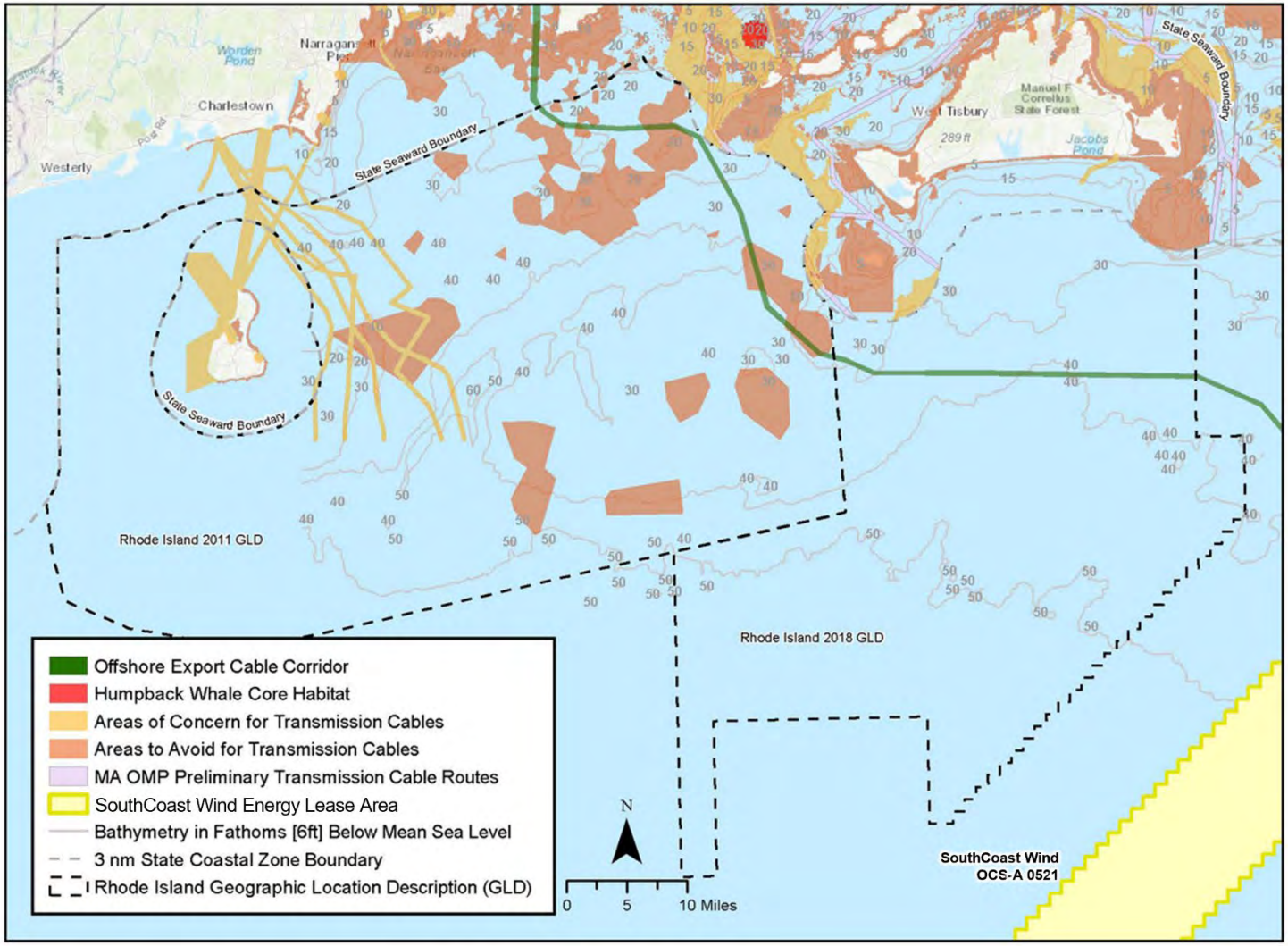


Figure 3. Areas of Concern and Areas to Avoid within Rhode Island GLD Boundaries[11]

[11] Sources: Areas to Avoid and Areas of Concern for Siting of Potential Offshore Wind Transmission Cables Corridors, 2015 Massachusetts Ocean Management Plan http://maps.massgis.state.ma.us/czm/moris/metadata/moris_om_areas_to_avoid_cables_poly.htm and http://www.crmc.ri.gov/windenergy.html

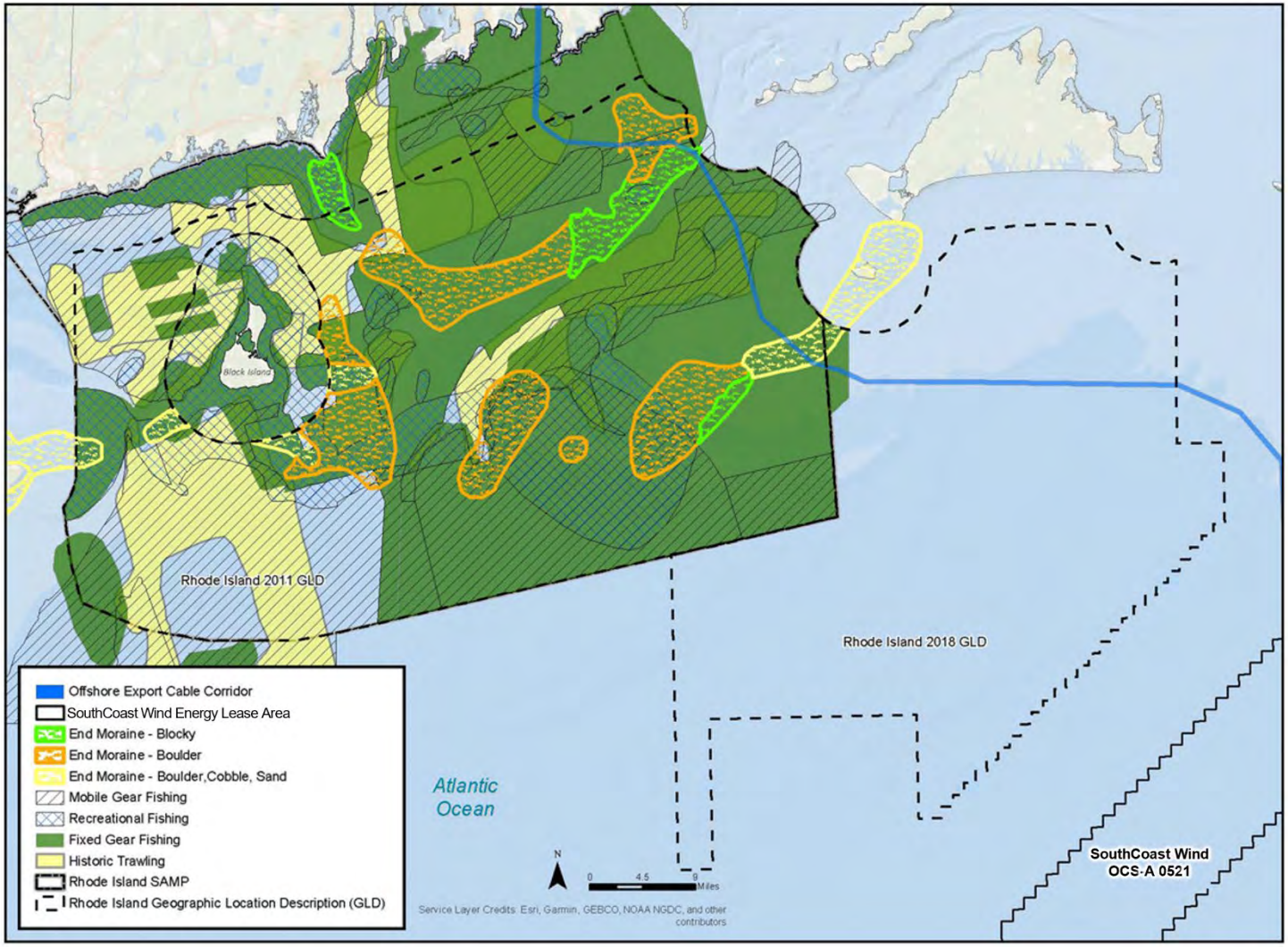


Figure 4. Glacial Moraines and Fishing Areas within the Rhode Island GLD Boundaries[12]

[12] Fishing Areas (Commercial Fixed and Mobile Gear; Recreational). URI Environmental Data Center/RIGIS. Updated October 2009. Accessed July 14, 2021. http://www.narrbay.org/d_projects/oceansamp/gis_fisheries.htm and Glacial Geology; GLD from http://www.crmc.ri.gov/windenergy.html

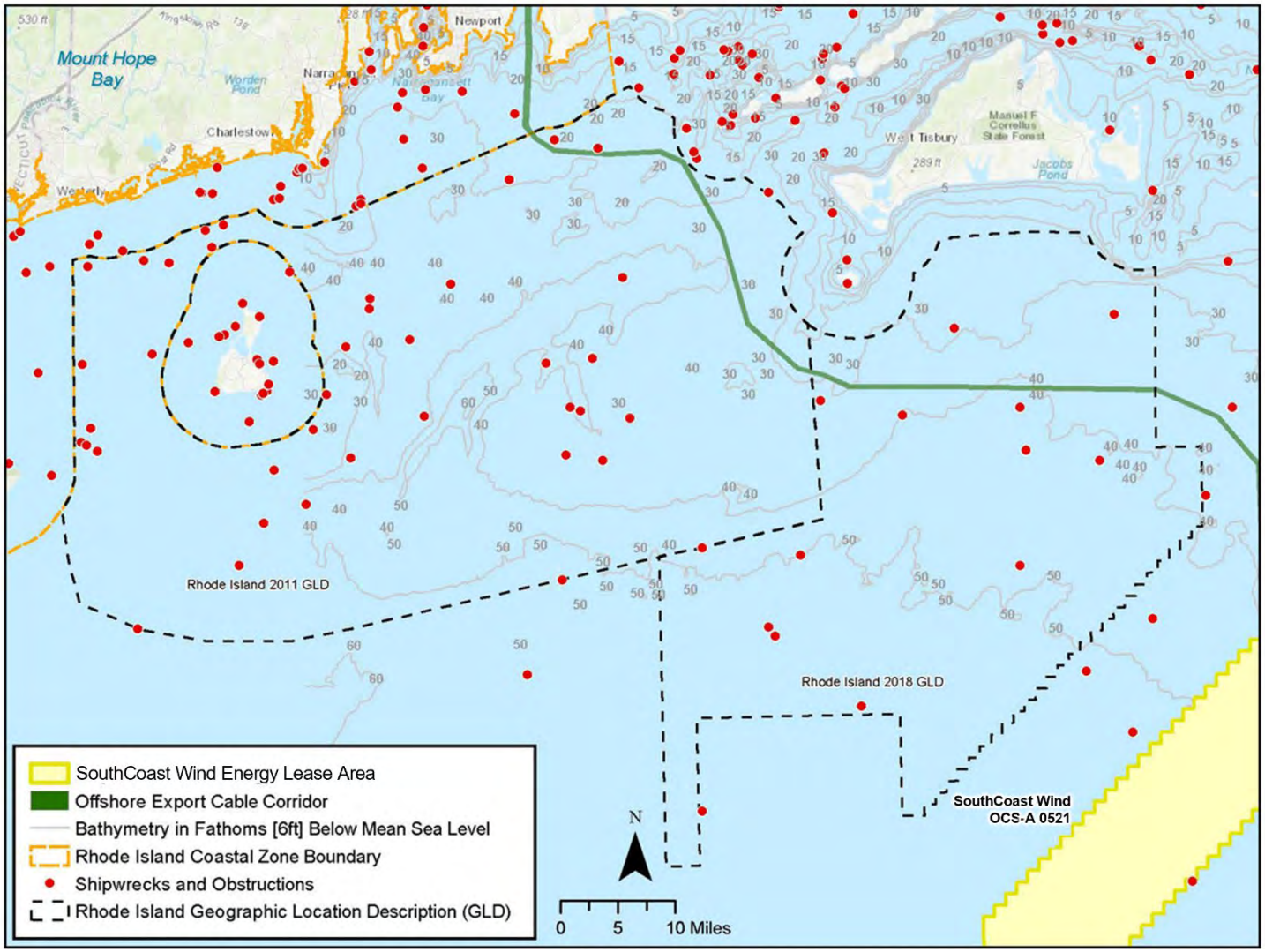


Figure 5. Marine Archaeology (Shipwrecks and Obstructions) within the Rhode Island GLD Boundaries[13]

[13] Sources: RICMC and RICZM credits, NOAA. Public Wrecks and Obstructions. 2016. Accessed July 14, 2021. https://nauticalcharts.noaa.gov/data/wrecks-and-obstructions.html. RI GLD http://www.crmc.ri.gov/windenergy.html

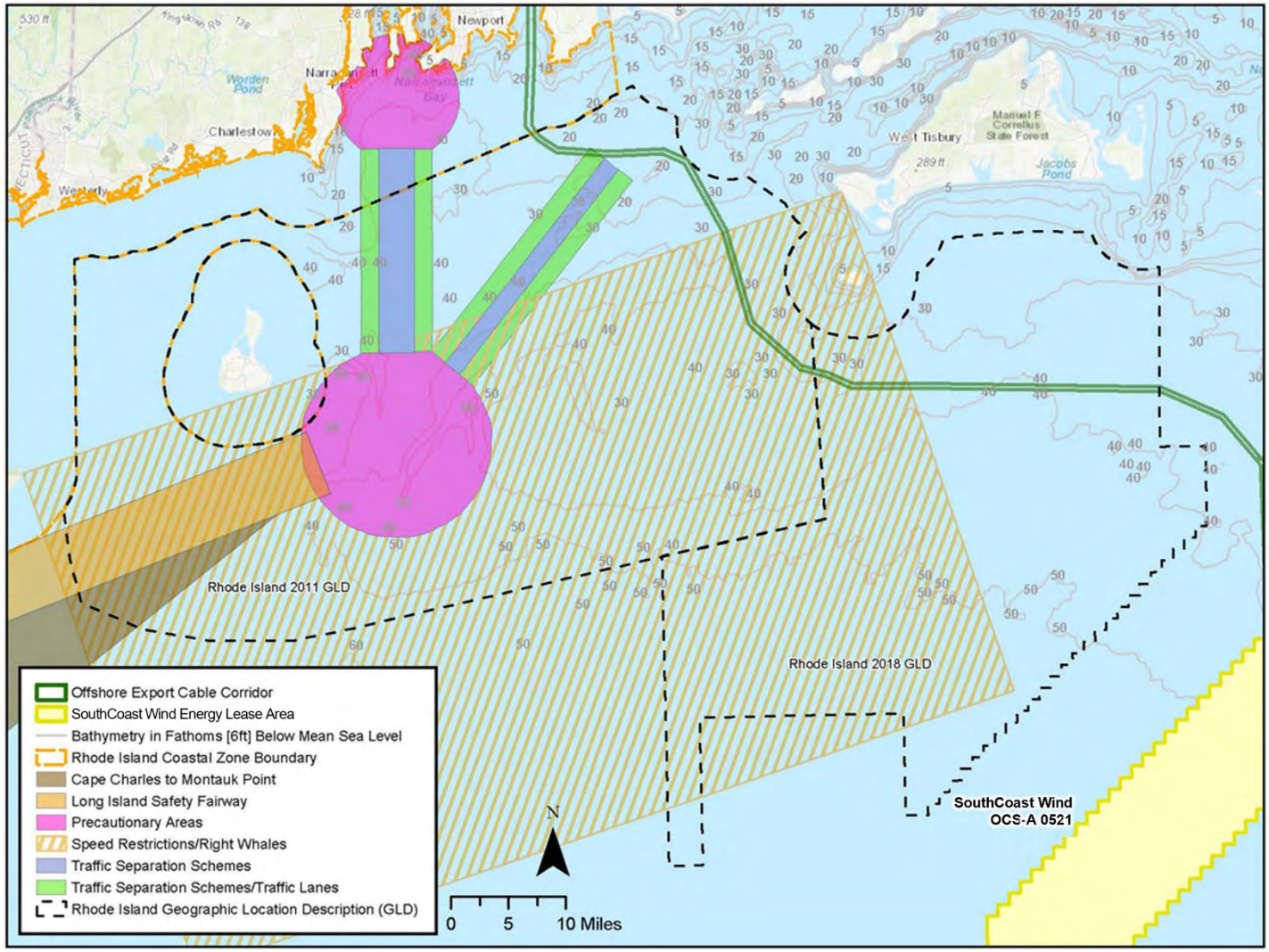


Figure 6. Shipping Lanes within the Rhode Island GLD Boundaries[14]

[14] Sources: Shipping Fairways, Lanes, and Zones for US waters. NOAA. Published 12/4/2015. Accessed July 14, 2021. https://nauticalcharts.noaa.gov/data/gis-data-and-services.html#enc-direct-to-gis and GLD from http://www.crmc.ri.gov/windenergy.html

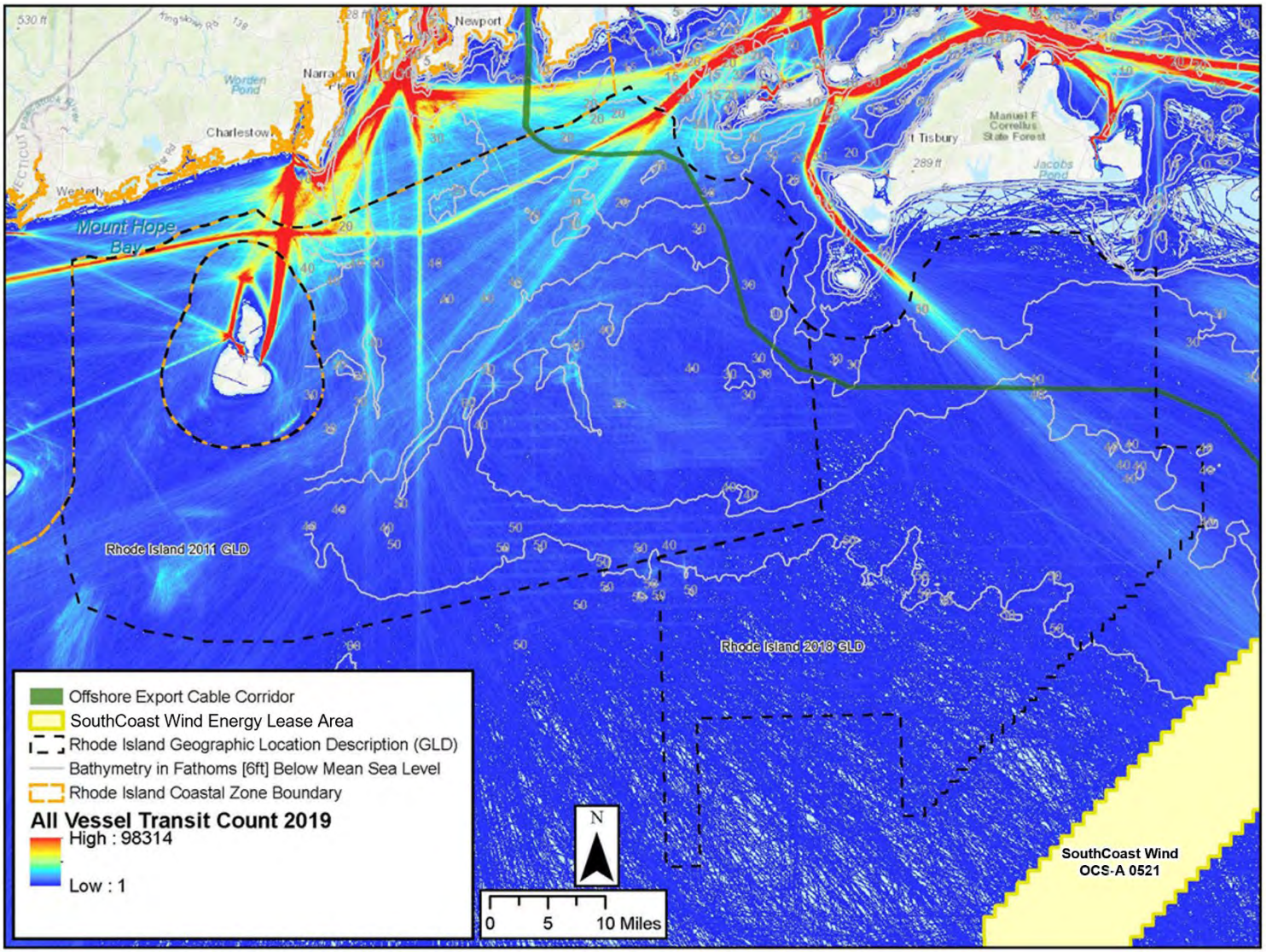
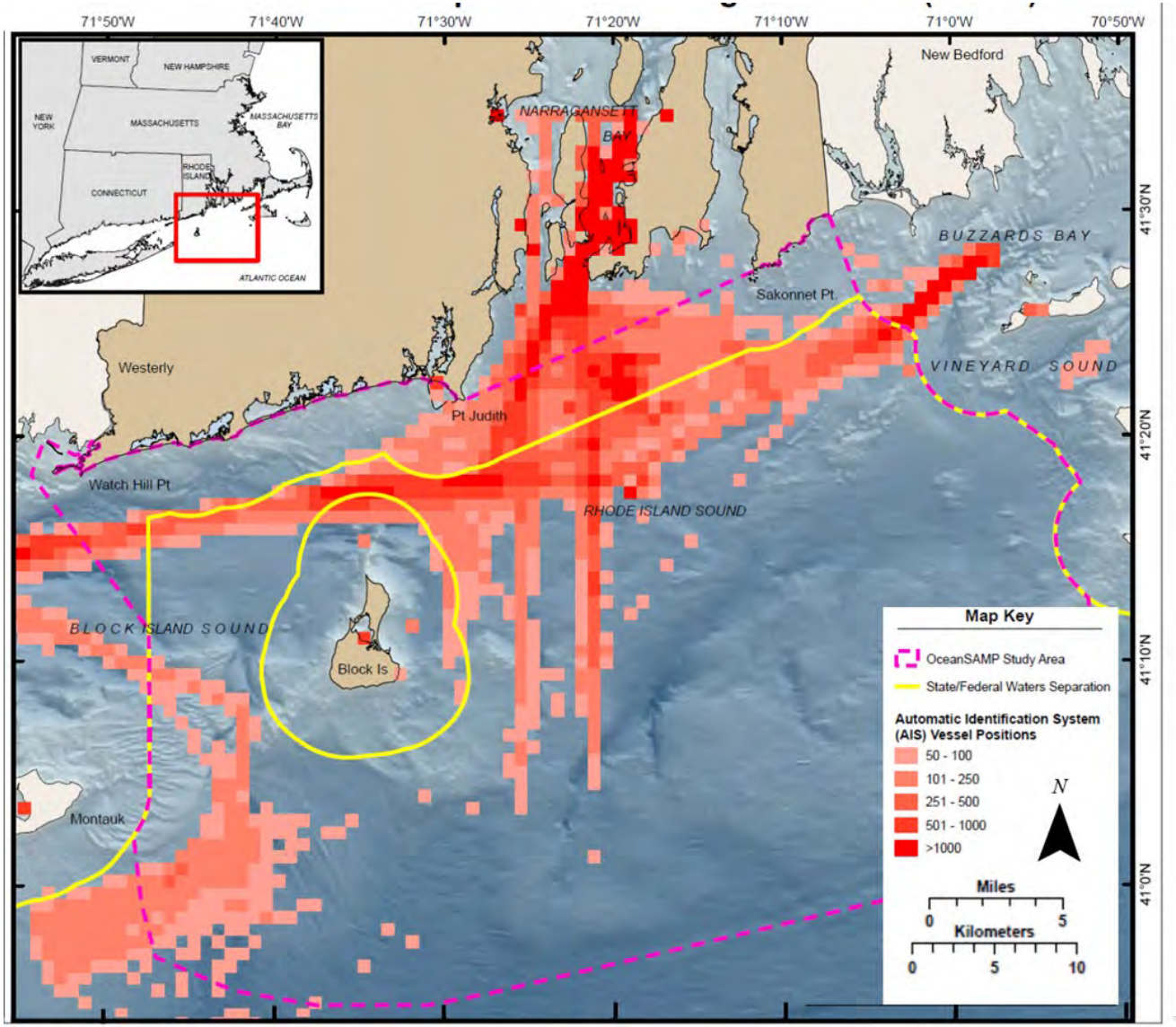


Figure 7. Vessel Activity in the Rhode Island GLD Boundaries[15]

[15] Sources: All Vessel Transit Counts from - 2019 AIS Northeast and Mid-Atlantic United States. Northeast Regional Ocean Council Northeast Ocean Data. Published April 2020. Accessed July 14, 2021, https://portal.midatlanticocean.org/visualize and GLD from http://www.crmc.ri.gov/windenergy.html



Source: Adapted from the Rhode Island Ocean Special Area Management Plan (CRMC, 2010)

Figure 8. Commercial Ship Traffic in the Rhode Island GLD

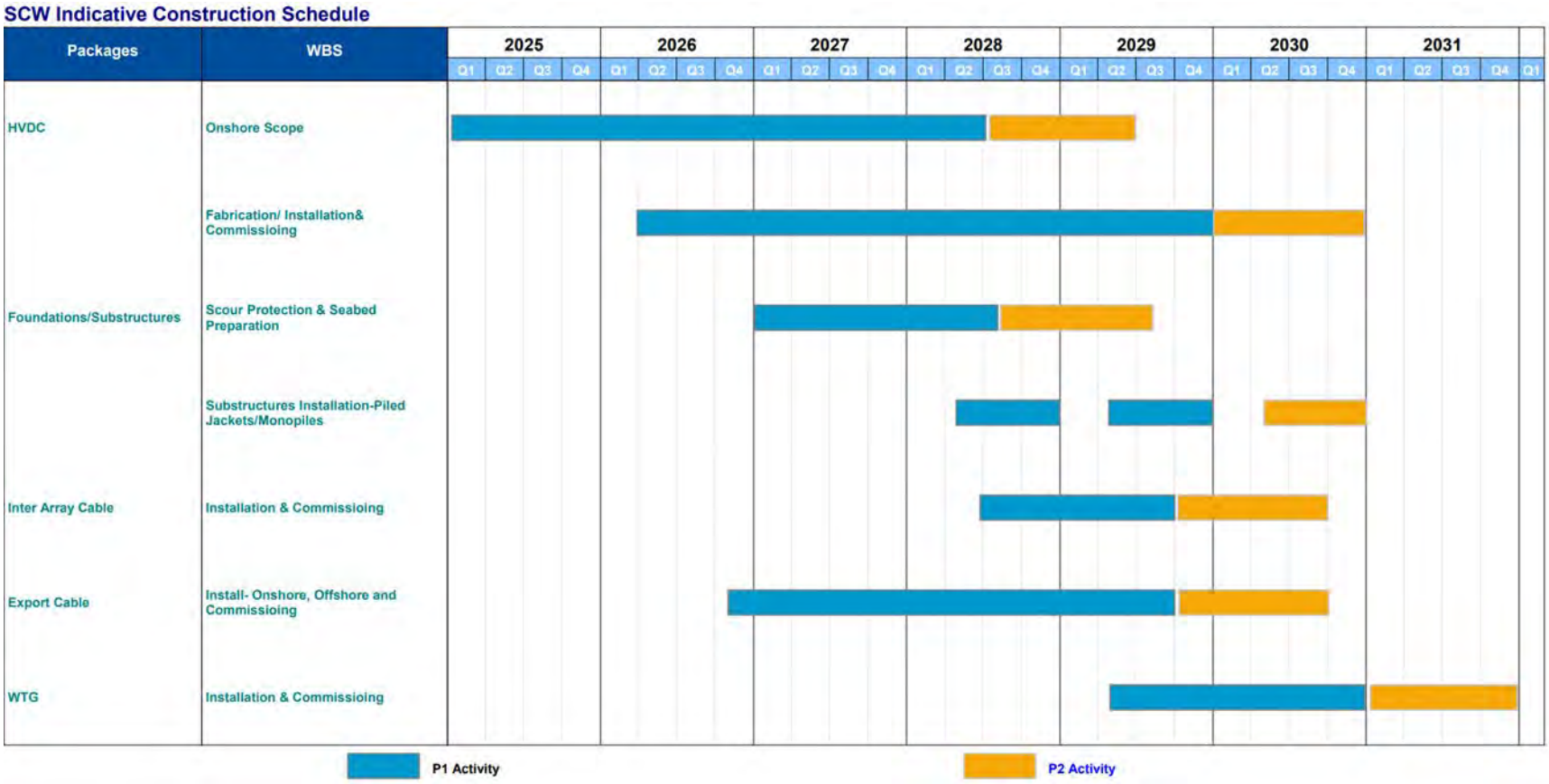


Figure 9. SouthCoast Wind Indicative Construction Schedule

Appendix 2

SouthCoast Wind CZMA 30-day Letter
&
SouthCoast Wind Response Letter

State of Rhode Island
Coastal Resources Management Council
Oliver H. Stedman Government Center
4808 Tower Hill Road, Suite 3
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April 13, 2022

Erin Healy
Marine Science Permitting Manager
Mayflower Wind Energy LLC
101 Federal Street
Boston, MA 02110

Michelle Morin
Chief, Environment Branch for Renewable Energy
U.S. Department of the Interior
Bureau of Ocean Energy Management
45600 Woodland Road, VAM-OREP
Sterling, Virginia 20166

Subject: Rhode Island CZMA Federal Consistency review 30-day letter for the Mayflower Wind project; Docket No. BOEM–2021–0062;
CRMC File No.: 2022-03-080

Dear Ms. Healy and Ms. Morin,

The Rhode Island Coastal Resources Management Council (CRMC) is in receipt of the Federal Consistency Certification filed by Mayflower Wind Energy, LLC for the above referenced offshore wind energy project and received by the CRMC on **March 18, 2022**, as required by 15 C.F.R. §§ 930.58 and 930.76. The Bureau of Ocean Energy Management (BOEM) issued its Notice of Intent on November 1, 2021 to prepare an Environmental Impact Statement for Mayflower Wind Energy, LLC's proposed wind energy facility offshore Rhode Island and Massachusetts, and located in federal waters of the outer continental shelf (OCS) within BOEM Lease Area OCS-A 0521.

The submerged cables as part of the proposed Brayton Point Offshore Export Cable Corridor are a listed activity subject to CRMC federal consistency review pursuant to Section 307 of the Coastal Zone Management Act (CZMA) (16 U.S.C. § 1451 et seq.), and the CZMA's implementing regulations at 15 C.F.R. Part 930. The Mayflower Wind Consistency Certification filing with the CRMC is specific to the Brayton Point export cable corridor (Brayton Point ECC), as it is the only element of the Mayflower Wind offshore wind energy project that is currently proposed to be located within the Rhode Island 2011 and 2018 Geographic Location Descriptions.

The CRMC is providing the following comments concerning necessary data and information (NDI) pursuant to 15 C.F.R. §§ 930.60(a)(2) and 930.77. The CRMC's federally-approved enforceable policies for offshore wind projects are contained within § 11.10 of the CRMC's Ocean Special Area Management Plan (Ocean SAMP) at: https://rules.sos.ri.gov/regulations/part/650-20-05-11.

The enforceable policies of §§ 11.10.1(D) and (J) require that a meeting to review the offshore wind project with the CRMC's Fishermen's Advisory Board (FAB) and the Habitat Advisory Board (HAB), respectively, "shall be necessary data and information required for federal consistency reviews for purposes of starting the CZMA 6-month review period for federal license or permit activities under 15 C.F.R. Part 930, Subpart D, and OCS Plans under 15 C.F.R. Part 930, Subpart E, pursuant to 15 C.F.R. § 930.58(a)(2)." In addition, the CRMC's enforceable policies at §§ 11.10.1(D)(1) and 11.10.1(J)(1) specify that "the CZMA six-month review period shall not begin until the day after" the FAB and HAB meetings, respectively. Accordingly, a meeting with the FAB and HAB are necessary data and information and the CZMA 6-month review period will not commence until such meeting with the FAB and HAB has been completed. The CRMC will endeavor to schedule a combined meeting of the FAB and HAB within approximately 30-days following the issuance of this letter so that the meeting will occur in a timely manner to ensure that the CZMA process is not delayed.

In addition to the missing NDI specified above, the CRMC has preliminarily identified other information based on our review of the Mayflower Wind Consistency Certification that will need to be provided to the CRMC during its CZMA review period. Mayflower Wind has indicated that some of this information is currently under development and will be submitted to the CRMC at a later date when completed. We are providing a brief summary below of this preliminary identified information that will need to be submitted to CRMC, but there could be additional information identified during the CZMA review period that may also be required. We anticipate that any additional information requests will be included, as may be necessary, in the CRMC's 3-month letter required pursuant to 15 C.F.R. § 930.77(a)(3).

Fisheries Monitoring Plan

The CRMC requires a fisheries monitoring plan that will provide a baseline biological assessment of commercially and recreationally targeted fishery species as specified in the Ocean SAMP §§ 11.10.6 and 11.9.9(E). The biological assessment of commercially and recreationally targeted species must be performed at least four times to include a minimum of two (2) complete years before offshore construction and installation activities begin, for each year of construction (if construction extends beyond one year) and three (3) complete years following completion of construction and installation activities and during the operational phase of the project. There is no fisheries monitoring plan included in the Mayflower Wind COP or appendices, and the Consistency

Certification does not address CRMC enforceable policy § 11.10.6. Mayflower Wind, however, does indicate that they "will be working with the University of Massachusetts Dartmouth's School for Marine Science and Technology (SMAST) and the Anderson Cabot Center of Ocean Life at the New England Aquarium to conduct baseline of existing fisheries information in and around the Lease Area and establish monitoring plans for pre-construction, construction, operations, and decommissioning phases of the Project Area." *See* Section 11.1.5 COP Vol. 2 at 11-49. Mayflower Wind also notes in its Consistency Certification filing letter, dated March 17, 2022, to the CRMC that "certain studies and analyses are ongoing which are needed to provide necessary demonstrations for compliance with one or more enforceable RI CZMA policies. Mayflower Wind has identified in Section 3 where additional information will be provided, and the expected demonstrations that will be made once those data are available." *See* Mayflower Wind letter at 1.

Mayflower Wind will need to provide to the CRMC a fully developed fisheries monitoring plan that provides for the baseline assessments of commercially and recreationally targeted fishery species during the CRMC's CZMA review period in order to demonstrate compliance with enforceable policy Ocean SAMP § 11.10.6. The CRMC anticipates that Mayflower Wind should be able to conduct the required 2-year pre-construction baseline assessments in a timely manner given that the commencement of planned offshore construction activity is projected for Q2 2025 (3 years from now) as shown in Figure 3-6 of COP Volume 1 at 3-9.

Alternative Land-based Cable Route to Brayton Point

Mayflower Wind conducted a preliminary analysis of multiple potential export cable routes within Rhode Island state waters to a connection point at Brayton Point in Somerset, Massachusetts, known as the Brayton Point ECC. Mayflower Wind appears to have determined that a route through the Sakonnet River would be the most optimal route as described in Section 3.3.5 and as shown in Figure 3-26 of the COP Volume 1. Mayflower Wind, however, has not provided an analysis of an entirely land-based cable route to avoid resource impacts within the Sakonnet River. Accordingly, Mayflower Wind should conduct such an analysis, if it has not done so already, of a potential cable utility route along existing roadways either on Aquidneck Island or east of the Sakonnet River in the towns of Little Compton and Tiverton and submit it to the CRMC during its CZMA review.

To address the CRMC enforceable policy of avoiding significant adverse impact as specified in Ocean SAMP § 11.10.1(C), Table 3-1 of the Consistency Certification states that "Mayflower Wind is and will continue to work closely with commercial and recreational fishing interests on mitigation of potential impacts to their operations." Mayflower Wind also states that "the potential for negative effects associated with the construction, operation, and decommissioning of the Project on EFH are limited in scale and considered to be very low to low." *Id.* at 3-3. Given that the entire Sakonnet River is designated by the New England Fishery Management Council (NEFMC) as Essential Fish Habitat (EFH) and the proposed Brayton Point ECC will traverse the entire length of the river, it is not clear how Mayflower Wind has drawn its conclusion that project impacts are

limited. *See* Map 245 – Inshore Juvenile Cod HAPC in the NEFMC Essential Fish Habitat Amendment 2 at 390. Based on an initial review of the Consistency Certification and the COP it appears that Mayflower Wind may have underestimated the impacts associated with the construction, operation of the project over the 30-year design lifetime and decommissioning thereafter. Consequently, the CRMC at this time believes that the necessary details to demonstrate minimization measures for impacts to fisheries resources and any potential fisheries mitigation have yet to be developed and available for CRMC review.

Notwithstanding the absence of a baseline biological assessment for commercially and recreationally targeted fishery species, a land-based cable route to Brayton Point to avoid the Sakonnet River, and the development of any necessary fishery mitigation measures as noted above, the CRMC's six-month CZMA review period will not commence until the day after a meeting between Mayflower Wind, CRMC staff and the FAB and HAB has been completed to discuss potential fishery-related impacts, such as, but not limited to, project location, wind turbine configuration and spacing, construction schedules, alternative locations, project minimization and identification of high fishing activity or habitat edges, which is necessary data and information, pursuant to the CRMC's enforceable policies and 15 C.F.R. §§ 930.60(a) and 930.77.

Given that Mayflower Wind indicates in its filing that "certain studies and analyses are ongoing which are needed to provide necessary demonstrations for compliance with one or more enforceable policies," we anticipate that a stay agreement as provided for in 15 C.F.R. § 930.60(b) will be necessary to provide Mayflower Wind sufficient time to complete its ongoing studies and analyses, submit them to CRMC and allow sufficient time for the CRMC to complete its CZMA federal consistency review and issue a consistency decision. *See* Mayflower Wind Consistency Certification at 1-1.

Please contact me at jwillis@crmc.ri.gov or James Boyd, CRMC Deputy Director at jboyd@crmc.ri.gov or call 401-783-3370 should you have any questions concerning this matter.

Sincerely,

Jeffrey M. Willis, Executive Director
Coastal Resources Management Council

/lat
cc Council members
Anthony DeSisto CRMC Legal Counsel
David Kaiser, NOAA (via email)
Kerry Kehoe, NOAA (via email)
Allison Castellan, NOAA (via email)

Mayflower Wind Energy LLC
101 Federal Street
Boston, MA 02110
99 South Main Street
Fall River, MA 02721

September 23, 2022

Mr. Jeff Willis
Executive Director
Rhode Island Coastal Resources Management Council
Oliver Stedman Government Center
4808 Tower Hill Road, Suite 3
Wakefield, RI 02879-1900

RE: Coastal Zone Management Act (CZMA) Federal Consistency review of the Mayflower Wind Project; Docket No. BOEM-2021-0062; CRMC File No. 2022-03-080

Dear Mr. Willis:

This letter is in response to the letter dated August 26, 2022 from Rhode Island Coastal Resources Management Council (CRMC) to Mayflower Wind Energy LLC (Mayflower Wind) and Michelle Morin at the Bureau of Ocean Energy Management (BOEM). The purpose of CRMC's letter was to provide a three-month update for the RI Coastal Zone Management Act (CZMA) Federal Consistency review of the Mayflower Wind Project (Project) as well as a request for data and information from Mayflower Wind to demonstrate the Project is consistent with the enforceable policies of the CRMC's Ocean Special Area Management Plan (Ocean SAMP).

Through ongoing engagement with CRMC since June 2021, Mayflower Wind is continuing to work with CRMC to provide the information requested in its April 13, 2022 letter (30 day letter) and its August 26, 2022 letter (3 month letter). In addition, we have discussed the scope and timing for submitting this information during various phone calls and monthly meetings with CRMC, including but not limited to, recent pre-filing meetings with CRMC on August 16 and September 15, 2022.

As you know, Mayflower Wind entered into a stay agreement with CRMC to stay its federal consistency review on June 22, 2022 thereby extending the deadline for CRMC's final determination of Mayflower Wind's consistency certification to June 27, 2023. The intent of the parties entering into this stay agreement was not only to allow Mayflower Wind to complete its ongoing analyses of this important Project but to enable CRMC to review the Draft Environmental Impact Statement (DEIS) that will be issued by the BOEM in January 2023. In its 30 day letter to Mayflower Wind, CRMC indicated that additional data and information would need to be submitted during the CZMA review period but did not set forth a deadline for Mayflower Wind to provide the information.

However, CRMC's 3 month letter requested that *"Mayflower Wind provide the following data and information **within (30) days** from the date of this letter to demonstrate that the MWF project is consistent with the enforceable policies of the Ocean SAMP at §11.10*". See p. 8 of CRMC's 3 month letter. Based on my conversation with CRMC staff, it was confirmed that Mayflower Wind is not required to submit the data and information within the requested thirty (30) days. As previously discussed with CRMC staff, the requested information will be submitted by Mayflower Wind as part of its CRMC Assent application submittal. We appreciate CRMC staff's confirmation of the same and continued cooperation.

In the meantime, please see a status update below on the additional data and information identified and requested by CRMC in its 3 month letter:

Data and Information Requested: *"Confirmation as to what specific trenching equipment, hydraulic or mechanical, will be used and under what conditions, and to limit the use of hydro-jet plow trenching only to seabed areas that are suitable for such equipment (e.g., predominantly sands) to ensure achievement of proper cable burial depth and minimize the use of cable protection (concrete mats or rock) to avoid adverse impacts to the commercial fishing sector. Mayflower Wind should identify specific areas of seabed where specific trenching techniques will likely be used." See page 8, #1 of CRMC's 3 month letter.*

- **Response:** Mayflower Wind has ongoing discussions with CRMC regarding cable installation procedures, in preparation for the CRMC Assent application filing. A meeting with CRMC and DEM to specifically discuss this topic will be scheduled in September/October 2022 as part of this ongoing discussion.

Data and Information Requested: "*A Fisheries Monitoring Plan that details the specifics as to what commercial and recreational species will be monitored, what survey methods will be used and when the surveying will be conducted to meet the requirement of a biological assessment of the relative abundance, distribution, and different life stages of these species at all four seasons of the year. The assessment must comprise a series of surveys, using survey equipment and methods appropriate for sampling finfish, shellfish, and crustacean species at the Project's proposed location. The assessment must be performed at least four times: pre-construction (to assess baseline conditions); during construction; and at two different intervals during operation (i.e. one (1) year after construction and then post-construction) and must capture all four seasons of the year." See page 8-9, #2 of CRMC's 3 month letter.*

- **Response:** As indicated during the Mayflower Wind Pre-filing Meeting with CRMC

and DEM on August 16, 2022, Mayflower Wind intends to prepare a Fisheries Monitoring Plan (FMP) and is currently procuring a contractor to support the development of such a plan. We plan to submit the FMP in Q1 2023.

Data and Information Requested: "*Results of the benthic survey for the Brayton Point ECC to assist the CRMC and FAB/HAB in identifying glacial moraine and sensitive habitat areas along the Brayton Point ECC." See page 9, #3 of CRMC's 3 month letter.*

- **Response:** As indicated in our letter to CRMC dated January 18, 2022 and confirmed during the Mayflower Wind Pre-filing Meeting with CRMC and DEM on August 16, 2022, our contractor, Inspire Environmental, is preparing a RI-specific report and *"pop-up mapper"* depicting the analyzed results of benthic surveys. This data and information will be submitted to CRMC in Q4 2022.

Data and Information Requested: "*A complete analysis of potential alternate overland cable utility routes along existing roadways either on Aquidneck Island or east of the Sakonnet River in the towns of Little Compton and Tiverton or through Massachusetts and submit it to the CRMC." See page 9, #4 of CRMC's 3 month letter.*

- **Response:** A detailed discussion of alternatives considered is included in the Mayflower Wind RI EFSB application (Section 5 Project Alternatives) submitted to the EFSB on May 31, 2022 and available here: https://mayflowerwind.com/documents/
  Specifically, see the Mayflower Wind Brayton Point – Application to Support RI EFSB Petition, Volume 2. Table 5-2 summarizes the routes analyzed, including routes through Middletown and Little Compton that avoid the Sakonnet River, and a route through Westport, MA that does not go through Rhode Island. Further details are explained in the Mayflower Wind Brayton Point – Application to Support RI EFSB Petition, Volume 2 Section 5.3.4 Alternatives Analysis for Export Cable Corridors Not Selected.

Please feel free to contact me at erin.healy@mayflowerwind.com if you have any questions, comments, or wish to discuss this matter further. We look forward to continuing to work with CRMC to permit the Mayflower Wind clean energy Project and appreciate CRMC's continued cooperation.

Sincerely,

Erin Healy
Marine Science Permitting Manager

Cc: Michelle Morin, Chief, Environment Branch for Renewable Energy, BOEM
Jessica Stromberg, Environment Branch for Renewable Energy, BOEM

Appendix 3

SouthCoast Wind CZMA Review
Commencement Letter

State of Rhode Island
Coastal Resources Management Council
Oliver H. Stedman Government Center
4808 Tower Hill Road, Suite 3
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(401) 783-3370
Fax (401) 783-2069

May 31, 2022 (via email)

Erin Healy
Marine Science Permitting Manager
Mayflower Wind Energy LLC
101 Federal Street
Boston, MA 02110

Michelle Morin
Chief, Environment Branch for Renewable Energy
U.S. Department of the Interior
Bureau of Ocean Energy Management
45600 Woodland Road, VAM-OREP
Sterling, Virginia 20166

Subject: CRMC Coastal Zone Management Act (CZMA) Federal Consistency review commencement for the Mayflower Wind project; Docket No. BOEM–2021–0062; CRMC File No.: 2022-03-080

Dear Ms. Healy and Ms. Morin,

Mayflower Wind, LLC ("Mayflower Wind") filed a Consistency Certification with the Rhode Island Coastal Resources Management Council ("CRMC") on **March 18, 2022**, as required by 15 C.F.R. §§ 930.58 and 930.76. The CRMC subsequently issued a 30-day letter to Mayflower Wind pursuant to 15 C.F.R. § 930.60(a)(2) on April 13, 2022 notifying the applicant that it did not submit all necessary data and information ("NDI") as required by the CRMC's enforceable polices of the Ocean SAMP §§ 650-RICR-20-05-11.10.1(D) and (J). These enforceable policies specifically require that a meeting with the CRMC's Fishermen's Advisory Board ("FAB") and the Habitat Advisory Board ("HAB"), respectively, "shall be necessary data and information required for federal consistency reviews for purposes of starting the CZMA 6-month review period for federal license or permit activities under 15 C.F.R. Part 930, Subpart D, and OCS Plans under 15 C.F.R. Part 930, Subpart E, pursuant to 15 C.F.R. § 930.58(a)(2)." In addition, the CRMC's enforceable policies at §§ 11.10.1(D)(1) and 11.10.1(J)(1) specify that "the CZMA six-month review period shall not begin until the day after" the FAB and HAB meetings, respectively.

The Federal Consistency regulations at 15 C.F.R. § 930.60(a) state that a "State agency's six-month review period (see § 930.62(a)) of an applicant's consistency certification begins on the

date the State agency receives the consistency certification required by § 930.57 and all the necessary data and information required by § 930.58(a)." (Emphasis added). Additionally, necessary data and information are described in the Federal consistency regulations as "Information specifically identified in the management program as required necessary data and information for an applicant's consistency certification." *Id.* at § 930.58(a)(2). In this matter, as explained above, a meeting with the FAB/HAB is necessary data and information identified in the CRMC's federally approved management program.

A combined meeting of the CRMC's FAB and HAB for an overview of the Mayflower Wind project was held on May 26, 2022. Thus, in accordance with the afore noted State enforceable policies and the Federal Consistency regulations, the CRMC's CZMA six-month review period for the Mayflower Wind project commenced on **May 27, 2022**.

We are writing to inform you of our position regarding the commencement of the CRMC's CZMA review period for the Mayflower Wind project and request that you concur with our position via email or written letter at your earliest convenience and no later than ten (10) days from the date of this letter. Thank you.

Please contact me at jwillis@crmc.ri.gov or Kevin Sloan, CRMC Coastal Policy analyst at ksloan@crmc.ri.gov or call 401-783-7365 should you have any questions concerning this matter.

Sincerely,

Jeffrey M. Willis, Executive Director
Coastal Resources Management Council

/lat

Enc. CRMC 30-day letter (April 13, 2022)
FAB/HAB May 26, 2022 meeting agenda

cc Anthony DeSisto CRMC Legal Counsel
David Kaiser, NOAA (via email)
Kerry Kehoe, NOAA (via email)

Appendix 4

SouthCoast Wind 3-month Letter

State of Rhode Island
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August 26, 2022

Erin Healy
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Michelle Morin
Chief, Environment Branch for Renewable Energy
U.S. Department of the Interior
Bureau of Ocean Energy Management
45600 Woodland Road, VAM-OREP
Sterling, Virginia 20166

Subject: Rhode Island CZMA Federal Consistency review three (3) month letter for the Mayflower Wind project; Docket No. BOEM–2021–0062; CRMC File No.: 2022-03-080

Dear Ms. Healy and Ms. Morin,

The purpose of this letter is to provide a status update on the Rhode Island Coastal Resources Management Council's (CRMC) federal consistency review of the proposed Mayflower Wind Farm (MWF) project in accordance with 15 CFR § 930.78(a). Accordingly, this letter details some additional information necessary for the CRMC to make a consistency certification determination by June 27, 2023[1] concerning the enforceable policies of the State's federally approved coastal management program, specifically 650-RICR-20-05-11 (CRMC's Ocean Special Area Management Plan (Ocean SAMP)).

I. Procedural background & project overview

Mayflower Wind filed its Consistency Certification with the Rhode Island CRMC on March 18, 2022, as required by 15 C.F.R. §§ 930.58 and 930.76. The CRMC subsequently issued a 30-day letter to Mayflower Wind pursuant to 15 C.F.R. § 930.60(a)(2) on April 13, 2022 notifying the applicant that it did not submit all necessary data and information (NDI) as required by the CRMC's enforceable polices of the Ocean SAMP §§ 650-RICR-20-05-11.10.1(D) and (J). Mayflower Wind satisfied its NDI requirements when a combined Fishermen's Advisory Board (FAB) and Habitat

[1] Unless Mayflower Wind, LLC and the CRMC mutually agree to an additional stay of the CRMC's six-month review period pursuant to 15 CFR § 930.60. A stay agreement was executed on June 27, 2022.

Advisory Board (HAB) meeting was held on May 26, 2022. Per the CRMC's enforceable policies at §§ 11.10.1(D)(1) and 11.10.1(J)(1) which specify that "the CZMA six-month review period shall not begin until the day after" the FAB and HAB meetings are held, the CRMC's CZMA sixth-month review period for the MWF project commenced on May 27, 2022.

Mayflower Wind, LLC (Mayflower Wind) filed with the CRMC a Construction and Operation Plan (COP) dated October 2021 for the proposed Mayflower Wind Farm project. The MWF project consists of up to 149 wind turbine generators (WTGs)/offshore substation platform positions with an estimated 2,400 megawatts (MW) total generating capacity and two submerged offshore electric cables with one connecting at Brayton Point, Somerset, Massachusetts (Brayton Point ECC) and one connecting at Falmouth, Massachusetts (Falmouth ECC). These project components will be located within federal waters on the outer continental shelf (OCS) within Bureau of Ocean Energy Management (BOEM) renewable energy Lease Area OCS-A 0521 approximately 26 nautical miles south of Martha's Vineyard, Massachusetts, 20 nm south of Nantucket, Massachusetts, and 51 nm from the Rhode Island coastline. A large portion of the Brayton Point ECC is located with the CRMC's Ocean SAMP boundary that is coincident with Rhode Island's 2011 and 2018 geographic location descriptions (GLDs), including the associated listed federal actions, as approved by NOAA Office of Coastal Management. The Falmouth ECC and Lease Area components are not within CRMC's GLDs. The Brayton Point ECC will be buried beneath the seabed within federal waters on the Outer Continental Shelf from the MWF Lease Area to the boundary of Rhode Island territorial waters (3 miles offshore) and will continue into State waters up the Sakonnet River. The intended purpose of the project is to supply 804MW of renewable wind energy to Massachusetts.

II. CRMC CZMA review authority

The portion of the Brayton Point ECC located with the CRMC's 2011 and 2018 GLDs is subject to CRMC federal consistency authority pursuant to the Federal Coastal Zone Management Act (CZMA) at 16 USC § 1456(c)(3)(A) and the CZMA's implementing regulations at 15 CFR Part 930, Subpart D - Consistency for Activities Requiring a Federal License or Permit and Subpart E - Consistency for Outer Continental Shelf (OCS) Exploration, Development and Production Activities. The MWF project meets the definition of a "large-scale offshore development" as specified in Ocean SAMP § 11.10.1(A)(3).[2] The wind farm and inter-array cables within Lease Area OCS-A 0521 are not subject to CRMC CZMA review.

III. Supplemental information required to address Rhode Island's enforceable policies

The regulatory standards contained within 650-RICR-20-05-11 are the enforceable policies for purposes of the CZMA federal consistency provisions, specifically Part 11.10. These standards in addition to other applicable federally approved Rhode Island Coastal Resources Management

[2] The enforceable policies of the Rhode Island coastal management program applicable to the MWF project are contained in the CRMC's Ocean Special Area Management Plan, which is codified in the Rhode Island Code of Regulations as 650-RICR-20-05-11. For purposes of federal consistency, enforceable policies are defined at 15 CFR § 930.11(h).

Program (CRMP) enforceable policies are the basis for the CRMC's CZMA federal consistency certification concurrence or objection.

§ 11.10.1(C): *Offshore Developments shall not have a significant adverse impact on the natural resources or existing human uses of the Rhode Island coastal zone, as described in the Ocean SAMP. In making the evaluation of the effect on human uses, the Council will determine, for example, if there is an overall net benefit to the Rhode Island marine economic sector from the development of the project or if there is an overall net loss. Where the Council determines that impacts on the natural resources or human uses of the Rhode Island coastal zone through the pre-construction, construction, operation, or decommissioning phases of a project constitute significant adverse effects not previously evaluated, the Council shall, through its permitting and enforcement authorities in state waters and through any subsequent CZMA federal consistency reviews, require that the applicant modify the proposal to avoid and/or mitigate the impacts or the Council shall deny the proposal.*

In comments provided to Mayflower Wind on November 19, 2021, CRMC noted that Mayflower Wind did not present information in its COP to demonstrate that the Brayton Point ECC will "not have significant adverse impacts on the natural resources or existing human uses." As stated in those comments, NOAA NMFS is increasingly concerned about the impacts to Atlantic cod stocks within the southern New England wind energy area from offshore wind. These concerns are reflected in NOAA NMFS Scoping Comments to BOEM for the Revolution Wind project and NOAA NMFS response to BOEM comments on Essential Fish Habitat for the South Fork Wind project. Project and/or cable route alternatives may be developed as part of the BOEM Draft Environmental Impact Statement for the MWF that may provide the information necessary for the CRMC to determine whether Mayflower Wind has met this particular enforceable policy requirement.

Based on the experience of the Block Island wind farm construction, it became evident that burial depth of the export cable was insufficient in some locations, which necessitated the installation of concrete mats to protect the cable. Considering that the Brayton Point ECC will be installed in areas of fixed gear and mobile gear use, including areas of historic trawling, it will be important to achieve proper cable burial depth to avoid unnecessary use of cable protection that has a potential to snag mobile gear (e.g. trawling nets). *See* Consistency Certification Figure 4, March 2022 at Att. 1-4. It appears that Mayflower Wind is considering the use of mechanical and hydraulic trenchers based on discussion in the COP Vol. 2 in section 11.2.3.2. The same COP section states "offshore export cables will be buried at a target depth of 3.2 to 13.1 feet (1.0 to 4.0 m)" where COP Appendix X (Navigation Safety Risk Assessment) states a "preliminary [Cable Burial Risk Assessment] CBRA for the Brayton Point ECC resulted in a recommendation of a minimum depth of 1 m (3.3 ft) along most of the ECC, and up to 2 m (6.6 ft) in a specific zone" to avoid adverse interactions with commercial and recreational fisheries and vessel anchoring. *See* COP Appendix X section G.4.2 at G-22. However, COP Vol II indicates that articulated concrete mattresses or rock berms will be used to protect cables where seabed conditions may not allow burial to the desired depth within the Brayton Point ECC. *See* COP Vol. 2 section 11.2.3.2 at 11-63 to 11-64. The use of additional cable protection is of concern considering "up to 13 cable crossings…are expected to occur south of the Muskeget

Channel, south of Nomans Island, and south of the Sakonnet River." *See* COP Vol. 1 section 3.3.5.2 at 3-51. Mayflower Wind should confirm the burial depth range intended to be followed, confirm that the described equipment will be used to the maximum extent practicable, and limit the use of hydro-jet plow trenching equipment to areas that are suitable for such equipment (e.g. predominantly sands). Achieving proper cable burial depth and minimizing the use of cable protection will aid in avoiding impacts to the commercial fishing sector and natural resources.

Mayflower Wind conducted a preliminary analysis of multiple potential export cable routes within Rhode Island State waters to the proposed connection point at Brayton Point in Somerset, Massachusetts. Mayflower Wind appears to have determined that a route through the Sakonnet River would be the most optimal route as described in Section 3.3.5 and as shown in Figure 3-26 of the COP Volume 1. Mayflower Wind, however, has not provided an analysis of an entirely land-based cable route to avoid resource impacts within the Sakonnet River. Given that the entire Sakonnet River is designated by the New England Fishery Management Council (NEFMC) as Essential Fish Habitat (EFH) and the proposed Brayton Point ECC will traverse the entire length of the river, it is not clear how Mayflower Wind has drawn its conclusion that project impacts are limited. See Map 245 – Inshore Juvenile Cod HAPC in the NEFMC Essential Fish Habitat Amendment 2 at 390. Accordingly, Mayflower Wind should conduct such an analysis, if it has not done so already, of a potential cable utility route along existing roadways either on Aquidneck Island, east of the Sakonnet River in the towns of Little Compton and Tiverton, or landside in Massachusetts and submit it to the CRMC during its CZMA review. Such analysis will assist in CRMC's review and provide necessary details to determine whether significant adverse impacts to natural resources or existing human uses of the Rhode Island coastal zone will occur.

Given a positive outcome with the issues detailed above, the CRMC could then likely conclude that the SFWF project has been modified to avoid unnecessary impacts and meets its burden of proof under enforceable policy § 11.10.1(C).

§ 11.10.1(G): *For the purposes of fisheries policies and standards as summarized in Ocean SAMP Chapter 5, Commercial and Recreational Fisheries, §§ 5.3.1 and 5.3.2 of this Subchapter, mitigation is defined as a process to make whole those fisheries user groups, including related shore-side seafood processing facilities, that are adversely affected by offshore development proposals or projects. Mitigation measures shall be consistent with the purposes of duly adopted fisheries management plans, programs strategies and regulations of the agencies and regulatory bodies with jurisdiction over commercial and recreational fisheries, including but not limited to, those set forth above in § 11.9.4(B) of this Part. Mitigation shall not be designed or implemented in a manner that substantially diminishes the effectiveness of duly adopted fisheries management programs. Mitigation measures may include, but are not limited to, compensation, effort reduction, habitat preservation, marketing, and infrastructure and commercial fishing fleet improvements. Where there are potential impacts associated with proposed projects, the need for mitigation shall be presumed (see § 11.10.1(F) of this Part). Mitigation shall be negotiated between the Council staff, the FAB, the project developer, and approved by the Council. The final mitigation will be the required by the*

CRMC and included in the CRMC's Assent for the project or, included within the CRMC's federal consistency decision for a projects' federal permit application.

CRMC's November 2021 comments also raised concerns regarding Mayflower Wind's statements included in a CZMA consistency certification located in Appendix D3 of the COP filing.[3] CRMC noted that Mayflower Wind's statement for Ocean SAMP § 11.10.1(G) that "[t]he EFH Assessment concluded that when Project activities are considered together with the existing EFH in the Offshore Project Area, the potential for negative effects associated with the construction, operation, and decommissioning of the Project on EFH are limited in scale and considered to be very low to low." *See* Consistency Certification, Aug. 2021 at 3-9. This language is repeated in Mayflower Wind's March 2022 Consistency Certification filing currently under review. *See* Consistency Certification, March 2022 at 3-3. The CRMC repeats its concerns from its November 2021 comments that it is not yet clear that the above quoted statement is accurate. As such, it will be important to evaluate the NOAA NMFS Essential Fish Habitat comments when available as part of the CRMC CZMA review for Mayflower Wind.

§ 11.10.1(H): *The Council recognizes that moraine edges, as illustrated in Figures 3 and 4 in § 11.10.2 of this Part, are important to commercial and recreational fishermen. In addition to these mapped areas, the FAB may identify other edge areas that are important to fisheries within a proposed project location. The Council shall consider the potential adverse impacts of future activities or projects on these areas to Rhode Island's commercial and recreational fisheries. Where it is determined that there is a significant adverse impact, the Council will modify or deny activities that would impact these areas. In addition, the Council will require assent holders for offshore developments to employ micro-siting techniques in order to minimize the potential impacts of such projects on these edge areas.*

§ 11.10.1(I): *The finfish, shellfish, and crustacean species that are targeted by commercial and recreational fishermen rely on appropriate habitat at all stages of their life cycles. While all fish habitat is important, spawning and nursery areas are especially important in providing shelter for these species during the most vulnerable stages of their life cycles. The Council shall protect sensitive habitat areas where they have been identified through the Site Assessment Plan or Construction and Operation Plan review processes for offshore developments as described in § 11.10.5(C) of this Part.*

§ 11.10.2(A): *Areas of Particular Concern (APCs) have been designated in state waters through the Ocean SAMP process with the goal of protecting areas that have high conservation value, cultural and historic value, or human use value from large-scale offshore development. These areas may be limited in their use by a particular regulatory agency (e.g., shipping lanes), or have inherent risk associated with them (e.g., unexploded ordnance locations), or have inherent natural value or value assigned by human interest (e.g., glacial moraines, historic shipwreck sites). Areas of Particular Concern have been designated by reviewing habitat data, cultural and historic features data, and human use data that has been developed and analyzed through the Ocean SAMP process.*

[3] The Appendix D3 Consistency Certification was not submitted to the CRMC. As discussed in section I of this document, Mayflower Wind's Consistency Certification was filed with CRMC on March 18, 2022.

Currently designated Areas of Particular Concern are based on current knowledge and available datasets; additional Areas of Particular Concern may be identified by the Council in the future as new datasets are made available. Areas of Particular Concern may be elevated to Areas Designated for Preservation in the future if future studies show that Areas of Particular Concern cannot risk even low levels of large-scale offshore development within these areas. Areas of Particular Concern include:

1. *Areas with unique or fragile physical features, or important natural habitats;*
2. *Areas of high natural productivity;*
3. *Areas with features of historical significance or cultural value;*
4. *Areas of substantial recreational value;*
5. *Areas important for navigation, transportation, military and other human uses; and*
6. *Areas of high fishing activity.*

Glacial moraines of the cobble and boulder nature represent areas of high biodiversity and important fish habitat. Impacts to these areas could result in long-term or permanent impacts to fish populations that are dependent on these habitat types and thus impact the Rhode Island fishery in the area. Additionally, the CRMC is obligated through § 11.10.1(I) to protect sensitive habitat areas where they have been identified through the Site Assessment Plan or Construction and Operation Plan review processes. The Ocean SAMP has identified specific glacial moraines as areas of particular concern (APC) as shown in §§ 11.10.2(F) and (G), Figures 3 and 4 respectively, and seeks to protect glacial moraine in federal waters which have the same characteristics, values and functions as those APC designated in state waters. Mayflower Wind's COP and consistency certification indicate that portions of the Brayton Point ECC will pass through identified glacial moraine which correspond with areas Mayflower Wind has also identified as "Areas to Avoid for Transmission Cables." *See* Consistency Certification March 2022 at Figure3 – Figure 4. Mayflower Wind also states that benthic survey results of the Brayton Point ECC are not yet available thus additional areas of glacial moraine may yet be discovered. *See* COP Vol. 2 section 6.6.1.6.4 at 6-133. Furthermore, the COP notes that "complex glacial moraine habitat in the Rhode Island Sound portion of the Brayton Point [ECC] will likely be recolonized more slowly than the soft bottom areas of the northern Brayton Point [ECC]." *See* COP Vol. 2 section 6.6.2.2.2 at 6-156. The benthic survey results showing the extent to which the Brayton Point ECC is within glacial moraine is necessary as "the FAB may identify other edge areas that are important to fisheries within a proposed project location" pursuant to § 11.10.1(I) as part of the CRMC review process.

The CRMC may identify additional glacial moraine or resource areas with the same characteristics, values and functions as those APC designated in state waters as new datasets are made available, as provided by § 11.10.2(A). The more detailed geotechnical survey data collected by Mayflower Wind would likely be helpful in establishing whether the Brayton Point ECC is located within a moraine or whether the project is located within sensitive habitat areas as may be identified by the CRMC. Accordingly, absent additional information and consideration by the FAB and the

CRMC pursuant to §§ 11.10.1(H), 11.10.1(I), and 11.10.2(A), the CRMC at this time cannot conclude that the Brayton Point ECC is not located within glacial moraine outside of those identified in the Ocean SAMP or sensitive habitat areas. Therefore, the CRMC presently does not agree that the Mayflower Wind Brayton Point ECC is consistent with the enforceable policies of §§ 11.10.1(H), 11.10.1(I) and 11.10.2(A) as stated within the COP and March 2022 Consistency Certification.

§ 11.10.6: *The Council in coordination with the Joint Agency Working Group, as described in § 11.9.7(I) of this Part, shall determine requirements for monitoring as specified in § 11.9.9 of this Part. For CZMA federal consistency purposes the Council must identify any baseline assessments and construction monitoring activities during its CZMA six-month review of the COP.*

§ 11.9.9(E): *Assessment standards – applicants shall provide the following biological assessments necessary to establish the baseline conditions of the fishery resource conditions during the project phases detailed below so that any analysis of comparison between project phases can be completed to assess whether project construction, installation and operation has resulted in significant adverse impacts to the commercial and recreational fishery resources.*

1. *Pre-construction baseline biological assessments of commercial and recreational targeted fishery species as specified in § 11.9.9(C) of this Part for a minimum of two (2) complete years before offshore construction and installation activities begin;*

2. *During Construction biological assessments of commercial and recreational targeted fishery species as specified in § 11.9.9(C) for each year (if construction extends beyond a single year) of construction and installation;*

3. *Post-construction biological assessments of commercial and recreational targeted fishery species as specified in § 11.9.9(C) of this Part for three (3) complete years following completion of construction and installation activities and during the operational phase of the project.*

The CRMC stated in its April 13, 2022 30-day letter that Mayflower Wind would be required to submit a Fisheries Monitoring Plan (FMP). The FMP must provide a baseline biological assessment of commercially and recreationally targeted fishery species as specified in the Ocean SAMP §§ 11.10.6 and 11.9.9(E) and must meet the requisite timeframes. There is FMP included in the Mayflower Wind COP or appendices, and the Consistency Certification does not address CRMC enforceable policy § 11.10.6. Mayflower Wind, however, does indicate that they "will be working with the University of Massachusetts Dartmouth's School for Marine Science and Technology (SMAST) and the Anderson Cabot Center of Ocean Life at the New England Aquarium to *conduct baseline of existing fisheries information* in and around the Lease Area and establish monitoring plans for pre-construction, construction, operations, and decommissioning phases of the Project Area." (emphasis added) *See* Section 11.1.5 COP Vol. 2 at 11-49. It is unclear as to whether Mayflower intends to use existing fisheries information in lieu of pre-construction baseline biological assessments of commercial and recreational targeted fishery species for the Brayton Point ECC.

Mayflower Wind also notes in its March 2022 Consistency Certification that certain studies and analyses are ongoing which are needed to provide necessary demonstrations for compliance with one or more enforceable RI CZMA policies.

Mayflower Wind will need to provide to the CRMC a fully developed fisheries monitoring plan that provides for the baseline assessments of commercially and recreationally targeted fishery species during the CRMC's CZMA review period in order to demonstrate compliance with enforceable policy Ocean SAMP § 11.10.6. The CRMC anticipates that Mayflower Wind should be able to conduct the required 2-year pre-construction baseline assessments in a timely manner given that the commencement of planned offshore construction activity is projected for Q2 2025 (3 years from now) as shown in Figure 3-6 of COP Volume 1 at 3-9.

IV. Conclusion

Pursuant to the enforceable policies of the Ocean SAMP, offshore developments shall not have a significant adverse impact on the natural resources or existing human uses of the Rhode Island coastal zone. Where the CRMC determines that there are significant adverse effects on Rhode Island coastal resources or uses, it can require that the applicant modify the proposal to avoid and/or mitigate the impacts or the CRMC shall deny the proposal. See Ocean SAMP § 11.10.1(C). As detailed above, there is further information necessary for Deepwater Wind to file with the CRMC to properly evaluate potential coastal effects to the Rhode Island-based commercial fishing operations.

CRMC is requesting that Mayflower Wind provide the following data and information within thirty (30) days from the date of this letter to demonstrate that the MWF project is consistent with the enforceable policies of the Ocean SAMP at § 11.10. Absent this information within the CRMC's review period, presently scheduled to end on June 27, 2023, the CRMC would be unable to conclude that the MWF project is consistent with the Rhode Island coastal management program. Thus, the CRMC would then have to object to Mayflower Wind's consistency certification pursuant to 15 CFR §§ 930.63(c) and 930.78.

Additional data and information necessary for CRMC review

1. Confirmation as to what specific trenching equipment, hydraulic or mechanical, will be used and under what conditions, and to limit the use of hydro-jet plow trenching only to sea bed areas that are suitable for such equipment (e.g., predominantly sands) to ensure achievement of proper cable burial depth and minimize the use of cable protection (concrete mats or rock) to avoid adverse impacts to the commercial fishing sector. Mayflower Wind should identify specific areas of seabed where specific trenching techniques will likely be used.
2. A Fisheries Monitoring Plan that details the specifics as to what commercial and recreational species will be monitored, what survey methods will be used and when the surveying will be conducted to meet the requirement of a biological assessment of the relative abundance, distribution, and different life stages of these species at all four

seasons of the year. The assessment must comprise a series of surveys, using survey equipment and methods appropriate for sampling finfish, shellfish, and crustacean species at the project's proposed location. The assessment must be performed at least four times: pre-construction (to assess baseline conditions); during construction; and at two different intervals during operation (i.e. one (1) year after construction and then post-construction) and must capture all four seasons of the year.

3. Results of the benthic survey for the Brayton Point ECC to assist the CRMC and FAB/HAB in identifying glacial moraine and sensitive habitat areas along the Brayton Point ECC.
4. A complete analysis of potential alternate overland cable utility routes along existing roadways either on Aquidneck Island or east of the Sakonnet River in the towns of Little Compton and Tiverton or through Massachusetts and submit it to the CRMC.

A final decision by the CRMC for concurrence or objection to Mayflower Wind's MWF consistency certification must be issued by June 27, 2023 pursuant to 15 CFR §§ 930.62, 930.63 and 930.78. Should Mayflower Wind require additional time to prepare and file the requested information or determine that additional time for the CRMC to review the MWF project would be in Mayflower Wind's best interests, the CRMC would be amenable to a stay agreement with Mayflower Wind as provided for under 15 CFR § 930.60(b) to stay the CRMC federal consistency review period for a reasonable period of time and extend the deadline for a final determination on Mayflower Wind's consistency certification filing.

The CRMC will file a copy of this consistency review status with the Director of the Bureau of Ocean Energy Management as required pursuant to 15 CFR §§ 930.62(b) and 930.78.

Please Contact me at jwillis@crmc.ri.gov or Kevin Sloan, CRMC Coastal Policy Analyst at ksloan@crmc.ri.gov or 401-783-3370 should you have any questions.

Sincerely,

Jeffrey M. Willis, Executive Director
Coastal Resources Management Council

cc Council members
Anthony DeSisto CRMC Legal Counsel
David Kaiser, NOAA (via email)
Kerry Kehoe, NOAA (via email)
Allison Castellan, NOAA (via email)

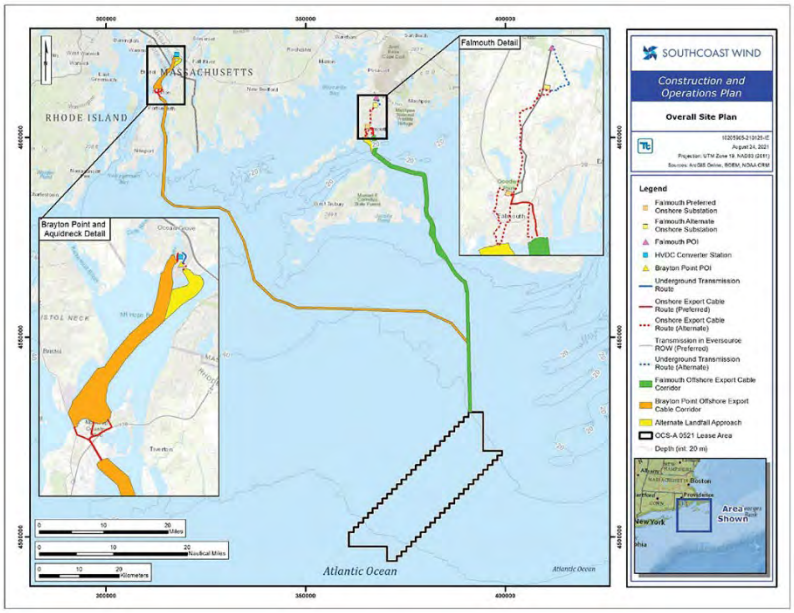
Appendix 5

CRMC Federal Consistency Public Notice for the SouthCoast Wind Project

STATE OF RHODE ISLAND
COASTAL RESOURCES MANAGEMENT COUNCIL

PUBLIC NOTICE
CRMC File 2022-03-080

The Rhode Island Coastal Resources Management Council ("CRMC") is in receipt of a federal consistency certification filed on March 18, 2022, by SouthCoast Wind, LLC ("SouthCoast Wind"), formerly Mayflower Wind, for the proposed construction and operation of an offshore wind energy project. If approved by the Federal Bureau of Ocean Energy Management ("BOEM"), SouthCoast Wind would be permitted to construct and operate an offshore wind energy facility consisting of up to 149 wind turbines and offshore substations located in federal waters on the Outer Continental Shelf ("OCS"). Under SouthCoast Wind's Project Design Envelope ("PDE"), up to six submarine offshore export cables, including up to four power cables and up to two communications cables, could be installed within the Brayton Point export cable corridor. These cables would run from Lease Area OCS-A 0521 in federal waters, through the CRMC's 2011 and 2018 Geographic Location Description ("GLD") areas, and into RI State Waters. The SouthCoast Wind turbines, offshore substations, and inter-array cables in the Lease Area **are not** subject to CRMC's federal consistency review.



SouthCoast Wind filed its Construction and Operations Plan ("COP") with BOEM on February 15, 2021, seeking a federal license to construct and operate the proposed project. On November 1, 2021, BOEM published a Notice of Intent to prepare an Environmental Impact State ("EIS") pursuant to the National Environmental Policy Act (40 C.F.R. § 1500 et seq.) for the proposed SouthCoast Wind project. BOEM published a Notice of Availability for the Draft EIS on February 17, 2023. SouthCoast Wind's COP, Appendices, Draft EIS and other documents are available on the BOEM website at: https://www.boem.gov/renewable-energy/state-activities/southcoast-wind-formerly-mayflower-wind

The portion of the proposed SouthCoast Wind project that is located within federal waters and within the CRMC's 2011 and 2018 GLD areas is subject to CRMC federal consistency review pursuant to the federal Coastal Zone Management Act ("CZMA"), 15 U.S.C. § 1451 et seq., and the CZMA's implementing regulations at 15 C.F.R. Part 930, Subpart D – Consistency for Activities Requiring a Federal License or Permit and Subpart E – Consistency for Outer Continental Shelf (OCS) Exploration, Development and Production Activities. The project Lease

Area, which includes the project's wind turbines, offshore substations, and inter-array cables, **is not** within CRMC's federal consistency review jurisdiction. The CRMC's federal consistency review is restricted to the portion of the Brayton Point export cable corridor that passes through the CRMC's GLD areas.

The CRMC, as the State's authorized coastal zone management agency must issue a federal consistency decision as to whether the federal waters portion of the Brayton Point export cable corridor is consistent with the State's federally approved enforceable policies located in the Ocean Special Area Management Plan (650-RICR-20-05-11). The State's federal consistency decision is required before BOEM may approve the SouthCoast Wind COP pursuant to 30 C.F.R. § 585.628(f).

The SouthCoast Wind project also proposes activities within Rhode Island State Waters to include the installation and operation of up to six submarine offshore export cables, including up to four power cables and up to two communications cables. These cables would run from the federal water boundary, through the Sakonnet River, make intermediate landfall on Aquidneck Island in Portsmouth, Rhode Island, reenter Mount Hope Bay and make landfall at Brayton Point in Somerset, Massachusetts.

The State Water portion of the proposed SouthCoast Wind project **is not** the subject of this public notice. The CRMC will be issuing a separate public notice for in-state activities as they require a State Assent.

SouthCoast Wind's federal consistency certification request, which is the subject of this public notice, has been assigned **CRMC File Number 2022-03-080**. The consistency certification is available online at CRMC's project page (http://www.crmc.ri.gov/windenergy/southcoast.html). The consistency certification is also available online in Appendix D3 of the SouthCoast Wind COP along with other project information here: https://www.boem.gov/renewable-energy/state-activities/southcoast-wind-formerly-mayflower-wind.

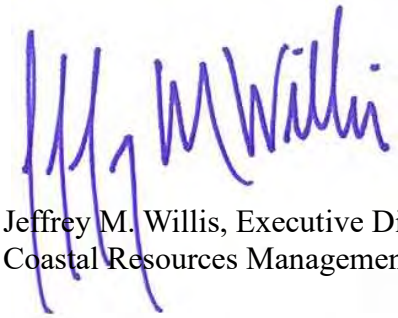
The CRMC is providing this public notice concerning the federal consistency certification for the portion of the SouthCoast Wind project **located within the Rhode Island GLD areas in federal waters only** in accordance with 15 C.F.R. § 930.61. All interested parties are invited to submit written comments concerning the proposed project on or before July 23, 2023. Comments should be specifically directed as to the issue of whether the proposed SouthCoast Wind project is consistent with the enforceable policies of the Rhode Island Coastal Resources Management Program. The CRMC will hold a public meeting on this federal consistency matter **at a date and place to be announced at a later time.**

Mailing Address for Public Comment Submissions:

Coastal Resources Management Council
Stedman Government Center
4808 Tower Hill Road
Wakefield, RI 02879
Attn. Jeffrey Willis, CRMC Executive Director

Written comments may be emailed to the CRMC at: cstaff1@crmc.ri.gov

Signed this May 24, 2023.



Jeffrey M. Willis, Executive Director
Coastal Resources Management Council

Appendix 6

CRMC & SouthCoast Wind Stay Agreements
&
BOEM Notice of Stay Letters

State of Rhode Island
Coastal Resources Management Council
Oliver H. Stedman Government Center
4808 Tower Hill Road, Suite 116
Wakefield, RI 02879-1900

(401) 783-3370
Fax (401) 783-3767

AGREEMENT TO STAY SIX-MONTH REVIEW PERIOD

Between

Rhode Island Coastal Resources Management Council

And

Mayflower Wind Energy, LLC

The Rhode Island Coastal Resources Management Council, hereinafter referred to as the "CRMC," and Mayflower Wind Energy, LLC[1] hereinafter referred to as "Mayflower Wind," hereby agree as follows.

Pursuant to 15 CFR § 930.76, Mayflower Wind filed a Federal Consistency Certification with the CRMC on March 18, 2022 for the proposed installation of submerged renewable energy export cables within the Rhode Island 2011 and 2018 Geographic Location Descriptions (GLDs). The submerged cables are associated with the proposed offshore renewable energy wind farm project on the outer continental shelf (OCS), known as Mayflower Wind, consisting of up to 147 wind turbine generators (WTGs) and up to 5 offshore substation platforms (OSPs). The project includes two export cable corridors, one making landfall and interconnecting to the ISO New England (ISO–NE) grid in Falmouth, Massachusetts (Falmouth Offshore Export Cable Corridor), and the other making landfall and interconnecting to the ISO–NE grid at Brayton Point in Somerset, Massachusetts known as the Brayton Point Offshore Export Cable Corridor (OECC). The proposed Brayton Point OECC would be installed within Rhode Island state waters through the Sakonnet River and into Mount Hope Bay with a landfall connection at Brayton Point.

The Mayflower Wind project has been assigned CRMC File 2022-03-080 and is identified in the Federal docket as BOEM-2021-0062. The proposed WTGs and OSPs will be

[1] Mayflower Wind Energy, LLC is a 50/50 joint venture between Shell New Energies US LLC (Shell New Energies) and OW North America LLC (Ocean Winds).

installed within BOEM Lease Area OCS-A 0521, located approximately 26 nautical miles south of Martha's Vineyard. The proposed submerged cables associated with the Brayton Point OECC is a listed activity of the Rhode Island 2011 and 2018 GLDs, and therefore subject to CRMC Federal Consistency review pursuant to Section 307 of the Coastal Zone Management Act (CZMA), and the CZMA's implementing regulations at 15 C.F.R. Part 930, Subpart E.

The CRMC's CZMA six-month review period for the Mayflower Wind project began on May 27, 2022[2]. The Mayflower Wind Construction and Operation Plan (COP) anticipates obtaining all necessary permits and authorizations by Q1 of 2024 before construction begins. BOEM anticipates issuing a Notice of Availability for the Draft Environmental Impact Statement (DEIS) on or about January 6, 2023, and the CRMC expects that there will be significant information within the DEIS that will be instructive to the CRMC decision making process, including the range of expected project alternatives. And, CRMC's review of the DEIS is supported by BOEM's statement within the DEIS for the South Fork Wind project (BOEM Docket 2020–0066) in that "Cooperating agencies would rely on the DEIS to support their decision making and to determine if the analysis is sufficient to support their decision" (Emphasis added). *See* DEIS at i. State CZMA agencies are cooperating agencies under the BOEM renewable energy NEPA process.

In accordance with 15 CFR § 930.60(b), and in consideration of the Parties' mutual interest that the State have sufficient time to fully assess the consistency of the proposed Mayflower Wind project with the State's enforceable policies, the CRMC and Mayflower Wind mutually agree to the following dates and to stay the CRMC CZMA six-month review period as follows;

- Date the CRMC 6-month review period commenced: May 27, 2022
- Date the 6-month review period was to end: November 27, 2022
- Date during the 6-month review period that the stay begins: June 27, 2022
- Date that the stay ends: January 27, 2023
  (150 days remaining in the 6-month review period)

[2] The CRMC notified BOEM and Mayflower Wind in a letter dated May 31, 2022 that commencement of the CRMC CZMA federal consistency review for the Mayflower Wind project began on May 27, 2022.

- Date the 6-month review period ends and the CRMC consistency decision is due: June 27, 2023

Pursuant to 15 C.F.R. §§ 930.60, 930.62 and 930.78, the CRMC will issue its federal consistency decision on or before **June 27, 2023** unless Mayflower Wind and CRMC mutually agree in writing to another later date. Furthermore, should the CRMC conclude its CZMA review earlier than anticipated by this agreement, then the CRMC will issue its federal consistency decision at the earliest possible time prior to June 27, 2023.

This agreement made and entered by:

Jeffrey M. Willis
Executive Director, CRMC

6/24/2022
Date

Mayflower Wind Energy LLC,

Jennifer Flood
Permitting Director, Mayflower Wind Energy LLC

6/22/2022
Date

cc BOEM
NOAA OCM
CRMC Council members

State of Rhode Island
Coastal Resources Management Council
Oliver H. Stedman Government Center
4808 Tower Hill Road, Suite 3
Wakefield, RI 02879-1900

(401) 783-3370
Fax (401) 783-2069

June 28, 2022

Amanda Lefton, Director
Bureau of Ocean Energy Management
45600 Woodland Road
Sterling, Virginia 20166

James Bennett, Renewable Energy Program Manager
Bureau of Ocean Energy Management
45600 Woodland Road
Sterling, Virginia 20166

Re: **Mayflower Wind, LLC**; Docket No. BOEM-2021-0062
CRMC File 2022-03-080

Dear Ms. Lefton and Mr. Bennett,

Pursuant to 15 C.F.R. § 930.76, Mayflower Wind, LLC on March 18, 2022 filed with the Rhode Island Coastal Resources Management Council ("CRMC") a federal consistency certification for the proposed construction and operation of the Mayflower Wind offshore wind renewable energy project consisting of up to 149 foundation positions, including wind turbine generators (WTGs) and offshore substation platforms (OSPs), and two export cable corridors that will make landfall at Falmouth, Massachusetts and Brayton Point in Somerset, Massachusetts.[1] The Mayflower Wind project is contracted with NSTAR Electric Company, d/b/a Eversource Energy, to deliver 804 megawatts (MW) of offshore wind-generated electricity to Massachusetts under a 25-year Offshore Wind Renewable Energy Certificate Agreement executed in January 2020. In addition, Mayflower Wind was awarded an additional 400 MW power purchase agreement (PPA) in December 2021 by the Commonwealth of Massachusetts and its three biggest utilities as part of Massachusetts' 83C III offshore wind energy procurement. Combined with its 804 MW PPA from 83C II, the project will now provide more than 1200 MW of renewable offshore wind energy. The

[1] The Brayton Point export cables will go through Rhode Island's 2011 and 2018 Geographic Location Description areas in federal waters and into State waters up the Sakonnet River. The cable will make landfall in Portsmouth, RI and reenter State waters into Mount Hop Bay before making landfall at Brayton Point in Somerset, MA. Mayflower Wind has recently informed the CRMC that all 1200 MW in current PPAs with Massachusetts will be delivered to the Brayton Point landfall.

Mayflower Wind Construction and Operation Plan describes the project as having an operating capacity ranging between 1,600 and 2,400 MW.

The proposed installation of submerged export cables as part of the overall Mayflower Wind project is a listed activity subject to CRMC federal consistency review pursuant to Section 307 of the Coastal Zone Management Act ("CZMA"), 16 U.S.C. § 1451 *et seq*., and the CZMA's implementing regulations at 15 C.F.R. Part 930, Subpart E - Consistency for Outer Continental Shelf (OCS) Exploration, Development and Production Activities. The CRMC's CZMA six-month review period for the Mayflower Wind project began on May 27, 2022[2]. The CRMC and Mayflower Wind, LLC have mutually have agreed to stay the CRMC CZMA six-month federal consistency review period as specified in the attached stay agreement executed on June 24, 2022. **Pursuant to the agreement, the CRMC federal consistency decision in this matter is now due no later than June 27, 2023.**

The purpose of this letter is to notify the Bureau of Ocean Energy Management of this stay agreement between the parties pursuant to the requirements of 15 C.F.R. § 930.60(b). In addition, the CRMC requests BOEM not to issue a license or permit to Mayflower Wind, LLC until the requirements of 15 C.F.R. Part 930, Subparts E and H have been completely satisfied. The CRMC will promptly notify BOEM when it issues a federal consistency decision in this matter.

Please contact me at 401-783-3370 or email jwillis@crmc.ri.gov should you have any questions.

Sincerely,

Jeffrey M. Willis, Executive Director
Coastal Resources Management Council

/lat

cc Erin Healy, Permitting Manager, Mayflower Wind, LLC
David Kaiser. NOAA
Allison Castellan, NOAA
CRMC Members
Anthony DeSisto, Esq., CRMC Legal Counsel

: attachment

---

[2] The CRMC notified BOEM and Mayflower Wind in a letter dated May 31, 2022 that commencement of the CRMC CZMA consistency review period for the Mayflower Wind project began on May 27, 2022.

State of Rhode Island
Coastal Resources Management Council
Oliver H. Stedman Government Center
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Wakefield, RI 02879-1900

(401) 783-3370
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SECOND AGREEMENT TO STAY SIX-MONTH REVIEW PERIOD

Between

Rhode Island Coastal Resources Management Council

And

SouthCoast Wind Energy LLC

The Rhode Island Coastal Resources Management Council, hereinafter referred to as the "CRMC," and SouthCoast Wind Energy LLC[1] hereinafter referred to as "SouthCoast Wind," hereby agree as follows.

Pursuant to 15 CFR § 930.76, SouthCoast Wind filed a Federal Consistency Certification with the CRMC on March 18, 2022 for the proposed installation of submerged renewable energy export cables within the Rhode Island 2011 and 2018 Geographic Location Descriptions (GLDs). The submerged cables are associated with the proposed offshore renewable energy wind farm project on the outer continental shelf (OCS), known as SouthCoast Wind, consisting of up to 147 wind turbine generators (WTGs) and up to 5 offshore substation platforms (OSPs). The project includes two export cable corridors, one making landfall and interconnecting to the ISO New England (ISO–NE) grid in Falmouth, Massachusetts (Falmouth Export Cable Corridor), and the other making landfall and interconnecting to the ISO–NE grid at Brayton Point in Somerset, Massachusetts known as the Brayton Point Export Cable Corridor (Brayton Point ECC). The proposed Brayton Point ECC would be installed within Rhode Island state waters through the Sakonnet River and into Mount Hope Bay with a landfall connection at Brayton Point.

The SouthCoast Wind project has been assigned CRMC File 2022-03-080 and is identified in the Federal docket as BOEM-2021-0062. The proposed WTGs and OSPs will be

[1] SouthCoast Wind Energy LLC is a 50/50 joint venture between Shell New Energies US LLC (Shell New Energies) and Ocean Winds North America LLC. SouthCoast Wind changed its name from "Mayflower Wind Energy LLC" on February 1, 2023.

installed within BOEM Lease Area OCS-A 0521, located approximately 26 nautical miles south of Martha's Vineyard. The proposed submerged cables associated with the Brayton Point ECC is a listed activity of the Rhode Island 2011 and 2018 GLDs, and therefore subject to CRMC Federal Consistency review pursuant to Section 307 of the Coastal Zone Management Act (CZMA), and the CZMA's implementing regulations at 15 C.F.R. Part 930, Subpart E.

The CRMC's CZMA six-month review period for the SouthCoast Wind project began on May 27, 2022[2]. The SouthCoast Wind Construction and Operations Plan (COP) anticipates obtaining all necessary permits and authorizations by the end of Q1 of 2024 before construction begins. BOEM issued a Notice of Availability for the Draft Environmental Impact Statement (DEIS) on February 17, 2023. The DEIS includes significant information that is instructive to the CRMC decision making process, including it proposed range of project alternatives. CRMC's review of the DEIS as part of the federal consistency review is supported by BOEM's statement within the DEIS for the South Fork Wind project (BOEM Docket 2020–0066) in that "Cooperating agencies would rely on the DEIS to support their decision making and to determine if the analysis is sufficient to support their decision" (Emphasis added). *See* DEIS at i. State CZMA agencies are cooperating agencies under the BOEM renewable energy NEPA process.

In accordance with 15 CFR § 930.60(b), and in consideration of the parties' mutual interest that the State have additional time to fully assess the proposed project's consistency with the State's enforceable policies, the CRMC and SouthCoast Wind mutually agree to the following dates and to stay the CRMC CZMA six-month review period as specified herein:

First Stay Agreement:

- Date the CRMC 6-month review period commenced: May 27, 2022
- Date the 6-month review period was to end: November 27, 2022
- Date during the 6-month review period that the stay begins: June 27, 2022
- Date that the stay ends: January 27, 2023
  (150 days remaining in the 6-month review period)

[2] The CRMC notified BOEM and SouthCoast Wind in a letter dated May 31, 2022 that commencement of the CRMC CZMA federal consistency review for the SouthCoast Wind project began on May 27, 2022.

- Date the 6-month review period ends and the CRMC consistency decision is due: June 27, 2023

Second Stay Agreement:

- Date the first stay ended: January 27, 2023
  (49 days of the 6-month review period elapsed)
- Date during the 6-month review period the second stay begins: March 17, 2023
- Date the second stay ends: July 18, 2023
  (101 days remaining in the 6-month review period)
- Date the 6-month review period ends and the CRMC consistency decision is due: October 27, 2023

Pursuant to 15 C.F.R. §§ 930.60, 930.62 and 930.78, the CRMC will issue its federal consistency decision on or before **October 27, 2023** unless SouthCoast Wind and CRMC mutually agree in writing to another later date. Furthermore, should the CRMC conclude its CZMA review earlier than anticipated by this agreement, then the CRMC will issue its federal consistency decision at the earliest possible time prior to October 27, 2023.

This agreement made and entered by:

Jeffrey M. Willis
Executive Director, CRMC

3/24/2023
Date

SouthCoast Wind Energy LLC,

DocuSigned by:
Francis Slingsby
4758423DE94E469...

Francis Slingsby
CEO

3/23/2023
Date

cc BOEM
NOAA OCM
CRMC Council members

State of Rhode Island
Coastal Resources Management Council
Oliver H. Stedman Government Center
4808 Tower Hill Road, Suite 3
Wakefield, RI 02879-1900

(401) 783-3370
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March 27, 2023

Elizabeth Klein, Director
Bureau of Ocean Energy Management
45600 Woodland Road
Sterling, Virginia 20166

James Bennett, Renewable Energy Program Manager
Bureau of Ocean Energy Management
45600 Woodland Road
Sterling, Virginia 20166

Re: **SouthCoast Wind, LLC**; Docket No. BOEM-2021-0062
CRMC File 2022-03-080

Dear Director Klein and Mr. Bennett,

Pursuant to 15 C.F.R. § 930.76, SouthCoast Wind, LLC on March 18, 2022 filed with the Rhode Island Coastal Resources Management Council ("CRMC") a federal consistency certification for the proposed construction and operation of the SouthCoast Wind[1], offshore wind renewable energy project consisting of up to 149 foundation positions, including wind turbine generators (WTGs) and offshore substation platforms (OSPs), and two export cable corridors that will make landfall at Falmouth, Massachusetts and Brayton Point in Somerset, Massachusetts.[2] The SouthCoast Wind project is contracted with NSTAR Electric Company d/b/a Eversource Energy, Massachusetts Electric Company, each d/b/a National Grid, and Fitchburg Gas and Electric Light Company d/b/a Until to deliver 804 megawatts (MW) of offshore wind-generated electricity to Massachusetts under a 20-year Offshore Wind Renewable Energy Certificate Agreement executed in January 2020. In addition, SouthCoast Wind was awarded an additional 400 MW power purchase agreement (PPA) in December 2021 by the Commonwealth of Massachusetts and its three biggest utilities as part of Massachusetts' 83C III offshore wind energy procurement. Combined with

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[2] The Brayton Point export cables will go through Rhode Island's 2011 and 2018 Geographic Location Description areas in federal waters and into State waters up the Sakonnet River. The cable will make landfall in Portsmouth, RI and reenter State waters into Mount Hop Bay before making landfall at Brayton Point in Somerset, MA. SouthCoast Wind has recently informed the CRMC that all 1200 MW in current PPAs with Massachusetts will be delivered to the Brayton Point landfall.

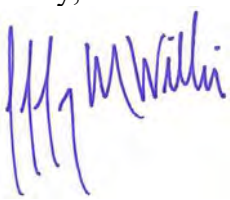
its 804 MW PPA from 83C II, the project will now provide more than 1,200 MW of renewable offshore wind energy. The SouthCoast Wind Construction and Operation Plan describes the project as having an operating capacity ranging between 1,600 and 2,400 MW.

The proposed installation of submerged export cables as part of the overall SouthCoast Wind project is a listed activity subject to CRMC federal consistency review pursuant to Section 307 of the Coastal Zone Management Act ("CZMA"), 16 U.S.C. § 1451 *et seq*., and the CZMA's implementing regulations at 15 C.F.R. Part 930, Subpart E - Consistency for Outer Continental Shelf (OCS) Exploration, Development and Production Activities. The CRMC's CZMA six-month review period for the SouthCoast Wind project began on May 27, 2022.[3] The first stay agreement CRMC and SouthCoast Wind, LLC mutually agreed to provided for a consistency decision date from CRMC on or before June 27, 2023. The parties have mutually agreed to a second stay of the CRMC CZMA six-month federal consistency review period as specified in the attached stay agreement executed March 24, 2023. The second stay is necessary to allow CRMC the appropriate time to review the project in light of the unprecedented number of offshore wind projects under CRMC's review. **Pursuant to the agreement, the CRMC federal consistency decision in this matter is now due no later than October 27, 2023.**

The purpose of this letter is to notify the Bureau of Ocean Energy Management of this stay agreement between the parties pursuant to the requirements of 15 C.F.R. § 930.60(b). In addition, the CRMC requests BOEM not to issue a license or permit to SouthCoast Wind, LLC until the requirements of 15 C.F.R. Part 930, Subparts E and H have been completely satisfied. The CRMC will promptly notify BOEM when it issues a federal consistency decision in this matter.

Please contact me at 401-783-3370 or email jwillis@crmc.ri.gov should you have any questions.

Sincerely,



Jeffrey M. Willis, Executive Director
Coastal Resources Management Council

[3] The CRMC notified BOEM and SouthCoast Wind in a letter dated May 31, 2022 that commencement of the CRMC CZMA consistency review period for the SouthCoast Wind project began on May 27, 2022.

/lat

cc Erin Healy, Permitting Manager, SouthCoast Wind, LLC
David Kaiser. NOAA
Allison Castellan, NOAA
CRMC Members
Anthony DeSisto, Esq., CRMC Legal Counsel

State of Rhode Island
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THIRD AGREEMENT TO STAY SIX-MONTH REVIEW PERIOD

Between

Rhode Island Coastal Resources Management Council

And

SouthCoast Wind Energy LLC

The Rhode Island Coastal Resources Management Council, hereinafter referred to as the "CRMC," and SouthCoast Wind Energy LLC[1] hereinafter referred to as "SouthCoast Wind," hereby agree as follows.

Pursuant to 15 CFR § 930.76, SouthCoast Wind filed a Federal Consistency Certification with the CRMC on March 18, 2022 for the proposed installation of submerged renewable energy export cables within the Rhode Island 2011 and 2018 Geographic Location Descriptions (GLDs). The submerged cables are associated with the proposed offshore renewable energy wind farm project on the outer continental shelf (OCS), known as SouthCoast Wind, consisting of up to 147 wind turbine generators (WTGs) and up to 5 offshore substation platforms (OSPs). The project includes two export cable corridors, one making landfall and interconnecting to the ISO New England (ISO–NE) grid in Falmouth, Massachusetts (Falmouth Offshore Export Cable Corridor), and the other making landfall and interconnecting to the ISO–NE grid at Brayton Point in Somerset, Massachusetts known as the Brayton Point Offshore Export Cable Corridor (OECC). The proposed Brayton Point OECC would be installed within Rhode Island state waters through the Sakonnet River and into Mount Hope Bay with a landfall connection at Brayton Point.

The SouthCoast Wind project has been assigned CRMC File 2022-03-080 and is identified in the Federal docket as BOEM-2021-0062. The proposed WTGs and OSPs will be

[1] SouthCoast Wind Energy LLC is a 50/50 joint venture between Shell New Energies US LLC (Shell New Energies) and Ocean Winds North America LLC. SouthCoast Wind changed its name from "Mayflower Wind Energy LLC" on February 1, 2023.

installed within BOEM Lease Area OCS-A 0521, located approximately 26 nautical miles south of Martha's Vineyard. The proposed submerged cables associated with the Brayton Point OECC is a listed activity of the Rhode Island 2011 and 2018 GLDs, and therefore subject to CRMC Federal Consistency review pursuant to Section 307 of the Coastal Zone Management Act (CZMA), and the CZMA's implementing regulations at 15 C.F.R. Part 930, Subpart E.

The CRMC's CZMA six-month review period for the SouthCoast Wind project began on May 27, 2022[2]. The SouthCoast Wind Construction and Operations Plan (COP) anticipates obtaining all necessary permits and authorizations by the end of Q1 of 2024 before construction begins. BOEM issued a Notice of Availability for the Draft Environmental Impact Statement (DEIS) on February 17, 2023. The DEIS includes significant information that is instructive to the CRMC decision making process, including its proposed range of project alternatives. This third stay agreement is necessary to allow the CRMC and SouthCoast Wind to continue discussions regarding the project's consistency with Rhode Island enforceable policies and to reflect delays at the federal level, which CRMC has observed in other offshore wind projects under review and anticipates for the SouthCoast Wind project. State CZMA agencies are cooperating agencies under the BOEM renewable energy NEPA process.

In accordance with 15 CFR § 930.60(b), and in consideration of the parties' mutual interest that the State have additional time to fully assess the proposed project's consistency with the State's enforceable policies, the CRMC and SouthCoast Wind mutually agree to the following dates and to stay the CRMC CZMA six-month review period as specified herein:

<u>First Stay Agreement</u>:

- Date the CRMC 6-month review period commenced: May 27, 2022
- Date the 6-month review period was to end: November 27, 2022
- Date during the 6-month review period that the stay begins: June 27, 2022
- Date that the stay ends: January 27, 2023
  (150 days remaining in the 6-month review period)

[2] The CRMC notified BOEM and SouthCoast Wind in a letter dated May 31, 2022 that commencement of the CRMC CZMA federal consistency review for the SouthCoast Wind project began on May 27, 2022.

- Date the 6-month review period ends and the CRMC consistency decision is due: June 27, 2023

Second Stay Agreement:

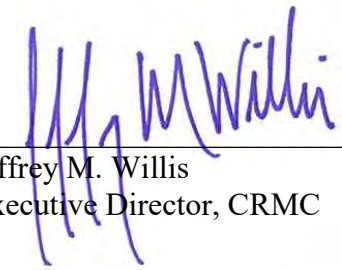
- Date the first stay ended: January 27, 2023
  (49 days of the 6-month review period elapsed)
- Date during the 6-month review period the second stay begins: March 17, 2023
- Date the second stay ends: July 18, 2023
  (101 days remaining in the 6-month review period)
- Date the 6-month review period ends and the CRMC consistency decision is due: October 27, 2023

Third Stay Agreement:

- Date the third stay begins: June 16, 2023
- Date the third stay ends: August 22, 2023
  (101 days remaining in the 6-month review period)
- Date the 6-month review period ends and the CRMC consistency decision is due: December 1, 2023

Pursuant to 15 C.F.R. §§ 930.60, 930.62 and 930.78, the CRMC will issue its federal consistency decision on or before **December 1, 2023,** unless SouthCoast Wind and CRMC mutually agree in writing to another later date. Furthermore, should the CRMC conclude its CZMA review earlier than anticipated by this agreement, then the CRMC will issue its federal consistency decision at the earliest possible time prior to December 1, 2023.

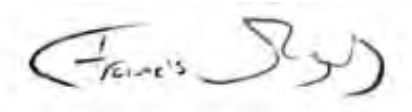
This agreement made and entered by:



Jeffrey M. Willis
Executive Director, CRMC

06/30/2023
Date

SouthCoast Wind Energy LLC,



06/28/2023

Francis Slingsby
CEO

Date

cc BOEM
NOAA OCM
CRMC Council members

State of Rhode Island
Coastal Resources Management Council
Oliver H. Stedman Government Center
4808 Tower Hill Road, Suite 3
Wakefield, RI 02879-1900

(401) 783-3370
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June 30, 2023

Elizabeth Klein, Director
Bureau of Ocean Energy Management
45600 Woodland Road
Sterling, Virginia 20166

Karen J. Baker, Chief
Bureau of Ocean Energy Management
45600 Woodland Road
Sterling, Virginia 20166

Re: **SouthCoast Wind LLC**; Docket No. BOEM-2021-0062
CRMC File 2022-03-080

Dear Director Klein and Ms., Baker,

Pursuant to 15 C.F.R. § 930.76, SouthCoast Wind LLC on March 18, 2022 filed with the Rhode Island Coastal Resources Management Council ("CRMC") a federal consistency certification for the proposed construction and operation of the SouthCoast Wind[1], offshore wind renewable energy project consisting of up to 149 foundation positions, including wind turbine generators (WTGs) and offshore substation platforms (OSPs), and two export cable corridors that will make landfall at Falmouth, Massachusetts and Brayton Point in Somerset, Massachusetts.[2] The SouthCoast Wind project is contracted with NSTAR Electric Company d/b/a Eversource Energy, Massachusetts Electric Company, each d/b/a National Grid, and Fitchburg Gas and Electric Light Company d/b/a Until to deliver 804 megawatts (MW) of offshore wind-generated electricity to Massachusetts under a 20-year Offshore Wind Renewable Energy Certificate Agreement executed in January 2020. In addition, SouthCoast Wind was awarded an additional 400 MW power purchase agreement (PPA) in December 2021 by the Commonwealth of Massachusetts and its three biggest utilities as part of Massachusetts' 83C III offshore wind energy procurement. Combined with its 804 MW PPA

[1] SouthCoast Wind LLC changed its name from "Mayflower Wind LLC" on February 1, 2023.
[2] The Brayton Point export cables will go through Rhode Island's 2011 and 2018 Geographic Location Description areas in federal waters and into State waters up the Sakonnet River. The cable will make landfall in Portsmouth, RI and reenter State waters into Mount Hop Bay before making landfall at Brayton Point in Somerset, MA. SouthCoast Wind has recently informed the CRMC that all 1200 MW in current PPAs with Massachusetts will be delivered to the Brayton Point landfall.

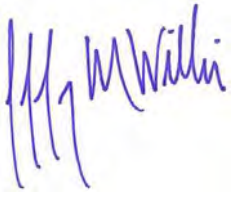
from 83C II, the project will now provide more than 1,200 MW of renewable offshore wind energy. The SouthCoast Wind Construction and Operation Plan describes the project as having an operating capacity ranging between 1,600 and 2,400 MW.

The proposed installation of submerged export cables as part of the overall SouthCoast Wind project is a listed activity subject to CRMC federal consistency review pursuant to Section 307 of the Coastal Zone Management Act ("CZMA"), 16 U.S.C. § 1451 *et seq*., and the CZMA's implementing regulations at 15 C.F.R. Part 930, Subpart E - Consistency for Outer Continental Shelf (OCS) Exploration, Development and Production Activities. The CRMC's CZMA six-month review period for the SouthCoast Wind project began on May 27, 2022.[3] The first stay agreement CRMC and SouthCoast Wind LLC mutually agreed to provided for a consistency decision date from CRMC on or before June 27, 2023. The second stay agreement provided for a consistency decision date on or before October 27, 2023. The parties have mutually agreed to a third stay of the CRMC CZMA six-month federal consistency review period as specified in the attached stay agreement executed June 30, 2023. The third stay is necessary to allow CRMC the appropriate time to review the project in light of the unprecedented number of offshore wind projects under CRMC's review. **Pursuant to the agreement, the CRMC federal consistency decision in this matter is now due no later than December 1, 2023.**

The purpose of this letter is to notify the Bureau of Ocean Energy Management of this stay agreement between the parties pursuant to the requirements of 15 C.F.R. § 930.60(b). In addition, the CRMC requests BOEM not to issue a license or permit to SouthCoast Wind LLC until the requirements of 15 C.F.R. Part 930, Subparts E and H have been completely satisfied. The CRMC will promptly notify BOEM when it issues a federal consistency decision in this matter.

Please contact me at 401-783-3370 or email jwillis@crmc.ri.gov should you have any questions.

Sincerely,



Jeffrey M. Willis, Executive Director
Coastal Resources Management Council

[3] The CRMC notified BOEM and SouthCoast Wind in a letter dated May 31, 2022, that commencement of the CRMC CZMA consistency review period for the SouthCoast Wind project began on May 27, 2022.

/lat

cc Jennifer Flood, Permitting Director, SouthCoast Wind LLC
David Kaiser. NOAA
Allison Castellan, NOAA
CRMC Members
Anthony DeSisto, Esq., CRMC Legal Counsel

State of Rhode Island
Coastal Resources Management Council
Oliver H. Stedman Government Center
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November 20, 2023

Elizabeth Klein, Director
Bureau of Ocean Energy Management
45600 Woodland Road
Sterling, Virginia 20166

Karen J. Baker, Chief
Bureau of Ocean Energy Management
45600 Woodland Road
Sterling, Virginia 20166

Re: **SouthCoast Wind LLC**; Docket No. BOEM-2021-0062
CRMC File 2022-03-080

Dear Director Klein and Ms., Baker,

Pursuant to 15 C.F.R. § 930.76, SouthCoast Wind LLC on March 18, 2022 filed with the Rhode Island Coastal Resources Management Council ("CRMC") a federal consistency certification for the proposed construction and operation of the SouthCoast Wind[1], offshore wind renewable energy project consisting of up to 149 foundation positions, including wind turbine generators (WTGs) and offshore substation platforms (OSPs), and two export cable corridors that will make landfall at Falmouth, Massachusetts and Brayton Point in Somerset, Massachusetts.[2]The SouthCoast Wind Construction and Operation Plan describes the project as having an operating capacity ranging between 1,600 and 2,400 MW.

The proposed installation of submerged export cables as part of the overall SouthCoast Wind project is a listed activity subject to CRMC federal consistency review pursuant to Section 307 of the Coastal Zone Management Act ("CZMA"), 16 U.S.C. § 1451 *et seq*., and the CZMA's implementing regulations at 15 C.F.R. Part 930, Subpart E - Consistency for Outer Continental Shelf (OCS) Exploration, Development and Production

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Activities. The CRMC's CZMA six-month review period for the SouthCoast Wind project began on May 27, 2022.[3] The first stay agreement CRMC and SouthCoast Wind LLC mutually agreed to provided for a consistency decision date from CRMC on or before June 27, 2023. The second stay agreement provided for a consistency decision date on or before October 27, 2023. The third stay provided for a consistency decision date on r or before December 1, 2023. This fourth stay agreement is necessary to allow CRMC the appropriate time to review the project. **Pursuant to the agreement, the CRMC federal consistency decision in this matter is now due no later than December 29, 2023.**

The purpose of this letter is to notify the Bureau of Ocean Energy Management of this stay agreement between the parties pursuant to the requirements of 15 C.F.R. § 930.60(b). In addition, the CRMC requests BOEM not to issue a license or permit to SouthCoast Wind LLC until the requirements of 15 C.F.R. Part 930, Subparts E and H have been completely satisfied. The CRMC will promptly notify BOEM when it issues a federal consistency decision in this matter.

Please contact me at 401-783-3370 or email jwillis@crmc.ri.gov should you have any questions.

Sincerely,

Jeffrey M. Willis, Executive Director
Coastal Resources Management Council

/lat

cc Jennifer Flood, Permitting Director, SouthCoast Wind LLC
Kyle Cassidy, Marine Science Permitting Manager, SouthCoast Wind LLC
David Kaiser. NOAA
Allison Castellan, NOAA
CRMC Members
Anthony DeSisto, Esq., CRMC Legal Counsel

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State of Rhode Island
Coastal Resources Management Council
Oliver H. Stedman Government Center
4808 Tower Hill Road, Suite 116
Wakefield, RI 02879-1900

(401) 783-3370
Fax (401) 783-3767

FOURTH AGREEMENT TO STAY SIX-MONTH REVIEW PERIOD

Between

Rhode Island Coastal Resources Management Council

And

SouthCoast Wind Energy LLC

The Rhode Island Coastal Resources Management Council, hereinafter referred to as the "CRMC," and SouthCoast Wind Energy LLC[1] hereinafter referred to as "SouthCoast Wind," hereby agree as follows.

Pursuant to 15 CFR § 930.76, SouthCoast Wind filed a Federal Consistency Certification with the CRMC on March 18, 2022 for the proposed installation of submerged renewable energy export cables within the Rhode Island 2011 and 2018 Geographic Location Descriptions (GLDs). The submerged cables are associated with the proposed offshore renewable energy wind farm project on the outer continental shelf (OCS), known as SouthCoast Wind, consisting of up to 147 wind turbine generators (WTGs) and up to 5 offshore substation platforms (OSPs). The project includes two export cable corridors, one making landfall and interconnecting to the ISO New England (ISO–NE) grid in Falmouth, Massachusetts (Falmouth Offshore Export Cable Corridor), and the other making landfall and interconnecting to the ISO–NE grid at Brayton Point in Somerset, Massachusetts known as the Brayton Point Offshore Export Cable Corridor (OECC). The proposed Brayton Point OECC would be installed within Rhode Island state waters through the Sakonnet River and into Mount Hope Bay with a landfall connection at Brayton Point.

The SouthCoast Wind project has been assigned CRMC File 2022-03-080 and is identified in the Federal docket as BOEM-2021-0062. The proposed WTGs and OSPs will be

[1] SouthCoast Wind Energy, LLC is a 50/50 joint venture between Shell New Energies US LLC (Shell New Energies) and Ocean Winds North America LLC. SouthCoast Wind changed its name from "Mayflower Wind Energy, LLC" on February 1, 2023.

installed within BOEM Lease Area OCS-A 0521, located approximately 26 nautical miles south of Martha's Vineyard. The proposed submerged cables associated with the Brayton Point OECC is a listed activity of the Rhode Island 2011 and 2018 GLDs, and therefore subject to CRMC Federal Consistency review pursuant to Section 307 of the Coastal Zone Management Act (CZMA), and the CZMA's implementing regulations at 15 C.F.R. Part 930, Subpart E.

The CRMC's CZMA six-month review period for the SouthCoast Wind project began on May 27, 2022[2]. BOEM issued a Notice of Availability for the Draft Environmental Impact Statement (DEIS) on February 17, 2023. The DEIS includes significant information that is instructive to the CRMC decision making process. This fourth stay agreement is necessary to allow the CRMC and SouthCoast Wind to continue discussions regarding the project's consistency with Rhode Island enforceable policies. State CZMA agencies are cooperating agencies under the BOEM renewable energy NEPA process.

In accordance with 15 CFR § 930.60(b), and in consideration of the parties' mutual interest that the State have additional time to fully assess the proposed project's consistency with the State's enforceable policies, the CRMC and SouthCoast Wind mutually agree to the following dates to stay the CRMC CZMA six-month review period as specified herein:

First Stay Agreement:

- Date the CRMC 6-month review period commenced: May 27, 2022
- Date the 6-month review period was to end: November 27, 2022
- Date during the 6-month review period that the stay begins: June 27, 2022
- Date that the stay ends: January 27, 2023
  (150 days remaining in the 6-month review period)
- Date the 6-month review period ends and
  the CRMC consistency decision is due: June 27, 2023

Second Stay Agreement:

- Date the first stay ended: January 27, 2023

[2] The CRMC notified BOEM and SouthCoast Wind in a letter dated May 31, 2022 that commencement of the CRMC CZMA federal consistency review for the SouthCoast Wind project began on May 27, 2022.

(49 days of the 6-month review period elapsed)

- Date during the 6-month review period the second stay begins: March 17, 2023
- Date the second stay ends: July 18, 2023
  (101 days remaining in the 6-month review period)
- Date the 6-month review period ends and
  the CRMC consistency decision is due: October 27, 2023

Third Stay Agreement:

- Date the third stay begins: June 16, 2023
- Date the third stay ends: August 22, 2023
  (101 days remaining in the 6-month review period)
- Date the 6-month review period ends and
  the CRMC consistency decision is due: December 1, 2023

Fourth Stay Agreement:

- Date the third stay ended: August 22, 2023
- Date the fourth stay begins: November 15, 2023
  (85 days elapsed)
- Date the fourth stay ends: December 13, 2023
  (16 days remaining in the 6-month review period)
- Date the 6-month review period ends and
  the CRMC consistency decision is due: December 29, 2023

Pursuant to 15 C.F.R. §§ 930.60, 930.62 and 930.78, the CRMC will issue its federal consistency decision on or before **December 29, 2023,** unless SouthCoast Wind and CRMC mutually agree in writing to another later date. Furthermore, should the CRMC conclude its CZMA review earlier than anticipated by this agreement, then the CRMC will issue its federal consistency decision at the earliest possible time prior to December 29, 2023.

This agreement made and entered by:

Jeffrey M. Willis
Executive Director, CRMC

20 NOV 2023
Date

SouthCoast Wind Energy LLC,

DocuSigned by:
Francis Slingsby
4758423DE94E469...

Francis Slingsby
CEO

17-Nov-2023
Date

cc BOEM
NOAA OCM
CRMC Council members

Appendix 7

CRMC Subject Matter Expert Benthic Geologic Habitat Mapping Reviews

Review of Benthic Geologic Habitat Mapping for the Proposed South Coast Wind Energy Cable Corridor

Bryan A. Oakley

Oakley.Bryan@gmail.com

Report Prepared for Rhode Island Coastal Resources Management Council

3 November 2023

Oakley Geologic Consulting

The focus of this review is an examination of the interpretated benthic geologic habitats of the proposed South Coast Wind Energy Area (SCW) and Brayton Point Offshore Export Cable Corridor (OECC) within the Rhode Island Coastal Resources Management Council Geographic Location Description Boundary (GLD). A particular focus is on the results of the benthic habitat mapping data interpreted by Inspire Environmental, as well reports provided in the Construction and Operation Plan (COP). The scope of this review focused on the wind energy corridor extending through federal and Rhode Island state waters, however the review extended to cover the entire OECC extending to the landfall at Brayton Point, Massachusetts at the request of Rhode Island CRMC for consistency.

I concur with comments within the COP that the benthic data collected was of sufficient quality for the geologic interpretations, and proper tools and techniques were used in the field surveys. As an aside, the initial geophysical data collection efforts of FURGO (2022) are exceptionally well done, providing clear data sources for interpretation, and the organization of the data into a web-based GIS viewer by INSPIRE is intuitive and very well organized. The overall mapping of geologic habitats (specifically moraine) within the area was mostly sound, particularly around the terminal moraine. Some differences in interpretation are discussed in the report below.

The primary motivation for this review is the identification of areas mapped (or not mapped) as glacial moraine and similar complex habitats; Glacial moraines have been identified as areas of particular concern (APC) as part of the Rhode Island Ocean Special Area Management Plan (§ 11.10.2). Glacial moraines are important habitat areas for a diversity of fish and other marine plants and animals because of their relative structural permanence and complexity. The moraines are also important to commercial and recreational fishermen. Much of the original work on the inner shelf offshore of New England was based on limited seismic reflection profiles, hydrographic data and correlation with stratigraphic units above sea level (e.g., Schafer, 1965; Stone and Borns jr., 1986; Stone and Sirkin, 1996), so it is not unexpected that the recent high-resolution mapping efforts have identified additional moraines/APC. The more detailed mapping completed within the SCW OEC (as well as adjacent wind energy areas) improves upon the existing understanding of the extent of geologic habitats south of Rhode Island beyond those identified in the (OSAMP) (LaFrance et al., 2010). The SCW wind-energy area is south of all previously mapped glacial moraines (and outside RICRMC GLD), however the corridors identified for the transmission cable cross both the terminal and recessional moraine(s) of the Late Wisconsinan Laurentide Ice Sheet, which extended across New England, reaching a terminal position sometime before 26,000 yBP (figure 1). This includes moraine deposits identified in the Ocean Special Area Management Plan (LaFrance et al., 2010) as well as newly mapped moraine deposits and other areas of complex seafloor habitat.

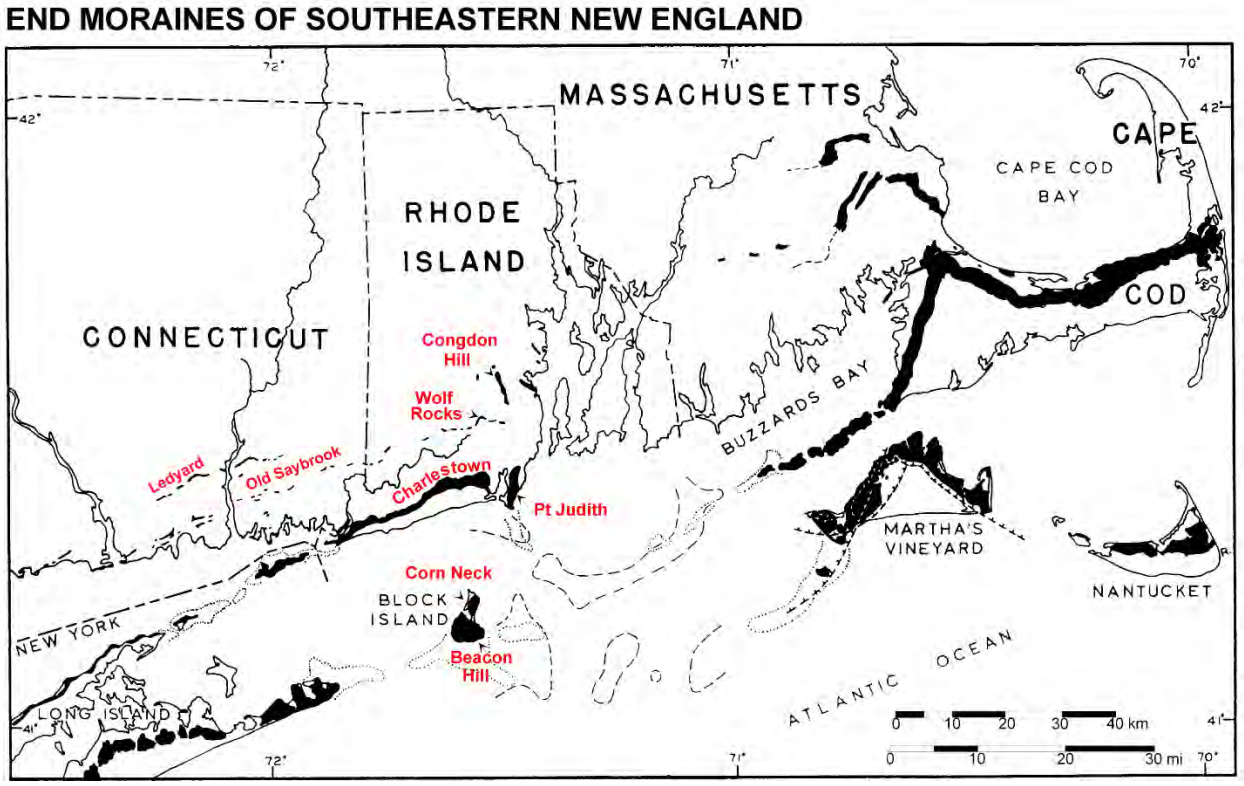

Figure 1: End moraines of southeastern New England (modified from Boothroyd and Sirkin, (2002). Black polygons are moraines exposed above sea level; dashed lines are inferred extensions of the moraines below sea level. Moraines adapted from Shafer and Hartshorn (1965) and Sirkin, (1982).

The moraines of southern New England are glacial tectonic moraines formed from older, pre-existing deposits deformed and thrusted by the fluctuating ice margin of the Laurentide Ice Sheet during the Late Wisconsinan. This produced a complicated stratigraphy and morphology (figure 2) (Oldale and O'Hara, 1984). The pre-existing sediment includes till (diamict) as well as stratified deposits ranging from coarse-grained (i.e., sand and gravel) ice-marginal meltwater deposits to fine-grained (silt/clay) lacustrine deposits. Portions of the moraine contain blocks of Cretaceous aged Coastal Plain strata displaced up to 80 m above the in-place elevation (Oldale and O'Hara, 1984). The stratigraphic complexity of the moraine and glacial-tectonic origin is well illustrated on Block Island, RI (Boothroyd and Sirkin, 2002; Stone and Sirkin, 1996) and Martha's Vineyard (Oldale and O'Hara, 1984). The formation of these moraines is relevant because the process results in a landform composed of a variety of sediment types. The vertical and lateral heterogeneity of the moraine deposits produces a multifaceted suite of geologic habitats at the surface. The complex topography creates a pattern where topographic highs are generally dominated by coarser grained sediment (e.g., cobble-gravel and boulders) which can be derived (figure 2) from discontinuous ablation till deposited when the ice advanced across the moraine prior to retreat (Oldale and O'Hara, 1984) and the flanks of the moraine are often overlain by stratified deposits, reworked glacial deposits or Holocene marine sediment.

Where the moraines are exposed at the surface, boulders, and other coarse-grained sediment (e.g., cobbles) are common. Boulders, as a result, serve as a proxy for 'moraine' habitat, although they are not diagnostic for the broader moraine landform. Other geologic units can also contain boulders, including glacial till over bedrock or very-coarse grained ice-marginal stratified deposits (including eskers, ice-channel fillings and ice-proximal fluvial deposits). These are all areas of complex seafloor habitats and even if not formed by fluctuations of the ice-margin as a "moraine", impacts to these areas should be minimized as they are similar to the moraine deposits in structural form and benthic geologic habitat distribution.

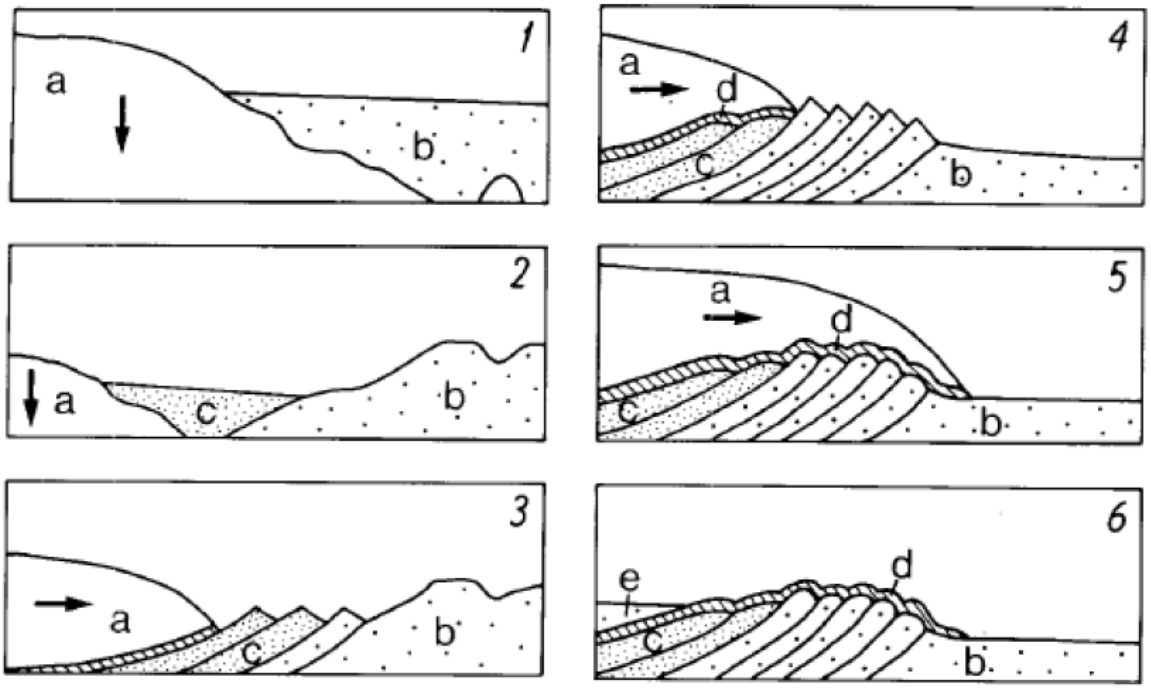

Figure 2: Formation of tectonic end moraines in southern New England (figure 12, Oldale and O'Hara, 1984). The ice sheet is 'a'; units b and c are stratified deposits deformed by the fluctuating ice margin. The number in the box represents the relative age, with 1 being the oldest. Note the till veneer (d) deposited in stages 5 and 6, which in this model extended beyond the main portion of the moraine as a thin layer overlying other ice-contact stratified deposits.

The main issues identified in this review that impact moraine/APC are with the Brayton Point Offshore Export Cable Corridor (OECC), which will connect SCW to Brayton Point, Massachusetts. This review concurs with the contractor mapping that offshore/beyond KP 99, the glacial deposits, which occur within 5 m of the seafloor are glacial stratified deposits laid down by the melting and retreating Laurentide Ice Sheet. (Figure 3.16 MFOW). As well stated by FUGRO (2022) boulders are not transported across the continental shelf by processes other than the advance and retreat of the Laurentide Ice Shet. Boulders are not likely to be found beyond the terminal margin of the ice sheet (unless deposited by an earlier glaciation), however boulders can be encountered at any point north of the terminal margin. Taken together, impacts to glacial moraine/glacial till or other complex habitats were not identified beyond KP 99 or within the wind-energy area.

The Brayton Point OECC crosses both the terminal and recessional moraine(s) of the LIS and these areas are associated with dense boulder fields throughout the corridor. While relict and active fishing gear (i.e., Lobster Traps) and dumped debris may account for some of these targets, the sheer number and concentration of these boulders suggests most are of a geologic origin. The Cable Burial Risk Assessment (CBRA) examines the shallow stratigraphy along the Brayton Point OECC. As noted, glacial diamict/till/moraine deposits, which have a complex benthic habitat when exposed at the seafloor, range from 0 to 20m thick (FUGRO, 2022). These deposits underlie the shallow Holocene transgressive deposits over 62 km (between KP 27 and 89). The COP plan (FUGRO, 2022) reports that moraine/till deposits are exposed at the seafloor between KP 37 and 45 as well as KP 75 and 88 surficial boulders were more abundant between KP74 and 84 (additional areas of concern are discussed below).

The conceptual model shown within FUGRO (2022) provides a general framework for the distribution of boulders within glacial moraines and adjacent areas (figure 3), however these cross-sections lump the glacial till and moraine deposits together stratigraphically. Given the difference in formation processes and composition, geologically these are separate stratigraphic layers. FUGRO (2022) shows different examples of glacial moraine exposed at the seafloor; some examples show positive relief, others negative relief where marine processes have removed the overlying Holocene transgressive deposits to uncover the moraine deposits below. FUGRO (2022) outlines the distribution of boulder and moraine deposits in various illustrative figures. Figure 4 shows the conceptual distribution of boulders by concentration related to glacial till and moraine deposits. Figure 5, modified from Baldwin et al., (2016) shows the main bodies of terminal and recessional moraine deposits. Figure 5 also shows the additional areas of likely glacial moraine and boulder fields south of the inferred terminal limit, as well as the added complexity between the terminal moraine at Martha's Vineyard and recessional Buzzards Baoy Moraine. These are discussed further in the review below. Boulder concentrations were mapped (figure 6) by FUGRO ((2022); see figures 3.7 – 3.10 in the report). This did not translate into the benthic habitat mapping of Inspire. This differs from previous projects and reviews where the boulder density (number of boulders per $100m^2$) was included with the benthic habitat data. The inclusion of boulder concentrations supplies additional context on the level of impact of the cable corridor.

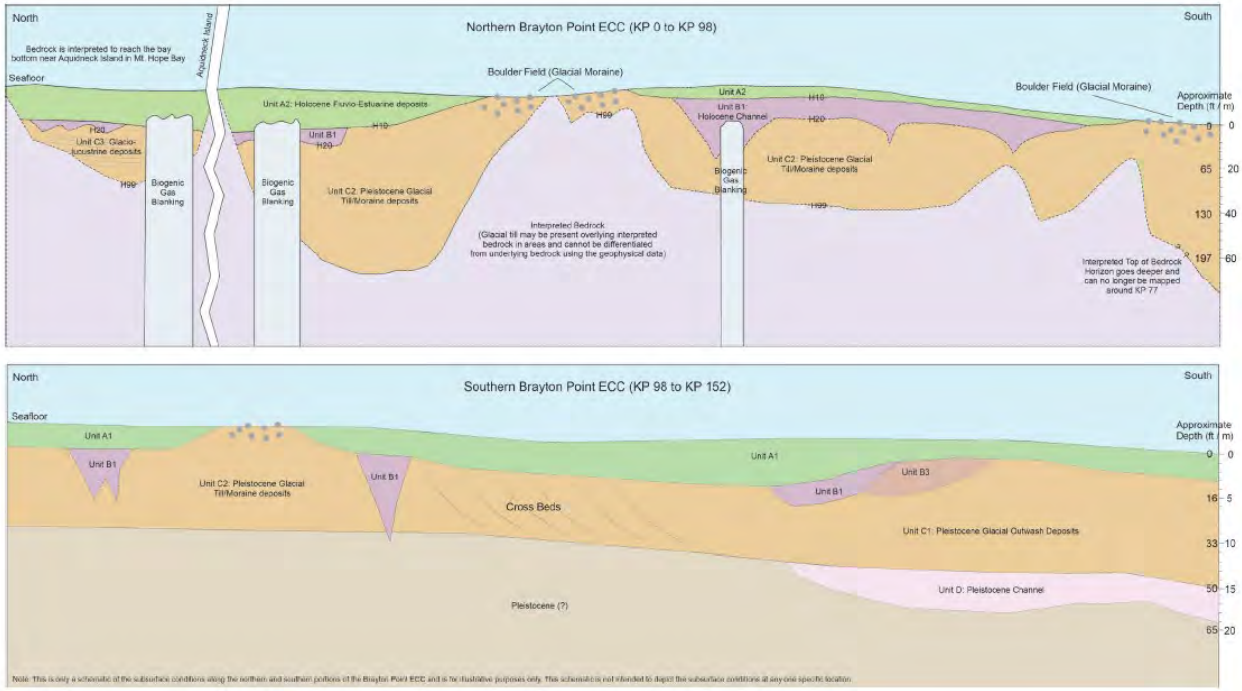

Figure 3: Schematic cross-section of the OCESS within FUGRO, 2022 (figure 2.6) showing a composite cross-section. Note the lumping of glacial till/moraine deposits.

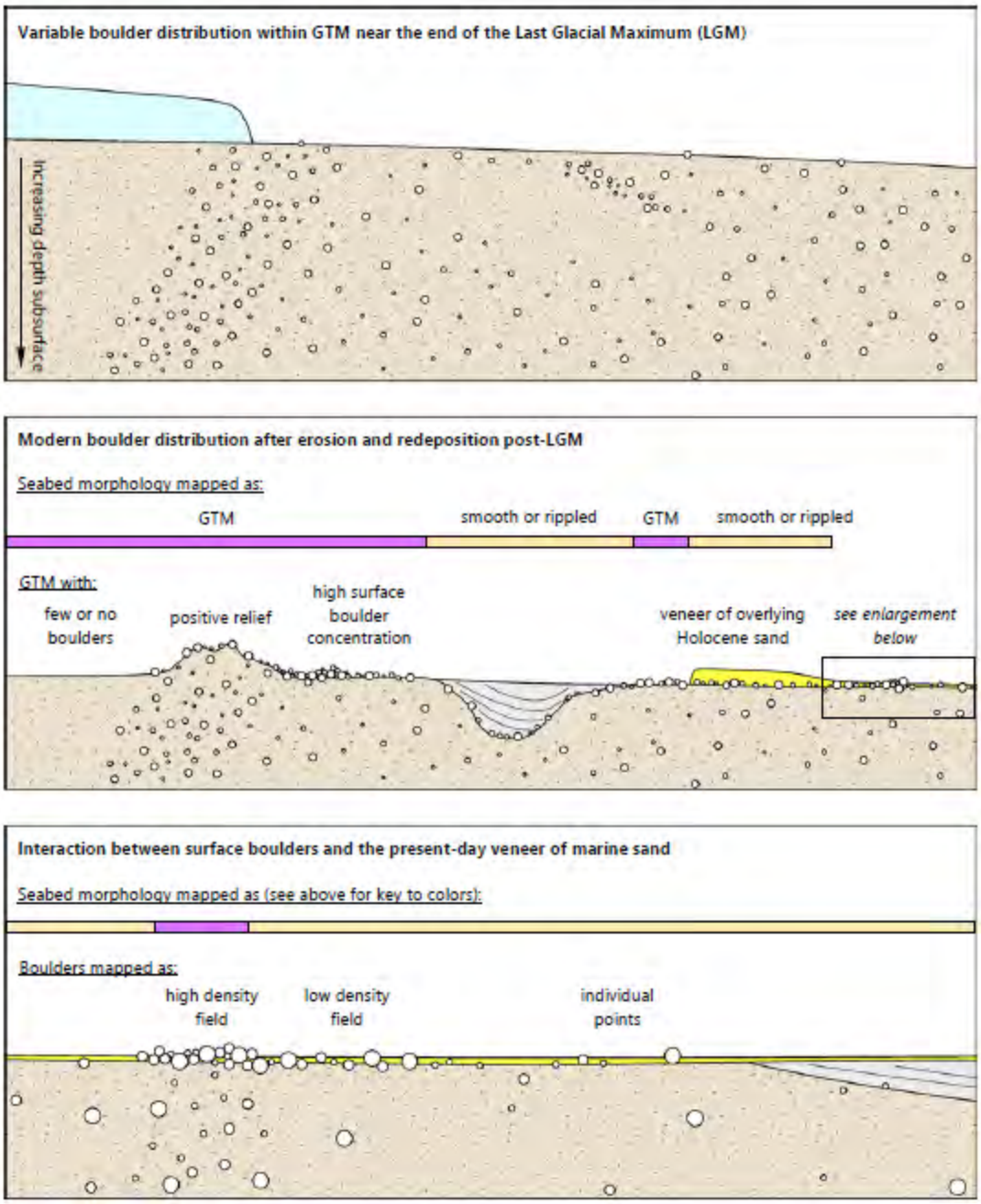

Figure 4. Conceptual model of boulder distribution from FUGRO (2022). Note the presence of boulders at the surface and subsurface in areas of glacial till/moraine (GTM).

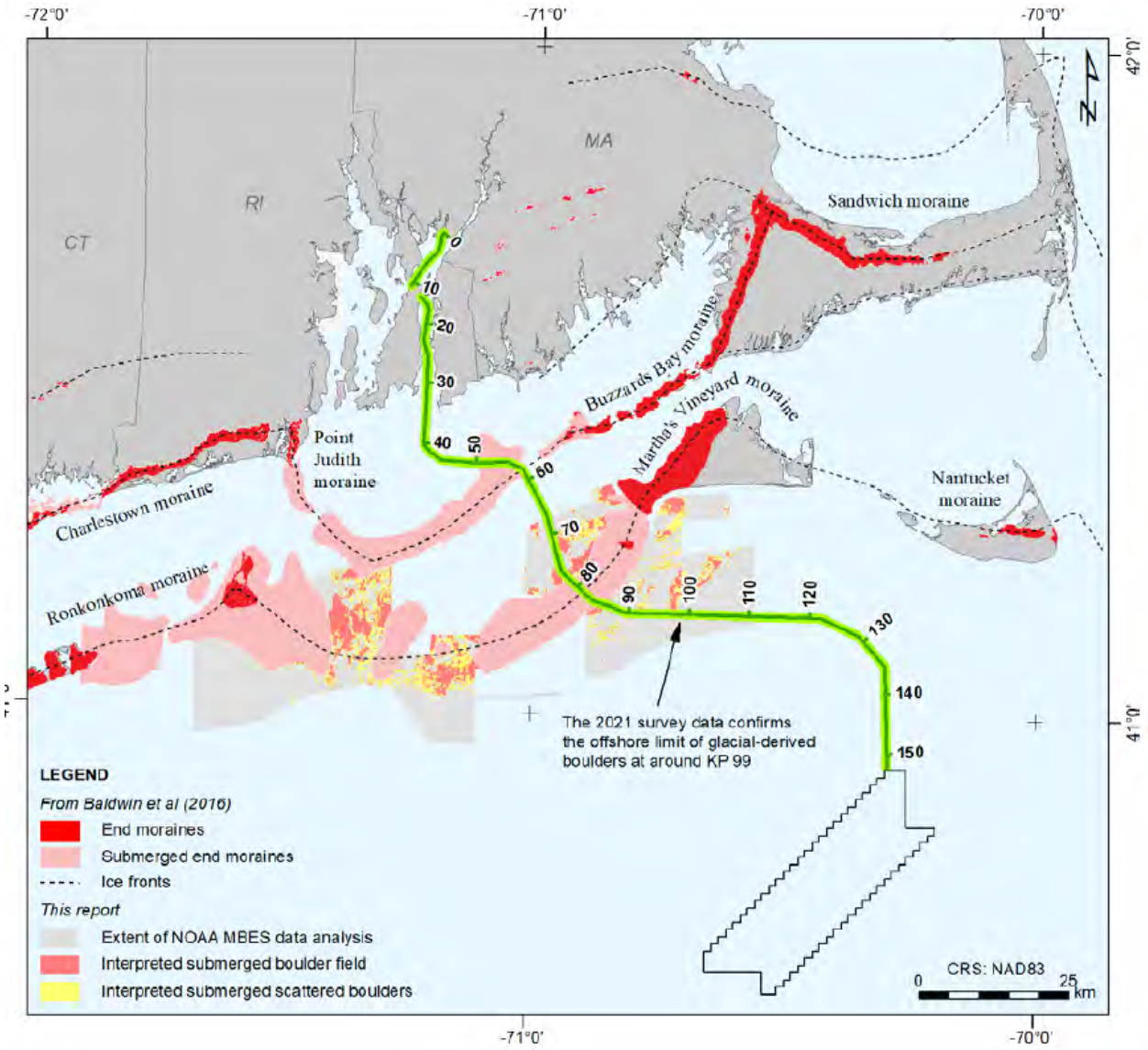

Figure 5: Map of the Brayton Point OECC as shown in figure 3.6 from FUGRO (2022) showing the extent of end moraines, submerged end moraines (Baldwin et al., 2016) and areas of boulder fields and scattered boulders.

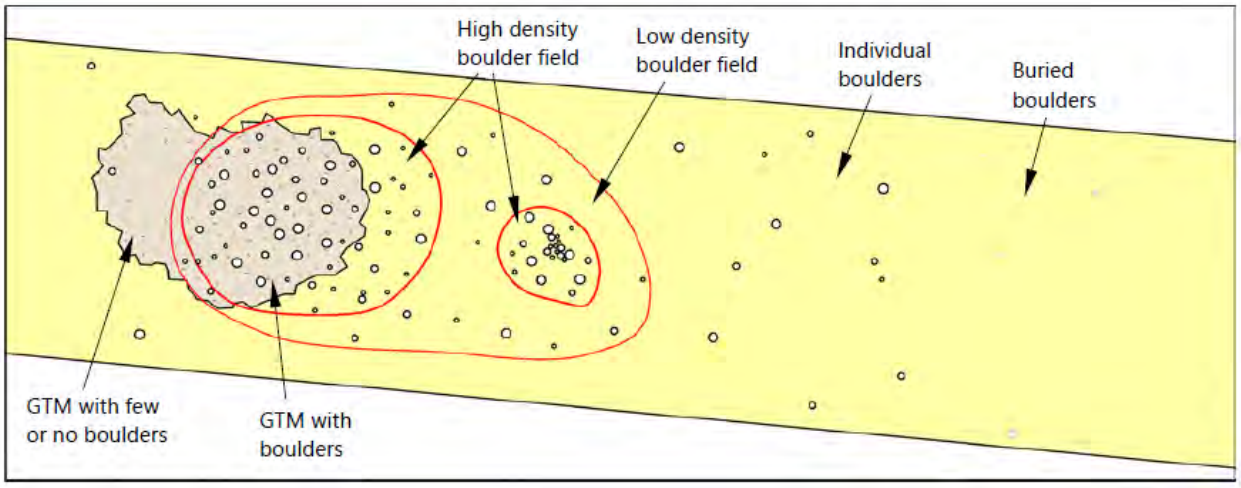

Figure 6: Conceptual model of boulder density related to glacial till/moraine deposits (GTM). This is figure 3.7 in FUGRO (2022).

The geologic origin of these boulders and moraine deposits south of the larger, well mapped terminal moraine complex remains unclear, but given the proximity to the terminal moraine deposits, these are likely related to the last glacial maximum Laurentide Ice Sheet, either as a furthest advance of the ice shee before retreating to the larger terminal moraine complex OR coarse-grained ice-marginal stratified deposits. Other authors have suggested that lobes of the Laurentide Ice Sheet offshore of southern New England extended further south in earlier glaciations than Late Wisconsinan (Siegel et al., 2012). Stanford et al., (2021) report evidence of two glaciations older than the Late Wisconsinan (one from the early Pleistocene and one probably from the Illinoian glaciation ~130,000 yBP. Moraines marking this probable Illinoian glaciation extend ~5 km south of the Late Wisconsinan glacial maximum, suggesting, at least there, the southern extent of the ice sheet was similar during the Illinoian. The possibility that these boulders are moraine deposits from this earlier glaciation cannot be ruled out without a more detailed review of the seismic reflection profiles and geotechnical data. An alternative hypothesis to the deposits being ice-marginal stratified deposits, is that these are till deposits from the maximum Late Wisconsinan extent of the Laurentide, laid down when the ice advanced over the moraine, depositing a till layer beyond the main part of the moraine (See figure 1). Further analysis of the stratigraphy using seismic reflection profiles could address this, but other than potentially impacting cable burial depth, the actual depositional timing of these deposits is beyond the scope of this review.

A final note on the use of the term ‘moraine’ to describe all areas of complex/bouldery benthic-geologic habitats. Careful consideration should be given when applying the term ‘moraine’ to areas of complex habitat that are not formed by fluctuations of the margin of the Laurentide Ice Sheet. While the term ‘moraine’ is used here to identify APC within areas of mapped moraine. Other (bouldery) benthic geologic habitats have other origins not related to the fluctuating margin of the Laurentide Ice Sheet. Given the designation of moraine as areas of particular concern, classifying areas of boulder sediment derived from erosion of till deposits overlying bedrock outcrop could lead to unintended consequences during permitting and review. An

additional concern is that many of these areas that are actually glacial till may have shallow bedrock, which could impact cable burial. Regardless of terminology differences, it bears restating that these areas of coarse-grained (gravel/boulder) sediment are all areas of complex seafloor habitats regardless of the formation process. Impacts to these areas should be minimized as they are similar to the moraine deposits in structural form, permanence and benthic geologic habitat distribution.

Brayton Point Offshore Export Cable Corridor Review

While the entre OECC area was examined, a kilometer post by kilometer post review was not compiled here. For brevity, areas not noted are interpreted to have no significant disturbance to a glacial moraine (or other similar complex habitat). The general flow of this report is from south/east towards the north/west. The proximity of the feature is discussed compared to the nearest kilometer posts (or between kilometer posts).

Kilometer Posts 97 – 91

Areas of moraine and scattered boulder fields were identified south of the previously mapped terminal limit of the Laurentide Ice Sheet, approximately 16 km south of Squibnocket (Martha's Vineyard). Surface sediment grab samples in this area are predominantly sand (with some scattered gravel; see Station BP045 for an example), with some muddy sand, gravelly and gravel mixes. The moraine deposits in these areas are not continuous across the entire Brayton Point OECC and proper routing and siting should minimize impacts in this region.

Kilometer Posts 75 - 85

Where the Brayton Point OECC crosses the terminal moraine extending southwest from Martha's Vineyard through Nomans Land and continuing offshore as Southwest Shoal, boulder fields span the entire width of the corridor. Routing the cable through these sections without affecting the moraine habitat will be difficult. The MFOW noted (figure 3.10 in FUGRO (2022)) that the highest concentration and most continuous boulder fields are in this area. Crossing the moraine here will likely be unavoidable within the OECC and efforts should be made to minimize permeant changes to the habitat. Examples of the extent of boulders within these areas are found below which show different extents of the seafloor around KP 82 using both side-scan sonar (figure 7) and multi-beam bathymetry (figure 8). This area also featured distinct topographic ridges (near KP 81) (figure 9). These features are topographically distinct from other adjacent areas, and could have been mapped as moraine 'B' a classification used by the contractor on a previous project. Distinguishing moraine types was useful to delineate areas that are more topographically complex within the glacial moraine deposits. However, some subjectivity is acknowledged here, and as this area is already mapped as a complex moraine habitat. The cable burial planning (both route and cable burial techniques) should be carefully considered to maximize the cable reaching project depth. Boulders are less dense and/or are not contiguous across the OECC (as visible on side-scan and multi-beam bathymetry) between KP 80 and 77. One small (~200 m^2) area of moraine mapped between KP 76 and 75 can be avoided with proper routing of the OCECC.

Figure 7: Side-scan sonar mosaic showing the extent of boulders in the vicinity of KP82,

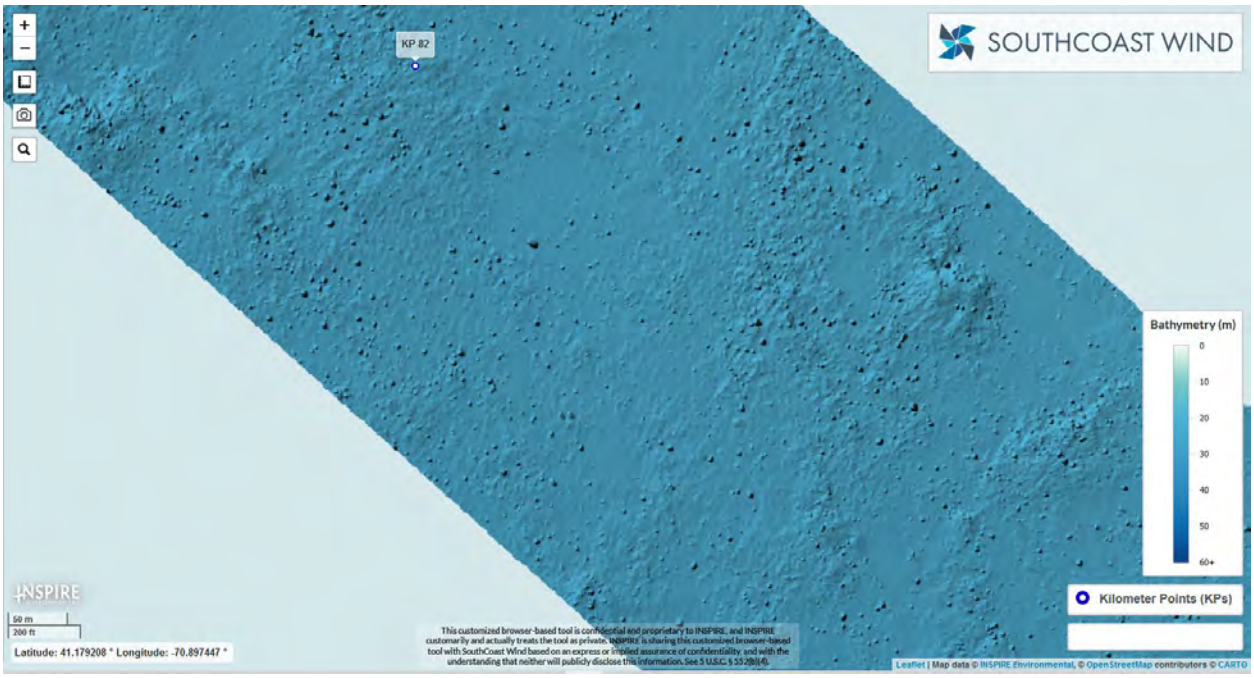

Figure 8: Multi-beam bathymetry showing the extent of boulders in the vicinity of KP82,

Figure 9: Multi-beam bathymetry around KP81.Note the topographic highs that are areas of complex topography within the overall moraine deposits.

Kilometer Posts 73 – 71.5

Boulder fields were mapped ~14km Southwest of Gay Head, Martha's Vineyard between KP 71.5 and 73. The boulders here occur in moderately dense areas of glacial moraine amid sandy substrates (See station BPT29-3). This area is located between the inferred terminal and recessional moraine positions, and it is unclear if these boulders are part of the terminal moraine complex or mark a recessional moraine 3 km north of the terminal moraine. The extent of boulders in both areas is such that routing of the cable could likely minimize impacts to these habitats.

Kilometer Posts 57-58

The cable corridor crosses previously mapped areas of glacial moraine around kilometer posts 58 to 57. This represents a position of the recessional Buzzards Bay Moraine position, and it appears that portions of the moraine are overlain by thin layers of sandy sediment (Figure 10). The extent of boulders in both areas is such that routing of the cable could likely minimize impacts to these habitats, however, the presence of boulders across the corridor could impact cable burial depth here.

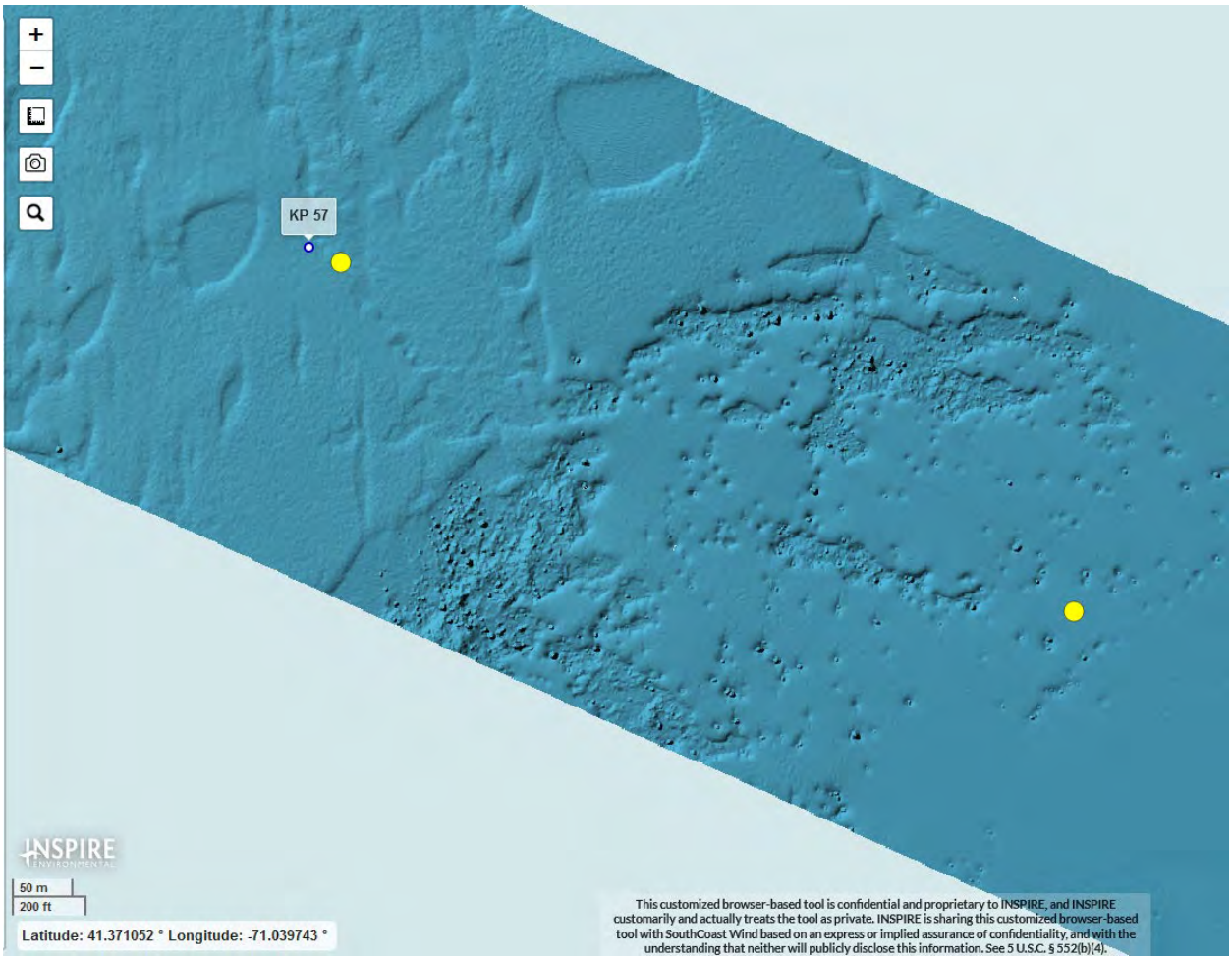

Figure 10: Multi-beam bathymetry across the recessional Buzzards Bay moraine between kilometer posts 57 and 58.

Kilometer Posts 56 – 50

This region crosses an area mapped in the OSAMP as glacial moraine 'boulder' (LaFrance et al., 2010) based on interpretations from previous workers in the region. No areas of boulder were mapped within this region and sediment samples were sandy. An important comment to reinforce is that the mapped extent of moraine refers **only** to the distribution of surface sediment not the overall landform of the area, which is **all** part of the moraine complex. The focus here is to identify areas where coarse-grained, complex habitats cropping out at the seafloor should be considered 'moraines' and identified as areas of particular concern. This is an example where the newer, more detailed mapping has refined our understanding of the geology of Rhode Island Sound.

Kilometer Posts 48.5 – 28

Scattered boulders and areas of glacial 'moraine' were mapped between kilometer posts 28 and 48.5 (figures 11-19). The boulder/complex units extend across the OECC in some portions here, so some impacts are likely. I disagree with the benthic geologic habitat mapping that this is glacial moraine, and instead these are areas where glacial till crops out at the seafloor. The model

for these areas identified between is the adjacent upland areas of Newport and Little Compton, RI; here glacial till with limited pockets of stratified sand and gravel and abundant shallow and outcropping bedrock dominate the landscape (Boothroyd and Smith, 2009; Schiner, 1964). These units, while similar in some respects to the areas where glacial moraine crop out at the seafloor are not formed by depositional processes at the margin of the retreating ice sheet. These represent areas of glacial till overlying what is likely shallow bedrock particularly around KP 34-36 (where bedrock does outcrop) (figures 17-19) and KP31 -32. The latter areas do not have bedrock exposed at the seafloor, however shallow (>5 m, and in some cases >2 m) bedrock occurs in some areas without surface boulders (e.g., KP 28-30) (figure 14) (FUGRO 2022). The cable burial planning (both route and cable burial techniques) should be carefully considered to maximize the cable reaching project depth.

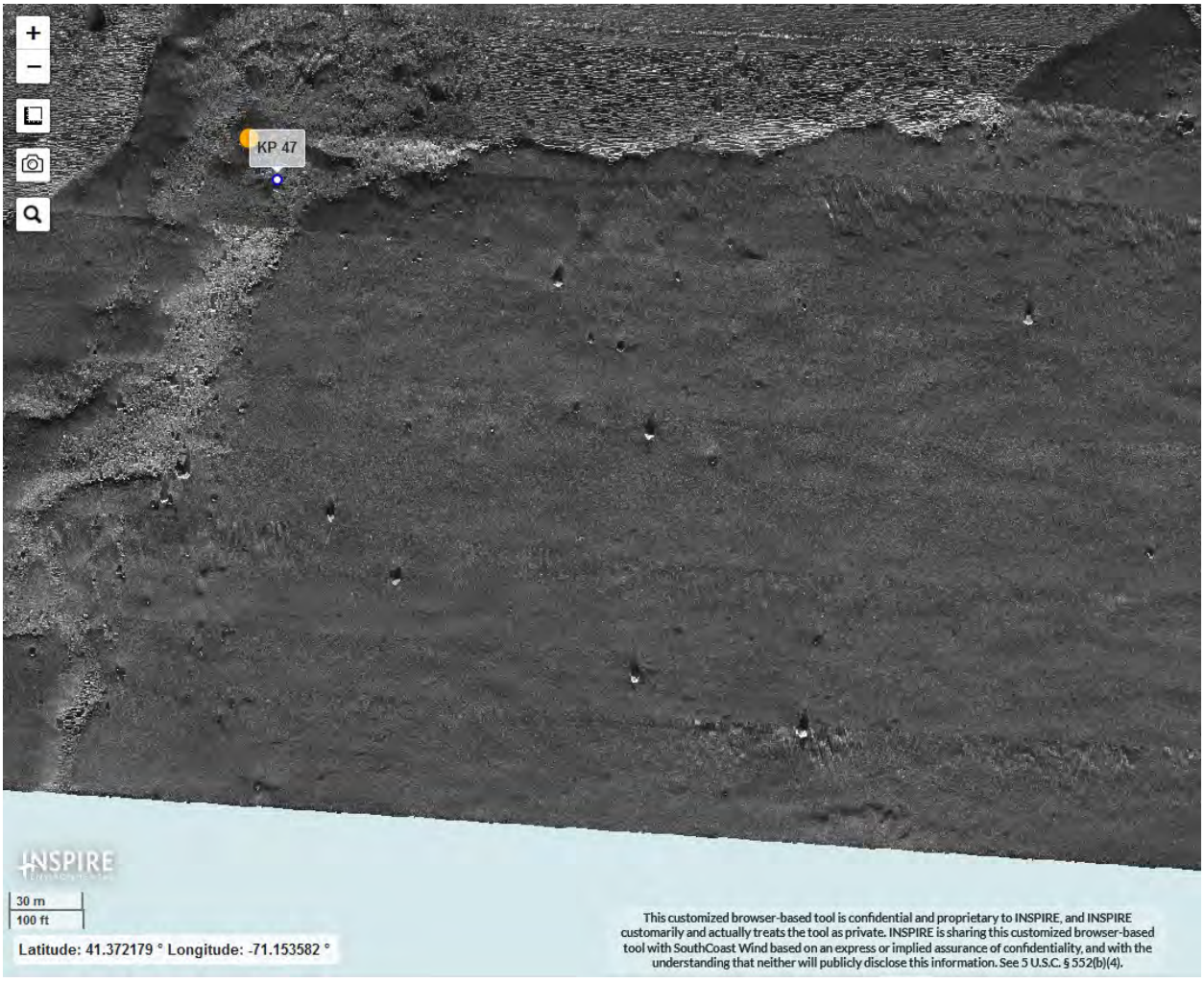

Figure 11: Side-scan sonar mosaic around kilometer post 47 showing areas of scattered boulders (southeast of KP47), denser boulders (south of and adjacent to KP47) and wave-orbital ripples (north of KP47).

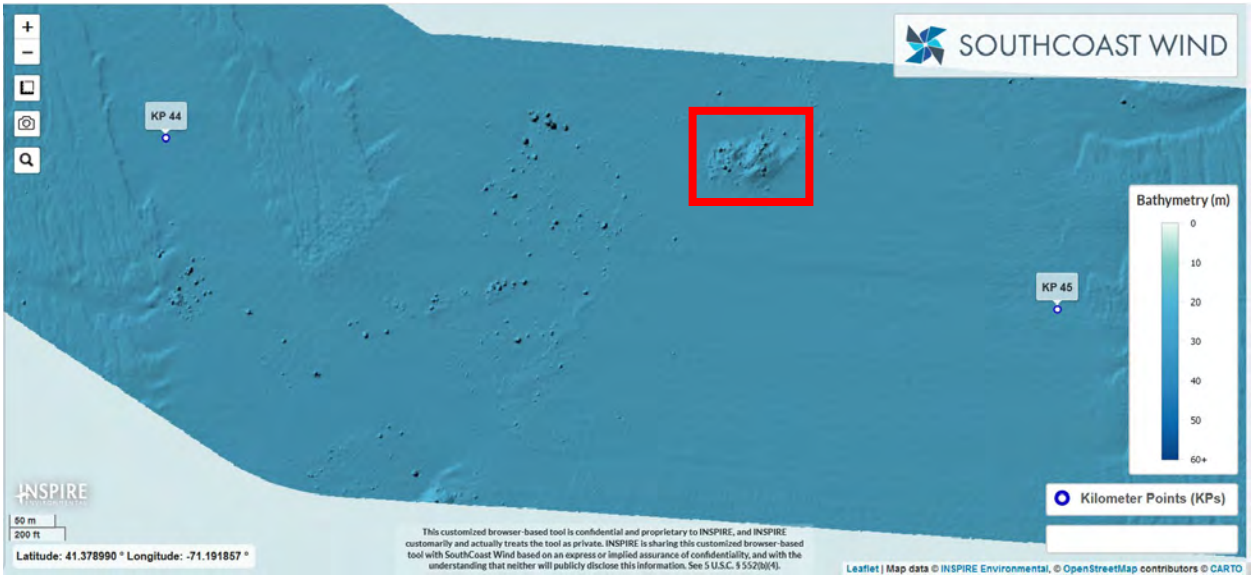

Figure 12: Multi-beam bathymetry showing isolated boulders. The red box shows the extent of the side-scan sonar mosaic seen in figures X.

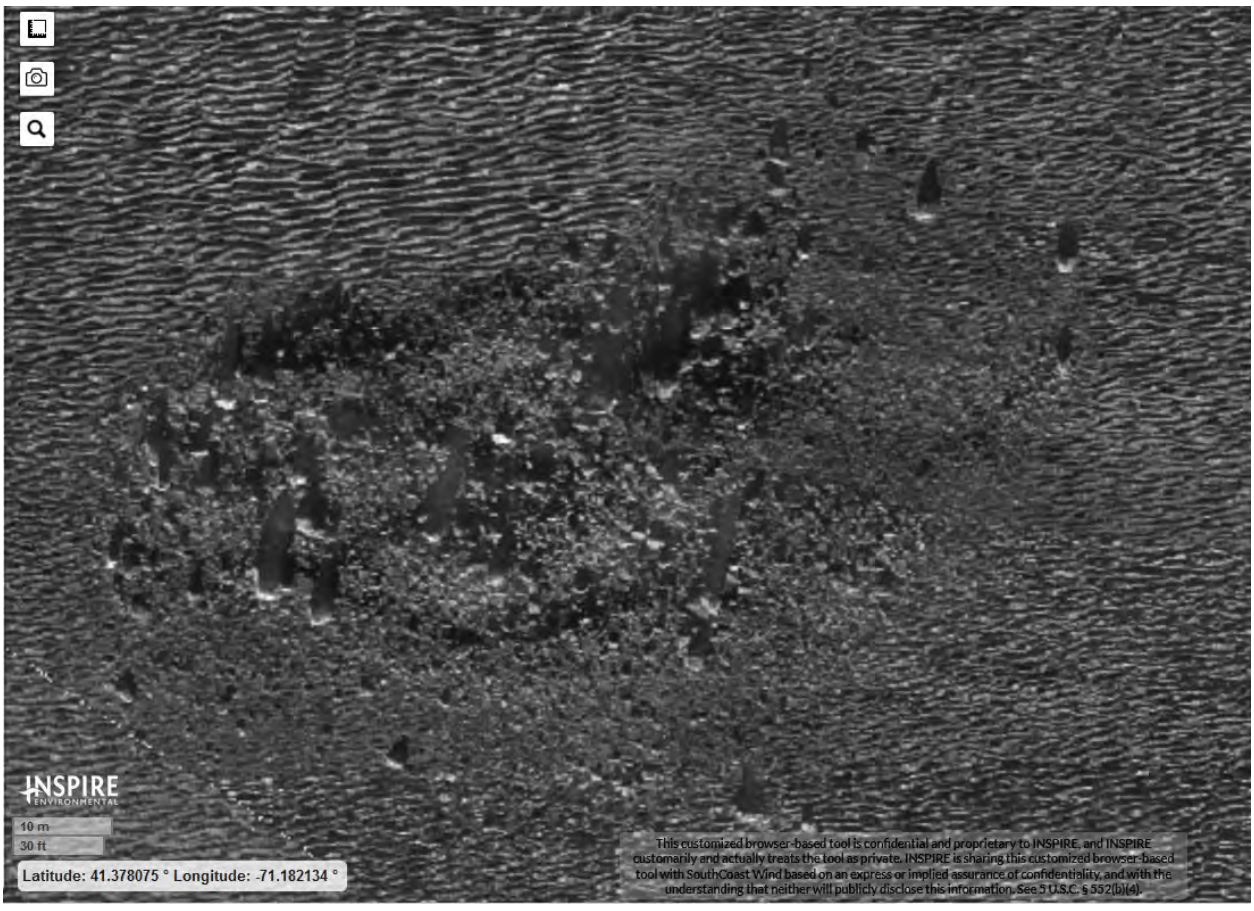

Figure 13: Side-scan sonar mosaic showing an area of dense boulders surrounded by wave-orbital ripples. See figure 11 for the location.

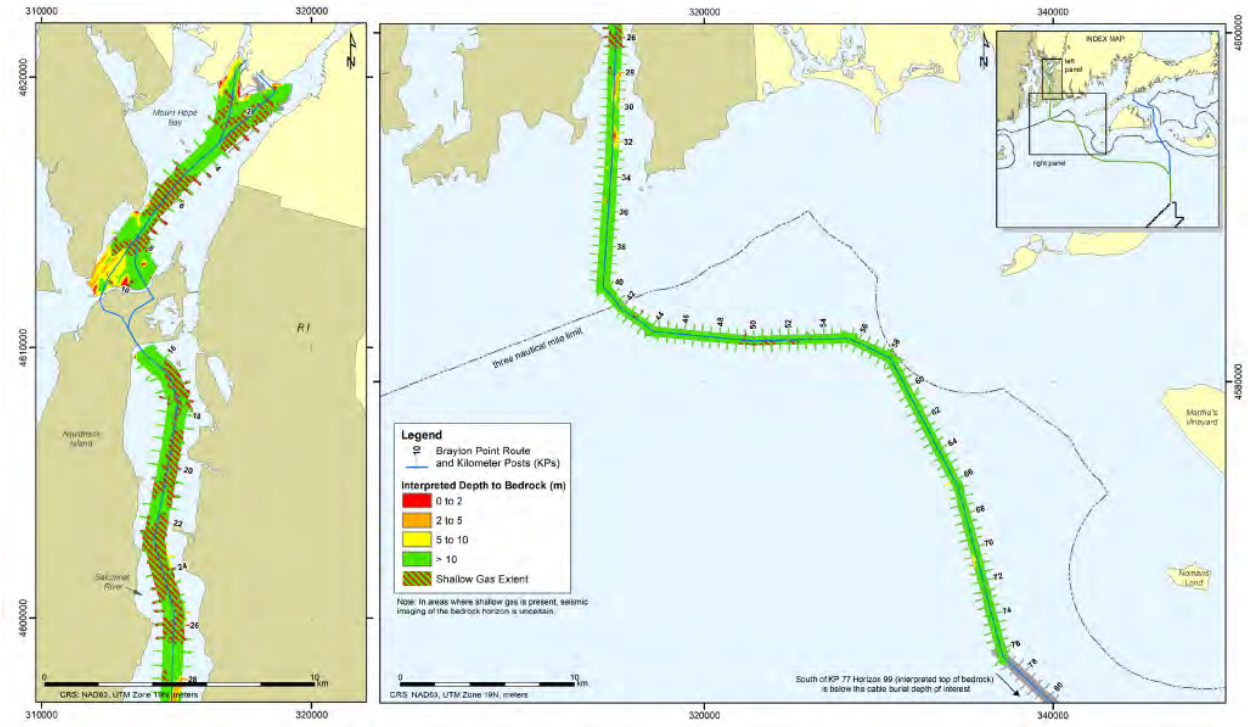

Figure 14: Interpreted depth to bedrock for the OCEE (Figure 3.3; FUGRO 2022).

Figure 15: Side-scan sonar mosaic near kilometer post 40 showing widespread cobbles and boulders.

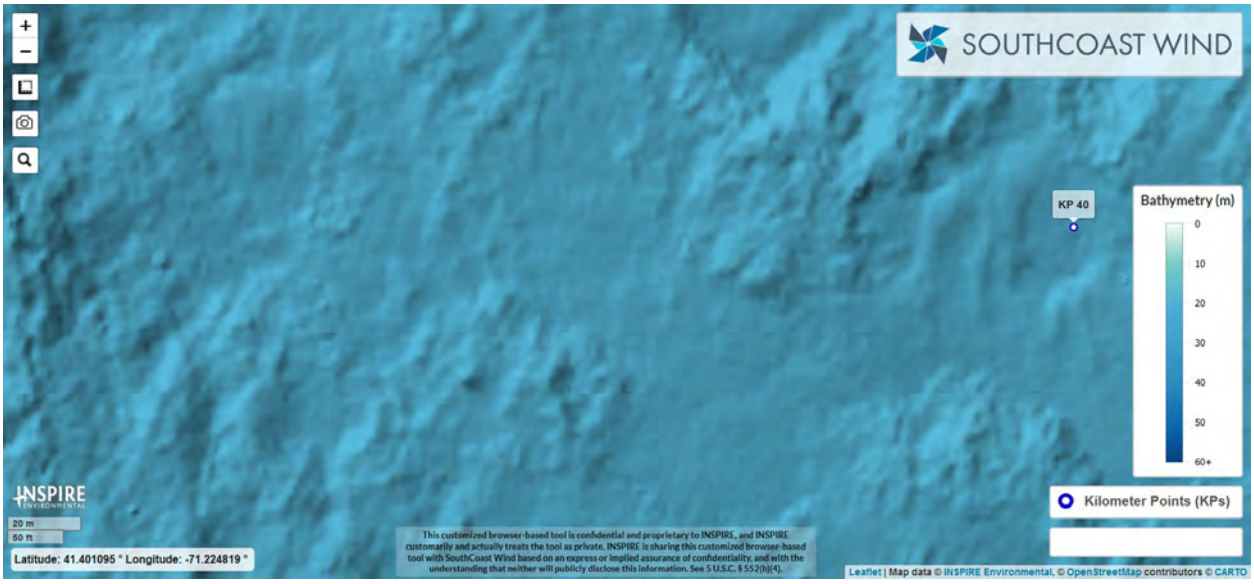

Figure 16: Multibeam bathymetry near kilometer post 40 showing the complex topography of the area. Topographic highs area areas of cobble-boulder gravel (figure 14).

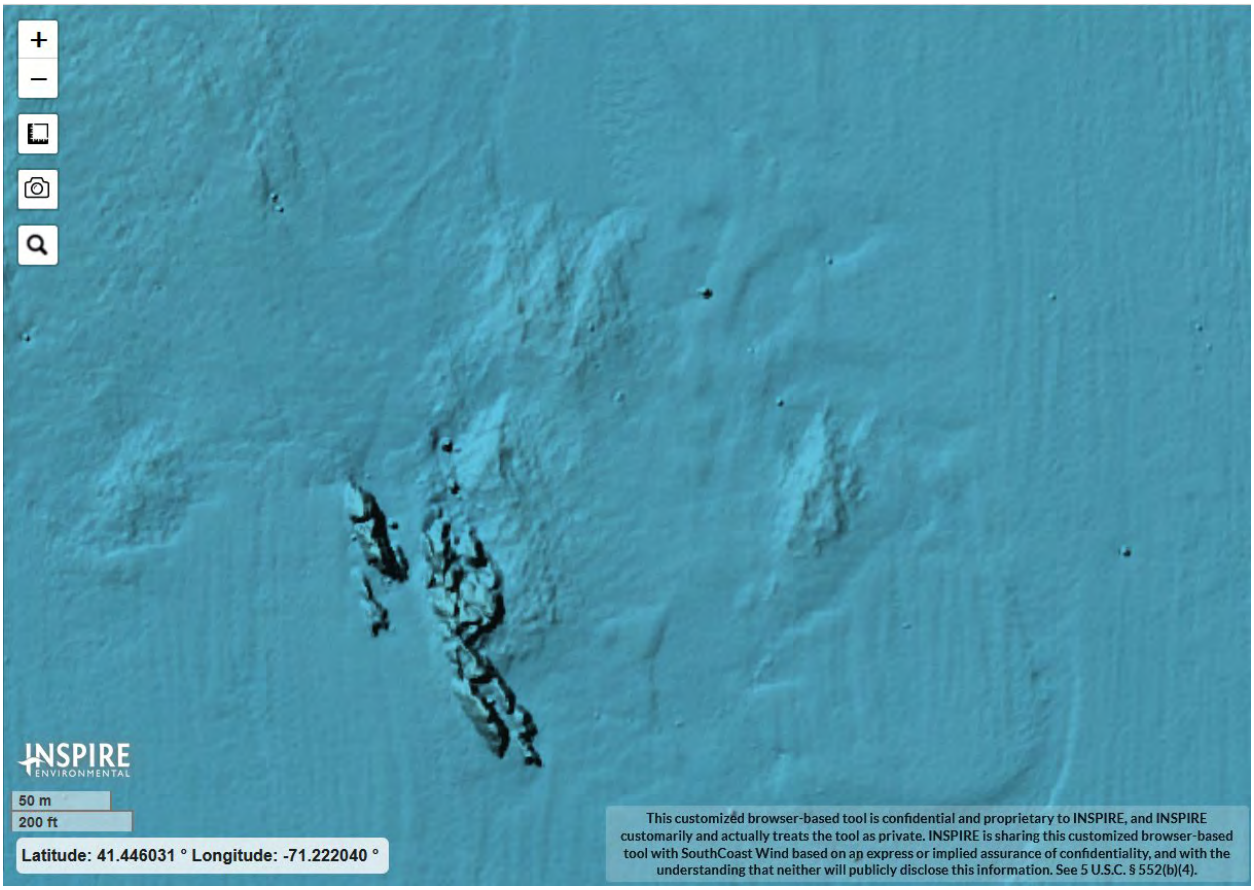

Figure 17: Multi-beam bathymetry near kilometer post 35 showing an area of bedrock outcrop.

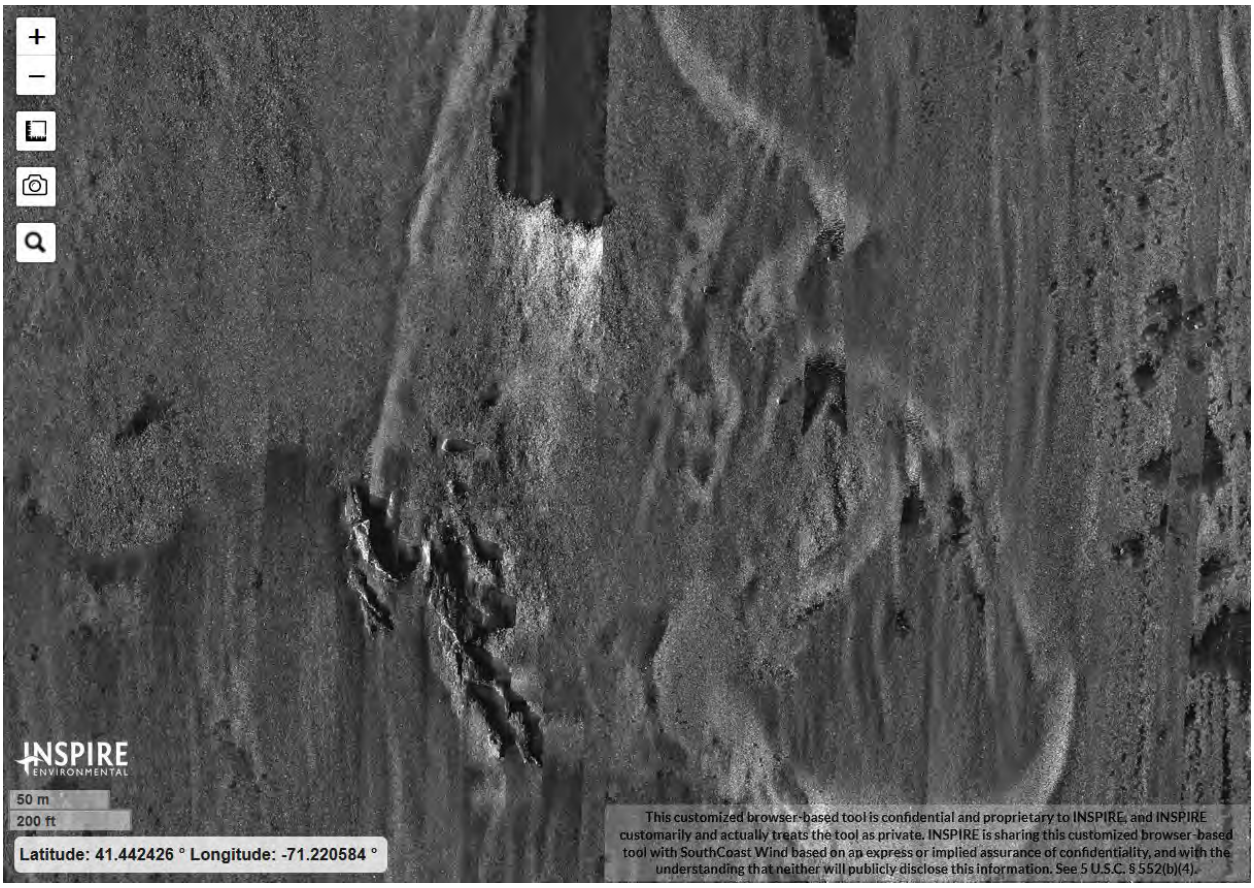

Figure 18: Side-scan sonar mosaic near kilometer post 35 showing an area of bedrock outcrop.

Figure 19: Interpreted benthic geologic habitats near kilometer post 35 showing an area of bedrock outcrop (black polygon). The brown polygons are mapped as glacial moraine by Inspire; these are likely areas of glacial till with shallow bedrock, not glacial moraine.

Kilometer Posts 10 – 9

North of Island Park, areas of glacial moraine were mapped around KP10, between Portsmouth and Bristol, RI. The opinion here, is that these are not areas of glacial moraine. The area offshore of Bristol, RI is interpreted to be similar to the area around KP35, as this represents sediment eroded from glacial till overlying bedrock. Areas west of KP10 mapped as moraine are interpreted to be coarse-grained ice marginal stratified deposits by Oakley (2012) related to the stratified glacial deposits at Island Park (Boothroyd, 2009). One small bedrock outcrop was mapped east of KP9 (figure 20). The center portion of the OECC is mapped to be within the glacial lakefloor deposits, so the more complex habitats can largely be avoided.

Kilometer Post 1

A small area of boulders were mapped west of Brayton Point near KP1. This is interpreted to be boulders eroded from glacial till, which can likely be avoided by the cable route.

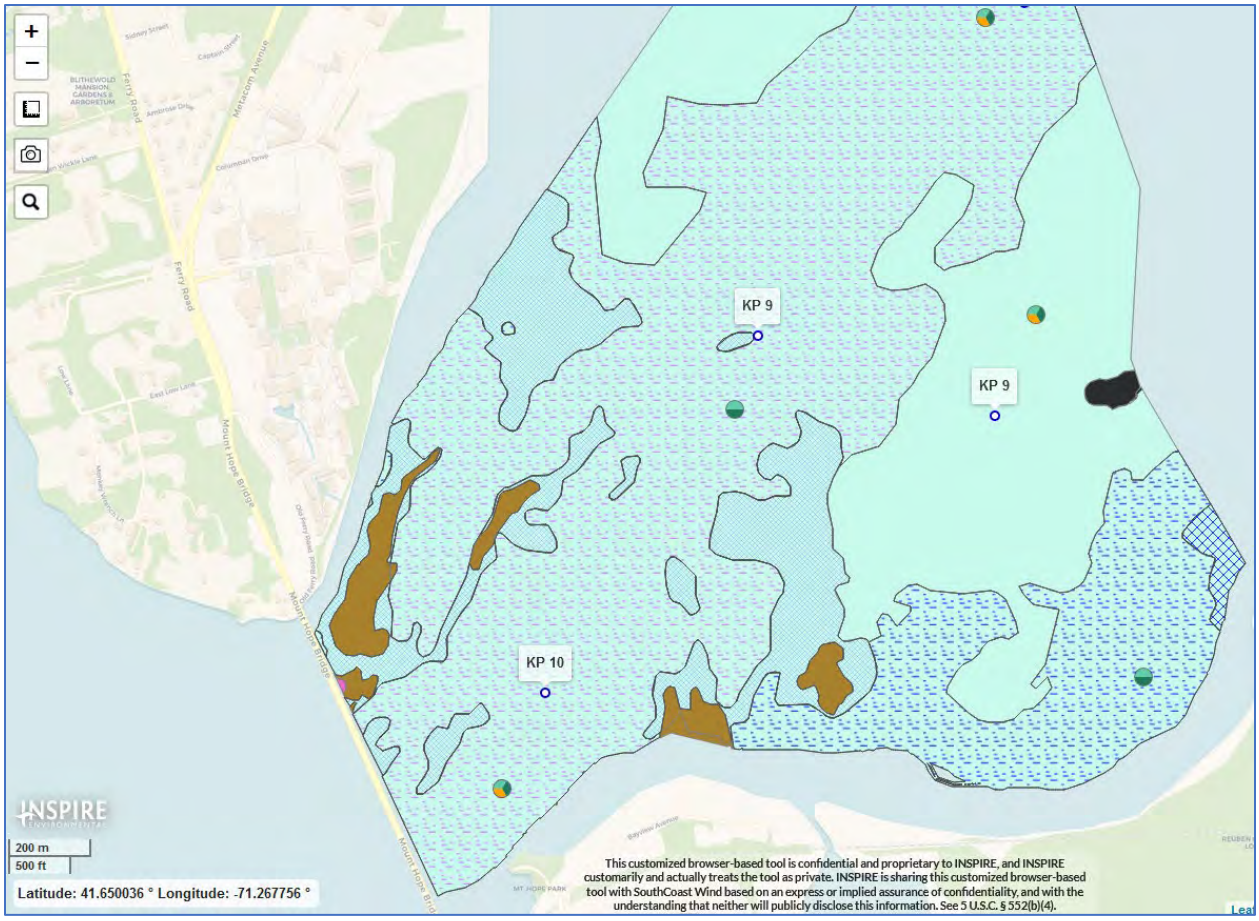

Figure 20: Benthic geologic habitats around KP10 and KP9 in Mount Hope Bay showing the extent of 'glacial moraine' deposits (brown polygons); the black polygon is a bedrock outcrop east of KP9.

Sorted Bedforms and Sandwaves

Bedforms at a variety of scales were found in the OECC area. Most of these features, which are complex patterns of wave and current scoured seafloor, are 'sorted bedforms' (also known as 'Rippled Scour Depressions' – areas of coarser sediment, typically with 2-Dimensional ripples slightly incised relative to the adjacent seafloor. The ripples contained within the features are wave-orbital ripples, and these areas may transition to plane bed (no ripples) during storm events, with the ripples reforming as the wave heights decrease as the wave heights wane following the storm (Clifton, 2006). Examples of this can be seen in multiple areas, but a good example is between KP45 and KP49 (figures 21-22). The total height of the ripples (>0.5 m) suggests this process will not impact the cable, provided the burial depth is met. These sorted bedforms/rippled scour depressions themselves are complex, particularly regarding the exact formation mechanism, although they have been proposed to be self-organizing bedforms, and the inherent roughness of the features inhibits the deposition of finer-grained sediment (Goldstein et al., 2011). These features are common throughout the region in a variety of water depths (Goff et al., 2005; McMullen et al., 2015; Oakley, 2019; Oakley et al., 2019). The low total relief of these features suggests that significant scour and reworking of sediment at depth is unlikely. Goff et al., (2005) working south of Martha's Vineyard in water depths of 8 to 18 m, found that

migration of these features was complex; the boundaries between sorted bedforms may fluctuate over 10's of meters (horizontally) in both alongshore directions, however the general bathymetric features were relatively stable. The relief of these features is less than the proposed cable burial depth (2 meters) so any migration of the bedforms should not uncover the cable provided the target depth is met. Repeat surveys (if the data exists) could provide insight into the migration of these features within the OECC, although migration of some bedforms may only happen in substantial storm events and may not be captured with only a few years of data.

Figure 21: Multi-beam bathymetry around KP46 and KP47 showing examples of the complex sorted bedforms found within the OECC.

Figure 22: Side-scan sonar mosaic around KP46 and KP47 showing examples of the complex sorted bedforms found within the OECC.

Trawl Marks

Several areas of the OECC have evidence of trawling for groundfish ranging from 3-4 m wide and less than 10 cm deep. Features of this scale are interpreted to be from hydraulic dredges used to harvest surf clams. The reported depth of the furrows produced is <0.2 m (figure 23), so impacts to the cable should be avoided as long as project depth is reached. Section 4.3.4 of the Geohazard Report (FUGRO, 2022).

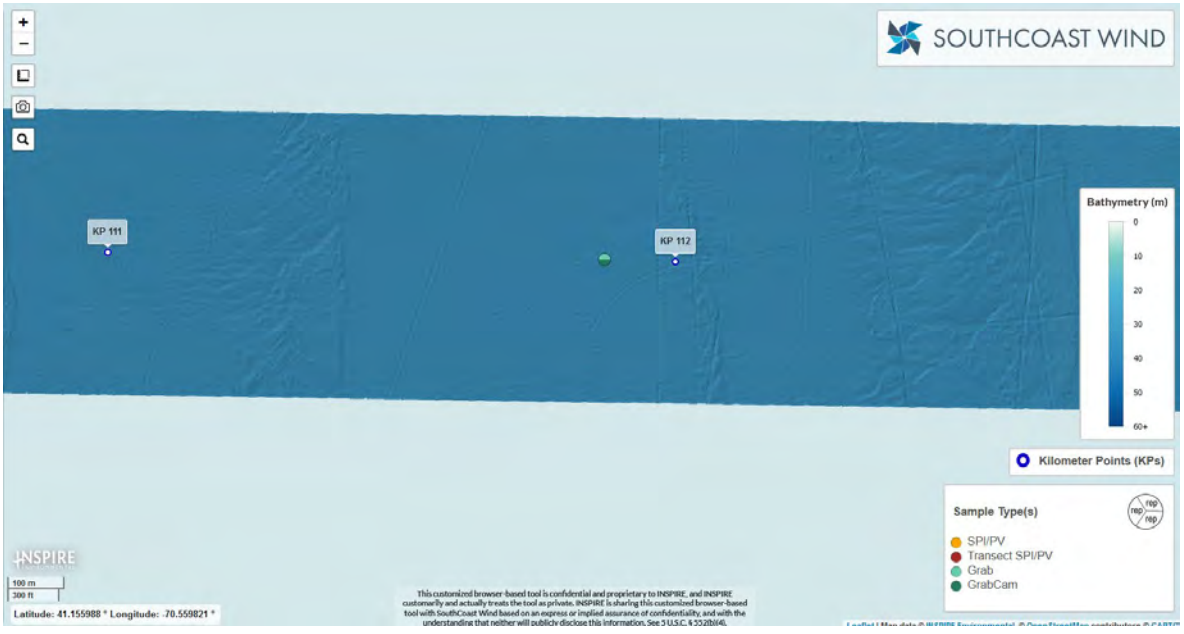

Figure 23: Multi-beam bathymetry showing examples of hydraulic dredge scars around KP111 and KP112.

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Review of Benthic Geologic Habitat Mapping and EMF Considerations: for the Proposed South Coast Wind Energy Cable Corridor

John W. King

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Report Prepared for the Rhode Island Coastal Resources Management Council

November 20, 2023

Introduction

This review has two components. The first section reviews the interpretated benthic geologic habitats of the proposed South Coast Wind Energy Area (SCW) and Brayton Point Offshore Export Cable Corridor (OECC) within the Rhode Island Coastal Resources Management Council Geographic Location Description Boundary (GLD). The second section notes some general concepts that will help guide RI CRMC regarding possible effects/impacts on marine species due to the EMF (electromagnetic fields) produced by the transmission cables associated with SCW wind farm. The geographic scope of this review focused on the wind energy corridor extending through federal and Rhode Island state waters. It was further extended to cover the entire OECC to the landfall at Brayton Point, Massachusetts at the request of Rhode Island CRMC for consistency.

General Interpretations of Benthic Geologic Habitat

The geophysical data collection efforts of FUGRO (2022) are exceptionally well done, providing high-quality data for habitat interpretation, and the organization of the data into a GIS viewer by INSPIRE is easy to use and very well done. The primary issue of the habitat identification review is the validity of areas mapped (or not mapped) as glacial moraine and similar important habitats. Glacial moraines have been identified as areas of particular concern (APC) as part of the Rhode Island Ocean Special Area Management Plan (RIOSAMP) because they are important habitat areas for a diversity of fish and other marine plants and animals. The moraines are particularly important to commercial and recreational fishermen. Disturbance of moraine habitat should be minimized by development activities. The overall mapping of geologic habitats and particularly moraine habitat within the area was generally valid, particularly around the terminal moraine. Some differences in specific interpretations are discussed below.

Specific Interpretations of Benthic Geological Habitat

The more detailed mapping completed within the SCW OEC (as well as adjacent wind energy areas) improves considerably upon the existing understanding of the extent of moraine and other geologic habitats south of Rhode Island waters beyond those summarized and identified in the (RIOSAMP) based on a number of earlier studies (LaFrance et al., 2010). The SCW wind-energy area is south of all previously mapped glacial moraines (and outside RICRMC GLD). However, the proposed transmission cable corridors cross both the terminal and recessional moraine(s) of the Late Wisconsinan Laurentide Ice Sheet (LIS), as shown in Figure 1. This figure includes moraine deposits identified in the Ocean Special Area Management Plan (LaFrance et al., 2010) as well as newly mapped moraine deposits and other areas of complex seafloor habitat.

When moraines are exposed at the seafloor surface, then they contain boulders in abundance ranging in size from cobbles to much larger sizes. Boulders, therefore can serve as a proxy for ‘moraine’ habitat, although they are not uniquely diagnostic for the broader moraine landform. Other geologic deposits can also contain boulders, including glacial till over bedrock or very-coarse grained ice-marginal stratified deposits. These are all areas of complex seafloor habitats

and even if not formed by fluctuations of the ice- margin as a “moraine”, impacts to these areas should be minimized as they are probably functional habitat equivalents to moraine deposits.

Specific comments about the lease area and along the cable routes are as follows. I agree with the interpretation that offshore/beyond KP 99, the deposits, which occur within 5 m of the seafloor are glacial stratified deposits laid down by the melting and retreat of the Laurentide Ice Sheet. As noted by FUGRO (2022) boulders are not transported across the continental shelf by processes other than the advance and retreat of the Laurentide Ice Sheet. Boulders are not likely to be found beyond the terminal margin of the ice sheet., However boulders can be encountered at any point north of the terminal moraine. No potential impacts to glacial moraine/glacial till or other complex habitats are identified beyond KP 99 or within the wind-energy area.

The main issues identified in this review that impact moraine/APC are within the Brayton Point Offshore Export Cable Corridor (OECC) that will connect SCW to Brayton Point, Massachusetts. The Brayton Point OECC crosses both the terminal and recessional moraine(s) of the LIS and these areas are associated with dense boulder fields throughout the corridor. The Cable Burial Risk Assessment (CBRA) examines the shallow stratigraphy along the Brayton Point OECC. The CBRA notes that glacial diamict/till/moraine deposits, which have a complex benthic habitat when exposed at the seafloor, range from 0 to 20m thick (FUGRO, 2022). These deposits underlie the shallow Holocene transgressive deposits for over 62 km (between KP 27 and 89). The COP plan (FUGRO, 2022) reports that moraine/till deposits are exposed at the seafloor between KP 37 and 45 as well as from KP 75 and 88 and that surficial boulders were more abundant between KP74 and 84.

The whole OECC area is examined and areas of potential concern are noted below. Areas not noted are areas of minimal concern. The proximity of the feature is discussed compared to the nearest kilometer posts (or between kilometer posts) moving from offshore to onshore.

Kilometer Posts 97 – 91

Areas of moraine and scattered boulder fields were identified south of the previously mapped terminal limit of the Laurentide Ice Sheet. The moraine deposits in these areas are not continuous across the entire Brayton Point OECC and proper routing and siting should minimize impacts in this region.

Kilometer Posts 75 - 85

Where the Brayton Point OECC crosses the terminal moraine, boulder fields span the entire width of the corridor. Routing the cable through these sections without affecting the moraine habitat will be impossible. Crossing the moraine can’t be avoided and efforts should be made to minimize permeant changes to the habitat.

Kilometer Posts 73 – 71.5

Boulder fields were mapped between KP 71.5 and 73. This area is located between the inferred terminal and recessional moraine positions, and it is unclear if these boulders are part of the terminal moraine complex or mark a recessional moraine 3 km north of the terminal moraine. Boulder density is low in some areas so it might be possible is to route the cable through this section to minimize impacts to these habitats.

Kilometer Posts 57-58

The cable corridor crosses a previously mapped area of glacial moraine around kilometer posts 58 to 57. The extent of boulders in both areas is such that routing of the cable could likely minimize impacts to these habitats.

Kilometer Posts 56 – 50

This region crosses an area mapped in the OSAMP as glacial moraine 'boulder' (LaFrance et al., 2010) based on interpretations from previous workers in the region. No areas of boulder were mapped within this region and sediment samples were sandy. Minimal impact is expected through this area. The new mapping has eliminated an area of concern.

Kilometer Posts 48.5 – 28

Scattered boulders and areas of glacial 'moraine' were mapped between kilometer posts 28 and 48.5. The boulder/complex units extend across the OECC in some portions here, so some impacts are likely. These are areas where glacial till probably crops out at the seafloor and overlies shallow bedrock rather than moraine areas. The cable burial planning (both route and cable burial techniques) should be carefully considered to maximize the cable reaching project depth.

Kilometer Posts 10 –9

North of Island Park, areas of glacial moraine were mapped around KP10. Again these are probably not areas of glacial moraine but may be till over shallow bedrock. The center portion of the OECC may be relatively boulder free and offer a good cable route location.

Kilometer Post 1

A small area of boulders area mapped west of Brayton Point near KP1. This small area is likely a deposit of boulders that have eroded from glacial till that can likely be avoided by careful placement of the cable route.

Other Considerations of Concern to Cable Safety

Bottom Scour

Bedforms at a variety of scales were found in the OECC area. Most of these features, which are complex patterns of wave and current scoured seafloor. The total height of the ripples (>0.5 m) suggests this process will not impact the cable, provided that the proposed project burial depth is met.

Fishing Impacts (Trawl Marks)

Several areas of the OECC have evidence of trawling for groundfish ranging from 3-4 m wide and less than 10 cm deep. Features of this scale are interpreted to be from hydraulic dredges used to harvest surf clams. The reported depth of the furrows produced is <0.2 m, so impacts to the cable should be avoided if project burial depth is reached.

Potential Impacts of EMF from Cables

Recent reviews, (Hutchison, et al., 2021; Hutchison, et al., 2020) of potential impacts of EMF from transmission cables on marine organisms have indicated two factors are the most important to mitigating potential impacts. First, marine organisms are more likely to be sensitive to DC fields (steady fields) than they are to AC (alternating fields). Therefore, ,cables that use an AC design are less likely to cause an impact than are DC cables. I believe a DC cable is proposed for this project area so the second factor below becomes more important. Second, the depth of a cable below the seafloor will significantly reduce either AC, or DC EMF exponentially with depth. Therefore, cables that attain full project burial depth are unlikely to have significant impacts from EMF on marine organisms.

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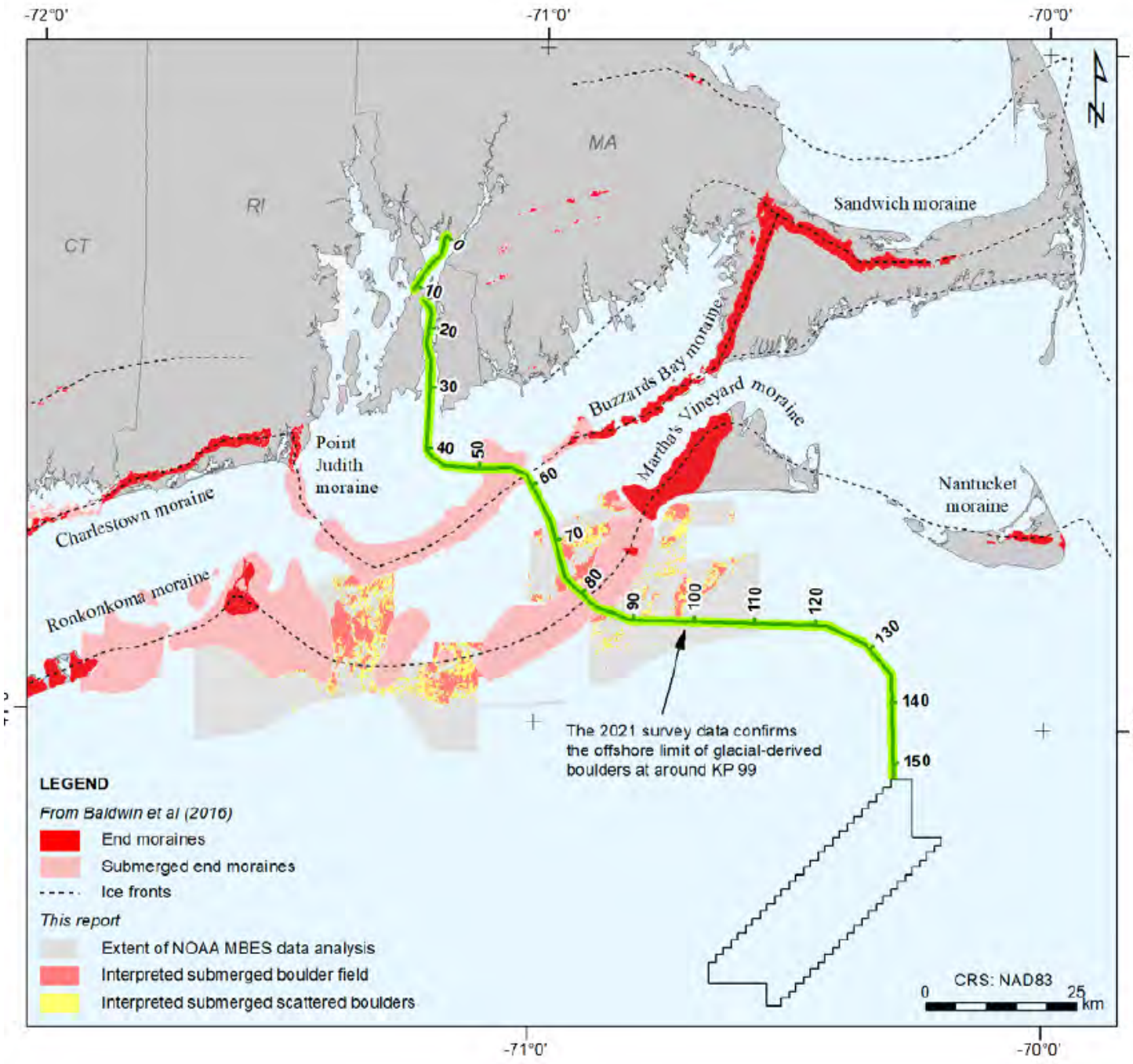

Figure 1: Map of the Brayton Point OECC as shown in figure 3.6 from FUGRO (2022) showing the extent of end moraines, submerged end moraines (Baldwin et al., 2016) and areas of boulder fields and scattered boulders.

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Appendix 8

SouthCoast Wind Cable Installation Presentation
November 9, 2023

SOUTHCOAST WIND

Federal Consistency Discussions

November 9, 2023

Follow up from 11/2/23 meeting

- Question around peer reviewed studies on impacts of offshore wind
- Extensive studies have been conducted on the impacts of OSW on fish, fisheries, and fishery resources
  - Literature Reviews are good basis for "state of knowledge" re: OSW impacts (left column)
  - Recent studies on Block Island Wind Farm provide insight to impacts within the region (right column
- ***This list is not exhaustive***.

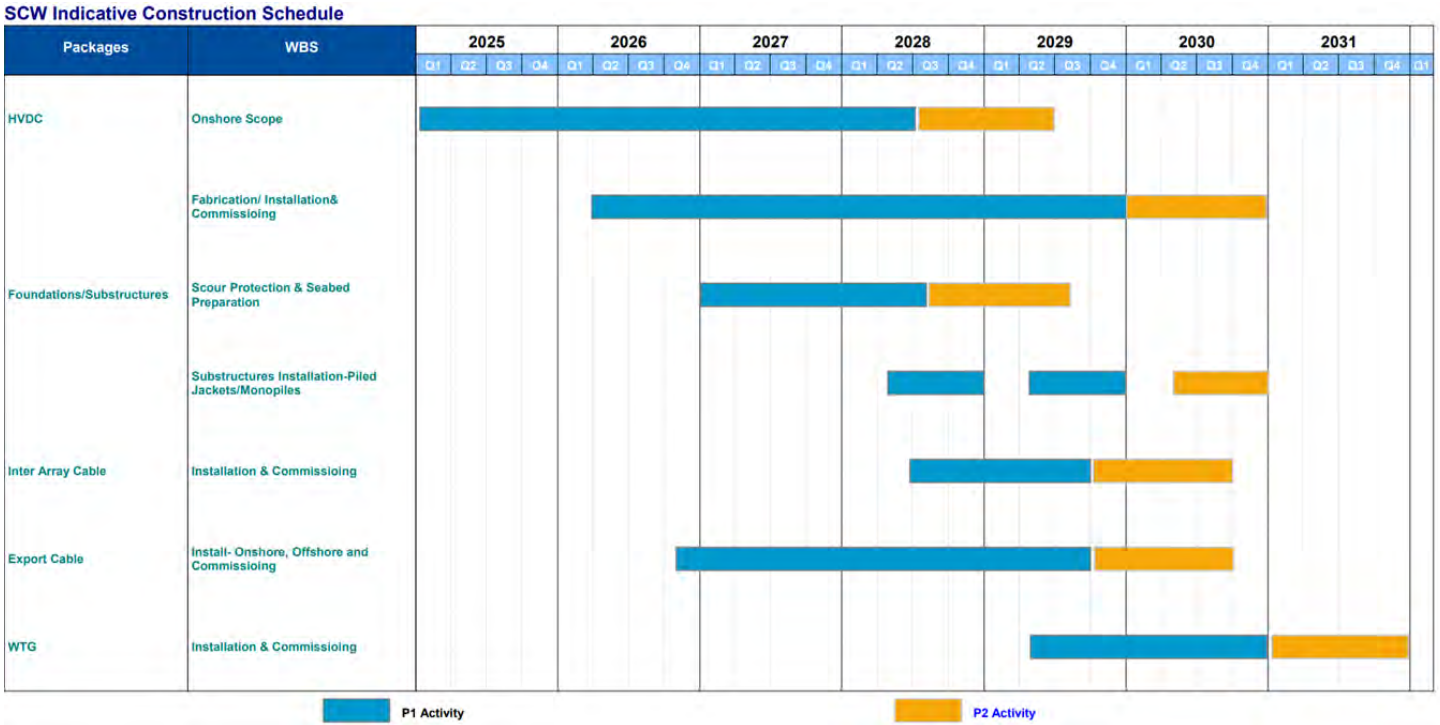
Literature Reviews	Studies on BIWF
Hogan, F., Hooker, B., Jensen, B., Johnston, L., Lipsky, A., Methratta, E., Silva, A. and Hawkins, A., 2023. Fisheries and Offshore Wind Interactions: Synthesis of Science	Wilber, D. H., Brown, L., Griffin, M., DeCelles, G. R., & Carey, D. A. (2022). Demersal fish and invertebrate catches relative to construction and operation of North America's first offshore wind farm. *ICES Journal of Marine Science*, *79*(4), 1274-1288
Svendsen, J. C., Ibanez-Erquiaga, B., Savina, E., & Wilms, T. (2022). Effects of operational off-shore wind farms on fishes and fisheries. Review report.	Wilber, D. H., Brown, L., Griffin, M., DeCelles, G. R., & Carey, D. A. (2022). Offshore wind farm effects on flounder and gadid dietary habits and condition on the northeastern US coast. *Marine Ecology Progress Series*, *683*, 123-138
Methratta, E. T., Hawkins, A., Hooker, B. R., Lipsky, A., & Hare, J. A. (2020). Offshore wind development in the northeast US shelf large marine ecosystem. *Oceanography*, *33*(4), 16-27.	Wilber, D. H., Carey, D. A., & Griffin, M. (2018). Flatfish habitat use near North America's first offshore wind farm. *Journal of Sea Research*, *139*, 24-32

Decommissioning Commitments

- The SouthCoast Wind COP, Section 1.8, Financial Assurance: "In compliance with BOEM regulations (30 CFR § 585.516), ***SouthCoast Wind will provide financial assurance issued by a primary financial institution, or other approved security, in order to guarantee the decommissioning obligation prior to Project installation***."
- Decommissioning bond is a requirement of BOEM prior to construction based on estimates of decommissioning costs, this can be adjusted if costs increase or decrease in future
- Decommissioning plan includes (but is not limited to):
  - Dismantling and removal of wind turbine generators (WTGs);
  - Cutting and removal of foundations. SouthCoast Wind will assess the removal of scour protection depending on which strategy minimizes environmental impacts;
  - Removal of offshore substation platform (OSP);
  - Retirement in place or removal of offshore cable system including offshore export and inter-array cables;
  - Retirement in place or removal of onshore export cables, in coordination with the MA EFSB and RI EFSB; and
  - Retirement in place or removal of the onshore converter station will be conducted in coordination with the host town of Somerset, MA.
- See Sections 3.3.1 – 3.3.11 of COP for specific details

Project Schedule

Indicative Project Schedule



Offshore Cable Equipment

Seabed Preparation Equipment

EQUIPMENT	USE
Grapnel plow	Pre-lay grapnel run
Orange peel grabber	Localized boulder removal
Boulder clearing plow	Boulder field clearance
Trailing suction hopper dredger	Removal of sand wave tops
Water injection dredge dredger	Removal of sand wave tops in shallow areas
Constant flow excavator	Seabed leveling and preparation

Example of a boulder clearing plow

Offshore Export Cable Installation and Burial Equipment

EQUIPMENT	USE
Vertical injector	Vessel mounted burial solution for shallow water use that does not require seabed/sandwave sea leveling
Jetting sled	Shallow water uses for deeper tranch depths (surface fed water supply) in areas of prepared/benign seabed surfaces
Jetting ROV	Typically used in deeper water and can be used for unconsolidated soft beds
Pre-cut plow	Any depth and can be used for hard bottoms (plows can be used for a wide range of soils from unconsolidated sands to stiff clays)
Mechanical cutting ROV system	Any depth, used for hard, consolidated substrate

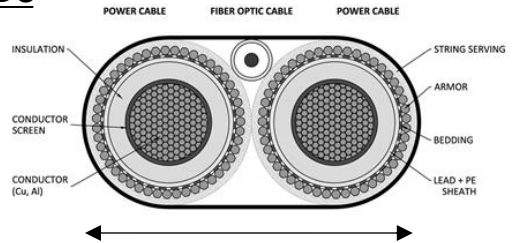
Example of a jetting ROV

Photo source: SMD, 2016

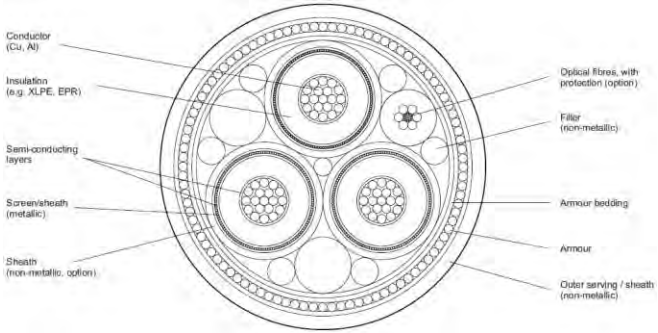
Offshore Transmission Technology

Considerations	Comment
Electrical losses	HVAC is more efficient for short distance power delivery and HVDC more efficient for longer distances
Availability	HVAC has more redundancy than HVDC in terms of cable failures
Number of cables	HVAC requires more separately installed cables for power capacity beyond 300-400 MW
Capital cost	HVAC costs less than HVDC for shorter distances as HVDC has higher substation costs but lower cable costs

HVDC



HVAC



Offshore Cables

- Proposed target burial depth below level seabed: **6 ft**
  - Acceptable range of burial depths: **3 to 13 ft**
- Installed in bundle configuration where practicable to minimize footprint and installation impacts – which is an advantage of HVDC technology

Export Cable Parameter	Brayton Point Export Cable Corridor
Number of Cables	1-6
Nominal Cable Voltage	±320 kV
Cable Length	97 – 124 mi (156 – 200 km)
Anticipated Burial Depth	3.2 - 13.1 ft (1 – 4 m)
Export Cable Corridor Width	2,625 – 3,280 ft (800 – 1000 m)
Target Separation Between Cables	3.2 - 13.1 ft (1 – 4 m)

Example of cable laying vessel

Cable Protection

Secondary cable protection needed for:

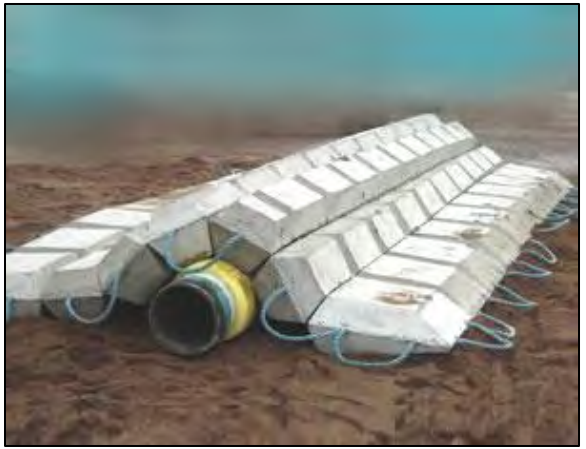
- Cable crossings
- Areas where adequate burial isn't achieved (not planned, but possible)

Protection types may include:

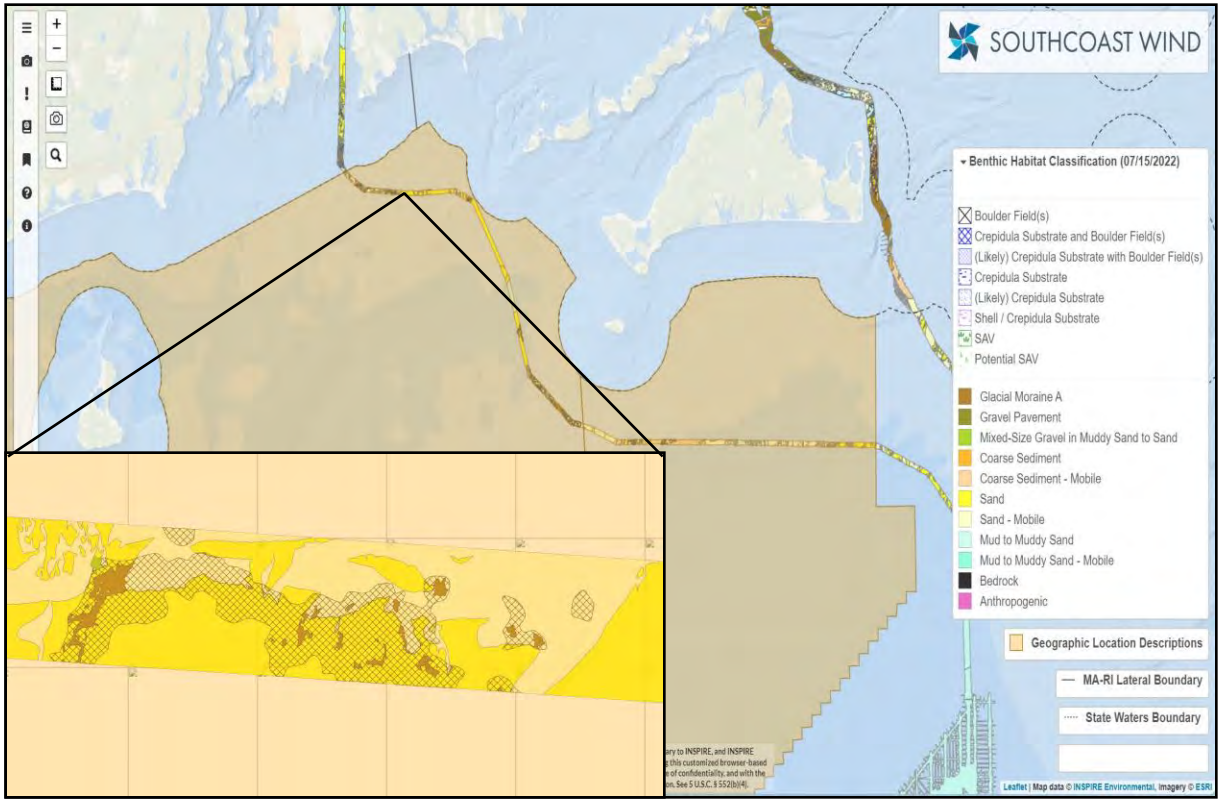
- Mattresses (traditional or fronded)
- Rock / Rock Bags
- Half-Shells (or similar)

Considerations

- Seabed survey data
- Nature-based design options
- Habitat growth
- Over-trawlability



Benthic Habitat Mapping

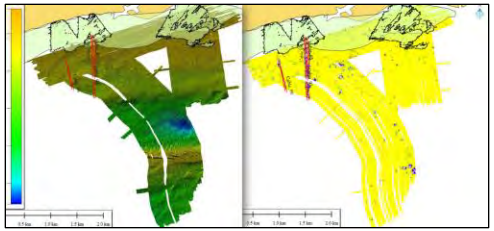


Mapping used to Guide Cable Routing

- Substrate (hard, soft, etc)
- Sensitive Habitat
- Cultural Resources
- Geohazards (slopes, boulders)
- Existing Infrastructure (cable and pipelines)

Offshore Cable Route Surveys

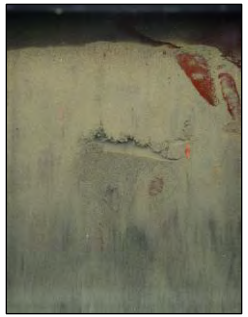
- **Objectives:**
  - "Ground truth" the seabed route characteristics assumed in desktop studies, for further cable design and installation engineering
    - Water depth
    - Seabed slopes
    - Soil types / characteristics
  - Determine potential areas of archaeological sensitivity (for avoidance)
  - Identify and characterize potential hazards along the route (boulders, sand waves, etc.)
- A "**cable corridor**" (800m – 1000m wide) is surveyed to allow for "micro-routing" for avoidance of hazards and sensitivity
- To date SouthCoast has multiple campaigns of geophysical, geotechnical, and benthic survey data
- Analysis planned for early 2024 to examine boulder densities and micrositing plans



Geophysical survey data

Typical geotechnical core

Benthic survey data



Thank You

Appendix 9

Woods Hole Oceanographic Institution Fisheries Exposure Analysis & Presentation

Fisheries Exposure Analysis for Rhode Island for the SouthCoast Wind Brayton Point Export Cable Route and Rhode Island GLDs

Hauke Kite-Powell, Di Jin, and Michael Weir
Marine Policy Center
Woods Hole Oceanographic Institution

16 November 2023

Table of Contents

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List of Abbreviations

COP – Construction and Operations Plan

ECA – Export Cable Area

ECC – Export Cable Corridor

ECR – Export Cable Route

ECWA – Export Cable Working Area

ECRA – Export Cable Route Area

GDL – Geographic Location Description

GDP – Gross Domestic Product

MA DMF – Massachusetts Division of Marine Fisheries

NMFS – National Marine Fisheries Service

NOAA – National Oceanographic and Atmospheric Administration

PPI – Producer Price Index

RICRMC – Rhode Island Coastal Resources Management Council

RIDEM – Rhode Island Department of Environmental Management

SBRM – Standardized Bycatch Reporting Methodology

VMS – Vessel Monitoring System

VTR – Vessel Trip Report

WLA – Wind Lease Area

Summary

Based on NOAA data from 2008 to 2021, and adjusting for both underreporting of lobster and Jonah crab landings in the VTR data and some dockside sales of lobster and Jonah crab, we estimate the average annual value of commercial landings from the 180 m wide SouthCoast Wind Brayton Point Export Cable Area to be $4,150/km^2/year (2023$). Of this, about 48% is landed in Rhode Island.

For the intersection of the Brayton Point Export Cable Area and the 2011 and 2018 Rhode Island Geographic Location Description (GLD) areas, this amounts to annual landed value of $28,700 (2023$) in Rhode Island. Including indirect and induced effects, these landings generate $46,000 in annual value in Rhode Island.

Rhode Island-based charter fishing revenue generated in and around the Brayton Point Export Route Area is estimated to be between $12,000 and $19,000 (2023$). Including multipliers, this generates total annual economic impacts of $19,000 to $31,000 in Rhode Island.

We estimate that a total (lump sum) of $114,000 (2023$) of commercial fisheries value landed in Rhode Island is potentially exposed to development of the Brayton Point Export Cable Route intersecting with the RI GLDs. Rhode Island-based charter fishing revenue exposure to development of the Brayton Point Export Cable Route in the RI GLDs is estimated to have a present value of $32,000. Together, this amounts to a present value of $147,000 (2023$) in direct exposure.

Including indirect and induced effects associated with this direct exposure are estimated to be $68,000 and $20,000 for commercial and charter fishing, respectively. This results in a total of about $234,000 (lump sum, 2023$) in present value economic impact in Rhode Island.

Introduction

This report estimates the level of pre-development Rhode Island-based fishing operations intersecting with, and landings and landed value from, the overlap of the SouthCoast Wind Brayton Point Export Cable Area (ECA) (Figure 1) and the 2011 and 2018 Rhode Island Geographic Location Description areas (GLDs) (A and B in Figure 2, respectively). It also estimates the extent to which the economic value from these fishing activities are exposed to the installation, operation, and decommissioning of the Export Cable Route in these areas.

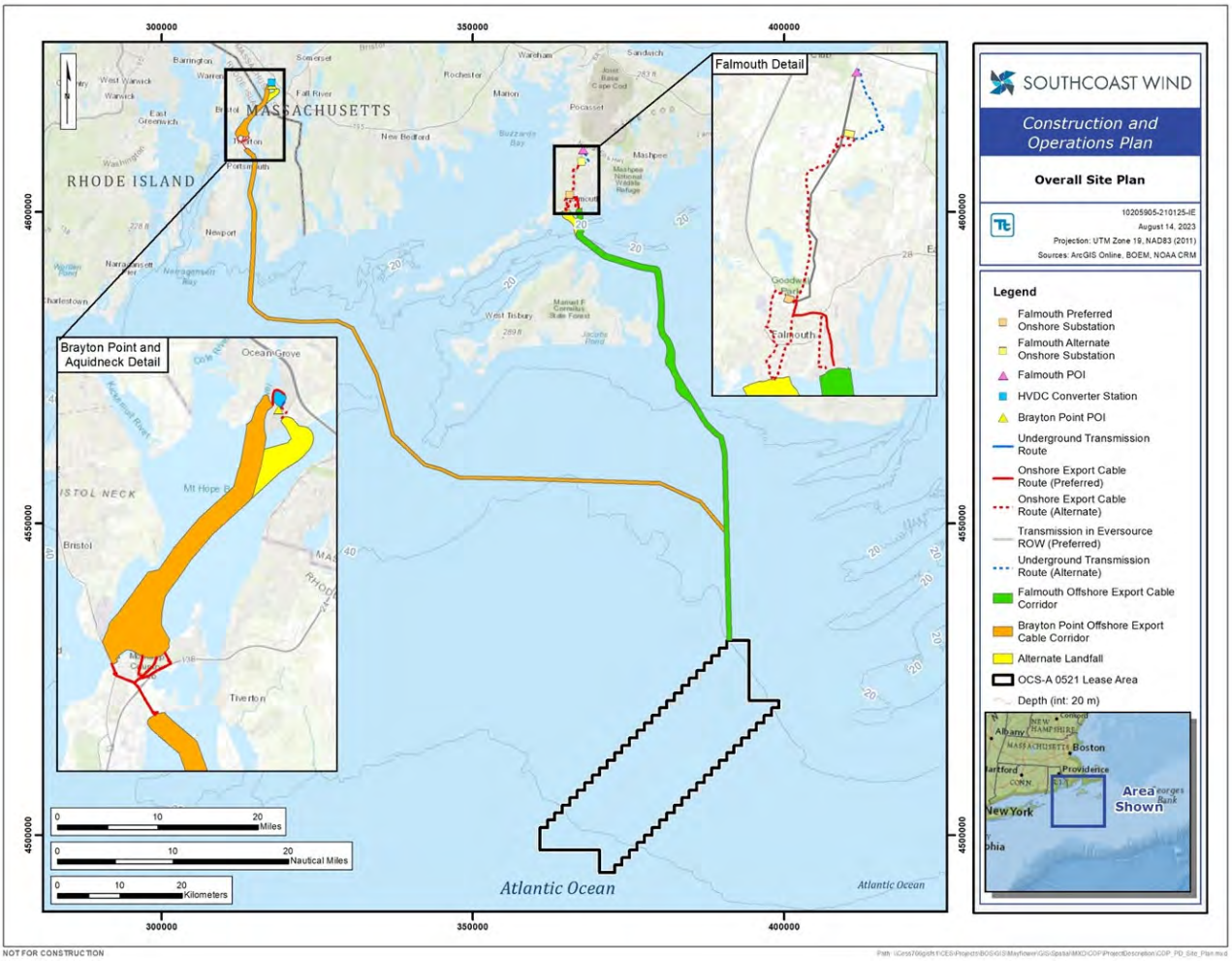

Figure 1. SouthCoast Wind Lease Area and Export Cable Corridors. Source: SouthCoast Wind.

The WLA for SouthCoast Wind (OCS-A 0521), which is outside the 2011 and 2018 RI GLDs, lies in federal waters, roughly 25 nautical miles south of Nantucket, and has a footprint of 516 km^2. The Brayton Point ECC is 103 km in length, and runs from the northern edge of the WLA first to the north and west across Rhode Island Sound, then up the Sakonnet River to its landing location at Brayton Point in Somerset,

MA. The Falmouth ECC, which is also outside of the 2011 and 2018 RI GLDs, runs north from the WLA through the Muskeget Channel and then northwest across Nantucket Sound to Falmouth, MA.

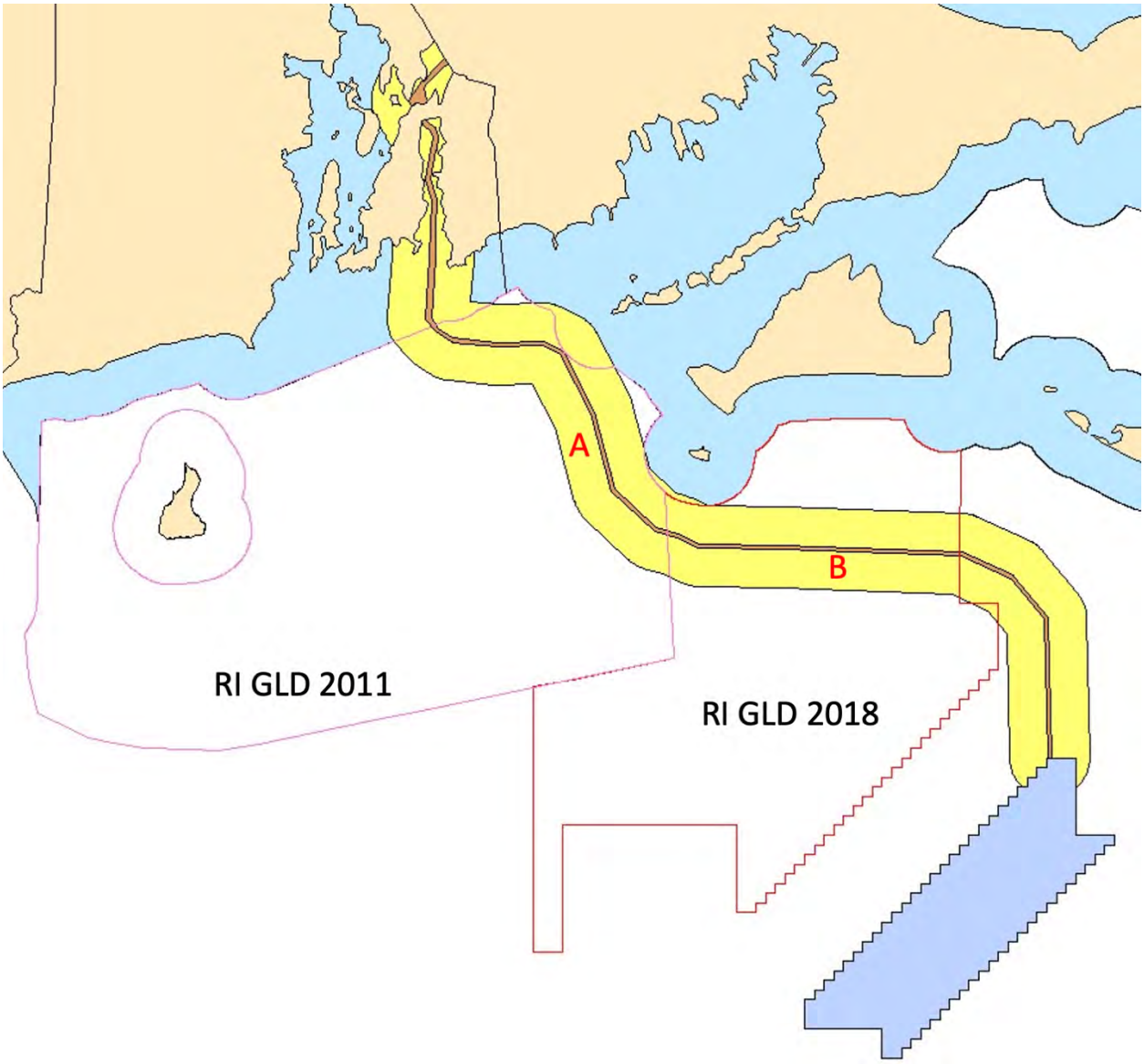

Figure 2. Brayton Point Export Cable Route and 2011 and 2018 RI GLDs. State waters are light blue; Export Cable Route Area (ECRA) in yellow.

To estimate commercial fish landings along the ECA, WHOI defined a 10 km-wide Export Cable Route Area (ECRA; yellow area in Figure 2) extending 5 km on either side of the cable route. The 10 km-wide ECRA has no physical significance in the context of the SouthCoast Wind Project and is defined only for the purpose of identifying fisheries landings data that reflect what may be landed from fishing along the export cable route. Likewise, the Brayton Point Export Cable Corridor defined and surveyed by

SouthCoast Wind is 700 m wide, and represents the corridor within which the cables will be micro-sited and located. Only portions of the narrow 180 m wide ECA centered on the export cables are anticipated to be disturbed in the process of burying the cables.

Table 1 shows the approximate length and area of these features for the SouthCoast Wind Project. In the sections that follow, fishery landings and values for the Export Cable Route are estimated and reported for the ECA, as defined above.

Table 1. SouthCoast Wind area parameters

Wind Lease Area (WLA) footprint (km^2)	516
Brayton Point Export Cable Route (ECR) length (km)	148
ECR length in Rhode Island state waters (km)	34
ECR length in Rhode Island GLD 2011 (km)	44
ECR length in Rhode Island GLD 2018 (km)	37
Over-water footprint of 10km Brayton Point Export Cable Route Area (ECRA) (km^2)	1,331
Footprint of 180 m Brayton Point Export Cable Area (ECA) (km^2)	28.3
Brayton Point ECA footprint in Rhode Island state waters (km^2)	6.1

Methodology

Our approach to estimating the potential impact of SouthCoast Wind development on commercial fishing is to first estimate the annual landed weight and value of fish and invertebrates from the portion of the SouthCoast Wind Project Area that overlaps with the 2011 and 2018 Rhode Island GLD areas, and then to estimate the fraction of this annual value that may be exposed to wind farm construction, operation, and decommissioning. Our assessment method is consistent with the general framework described in the reports by Kirkpatrick *et al.*/BOEM (2017a and 2017b) on socio-economic impact of offshore wind energy development on commercial fisheries, and builds on the approach of Livermore (RIDEM 2017, 2018, and 2019), which develops high-end estimates of fishery impacts by including in baseline estimates the entire trip revenues from all trips that overlap with a wind lease area, regardless of how much fishing occurred inside or outside the area.

Separately, we estimate the gross revenue associated with for-hire charter boat fishing activity originating in Rhode Island, and the fraction of this revenue that may be exposed to SouthCoast Wind development within the RI GLD areas.

We estimate the annual commercial landings and landed value of fish from the SouthCoast Wind Brayton Point ECA using a dataset provided by NOAA's National Marine Fisheries Service. This dataset uses modeled representations of federal Vessel Trip Report (VTR) and clam logbook fishing trip data to produce a more accurate spatial allocation of landings from each fishing trip (DePiper 2014; Benjamin *et al.* 2018). As we document below, there has been considerable variability in annual landings from these

areas over the past decade; we use the average landings and landed value from 2008 to 2021 as indicative of what the areas may yield in the future.

We then estimate the fraction of this average annual value that may be at risk ("exposed") due to Brayton Point ECC development, based on the nature and schedule of construction activities, operating plans, and decommissioning plans, and on information from the scientific literature on the effects of wind farm construction and operation on commercial fish stocks and landings.

Given the current state of knowledge about the effects of wind farm construction and operation on fish stocks and fishery landings, we consider five categories of possible exposure for commercial fishing from Brayton Point ECC development:

- Transient effects on fish availability due to construction activities and noise
- Transient effects due to constrained access to certain areas during construction
- Changes in fishing in the WLA during operations
- Transient effects due to constrained access to certain areas during decommissioning
- Transient effects on fish availability due to decommissioning activities

We also consider transient effects on the for-hire charter fishing industry due to construction and decommissioning of the wind farm. To the extent that for-hire charter fishing vessels from Rhode Island use the Brayton Point ECC, it is possible that their activities may be affected during construction and decommissioning. We consider it unlikely that Brayton Point ECC development will negatively affect the personal recreational fishing activities of Rhode Island boaters.

Estimating the effect of wind farm development on fishing activity and landings is complicated by several sources of variability and uncertainty. There is considerable year-to-year fluctuation in the historical baseline commercial landings from the wind development areas; and future fishery landings from these areas are likely to differ from historical baselines due to climate change effects (Free *et al.* 2019; Oremus 2019). There is uncertainty about the extent and duration of effects of wind farm construction on fish availability in the vicinity of the wind farm, and about the habitat and other effects (if any) of the wind farm over decades of operation. There is also uncertainty about the response of the commercial fishing industry and of for-hire charter fishing vessels to the altered "landscape" resulting from wind farm development. The current state of the science about wind farm effects on commercial fishing does not support a precise estimate of effects on fish stocks; and the future decisions of fishers are by their nature not precisely predictable, especially decades into the future, because they depend on personal assessments and decisions of individual fishers.

Acknowledging these sources of variability and uncertainty, we seek to develop a realistic, conservative estimate of the potential effect of Brayton Point ECC development on Rhode Island commercial landings, landed value, and charter boat revenue. We make conservative assumptions about fishing industry response, assuming that landings from an area where access is constrained during construction, operations, or decommissioning are simply forgone, and not compensated by landings from fishing elsewhere instead. Further, we estimate impact as the landed value (gross revenue) at risk, not the net income or profit. Landed value is, by definition, larger than net income or profit from fishing. For these reasons, we consider our impacts estimate to represent an upper bound on the likely net effects of the wind farm on the Rhode Island fishing industry.

Throughout this report, we use "landed value" to refer to the direct value of fisheries landings, "impact" to refer to the economic activity generated by fisheries, including indirect and induced effects (see below), and "exposure" to refer to the portion of landed value or impacts that may be at risk due to wind farm development.

Baseline commercial fishery landings and values, 2008-2021

Commercial Fisheries Data Description

NOAA has been collecting and improving their Vessel Trip Report (VTR) data for decades. The data have been widely used for fisheries research, management, and economic impact assessments. To gauge landings value and quantity at the spatial scale required for the SouthCoast Wind Lease Area and export cable route, NOAA has recently developed a procedure to produce high-resolution spatial information using a combination of VTR and fishery observer data. As described below, we follow the general approach developed by NOAA, which is the best approach at present, with a recognition that relevant data are not perfect. All estimates of fishery landings and values in this report are based on these NMFS data. The data have not been amended, adjusted, or augmented in any way, with two exceptions: we make adjustments to the lobster and Jonah crab landed values to account for possible underreporting; and we make adjustments to the Rhode Island lobster and Jonah crab landings to account for dockside sales. These adjustments are described in detail in the section on Adjustment of Lobster and Jonah Crab Data below. The adjusted data appear only in Tables 11 and 12 below.

The data presented below summarize estimates of fisheries landings and values for fishing trips that intersected with the SouthCoast Wind Brayton Point Export Cable Route Area (ECRA), from 2008 to 2021 (calendar years). Modeled representations of federal Vessel Trip Report (VTR) and clam logbook fishing trip data were queried for spatial overlap with the WLA and the ECRA, and linked to dealer data for value and landings information. As detailed in DePiper (2014) and Benjamin *et al.* (2018), to improve the spatial resolution of VTR, a spatial distribution model was developed by combining vessel trip information from VTR with matching NOAA fishery observer data, including geocoordinates of detailed fishing locations. From this model, landings and value can be summarized for a specified geographic area according to (1) species, (2) gear type, (3) port of landing, and (4) state of landing.

In essence, the DePiper approach utilizes a spatial model to distribute the total landings for each commercial fishing trip over a circular area with its center located at the geocoordinate reported in the VTR, following a distribution decreasing with the radius. The model was estimated using VTR data (for the centroid) and vessel observer data (for haul beginning and endpoints). DePiper (2014) reported that the observer data matched VTR records well (488,251 hauls in the observer data were matched to 27,358 VTR records, representing 87.5% of all hauls with either a beginning or end point of a haul recorded).

The primary purpose of the observer data collection is to monitor fishery bycatch. NOAA's Standardized Bycatch Reporting Methodology (SBRM) dictates what types of vessels (gear, species, area of operation, etc.), participating in various fisheries, should be sampled and at what rate. The numbers of sea days needed to achieve a 30% coefficient of variation (CV = standard deviation divided by mean) of total discards for each species group were derived for different SBRM fleets covering different gears, access areas, states, and mesh sizes (NEFSC 2013). For Massachusetts vessels, the observer program covered

close to 20% of trips with trawl gear, around 5% of trips with dredge gear, and around 20% of trips with gillnet gear (Jin 2015).

Following the DePiper approach, the resulting high spatial resolution data were converted into raster maps. Use of this VTR raster model produces a more accurate estimate of the spatial distribution of landings than other approaches that rely entirely on the self-reported VTR/clam logbook locations, which associate all landings from the trip with a single point location. At 10 nautical mile resolution, the confidence intervals of the DePiper model estimates are around 90% for trip lengths of one to two days.

The only alternative to the DePiper approach is a model to distribute the total landings from a VTR report over the vessel's track using the Vessel Monitoring System (VMS) data. The main challenge for this approach is accurate identification of fishing and non-fishing segments of a trip. Muench *et al.* (2018) have shown that using vessel speed alone can lead to a severe misrepresentation of fishing locations. NOAA has adopted the DePiper approach as a standard procedure to generate spatial data; and we agree with NOAA that this is the best approach currently available. The main advantages of the DePiper approach are that (1) it is based on observations of actual fishing locations noted by observers at sea, and (2) it provides a systematic and consistent way to meet the increasing demand for spatial fishing data for relatively small areas in the ocean, which is important for cross project comparison.

Landings associated with the Export Cable Area are calculated by applying the ratio of footprint areas shown in Table 1 to the landings estimated for the Export Cable Route Area. This assumes that landings are distributed uniformly across the fished sections of the ECRA.

In order to maintain the legally required data confidentiality, summaries by species, gear type, and landing location are presented individually. In addition, for records that did not meet the "rule of three" (three or more unique dealers and three or more unique permits), values are summarized in a category labeled "ALL OTHERS." Note also:

- All landed values have been converted to 2023 dollars using the Producer Price Index for "unprocessed and prepared seafood."
- Pounds are reported in Landed Pounds, unless otherwise noted.
- Data summarized here are from federal sources only.
- Fishing vessels that carry only lobster permits for federal waters are not subject to VTR requirements. Landings from trips with no VTR are not reflected in this summary.
- Other fisheries exist in state waters that may not be reflected in data from federal sources (e.g. whelk, quahog, striped bass).

We also obtained the average monthly number of trips intersecting with each area, for the period of 2008 to 2021.

Commercial Fishery Landings from the Brayton Point Export Cable Area

Table 2 shows the average annual level and standard deviation of total values and landings associated with fishing in the Brayton Point ECA from 2008 to 2021. Average annual landings from the Brayton Point ECA are about 61,000 lbs (standard deviation 30,000 lbs) with a value of $62,000 (standard deviation $16,000).

Table 2. Average annual value and quantity of commercial fisheries landings in the Brayton Point ECA

Area	*Mean* Value/year (2023$)	*Mean* Landings/year (lbs)	*Standard Deviation* Value/year (2023$)	*Standard Deviation* Landings/year (lbs)
Brayton Point ECA	61,863	61,147	15,698	30,302

Table 3 shows the total landings and values, for each year from 2008 to 2021, associated with fishing in the Brayton Point ECA.

Table 3. Annual value and quantity of commercial fisheries landings in the Brayton Point ECA.

Year	Value (2023$)	Landings (lbs)
2008	77,946	74,342
2009	57,984	64,216
2010	50,824	77,621
2011	55,577	57,318
2012	61,841	92,477
2013	62,185	134,331
2014	61,786	71,599
2015	73,543	54,892
2016	99,625	75,375
2017	49,263	29,039
2018	39,125	21,311
2019	55,923	33,399
2020	44,583	31,145
2021	75,878	38,992

Table 4 summarizes the average annual landings and value of fisheries production from the Brayton Point ECA by the top species or species groups. American Lobster and Longfin squid are among the species generating the greatest value from the Brayton Point ECA during the 2008-2021 time period. Full data on landings by species can be found in Table A1 in the Appendix.

Both mobile (e.g., trawl and dredge) and fixed (e.g., pots and gillnet) gears are used in fishing operations. The trawl gear is primarily used for harvesting groundfish, dredge for scallops, and pots for lobster and crabs. The fixed gears are fished using trawls (a series of lobster pots attached to one line) with string lengths of 0.4–0.8 km (up to 1.829 km) or gillnets with typical string lengths of 0.2–3.0 km. Table 5 breaks out annual landings for the Brayton Point ECA by gear type. Bottom trawls and lobster pots generate the most significant landings. The “ALL_OTHERS” category includes landings using purse seines, other seines, and weirs/traps, and others that fall under the “rule of three” exclusion.

Table 4. Average annual landings of major species by area, 2008-2021.

Area/Species	Mean		Standard Deviation	
	Value/year (2023$)	Landings/year (lbs)	Value/year (2023$)	Landings/year (lbs)
Longfin Squid	15,786	10,329	11,259	7,264
American Lobster	12,770	1,958	3,052	453
Summer Flounder	6,373	1,540	2,111	666
ALL_OTHERS	4,948	5,596	3,037	4,131

Table 5. Average annual landings in the Brayton Point ECA by gear type.

Gear	Mean		Standard Deviation	
	Value/year (2023$)	Landings/year (lbs)	Value/year (2023$)	Landings/year (lbs)
ALL_OTHERS	2,207	2,540	3,707	4,665
Dredge – Clam	3,041	3,316	2,975	3,419
Dredge – Scallop	2,791	248	2,604	279
Gillnet – Sink	4,122	4,132	1,928	2,431
Handline	297	77	252	58
Longline – Bottom	-	-	-	-
Pot – Lobster	13,904	3,157	2,798	745
Pot – Other	3,526	716	1,576	363
Trawl – Bottom	29,879	31,729	12,362	10,455
Trawl – Midwater	2,096	15,231	3,209	23,313

Table 6 summarizes annual landings and landed value for the major ports receiving landings from the Brayton Point ECA.

Table 6. Average annual landings at major ports in Rhode Island and Massachusetts.

Area/Port	Mean		Standard Deviation	
	Value/year (2023$)	Landings/year (lbs)	Value/year (2023$)	Landings/year (lbs)
Brayton Point ECA				
Point Judith, RI	19,690	15,609	8,680	6,563
New Bedford, MA	17,143	24,085	5,883	19,869

Table 7 shows average annual landings and landed value from the Brayton Point ECA by state where the catch is landed. Rhode Island and Massachusetts together account for more than 90% of landings. The "others" category includes landings in Maine, New Hampshire, Connecticut, New York, New Jersey, Maryland, North Carolina, and Virginia, as well as data flagged by the "rule of three" exclusion.

Table 7. Average annual landings in the Brayton Point ECA by state.

	Mean		***Standard Deviation***	
State	**Value/year** (2023$)	**Landings/year** (lbs)	**Value/year** (2023$)	**Landings/year** (lbs)
Rhode Island	28,868	25,999	9,508	8,365
Massachusetts	27,635	31,305	7,675	24,392
Others	5,360	3,843	--	--

Landed value and trips by month

Table 8 and Figure 3 show the average monthly landings and values from the Brayton Point Export Cable Route. Table 9 reports the average monthly number of fishing trips that intersect the ECA. Note that the trip numbers in Table 9 are for the 10 km wide ECRA, whereas the landed value shown in Table 8 and Figures 3 are for the 180 m wide ECA only.

Table 8. Average monthly value of landings, 2008-2021 (2023$).

Month	**Brayton Point ECA**
Jan	$ 2,397
Feb	$ 1,420
Mar	$ 1,350
Apr	$ 2,292
May	$ 5,285
Jun	$ 11,041
Jul	$ 13,092
Aug	$ 10,241
Sep	$ 6,150
Oct	$ 2,979
Nov	$ 2,598
Dec	$ 3,020

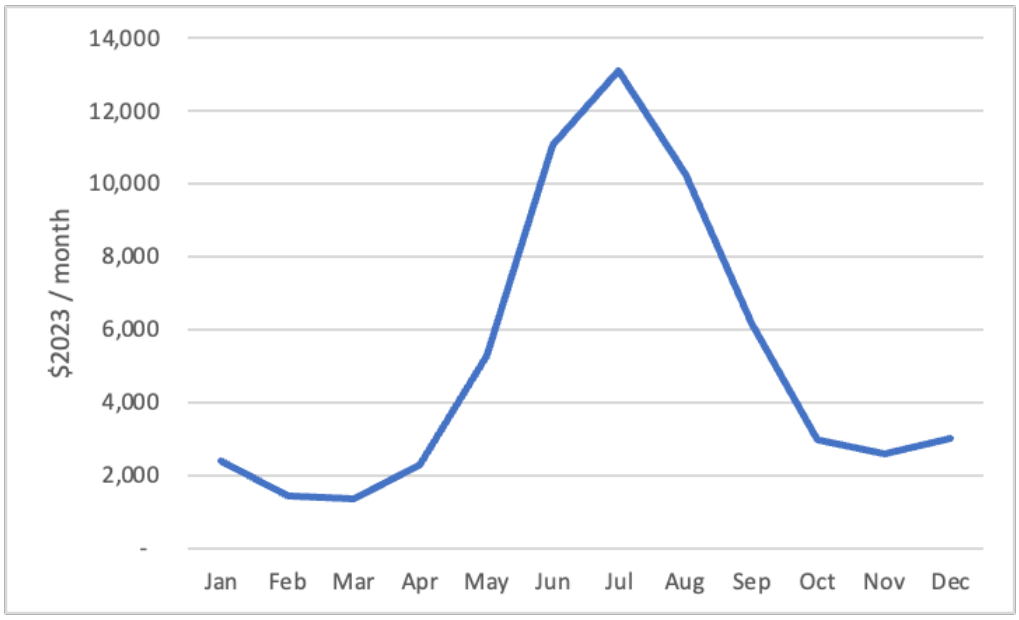

Figure 3. Average monthly value of landings, Brayton Point ECA, 2008-2021.

Table 9. Average monthly number of fishing trips, 2008-2021.

Month	Brayton Point ECRA
Jan	570
Feb	285
Mar	321
Apr	647
May	3,007
Jun	3,641
Jul	3,990
Aug	3,404
Sep	2,874
Oct	2,347
Nov	2,094
Dec	1,141

Inter-annual price adjustments

We use the Bureau of Labor Statistics' Producer Price Index (PPI) for "unprocessed and prepared seafood"[1] to convert ex-vessel value of fish landings, because this index is specifically for the fishery sector. PPI is a family of indexes that measures the average change over time in selling prices received by domestic producers of goods and services; they measure price change from the perspective of the

[1] https://www.bls.gov/ppi/#data

seller. In contrast, the Bureau of Economic Analysis' general Gross Domestic Product (GDP) deflator[2] measures changes in the prices of goods and services produced in the United States, including those exported to other countries, and captures price changes across all economic sectors. Table 10 shows both indexes from 2000 to 2021.

Note that the variation in the sector (i.e., fishery) specific price index is considerably larger than that of the GDP deflator. PPI decreases have been observed in several years since 2000. The GDP deflator exhibits a steady trend. We recognize that many seafood prices rose sharply in 2021, as reflected by the sharp increase in fish PPI for that year. We consider it unlikely that this will significantly alter the long-term trend, and maintain that the historical average is the best predictor of future values.

We report all values in 2023$ for consistency. These values can be easily adjusted to any other-year dollars by applying the appropriate index adjustment. Landed value may be adjusted using the PPI index. For impact values, including upstream and downstream effects (see below), it is more appropriate to use the GDP deflator to adjust, because the multipliers capture economy-wide impacts.

Table 10. Price indexes.

Year	GDP implicit price deflator	Percent change	PPI fish	Percent change
2000	78.0		198.1	
2001	79.8	2.25%	190.8	-3.69%
2002	81.0	1.56%	191.2	0.21%
2003	82.6	1.97%	195.3	2.14%
2004	84.8	2.68%	206.3	5.63%
2005	87.5	3.14%	222.6	7.90%
2006	90.2	3.09%	237.4	6.65%
2007	92.6	2.70%	242.8	2.27%
2008	94.4	1.92%	255.4	5.19%
2009	95.0	0.64%	250.9	-1.76%
2010	96.2	1.20%	272.4	8.57%
2011	98.2	2.08%	287.6	5.58%
2012	100.0	1.87%	287.6	-0.02%
2013	101.8	1.75%	299.4	4.12%
2014	103.7	1.87%	322.4	7.68%
2015	104.7	1.00%	322.0	-0.13%
2016	105.7	1.00%	327.6	1.74%
2017	107.7	1.90%	337.9	3.15%
2018	110.3	2.39%	344.5	1.96%
2019	112.3	1.79%	349.9	1.55%
2020	113.6	1.21%	350.8	0.27%
2021	118.8	4.49%	413.0	17.74%
2022	127.1	7.04%	440.7	6.71%
2023	130.9	3.00%	431.1	-2.19%
Annual average		2.28%		3.53%

[2] https://apps.bea.gov/iTable/iTable.cfm?reqid=19&step=2#reqid=19&step=2&isuri=1&1921=survey

Adjustment of lobster and Jonah crab data

As noted above, lobster vessels that carry only lobster permits are not subject to a Vessel Trip Report (VTR) requirement. Trips without VTR are not reflected in the numbers shown in Tables 2 through 9 (cf. King 2019). To account for potentially unreported lobster and Jonah crab landings, and for dockside sales (see below), we make adjustments to the landed value data as shown in Table 11. Data in the first three rows are based on VTR data, and are taken from Table 2 and Table A1 in the Appendix. An earlier study by Industrial Economics (2015) indicates that active lobster vessels not subject to VTR requirements in Lobster Management Area 2 may account for as much as 57% of the total lobster fishing activity in that area. (Lobster Management Area 2[3] encompasses the waters south of Rhode Island and Cape Cod to a distance of about 40 nm, and overlaps with the SouthCoast Wind Project areas.) We assume conservatively that landings from 60% of the lobster vessels in the SouthCoast Wind ECRAs could therefore be unreported, and that the VTR data represent 40% of the true lobster and Jonah crab revenues. We use this as an adjustment factor, and estimate the adjusted lobster and Jonah crab revenues at 2.5 times of those in the VTR data.

Some fraction of lobster and Jonah crab landings are sold directly from boats at dockside, at a price above that reported in the dealer information on which the NOAA values above are based. Neither the fraction of landings sold in this way nor the price premium is known exactly. Based on information provided by a group of Rhode Island fishermen (pers. comm., 24 Nov. 2020), we estimate that a 15% premium on the landed value derived from NOAA data (Table 11) adequately captures this dockside sales effect for Rhode Island landings. Dockside sales are not a common practice in Massachusetts (Mass. DMF pers. comm. May 2021), so we do not apply this multiplier to Massachusetts landings.

The combined adjustment for VTR data and dockside sales is shown in rows 5 and 6 in Table 11. The net increase is shown in row 7, and the adjusted total annual landed values are shown in row 8. This adjustment results in a 37% increase in the estimated total annual landed value for the Brayton Point ECA.

Table 11. Adjustment of landed value for landings not captured in VTR data and for RI dockside sales.

Value (2023$)	**Brayton Point ECA**
Avg. VTR total $/year (Table 2)	61,863
Avg. VTR lobster $/year (Tables A1-A3)	12,770
Avg. VTR Jonah crab $/year (Tables A1-A3)	941
% of total captured by VTR	40%
Adjusted lobster $/year (incl. RI dockside sales)	34,160
Adjusted Jonah crab $/year (incl. RI dockside sales)	2,518
Net increase over VTR $/year (row 5+6-2-3)	22,967
Adjusted total $/year	84,830
Adjusted increase over VTR total value	37.1%

[3] http://fisheries.noaa.gov/resource/map/lobster-management-areas

With all adjustments, we estimate the average annual landed value in Rhode Island from the Brayton Point ECA to be about $41,100 (2023$). Assuming that this value is evenly distributed over the federal waters portion of the ECA, the fraction attributable to the intersection of the ECA and the two RI GLDs 2011 and 2018 (Figure 2) is $28,700.

Estimated indirect and induced economic impacts

Economic impact multipliers reflect the linkages between economic activity in different sectors of the economy. For example, when landings increase in the commercial fishing sector, there is an associated increase in the purchases of ice and other supplies in the region, and an increase in onshore transportation and processing of seafood. The resulting increases in economic activity in the commercial fishing supply and transportation and processing sectors are indirect effects of increased landings. In addition, because fishermen and workers in the supply, transportation, and processing industries earn greater income as a result of this increased activity, and spend some of that extra income on local goods and services, there is also an induced effect of greater spending in other sectors. The multipliers capture the combined effect of indirect and induced spending that results from higher commercial landings.

We have developed regional economic models for Rhode Island using the IMPLAN model software (IMPLAN 2004) and data for 2021. IMPLAN software and data are commercial products widely used by researchers and management agencies to perform economic impact analyses for a user specified study region (IMPLAN 2004; Steinback and Thunberg 2006; Hoagland *et al.* 2015; UMass Dartmouth 2018; Cape Cod Commission 2020). IMPLAN was initially developed for the US Forest Service. It is a modular input-output model that works down to the individual postal zip code level for most zip codes in the United States. The IMPLAN database consists of two major parts: (1) a national-level technology matrix and (2) estimates of sectoral activity for final demand, final payments, gross output, and employment for each zip code. This 546-sector gross-domestic-product-based model divides the US economy into sectors based on North American Industry Classification System codes[4], and is based on the US Commerce Department's national input-output studies, the national income data, and related Federal economic surveys. In IMPLAN, national average technology coefficients are used to develop the direct coefficients for sectors at local levels. As noted, we use 2021 IMPLAN data for Rhode Island for our analysis. Based on the 2021 model and data, the upstream output multiplier for the commercial fishing industry in Rhode Island is 1.311.

We have also taken into account downstream economic activity, such as seafood processing, that may take place at Rhode Island businesses as a result of commercial fisheries landings. This linkage is less direct than the upstream activities, because not all seafood landed in a state is processed in the state, and seafood processors may import more seafood from elsewhere for processing when in-state landings fall short. Nonetheless, we add a downstream adjustment of 0.511, using 2021 IMPLAN data, to the multiplier for Rhode Island landings, bringing the combined multiplier to 1.822, to account for both upstream effects and downstream effects to seafood processors. We apply the combined upstream and downstream multiplier to all landings except lobster and Jonah crab, which are adjusted for dockside sales and receive only the upstream multiplier.

[4] https://www.census.gov/naics/

The economic impact multiplier captures the linkages between the fishing industry sector and other sectors in the Rhode Island economy. While we use a single output multiplier for the entire commercial fishing sector in a given state, we recognize that the multiplier may in fact vary across specific fisheries, species, and gear due to differences in factor inputs for fishing operations and post processing of fish landed. We use a single multiplier for the entire commercial fishing sector, reflecting an average across all gear types and species. Economy-wide inflation affects all sectors in the economy but usually does not alter the general structure of the economy. Therefore, although the baseline economic values increase with rising prices, the multiplier does not. We also recognize that other types of multipliers, such as those focusing on employment effects, have been used in other analyses. We maintain that the output multipliers we use provide a robust and accurate measure of indirect and inducted effects averaged across the fishing sectors.

Table 12. Estimated annual economic impact in Rhode Island (all values in 2023$)

		Average value of landings/year			**Total impact/year**
Area	**State**	VTR data only (Table 11, row 1)	with lobster & Jonah crab adjustment	with dockside sales adjustment (15% premium on RI lobster & JC landings)	"dockside sales" column multiplied by upstream & downstream multipliers, except RI lobster & JC
Brayton Point ECA	total	61,863	82,430	84,830	149,528
Brayton Point ECA	RI	28,868	38,654	41,101	64,902

Using these multipliers, and including the lobster and Jonah crab adjustment described in the previous section, we estimate the average annual total economic impact from commercial fishing activity in the Brayton Point ECA to be about $149,500 overall and $64,900 in Rhode Island. The portion attributable to Rhode Island-based commercial fishing in the intersection of the ECA with the RI GLDs amounts to an annual impact in Rhode Island of $46,000 (2023$). These estimates are based on average annual landings value from 2008 to 2021, with lobster and Jonah crab landed value adjusted to account for boats not subject to VTR requirements.

Exposure of commercial fishing to Export Cable Route development

As stated above, we consider five categories of possible exposure of commercial fishery landings and landed value from development of the Brayton Point export cable in the RI GLDs:

- Transient effects on fish availability due to construction activities and noise
- Transient effects due to constrained access to certain areas during construction
- Changes in fishing along the export cable during operations
- Transient effects due to constrained access to certain areas during decommissioning
- Transient effects on fish availability due to decommissioning activities

The assumptions and effects on fish availability and fishing activity/landings are summarized in Table 13 for each category and Project area. For the purpose of estimating exposure effects, we use the baseline values discussed above for the area of interest, the intersection of the Brayton Point export cable route with the RI GLDs. In the sections that follow Table 13, we describe how we arrived at the assumptions, with references in the text corresponding to the row codes (a), (b), (c), etc. in the table. The assumptions are based in part on information from the SouthCoast Wind Construction and Operations Plan (COP; SouthCoast Wind LLC 2022) and on specific information provided by SouthCoast Wind about the Brayton Point export cable installation schedule (SouthCoast Wind, pers. comm. 2023), as described below.

Table 13. Assumptions for exposure of commercial fisheries to export cable development

Categories of Potential Effects		**Assumptions/Effects**	**Duration**
Availability effects due to construction	1.6km ECWA	All landings reduced 10% (a)	2028, 2029, 2030
	180m ECA	Lobster/crab landings reduced 25% (b) Other shellfish landings reduced 25% (c)	2028, 2029, 2030 2028 - 2033
Construction constrained access	1.6km ECWA	No fishing in 10% of area (d)	6 months 2028 6 months 2029/2030
	180m ECA	No fishing in 100% of area (e)	6 months 2028 6 months 2029/2030
Effects during operations	1.6km ECWA	None	
	180m ECA	None	
Availability effects due to decommissioning	1.6km ECWA	All landings reduced 10% (f)	2060, 2061
	180m ECA	Lobster/crab landings reduced 25% (g) Other shellfish landings reduced 25% (h)	2060, 2061 2060 - 2064
Decommissioning constrained access	1.6km ECWA	No fishing in 10% of area (i)	6 months 2060 6 months 2061
	180m ECA	No fishing in 100% of area (j)	6 months 2060 6 months 2061

(a), (b), (c) etc. refer to detailed explanations in the text that follows

The baseline value of $28,700 (2023$) per year in RI landed value from the intersection of the 180 m wide ECA and RI GLDs scales to $255,000 per year for the 1.6 km wide Export Cable Working Area (ECWA). Lobster and crab (mobile shellfish) make up $12,600 of the ECA landed value ($112,000 for the ECWA), other shellfish $800 ($7,100 for the ECWA), and finfish $15,300 for the ECA ($136,000 for the ECWA).

Transient availability effects due to construction

The construction schedule (SouthCoast Wind LLC 2022; SouthCoast Wind pers. comm. 2023) envisions two Brayton Point export cable bundles installed adjacent to each other in the same ECA, with construction activity for these cables in the RI GLDs taking place in two phases: (1) for up to 178 days in

summer and fall of 2028, and (2) for 178 days in late 2029 and early 2030. To convert future effects to a common basis, we apply a real discount rate of 5% – the average of the rate usually applied in natural resource valuation (3%) and the rate usually applied by the US government for public investment and regulatory analyses (7%).

The greatest availability effects from installation of the export cables are likely to be due to habitat disruption along the immediate cable route. We consider significant displacement of mobile species from the ECA and ECWA to be unlikely. The habitat disruptions that impact non-mobile benthic species are likely to extend on average no more than 5-10 m on either side of the cables – at most 12% of the ECA and 2% of the ECWA. To be conservative, we assume a 25% reduction in landings of all shellfish for three years (2028 – 2030) and of non-mobile shellfish over six years from the ECA (Table 13 (b and c), and a 10% reduction in landings for all species for three years from the 1.6km ECWA (Table 13 (a)).

Transient effects from constrained access during construction

During cable installation activities, fishing may be temporarily constrained along parts of the Export Cable Route. In practice, some fishing that would have taken place along the cable route is likely to shift to other nearby locations, replacing some of the forgone landings. If fishers prefer to fish within the construction areas, that is likely because these are thought to be more productive than alternatives. As an upper bound on effects from these temporary constraints, we estimate the full average value of landings linked to the affected areas.

We assume conservatively that fishing is constrained in 10% of the 1.6 km ECWA intersection with the RI GLDs for 178 days in 2028 and another 178 days spread over 2029 and 2030 (Table 13 (d)), during cable installation activities. This represents a buffer of about 2 nautical miles on either side of the cable installation vessel. In addition, we assume that fishing is constrained within all of the ECA immediately around the export cable routes for a period of six months for each cable installation (Table 13 (e)).

The combined present value of RI commercial landings associated with these availability and constrained access effects from cable installation in the RI GLDs is estimated to be $101,000 (2023$). Including indirect and induced effects, the RI impact associated with these landings in $161,000.

Effects due to fishing constraints during operations

We do not expect any constraints on fishing along the ECC during operations. Cable burial parameters and cable protection are designed to permit fishing over the cable route.

Transient effects from constrained access and availability effects during decommissioning

After approximately 30 years of operations, SouthCoast Wind plans to decommission the Project. This is expected to happen in two phases, in 2060 and 2061, mirroring construction activities.

We expect that access constraints and availability effects along the export cables during decommissioning will be similar to those during cable laying operations. We therefore model access constraints and availability effects similar to those expected during cable installation (Table 13 (f) through (j)). We then discount the value of affected landings from decommissioning to 2023$ by applying a 5% discount rate. The resulting present value (2023$) estimate of potential lost landings due to access constraint and availability effects during decommissioning is $13,000 in RI, for a total impact of $21,000.

In summary, the total present value of RI commercial landings from fishing in intersection of the Brayton Point export cable route and the RI GLDs potentially exposed to SouthCoast Wind Project development is estimated to be about $114,000 (2023$). Applying the upstream and downstream multipliers as described above results in an estimate of $68,000 in indirect and induced effects in Rhode Island, for a total impact of $182,000.

Rhode Island-based charter fishing

To obtain data on for-hire charter fishing activity in and around the Brayton Point Export Cable Corridor, we conducted an online survey of Rhode Island- and Massachusetts-based charter vessel operators. The survey asked operators to identify their fishing locations on a chart, and report for each location

- the total number of annual for-hire fishing trips that vessels took in each of the years 2017-2021,
- the average number of passengers onboard for-hire trips in each of the years 2017-2021, and
- the average amount of time spent targeting highly migratory species (HMS) relative to bottom fishing or trolling for other species during for-hire trips.

The survey was first distributed on April 18, 2022 through email lists maintained by Rhode Island Department of Environmental Management (RIDEM), Rhode Island Coastal Resources Management Council (RICRMC), and Massachusetts Division of Marine Fisheries (MADMF), and also via email by for-hire fishing industry representatives, including the Rhode Island Party and Charter Boat Association. The survey was active from April 18, 2022 until May 14, 2022. The survey received 91 total responses from for-hire charter owners and/or operators. Sixty-six of these respondents (72%) reported that they fish in the area depicted in Figure 4. These 66 respondents reported 62 unique vessels, and reported effort data for 29 of those vessels across the five-year period of 2017-2021 (black dots in Figure 4).

Table 14. For-hire charter fishing survey summary statistics.

Description	Number
Fished in the area and responded to the survey	70
Provided vessel names	66
of which based in Rhode Island	28.5
Provided annual vessel trip numbers	35
Observations with vessel trips reported (2017-2021)	229
Total trips per year	1 – 235
Average total trips per year	46.74
Passengers per vessel trip	2 – 25
Average passengers per vessel trip	5.24
Identified fishing locations on maps	33
of which based in Rhode Island	14.5

To capture for-hire effort focused specifically within and around Narragansett Bay, a second survey was conducted in October 2022 distributed among 17 for-hire charter captains known to fish primarily in Narragansett Bay as identified by members of the for-hire industry. This survey received a total of 4 responses reporting activity for 4 unique vessels not captured in the first survey wave (red dots in Figure 4). The second survey design was identical to that of the first wave with the addition of charts for Narragansett Bay. Combined results for the two surveys are shown in Table 14.

Similar studies published in the peer-reviewed academic literature using paper mail, email, or mixed mode survey distributions typically have survey response rates around 20-30% (e.g., Dalton *et al*. 2020, Carr-Harris and Steinback 2020). Based on discussions with for-hire industry representatives, approximately 100 vessels actively engage in for-hire fishing activity in the waters depicted in Figure 4, suggesting the fishing reported by survey respondents accounts for about 33% of the total. The combined response rate for the primary population of interest is within an appropriate range to consider our survey distribution a success. An important note to also consider is that there are vessels in our sample that require the submission of federal VTRs. A common trend identified in the data was that some respondents did not provide data for their vessels that require VTRs. This is not a problem for this analysis as this effort data is already accounted for by the NOAA databases and summary reports used as a baseline for our subsequent analyses.

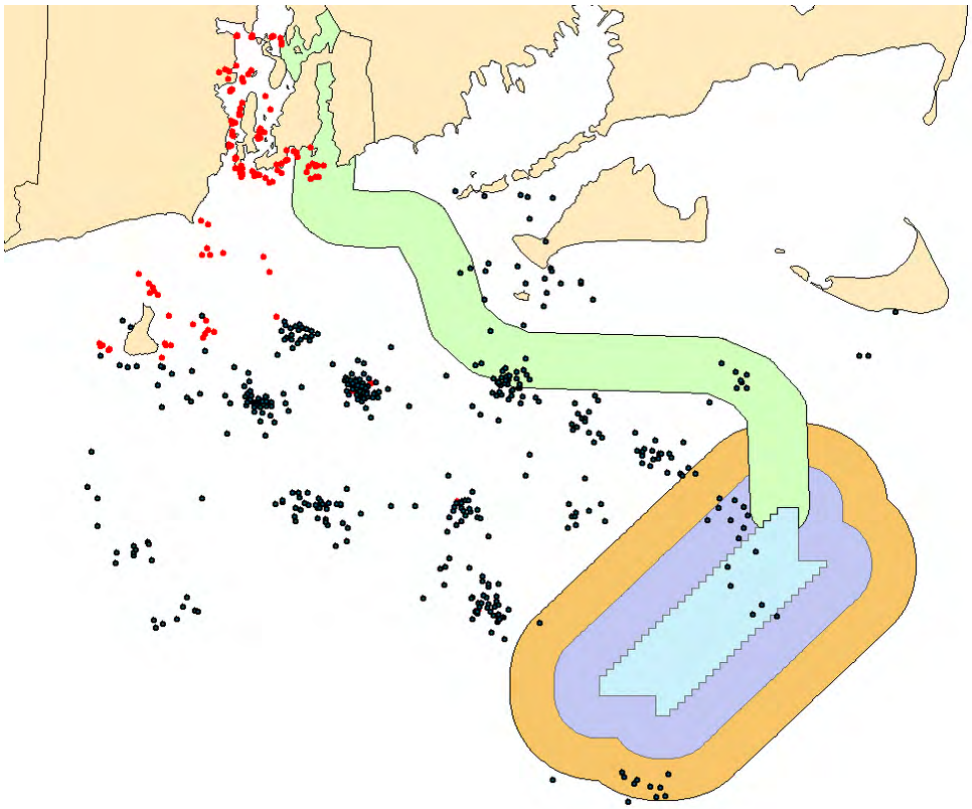

Figure 4. Charter fishing locations, 2017-2021, identified in survey responses. WLA is shown in blue with 7.5 and 15 km buffers, and Brayton Point ECRA in green. Black dots: first survey; red dots: second survey (see text above).

The number of anglers per year is estimated by multiplying the vessel trip number in a year and the average number of anglers per trip in that year for each vessel, and the results are then summed across vessels by area. Table 15 shows the annual vessel trips and angler counts in the survey responses for charter vessels based in Rhode Island.

Table 15. Number of Rhode Island-based vessel trips and anglers by year, Brayton Point ECRA.

	State waters		Federal waters	
Year	**Vessel Trips**	**Anglers**	**Vessel Trips**	**Anglers**
2017	22	77	11	48
2018	16	56	14.5	63.5
2019	18	58.5	14	65
2020	17	51	5	15
2021	10	30	7	25
Average	***16.6***	***54.5***	***10.3***	***43.3***

We use the revenue per angler estimates from NOAA shown in Table 15 below for our revenue calculation. We recognize that the per angler revenue from charter boats may be an order of magnitude larger than that from party boats. The data in Table 15 represent an average across both sectors, influenced by the fact that many more people participate in party boat fishing than in charter fishing. There is no per-angler revenue data specific to the SouthCoast Wind Project area available from NOAA as of the writing of this report. We therefore rely on estimates from nearby lease areas (Bay State Wind and Vineyard Wind 1) as a proxy of what we expect SouthCoast Wind Project area revenues to be.

The annual revenue for each area is estimated by multiplying the number of anglers (Table 16) by the average revenue per angler ($116.23). The result is then adjusted using a scale factor. For a low-end estimate, the scale factor is the ratio of the number of Rhode Island vessels responding to the survey (28.5) to the number of these vessels for which specific fishing locations were provided (14.5). For a high-end estimate, we increase the scale factor to reflect the estimated total of 100 vessels operating in the survey area (see above), versus the 66 for which survey responses were received. Finally, an economic impact multiplier is used to reflect the overall economic impacts associated with the charter fishing direct revenue. As with commercial fishing, we recognize that this multiplier will in fact vary with different types of charter fishing (e.g. sport fishing charters versus party boats). The multiplier we use is calculated using data in the NOAA report by Lovell *et al*. (2020), and reflects an average across different types of charter fishing. The results are shown in Table 17 for the federal waters portion of the Brayton Point ECRA, which overlaps with the RI GLDs.

As Figure 4 and Table 17 illustrate, there is substantial charter fishing activity within the Brayton Point ECRA. We assume conservatively that the value of charter fishing in the ECRA is foregone for two years in both the construction and decommissioning phases of the Project. This is likely an overestimate of the actual impact, since charter fishing that would have taken place in these areas may in fact be carried out elsewhere. Charter fishing is not expected to be affected along the Brayton Point export cable during operations of the SouthCoast Wind Project.

Table 16. Estimated SouthCoast Wind Project area for-hire vessel revenue. Sources: NMFS 2023a and 2023b

Year	Revenue per angler (2023$)
2009	111.50
2010	92.92
2011	159.29
2015	134.57
2016	106.19
2018	92.92
Average	**116.23**

Table 17. Annual revenue and economic impact from RI-based charter fishing in federal waters and RI GLDs

Area	Annual anglers	Revenue per angler (2023$)	Scale factor	Annual revenue (2023$)	Impact multiplier	Annual impact (2023$)
Brayton Point ECRA	43.3	116.23	2.333	11,743	1.622	19,047
Federal Waters			3.763	18,940	1.622	30,721

Using the high-end revenue and impact estimates (Table 17), and assuming conservatively that this value is forgone for two years during both the construction and decommissioning phases, the present value of these effects is about $32,000 (2023$) in revenue, and $52,000 in total impact in Rhode Island.

Conclusions

Based on NOAA data from 2008 to 2021, and adjusting for both underreporting of lobster and Jonah crab landings in the VTR data and some dockside sales of lobster and Jonah crab, we estimate the average annual value of commercial landings from the 180 m wide SouthCoast Wind Brayton Point Export Cable Area to be $4,150/km^2/year (2023$). Of this, about 48% is landed in Rhode Island.

Table 18 summarizes the baseline and estimated exposure values for the intersection of the Brayton Point Export Cable Area and the 2011 and 2018 Rhode Island Geographic Location Description (GLD) areas. This area generates annual commercial landed value of $29,000 (2023$) in Rhode Island. Including indirect and induced effects, these landings generate $46,000 in annual value in Rhode Island.

Rhode Island-based charter fishing revenue generated in and around the Brayton Point Export Cable Corridor is estimated to be between $12,000 and $19,000 (2023$). Including multipliers, this generates total annual economic impacts of $19,000 to $31,000 in Rhode Island.

We estimate that a total (lump sum) of $114,000 (2023$) of commercial fisheries value landed in Rhode Island is potentially exposed to development of the Brayton Point Export Cable Route intersecting with the RI GLDs.

Rhode Island-based charter fishing revenue exposure to development of the Brayton Point export cable in the RI GLDs is estimated to have a present value of $32,000.

Including indirect and induced effects, the potentially affected commercial landings and charter fishing activities together result in about $234,000 in total (lump sum, 2023$) present value economic impact in Rhode Island.

Table 18. Summary of baseline and estimated exposure values (2023$)

	RI landed value or revenue	***Indirect and induced effects***	***Total economic impact in RI***
Baseline ($/year)			
Commercial	29,000	17,000	46,000
Charter	19,000	12,000	31,000
Total	**48,000**	**29,000**	**77,000**
Exposure ($ present value)			
Commercial	114,000	68,000	182,000
Charter	32,000	20,000	52,000
Total	**146,000**	**88,000**	**234,000**

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Appendix

Table A1. Average annual landings by species from the SouthCoast Wind Brayton Point ECRA, 2008-2021.

Note: lobster and Jonah crab data in this table have not been adjusted for landings not reported via VTR. (These data are for the 10 km wide ECRA, not the 180 m wide ECA.)

	Mean		***Standard Deviation***	
Species	**Value/year** (2023 $)	**Landings/year** (lbs)	**Value/year** (2023 $)	**Landings/year** (lbs)
ALBACORE TUNA	2,303	1,428	6,986	4,210
ALL_OTHERS	274,877	310,907	168,718	229,521
AM. PLAICE FLOUNDER	268	136	246	123
AMERICAN EEL	16	5	38	9
AMERICAN LOBSTER	709,460	108,796	169,582	25,185
AMERICAN SHAD	2	2	5	4
ATLANTIC CROAKER	18	32	41	84
ATLANTIC HALIBUT	38	4	30	3
ATLANTIC HERRING	138,611	952,673	206,077	1,417,581
ATLANTIC MACKEREL	12,614	39,171	16,993	80,425
BLACK SEA BASS	109,272	23,662	35,050	10,251
BLUE CRAB	1,391	1,407	4,937	5,040
BLUEFIN TUNA	5	1	17	3
BLUEFISH	30,407	41,417	17,979	27,093
BLUELINE TILEFISH	15	5	40	13
BONITO	8,242	2,681	5,958	2,277
BUTTERFISH	28,548	33,437	15,989	17,949
CANCER CRAB	-	57	-	130
CHANNELED WHELK	105,555	10,840	68,262	7,459
CHUB MACKEREL	11	12	43	45
COBIA	1	0	3	1
COD	6,972	2,295	4,622	1,450
CONCHS	13,436	2,679	35,331	6,551
CONGER EEL	283	391	281	434
CUNNER	266	110	746	260
CUSK	4	3	5	4
DOGFISH SMOOTH	3,330	4,777	2,694	4,493
DOGFISH SPINY	20,572	68,345	28,651	91,918
DOLPHINFISH	4	1	17	4
FOURSPOT FLOUNDER	22	42	55	123
GOLDEN TILEFISH	5,048	1,070	5,599	1,161
HADDOCK	1,808	1,223	1,414	1,036
HORSESHOE CRAB	217	197	197	224
ILLEX SQUID	1,867	3,599	2,881	6,328
JOHN DORY	89	63	122	85
JONAH CRAB	52,297	55,260	30,697	31,883
KING MACKEREL	0	0	1	0
KING WHITING	2,152	1,946	4,176	3,954
KNOBBED WHELK	1,765	446	2,928	708

LIGHTNING WHELK	153	49	463	137
LITTLE TUNA	1,962	3,257	2,864	5,089
LONGFIN SQUID	877,015	573,828	625,512	403,553
MAKO SHORTFIN SHARK	-	-	-	-
MENHADEN	119	315	221	642
MONKFISH	62,175	29,835	33,865	12,183
MULLETS	-	-	-	-
NK CRAB	82	78	129	89
NK EEL	21	18	27	20
NK SEATROUT	137	300	148	350
NK TILEFISH	-	-	-	-
NORTHERN KINGFISH	0	0	0	0
NORTHERN SEA ROBIN	0	2	2	8
OCEAN POUT	5	8	18	28
OCEAN QUAHOG	-	-	-	-
OFFSHORE HAKE	1,740	1,757	4,157	3,908
OTHER FISH	49	50	181	179
POLLOCK	289	236	233	209
RED CRAB	-	-	-	-
RED HAKE	6,178	16,464	1,668	4,760
REDFISH	151	196	139	169
ROCK CRAB	6,522	8,240	7,927	9,230
SAND TILEFISH	-	-	-	-
SAND-DAB FLOUNDER	53	79	131	205
SCUP	142,379	168,197	63,861	79,535
SEA RAVEN	61	40	75	46
SEA ROBINS	178	496	202	356
SEA SCALLOP	155,767	13,132	141,862	13,922
SILVER HAKE	102,572	139,468	51,088	77,190
SKATES	139,206	665,273	75,862	449,248
SPANISH MACKEREL	6	4	15	11
SPOT	6	11	15	28
SPOTTED HAKE	-	8	-	29
SPOTTED WEAKFISH	16	5	34	11
SQUETEAGUE WEAKFISH	1,468	592	1,213	465
STRIPED BASS	9,125	1,772	8,622	1,726
SUMMER FLOUNDER	354,034	85,559	117,270	37,004
SURF CLAM	3,836	3,561	12,526	11,688
SWORDFISH	-	-	-	-
TAUTOG	7,409	1,998	3,390	1,034
THRESHER SHARK	60	53	226	197
TRIGGERFISH	145	90	96	56
WHITE HAKE	1,310	747	3,154	1,664
WINTER FLOUNDER	18,568	6,471	20,051	7,502
WITCH FLOUNDER	353	142	344	140
WOLFFISHES	3	3	8	6
YELLOWFIN TUNA	-	-	-	-
YELLOWTAIL FLOUNDER	11,896	5,598	16,996	8,847

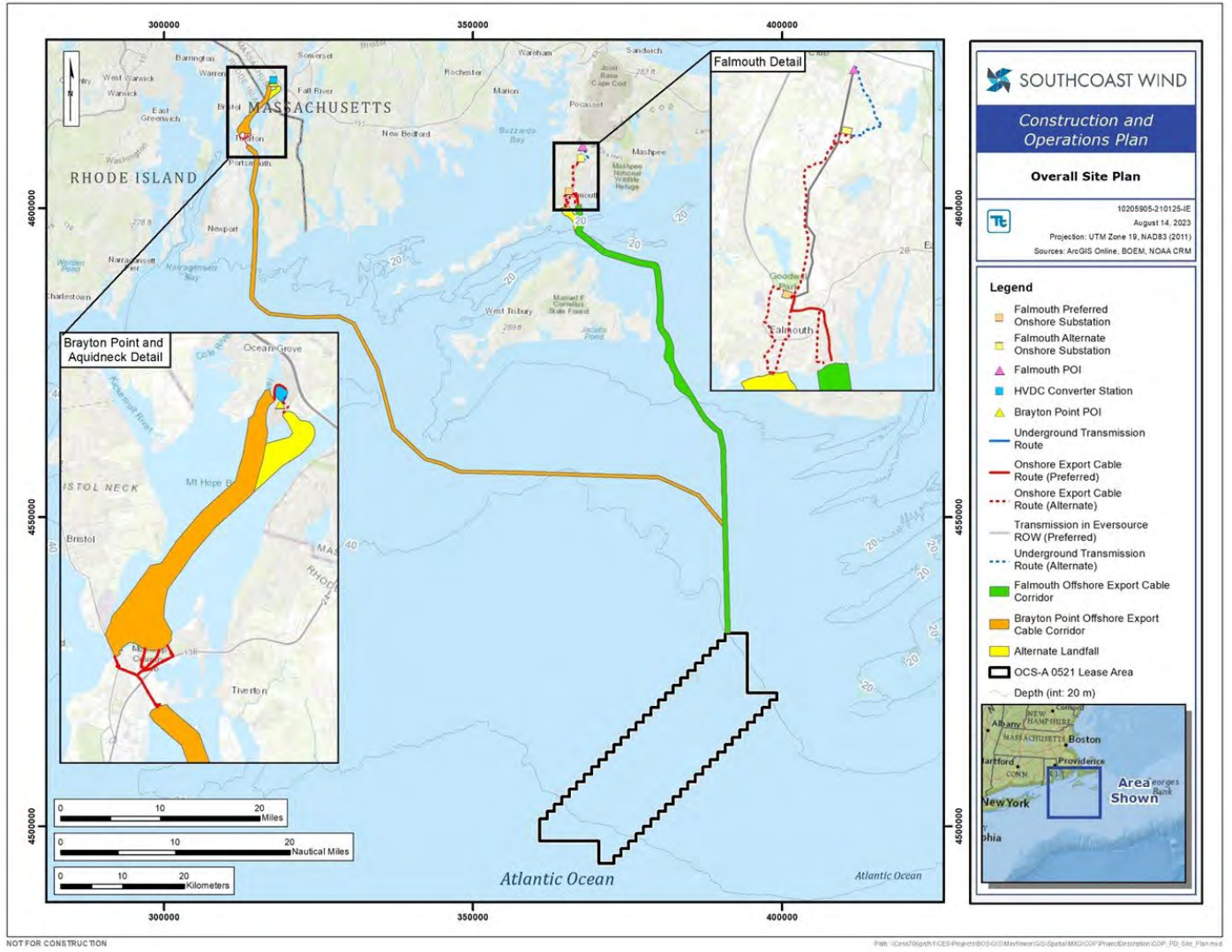
SOUTHCOAST WIND

Fisheries Economic Exposure Review – Rhode Island CRMC

November 16, 2023

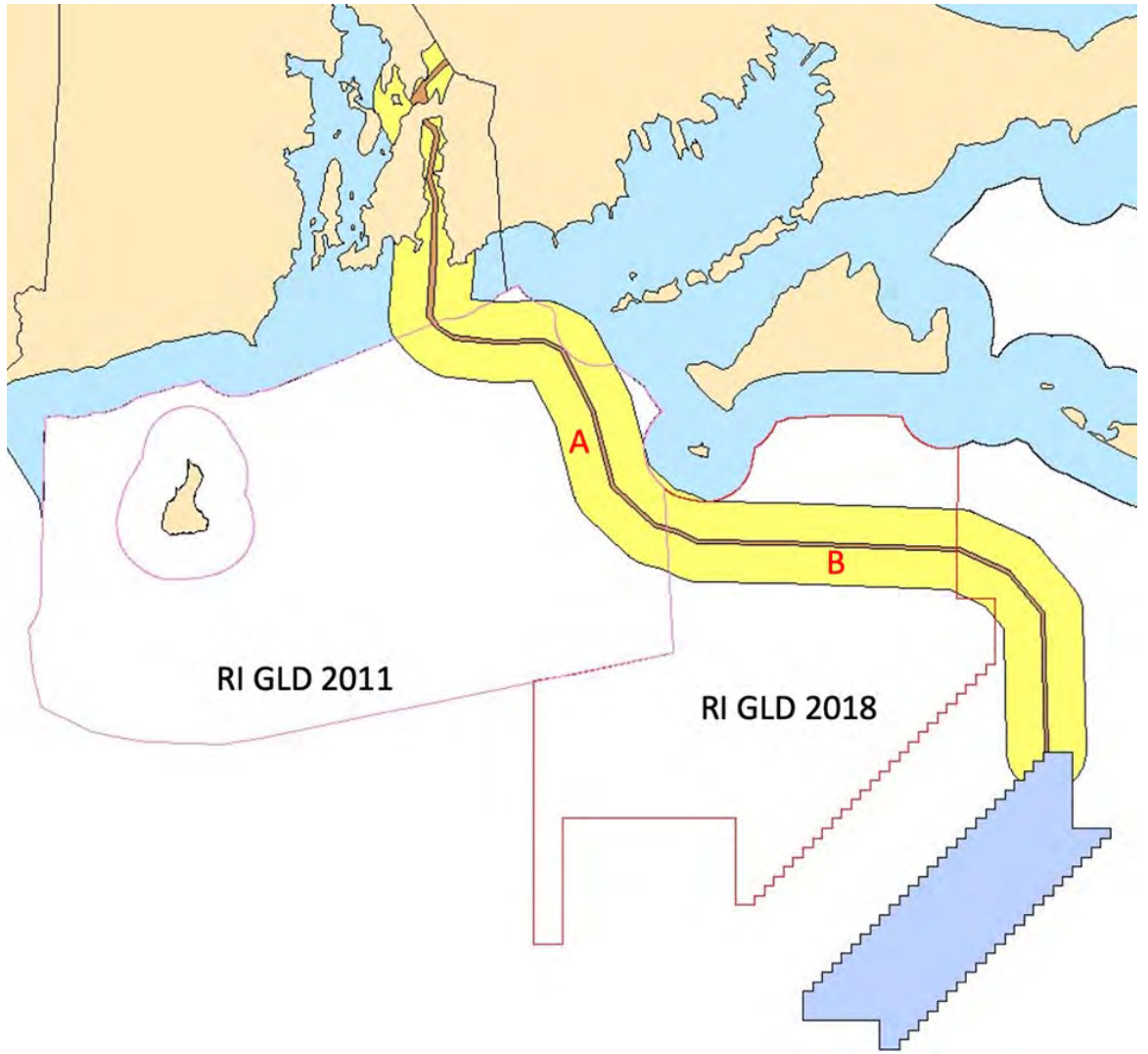
SouthCoast Wind - Overview

- **Lease Area**
  - 127,388 acres
  - Up to 149 wind turbine/offshore substation platform positions
  - ~25 nautical miles south of Nantucket
  - 1 x 1 nautical mile grid layout
- **Generation Potential**
  - Estimated 2,400 MW+ total generating capacity depending on technologies
  - ~1,200 MW per project
- **Fisheries Economic Exposure**
  - Conducting analysis to determine mitigation measures for RI and MA
- **The focus of today is Baseline Assessment for Economic Exposure Analysis (WHOI)**



Rhode Island Fisheries Exposure Area of Focus

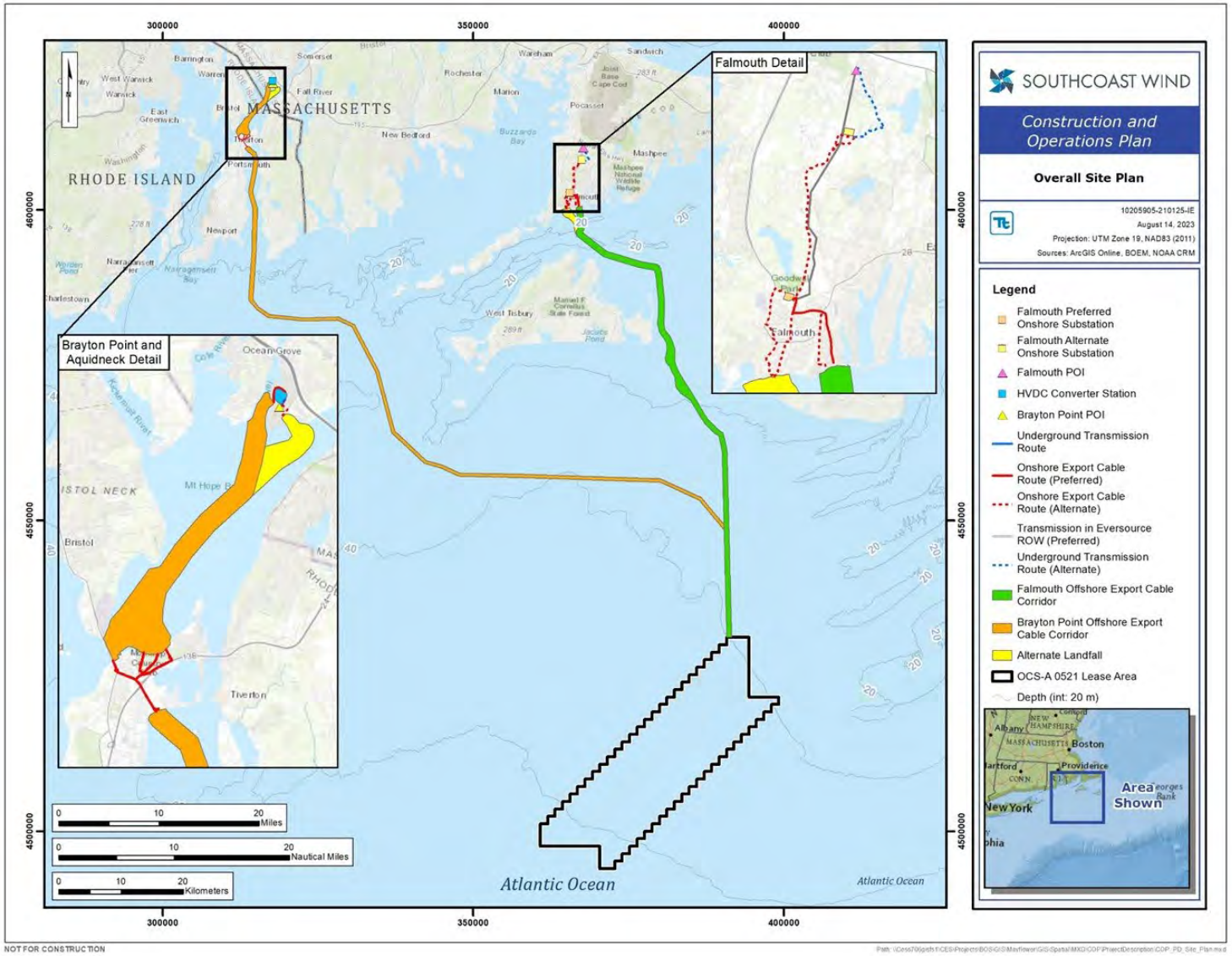
- **Baseline assessment and exposure analysis to reflect jurisdiction of CRMC federal consistency review**
  - RI Geographic Location Description 2011 (Area A)
  - RI Geographic Location Description 2018 (Area B)
- Fishery exposure in RI state waters will be addressed through separate permitting process (Category B Assent)



SouthCoast Wind Fisheries Exposure for Rhode Island GLDs in Federal Waters

Hauke Kite-Powell, Di Jin, and Michael Weir
Marine Policy Center, Woods Hole Oceanographic Institution
16 November 2023

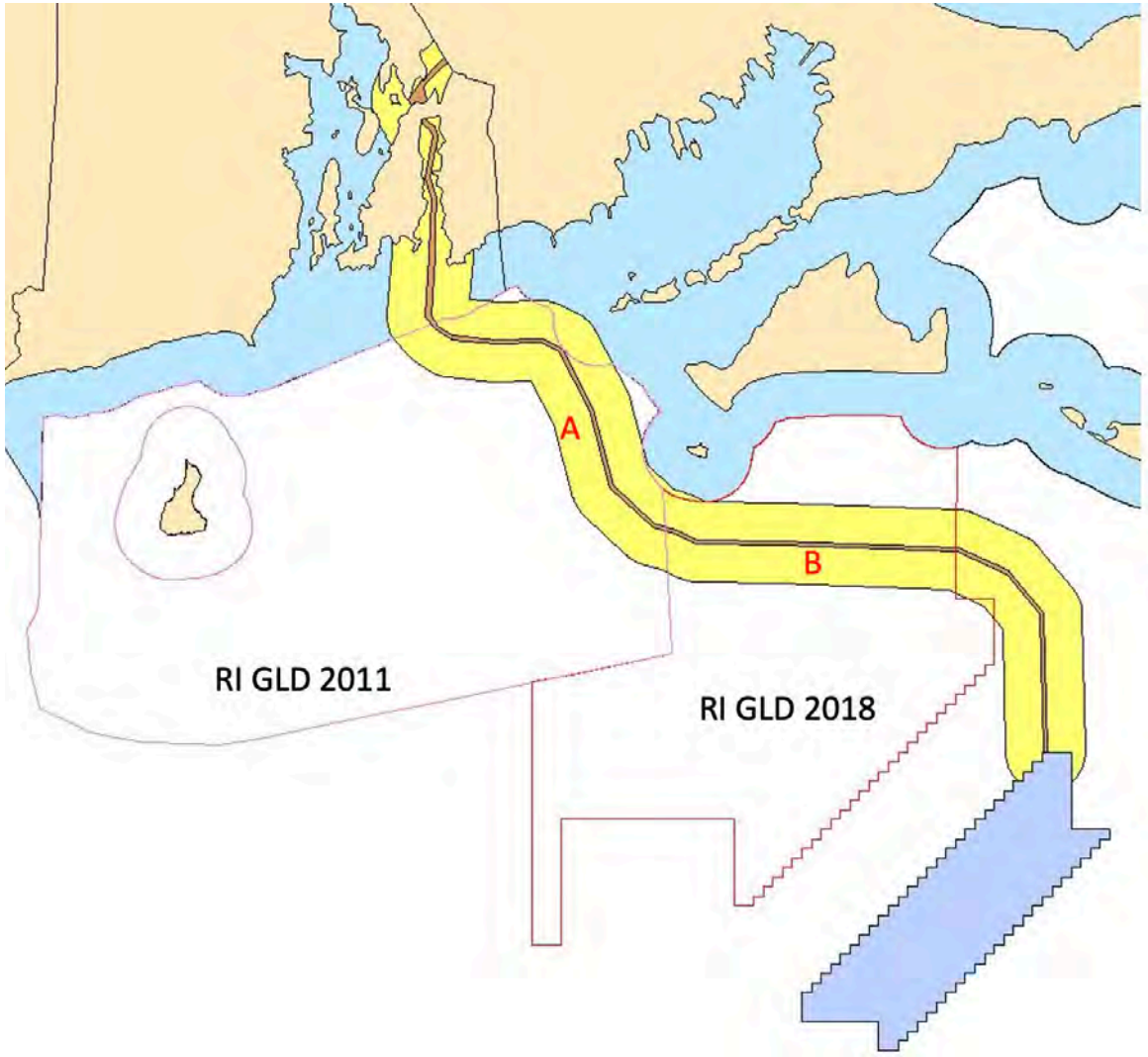
SouthCoast Wind project areas



What is the Rhode Island commercial fishing landed value and charter fishing revenue exposed to development of the federal waters/RI GLD sections of the Brayton Point Export Cable Corridor?

What are indirect and induced effects associated with these landings/ revenue?

SouthCoast Wind project areas and RI GLDs



A: Cable buffer in RI GLD 2011
length = 44km

B: Cable buffer in RI GLD 2018
length = 37km

Export Cable Corridor (ECC):
area around the cable route surveyed by SouthCoast (thin band in figure on left)

Export Cable Area (ECA):
180m wide band centered on cable where seafloor may be disturbed during installation

Export Cable Working Area (ECWA):
1,600m wide band centered on cable where fishing may be constrained during installation

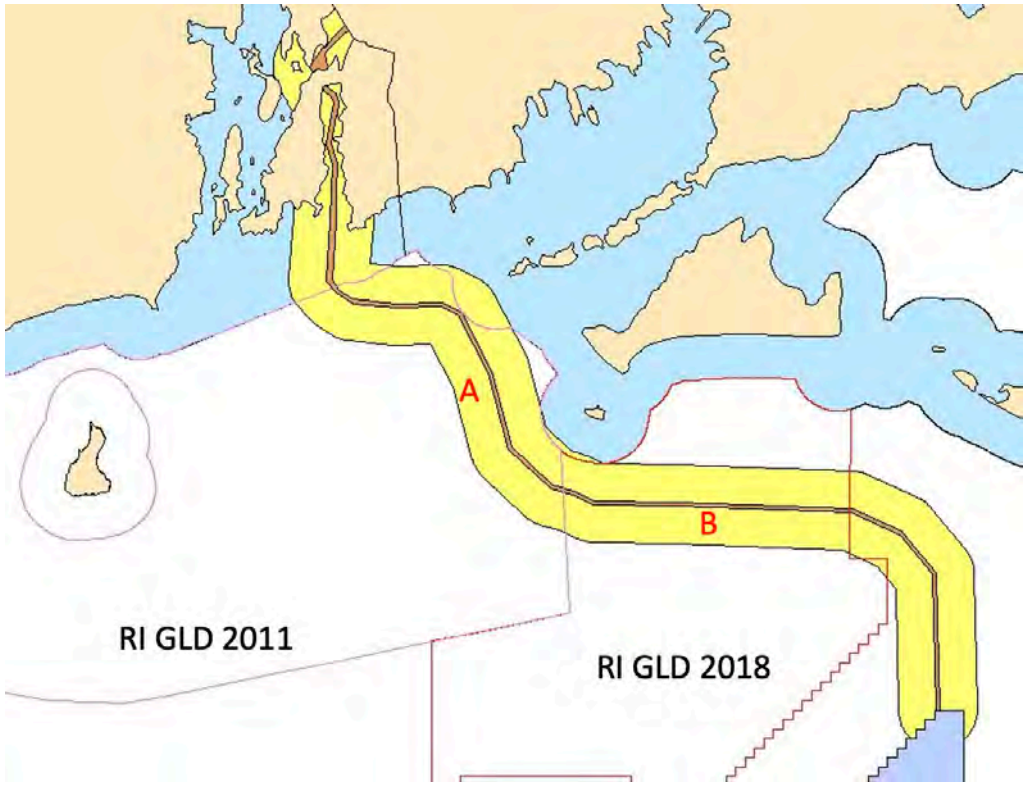
Export Cable Route Area (ECRA):
10km wide area used for fishery data collection by NOAA (yellow area in figure on left)

Mapping data to project areas

Data set used: NOAA SouthCoast ECRA, 2008-2021

Key assumption:

Export cable sections A and B landings reflect NOAA SouthCoast ECRA overall average landings



Results: Commercial Landings from Brayton Point ECA/RI GLDs (2023$)

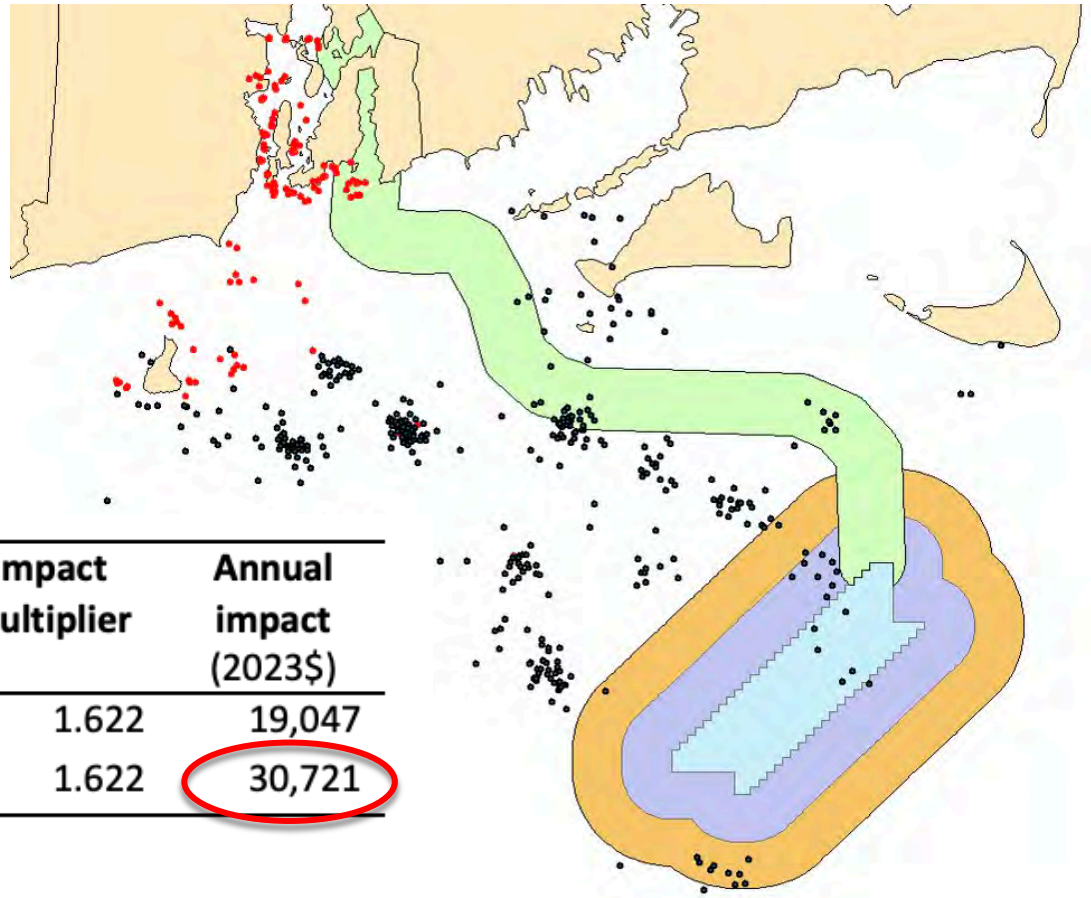
Area	Total landings $/km/y	Total landings $/y	RI landings $/y	RI indirect and induced effects $/y	RI total value $/y
Brayton Pt ECA A: RI GLD 2011	$4,150	$32,900	$15,600	$9,400	$25,000
Brayton Pt ECA B: RI GLD 2018	$4,150	$27,600	$13,100	$7,900	$21,000

RI multipliers (2021) from IMPLAN: 1.311 upstream
1.511 downstream

For-hire charter fishing survey (2022)

Combined impact, RI-based charter fishing:

$31,000/year



Area	Annual anglers	Revenue per angler (2023$)	Scale factor	Annual revenue (2023$)	Impact multiplier	Annual impact (2023$)
Brayton Point ECRA	43.3	116.23	2.333	11,743	1.622	19,047
federal waters			3.763	18,940	1.622	30,721

Summary of Baseline Values

Commercial fishing:

RI landings from Brayton Point ECA in RI GLDs/federal:	$29,000/year
Rhode Island landings with multipliers:	$46,000/year

For-hire charter fishing:

RI revenue from Brayton Point ECRA in RI GLDs/federal:	$19,000/year
Rhode Island revenue with multipliers:	$31,000/year

Brayton Point Export Cable Installation

Installation plan for sections A and B:

- 2 cables within 180 m ECA
- 1st cable: summer/fall 2028, up to 178 days
- 2nd cable: late 2029/early 2030, up to 178 days

Commercial Fishing Exposure Assumptions

Table 13. Assumptions for exposure of commercial fisheries to export cable development

Categories of Potential Effects		Assumptions/Effects	Duration
Availability effects due to construction	1.6km ECWA	All landings reduced 10% (a)	2028, 2029, 2030
	180m ECA	Lobster/crab landings reduced 25% (b) Other shellfish landings reduced 25% (c)	2028, 2029, 2030 2028 - 2033
Construction constrained access	1.6km ECWA	No fishing in 10% of area (d)	6 months 2028 6 months 2029/2030
	180m ECA	No fishing in 100% of area (e)	6 months 2028 6 months 2029/2030
Effects during operations	1.6km ECWA	None	
	180m ECA	None	
Availability effects due to decommissioning	1.6km ECWA	All landings reduced 10% (f)	2060, 2061
	180m ECA	Lobster/crab landings reduced 25% (g) Other shellfish landings reduced 25% (h)	2060, 2061 2060 - 2064
Decommissioning constrained access	1.6km ECWA	No fishing in 10% of area (i)	6 months 2060 6 months 2061
	180m ECA	No fishing in 100% of area (j)	6 months 2060 6 months 2061

Charter Fishing Exposure Assumptions

- No charter fishing revenue from 10 km wide ECRA areas A & B during cable installation work in 2028, 29, and 30
- No charter fishing revenue from ECRA areas A & B during decommissioning (2060, 61)

Present Value of Exposure (2023$)

Table 18. Summary of baseline and estimated exposure values (2023$)

	RI landed value or revenue	*Indirect and induced effects*	*Total economic impact in RI*
Baseline ($/year)			
Commercial	29,000	17,000	46,000
Charter	19,000	12,000	31,000
Total	**48,000**	**29,000**	**77,000**
Exposure ($ present value)			
Commercial	114,000	68,000	182,000
Charter	32,000	20,000	52,000
Total	**146,000**	**88,000**	**234,000**

Appendix 10

SouthCoast Wind Responses to CRMC RFI Soliciation

SouthCoast Wind Energy LLC
101 Federal Street
Boston, MA 02110

July 12, 2023

Mr. Jeff Willis
Executive Director
Rhode Island Coastal Resources Management Council
Oliver Stedman Government Center
4808 Tower Hill Road, Suite 3
Wakefield, RI 02879-1900

RE: SouthCoast Wind 1 Project - Rhode Island Coastal Zone Management Act Consistency Certification Response to RI CRMC Federal Consistency Review

Dear Mr. Willis,

SouthCoast Wind Energy LLC (formerly known as Mayflower Wind Energy LLC) (SouthCoast Wind) is in receipt of an email received from the Rhode Island Coastal Resources Management Council (CRMC), dated May 25, 2023, requesting clarification and additional information in support of the Rhode Island Coastal Zone Management Act (CZMA) Consistency Certification filed by SouthCoast Wind for the SouthCoast Wind 1 Project in March 2022. This correspondence serves to respond to the information request posed by the CRMC. Please note that responses to questions pertaining to areas outside the RI Geographic Location Description areas, including the wind turbine generators are not herein incorporated.

Boulder Relocation:

Question 1: ***What is your current boulder relocation plan for cable/foundation installation?***

Response 1: SouthCoast Wind has not yet finalized the detailed boulder relocation plan. SouthCoast Wind will work with the cable installation contractor(s) (once selected) to develop this plan, which will be provided to CRMC when developed. SouthCoast Wind is committed to clear communication with the fishing industry on boulder relocation activities, including notification of precise locations of moved boulders, to proactively avoid potential issues with gear hangs.

To outline the principles of the Boulder Relocation Plan that will be further developed and detailed:

- Boulder clearance/relocation will be minimized through micro-routing of cables within the ECC. This will ultimately be determined by SouthCoast Wind in conjunction with the cable installation contractor(s).
- The preferred method for boulder clearance/relocation is use of a boulder grab to locally remove and re-locate individual boulders, though the use of a boulder plow for denser boulder fields is also under consideration (if needed, but will be avoided if possible).
- Where a boulder grab is employed to relocate individual boulders, the coordinates and approximate size of the boulder will be recorded prior to and following relocation. This information will be provided to CRMC and to public stakeholders, including commercial and recreational fishermen that typically operate within the area.

- The specific locations to which boulders will be re-located are still to be determined, however it is planned that any re-located boulders will be placed within the ECC in areas of similar seabed conditions (i.e., to proximate areas where other boulders are already present) or other areas to be agreed if determined to be beneficial. Precise locations will be documented and shared with public stakeholders, including commercial and recreation fishermen that operate within the area.

Question 2: ***CRMC's policy goal is to preserve benthic habits and the resources and users that are dependent on those habitats.***

Response 2: SouthCoast Wind acknowledges CRMC's comment referenced above, and will avoid sensitive habitat wherever practicable through micro-routing of the offshore export cables within the ECC.

Question 3: ***The boulder relocation process's first objective should be to avoid impacts to EFH/sensitive areas.***

Response 3: One of the criteria that SouthCoast Wind is applying for micro-routing of the offshore export cables within the ECC is to avoid and/or minimize impacts to EFH/sensitive areas.

Boulder clearance/relocation will be minimized through micro-routing of cables within the ECC. The specific locations to which boulders will be re-located are still to be determined, however it is planned that any re-located boulders will be placed within the ECC in areas of similar seabed conditions (i.e., to proximate areas where other boulders are already present) or other areas to be agreed if determined to be beneficial.

Question 4: ***Boulders should be avoided (micro-sited around) to the maximum extent possible.***

Response 4: As outlined in Response 1, boulders will be avoided to the greatest extent practicable during micro-routing and installation of the offshore export cables within the ECC. Relocation of individual boulders or groups of boulders may be necessary.

Question 5: ***Boulders that must be moved should be relocated to areas with similar seabed types/conditions within the cable corridor.***

Response 5: Boulders that are removed from the offshore export cable route will be relocated to other similar benthic habitats within the ECC, in order to 1) minimize impacts to benthic communities by grouping relocated boulders with existing boulders fields, and 2) to minimize the impact on fishing gear by avoiding and/or minimizing the introduction of "new" obstacles" on the seabed. Boulders may also be relocated to other areas to be agreed if determined to be beneficial. In any scenario, SouthCoast Wind will communicate the precise location of relocated boulders with fishermen to proactively avoid unintended gear hangs.

Question 6: ***Boulders that must be moved but cannot be grouped or placed in similar seabed conditions should not be placed in sensitive or complex hard bottom habitats.***

Response 6: SouthCoast Wind is committed to no relocation of boulders to sensitive or complex hard bottom habitats, to the greatest extent practicable.

Question 7: ***Boulders should be grouped together to prevent new hangs for fishers.***

Response 7: See the response to number 5 above. SouthCoast Wind is committed to strong communication with the fishing community, including clearly articulating the location of relocated boulders to proactively avoid unintended gear hangs.

Cable Burial:

Question 8: ***What is the target burial depth for your export and inter-array cables?***

Response 8: In general, the anticipated export cable target burial depth range is 3.2 to 13.1 ft (1.0 to 4.0 m). The cable burial depth may vary based on SouthCoast Wind's assessment of the local soil/sediment conditions and risk to the buried cables from external factors. Please refer to the Cable Burial Risk Assessment (Attachment E in the Assent) which details the specific burial depth recommendations along each route segment. In RI waters, the Recommended Minimum Depth of Lowering (RMDoL) to appropriately mitigate the external risks assessed in the CBRA (please see Response 10) varies between 0.6 m and 2.25 m. For areas where the CBRA recommends a burial depth shallower than 1.0 m, a minimum burial depth of at least 1.0 m will be employed, and typically at least 1.5 m for conservatism. For areas where the CBRA recommends a deeper burial depth (i.e., route segments where a burial depth of 2.25 m is recommended), this deeper burial depth will be the target burial depth.

The final cable burial plan will be developed in conjunction with the cable installation contractor when selected (please see Response 9).

Question 9: ***Have you selected a cable contractor, and will you be utilizing simultaneous lay and bury methods?***

Response 9: At this stage of the Project, SouthCoast Wind has not yet selected a cable installation contractor. The specific burial tooling is still to be determined as well and will be determined in conjunction with the qualified cable installation contractor that is selected.

As noted in the correspondence provided by SouthCoast Wind to CRMC on April 17, 2023, it is anticipated that jet-sled (or jet-plow, which is sometimes used synonymously) technology will be the primary method employed for cable burial; this would be a simultaneous lay and burial method.

Question 10: ***Please discuss how your project's Cable Burial Risk Assessment (CBRA) analyzes various risk factors including cable burial depth needed to ensure gear strikes are avoided. Larger vessels have expressed concern that their gear may strike cables if not buried sufficiently.***

Response 10: Please refer to the Cable Burial Risk Assessment (CBRA) provided by SouthCoast Wind (Attachment E in the Assent) for the detailed methodology and data sources used in the assessment.

The CBRA comprehensively assessed the risk to the cables associated with vessel activity including the following primary factors:

- Risk associated with interaction with fishing gear along the export cable route
- Risk associated with planned and emergency vessel anchoring along the export cable route

Please refer to Table 6.3 (and associated text) in the provided CBRA report for further detail on fishing gear types and penetration depths assumed in the assessment. In general, a conservative approach was followed to determine the recommended cable burial depth, which considered a combination of risk factors to recommend a burial depth along each segment of the cable route to mitigate these risk factors. Please refer to the Final CBRA Tables in Appendix A of the provided CBRA report for a detailed summary of the risk factors and associated recommended burial depth along each segment of the cable route.

Question 11: ***Please provide maps with Loran Lines depicting the most recent export cable layout in relation to complex bottom habitat areas. (Large-grained sediments, coble stone, boulders/boulder fields, glacial moraine, glauconite sands, etc.)***

Response 11: Please refer to the provided Offshore Export Cable Engineering Drawings (Attachment C in the Assent) that depict the bottom habitat classification within the ECC (as well as other geological features and avoidances that have been and will further be considered in export cable micro-routing). Additional simplified maps have also been created to depict the complex bottom habitat areas within the ECC with the addition of Loran lines. These maps are shown in the attached as Figure 1-1 through Figure 1-7.

Release of Project Information to Fishing Industry:

Question 12: ***What information will be provided to the fishing community during the construction, operation/maintenance, and decommissioning phases? (i.e., boulder locations, secondary cable protection, scour protection, foundation locations, etc.) Please explain.***

Response 12: SouthCoast Wind and its marine contractors will communicate frequently with the U.S. Coast Guard and applicable municipal harbormasters by posting regular Local Notice to Mariners (LNM) entries, as well as having the SouthCoast Wind Fisheries Liaison Officer (FLO) provide routine updates to the commercial and recreational fishing communities, either directly to the commercial and recreational fishing communities and/or by communicating through SouthCoast Wind Fisheries Representatives. The SouthCoast Wind FLO will be the primary point of contact for the fishing community and will be available to answer questions related to construction, operation/maintenance, and decommissioning, as these phases commence.

As noted in Response 1, where a boulder grab is employed to relocate individual boulders, the coordinates and approximate size of the boulder will be recorded prior to and following relocation. This information will be provided to CRMC and to public stakeholders including the fishing community. SouthCoast Wind will similarly record and share locations of secondary cable protection where employed.

Question 13: ***How will information be distributed to the fishing community and what method(s) will be used to deliver information?***

Response 13: SouthCoast Wind will disseminate real-time data to the fisheries community by posting frequent updates to the SouthCoast Wind 1 Project website, emailing the fishing community through the Rhode Island Division of Marine Fisheries ListServe at rimarinefisheries@listserve.ri.gov and by assigning the SouthCoast Wind FLO as the main point-of-contact for the fishing community. In addition to direct communication through SouthCoast Wind's FLO, information relevant to commercial and recreational fishermen will also be communicated through SouthCoast Wind's Fishery Representatives, which include stakeholders in the RI and MA fishing communities.

Question 14: ***Information should be released at reasonable intervals during the construction phase of the project so to minimize risk to fishers and allow them to operate within the lease area to the extent possible.***

Response 14: SouthCoast Wind acknowledges CRMC's comment referenced above, and is committed to providing regular, frequent updates on vessel activity during the construction phase of the Project. Notices on vessel activity will be posted on the SouthCoast Wind website on a frequent and ongoing basis during the construction phase of the Project.

Communication Between Construction/Guard (scout) Vessels and Fishers:

Question 15: ***There have been communication breakdowns between hired scout vessels and developers resulting in frustration, lost effort/catch, and additional distrust in the fishing community. What tangible actions are being taken to address these issues? How will similar issues that result in a negative impact to fishers (lost effort/catch) be addressed in the compensation process?***

Response 15: SouthCoast Wind would very much like to avoid similar communication breakdowns between hired scout vessels and other stakeholders. SouthCoast Wind emphasizes the importance of clear communication with fishing vessels and will continue to take steps to work with the fishing community while development operations are underway. As a proactive approach, SouthCoast Wind intends to utilize knowledgeable fishermen and/or mariners that are familiar with local waters and fishing operations as scout vessels. See also, Response 13 and 14 regarding SouthCoast Wind's plans and commitments to frequent information distribution to the fishing community during the construction phase of the Project.

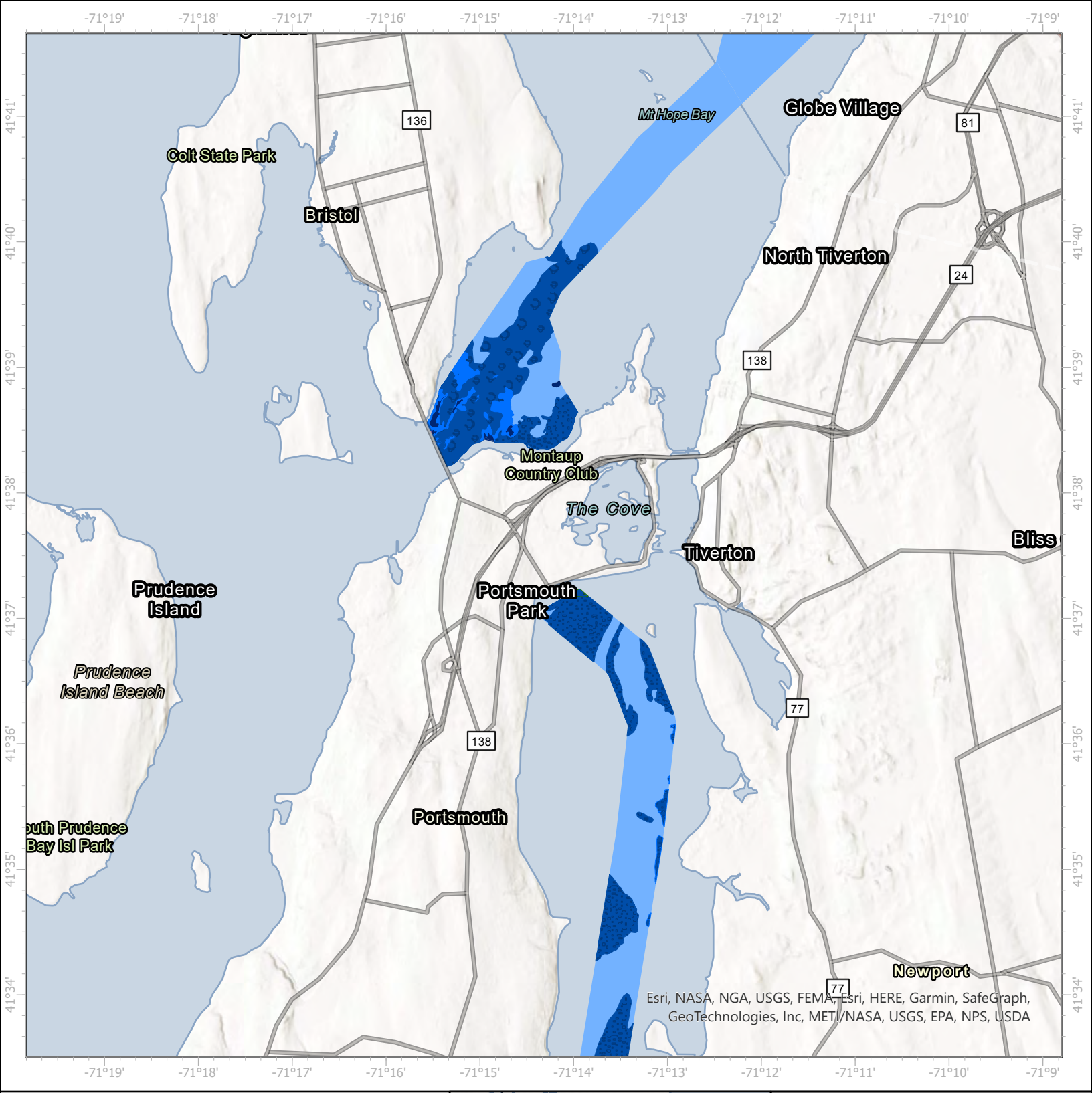
SouthCoast Wind is in the process of setting up a negotiation agreement with the FAB's legal counsel to be able to start conversations around compensatory mitigation, including how negative impacts to fishers will be acknowledged and accounted for. SouthCoast Wind is working with Woods Hole Oceanographic Institute

(WHOI) who is conducting an economic exposure analysis, which will help inform the upcoming compensatory mitigation discussions with the FAB.

We very much appreciate the thorough review the CRMC staff are performing for the SouthCoast Wind 1 Project, and we hope that the responses provided herein address your questions. SouthCoast Wind appreciates your continued consideration of this submittal.

Sincerely,

Jennifer Flood
Permitting Director
SouthCoast Wind Energy LLC



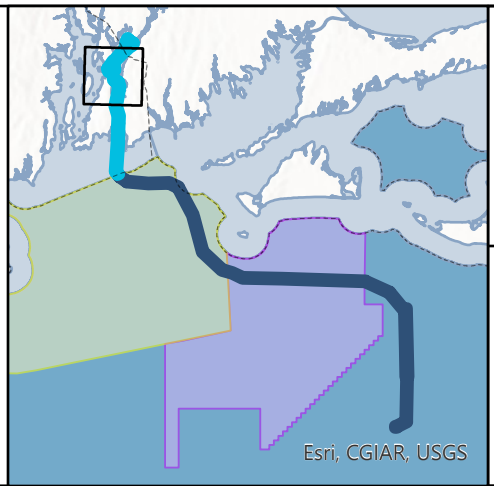
LEGEND

Loran C Grid Lines for Mariners
- Loran Grid - W
- Loran Grid - Y

INSPIRE Habitat Mapper Modifiers
- Boulder Field(s)
- Crepidula Substrate and Boulder Field(s)
- (Likely) Crepidula Substrate with Boulder Field(s)
- Crepidula Substrate
- (Likely) Crepidula Substrate
- Shell / Crepidula Substrate
- SAV
- Potential SAV

NOAA Habitat Complexity
- Large Grained Complex
- Complex
- Heterogeneous Complex
- Soft Bottom
- Anthropogenic
- GLD_2011_polygon
- GLD_2018_polygon

Offshore Boundaries
- State Waters
- Federal Waters



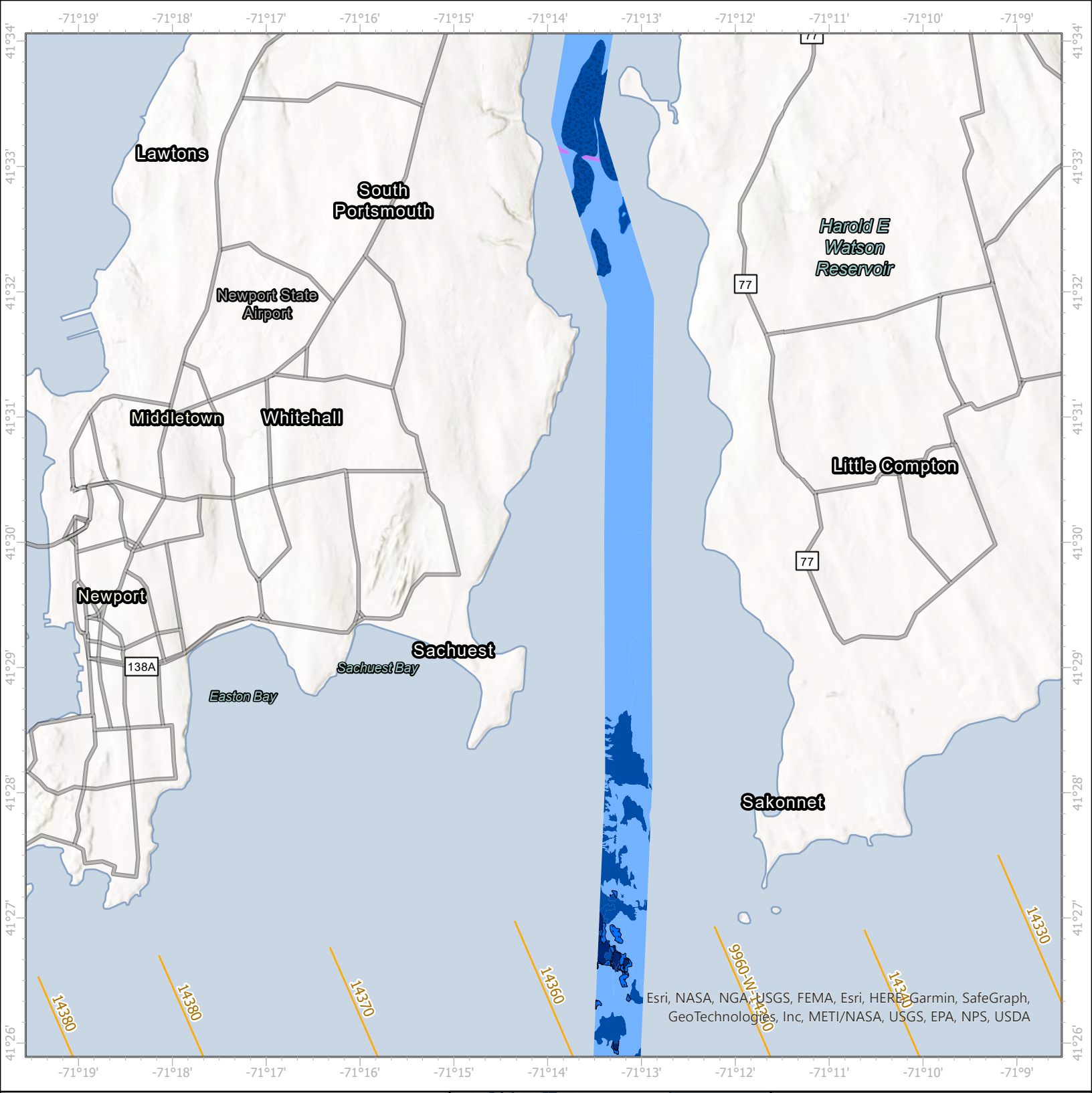
SOUTHCOAST WIND

FIGURE 1-1
NOAA HABITAT COMPLEXITY ALONG BRAYTON POINT EXPORT CABLE CORRIDOR WITHIN RI CRMC JURISDICTION

Date: 6/28/2023
WGS 1984 Web Mercator Auxiliary Sphere
Scale: 1:100,000

N

0 1 2
Miles



LEGEND

Loran C Grid Lines for Mariners
- Loran Grid - W
- Loran Grid - Y

INSPIRE Habitat Mapper Modifiers
- Boulder Field(s)
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Offshore Boundaries
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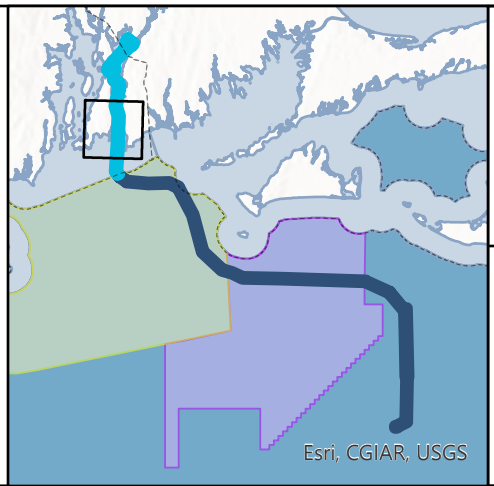

SOUTHCOAST WIND

FIGURE 1-2
NOAA HABITAT COMPLEXITY ALONG BRAYTON POINT EXPORT CABLE CORRIDOR WITHIN RI CRMC JURISDICTION

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WGS 1984 Web Mercator Auxiliary Sphere
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N

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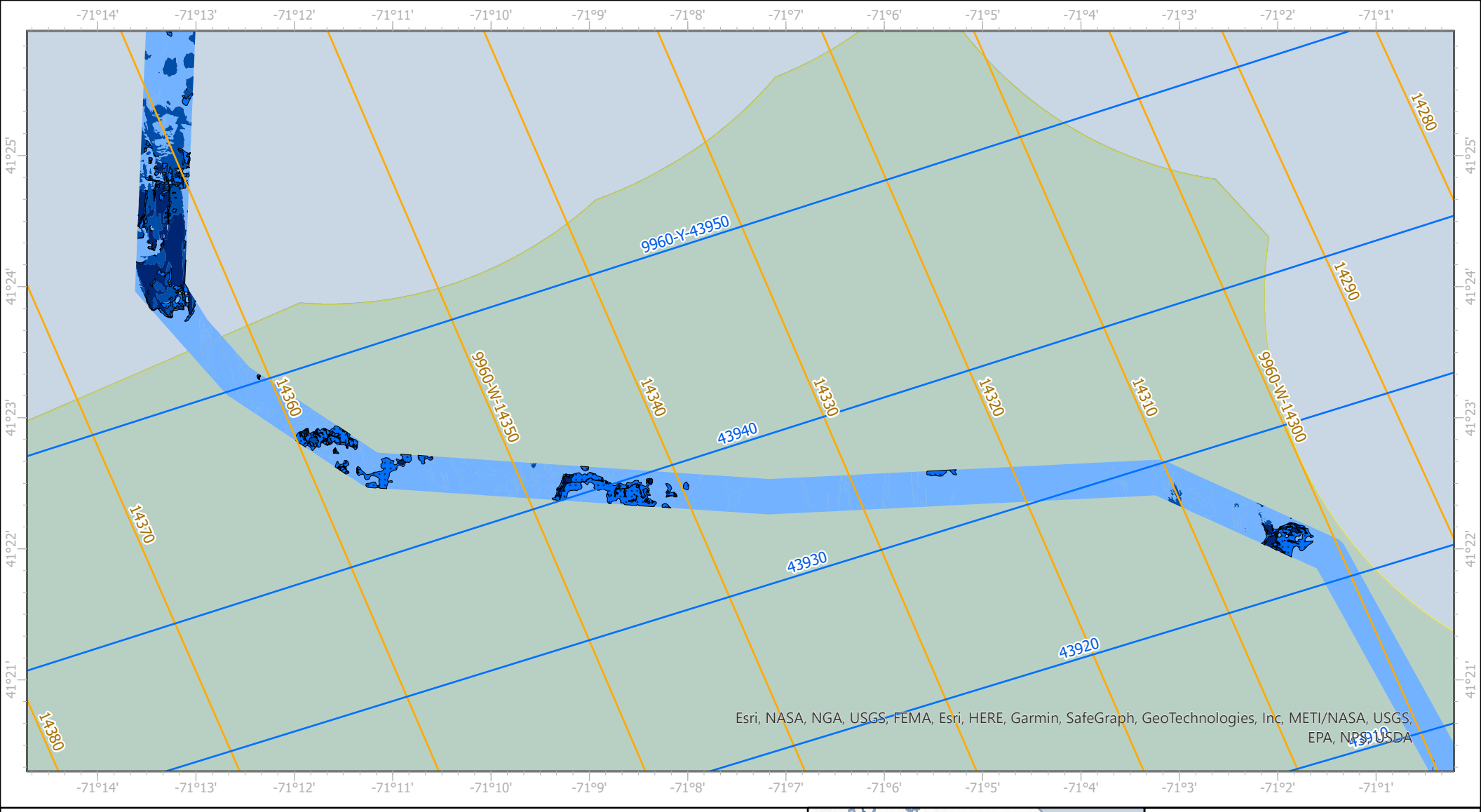
Miles



LEGEND

Loran C Grid Lines for Mariners

- Loran Grid - W
- Loran Grid - Y

INSPIRE Habitat Mapper Modifiers

- Boulder Field(s)

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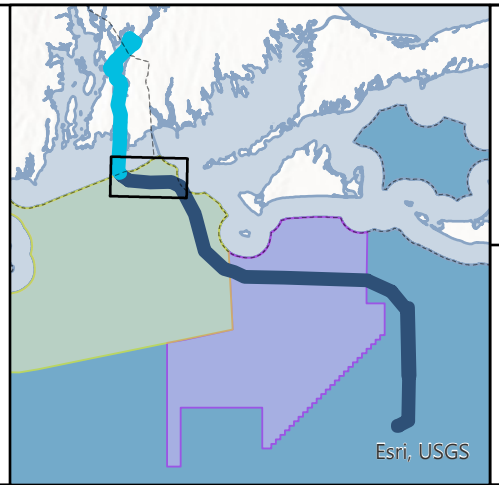
- Anthropogenic

Offshore Boundaries

- State Waters
- Federal Waters
- GLD_2011_polygon
- GLD_2018_polygon



SOUTHCOAST WIND

FIGURE 1-3
NOAA HABITAT COMPLEXITY ALONG BRAYTON POINT EXPORT CABLE CORRIDOR WITHIN RI CRMC JURISDICTION

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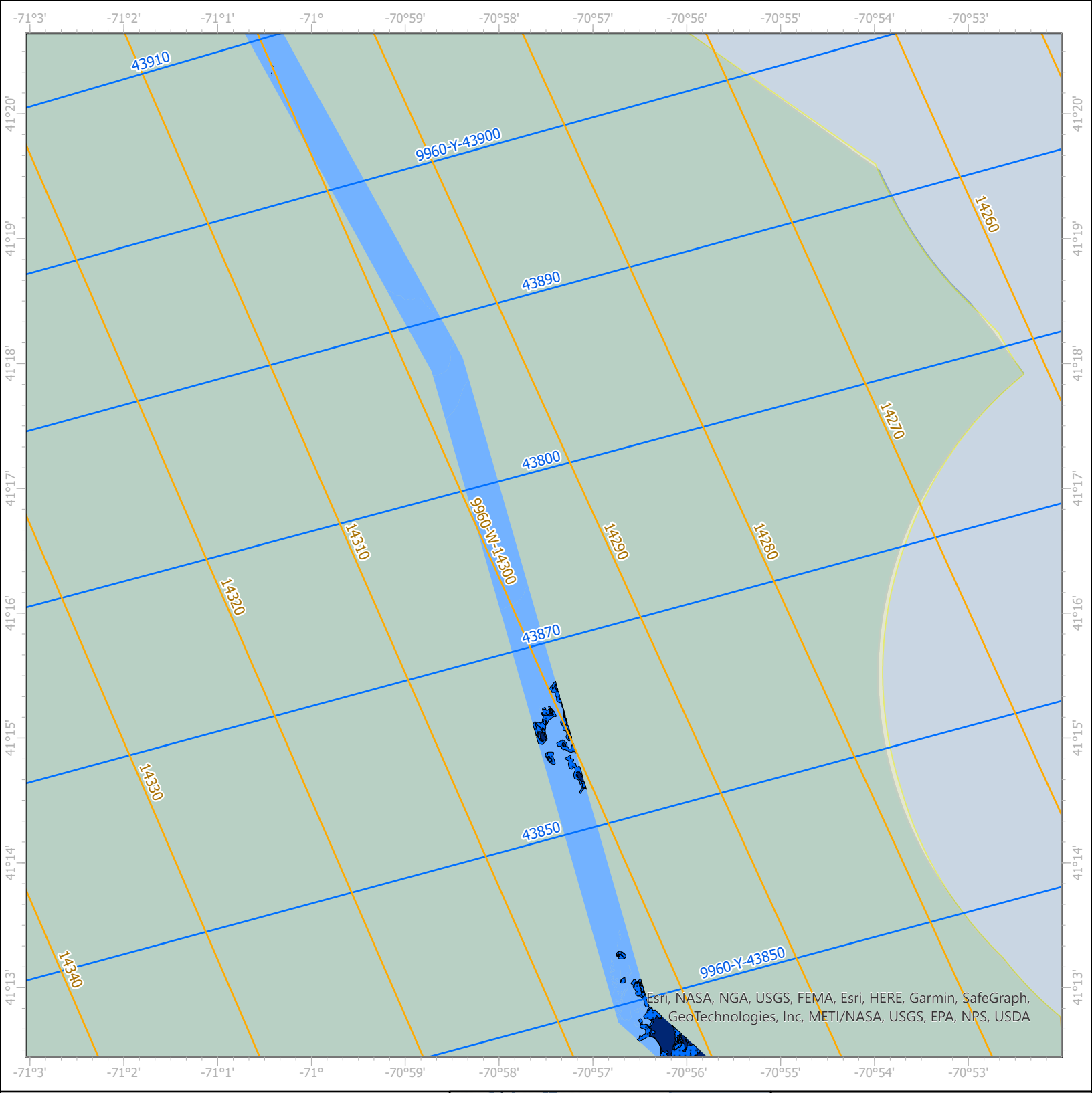
WGS 1984 Web Mercator Auxiliary Sphere
Scale: 1:100,000

N

0 1 2
Miles



LEGEND

Loran C Grid Lines for Mariners
- Loran Grid - W
- Loran Grid - Y

INSPIRE Habitat Mapper Modifiers
- Boulder Field(s)
- Crepidula Substrate and Boulder Field(s)
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Offshore Boundaries
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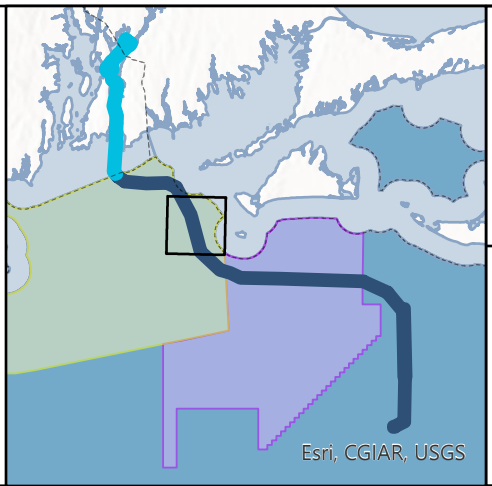

SOUTHCOAST WIND

FIGURE 1-4
NOAA HABITAT COMPLEXITY ALONG BRAYTON POINT EXPORT CABLE CORRIDOR WITHIN RI CRMC JURISDICTION

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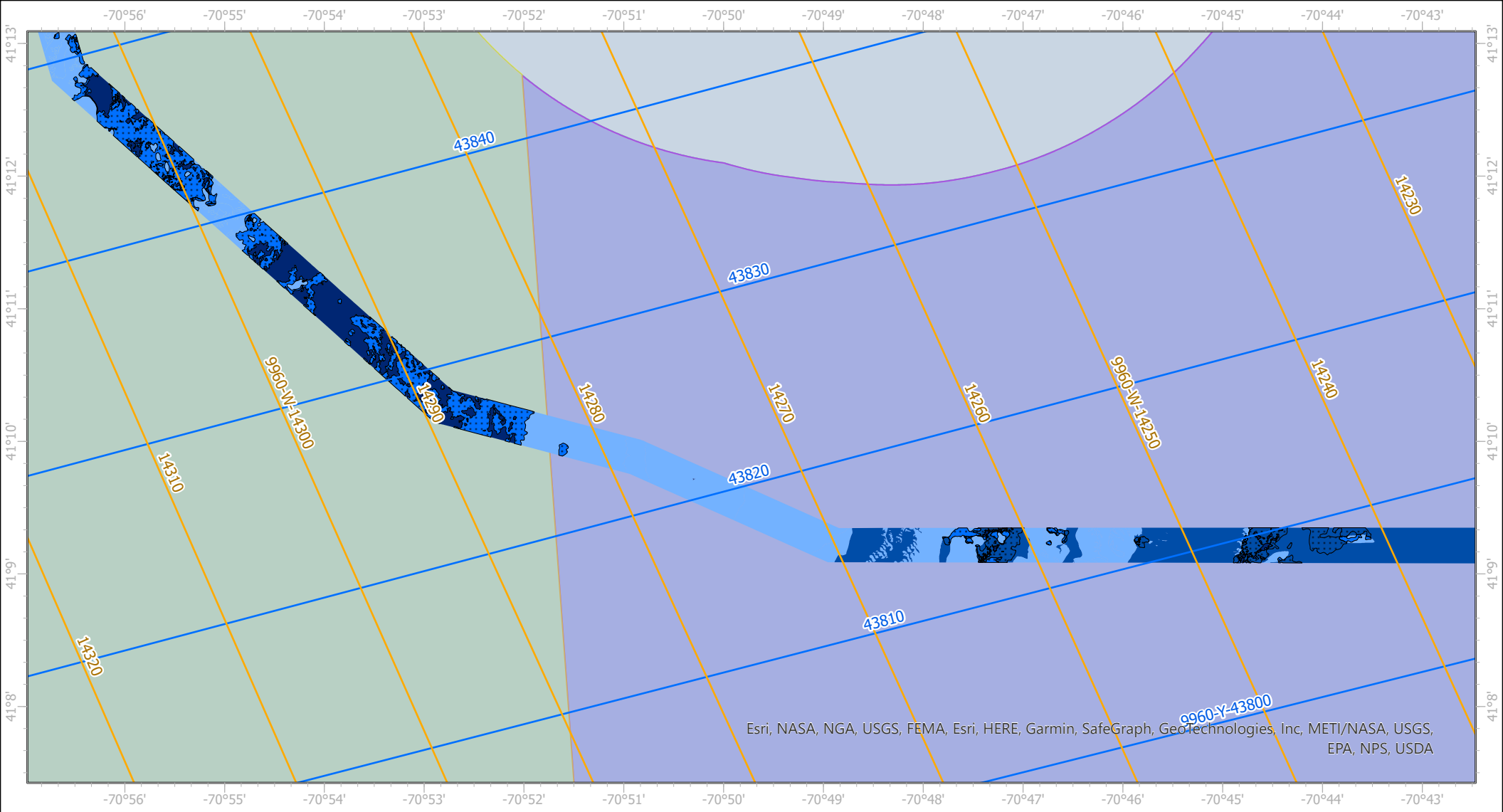
WGS 1984 Web Mercator Auxiliary Sphere
Scale: 1:100,000

0 1 2
Miles



LEGEND

Loran C Grid Lines for Mariners

- Loran Grid - W
- Loran Grid - Y

INSPIRE Habitat Mapper Modifiers

- Boulder Field(s)

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- Federal Waters
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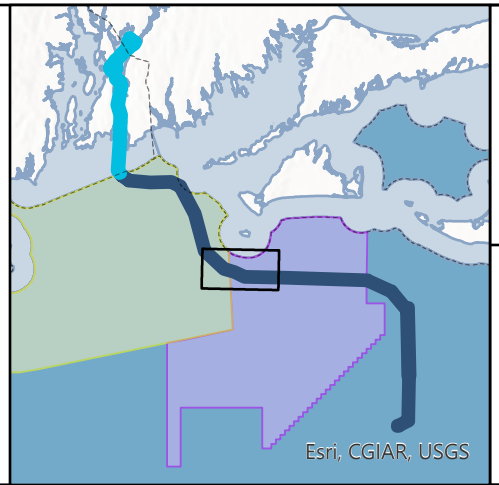

SOUTHCOAST WIND

FIGURE 1-5
NOAA HABITAT COMPLEXITY ALONG BRAYTON POINT EXPORT CABLE CORRIDOR WITHIN RI CRMC JURISDICTION

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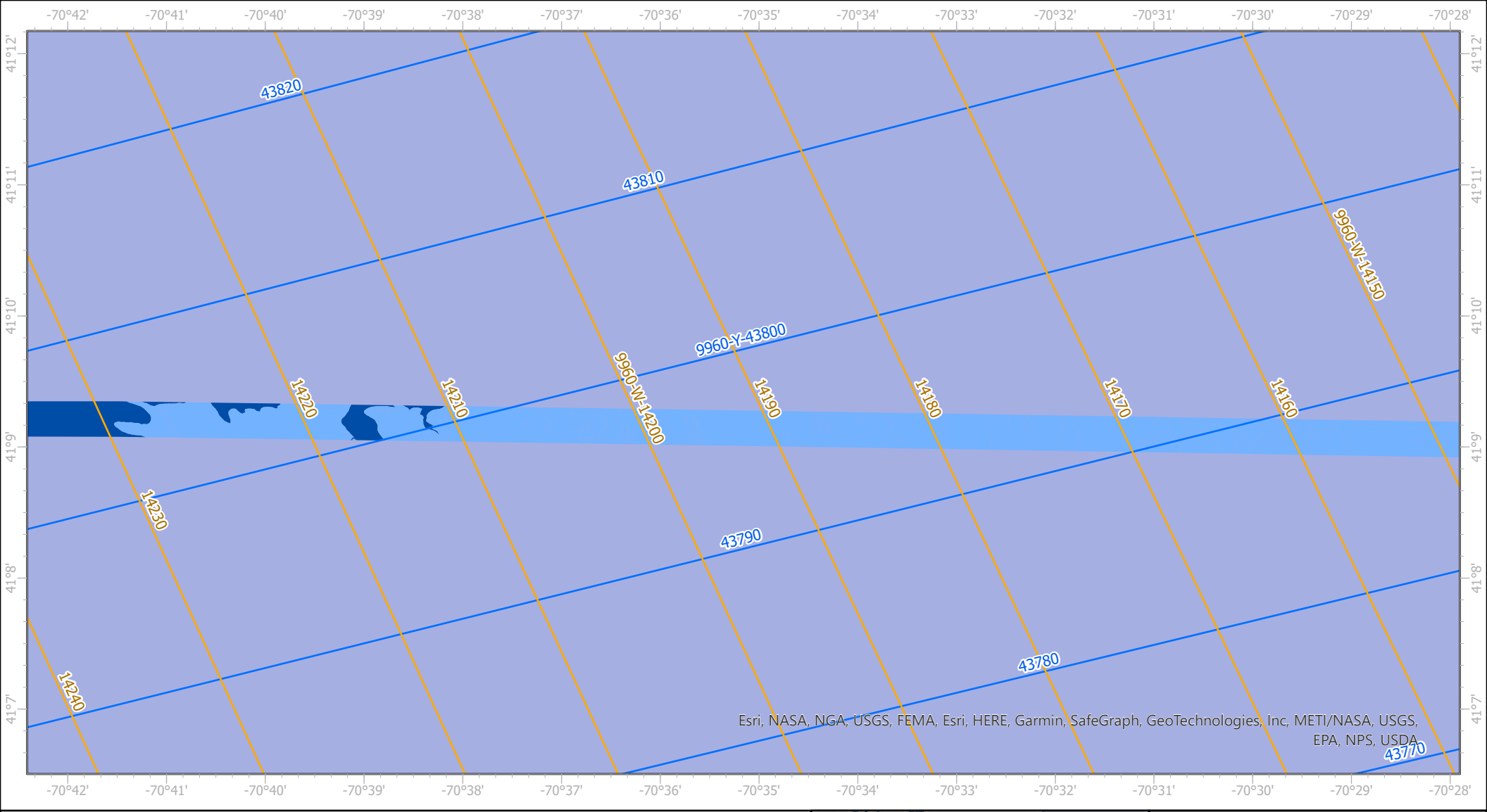
WGS 1984 Web Mercator Auxiliary Sphere
Scale: 1:100,000

0 1 2
Miles



LEGEND

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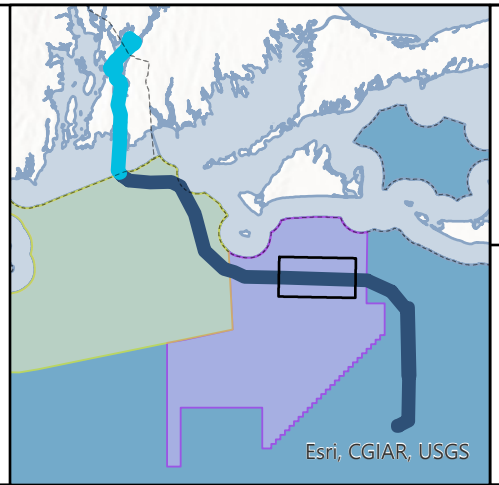

SOUTHCOAST WIND

FIGURE 1-6
NOAA HABITAT COMPLEXITY ALONG BRAYTON POINT EXPORT CABLE CORRIDOR WITHIN RI CRMC JURISDICTION

Date: 6/28/2023
WGS 1984 Web Mercator Auxiliary Sphere
Scale: 1:100,000

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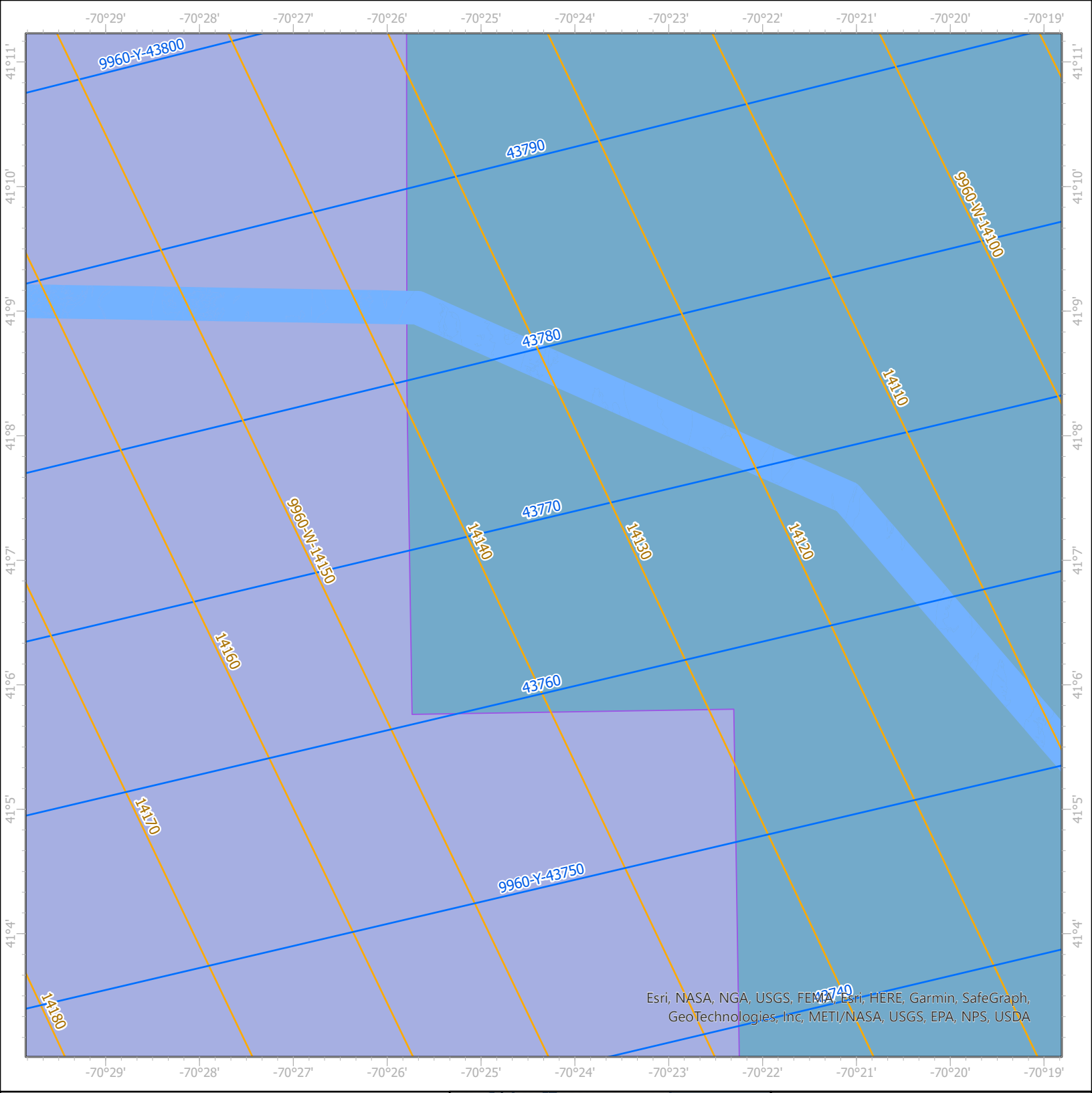
Miles



LEGEND

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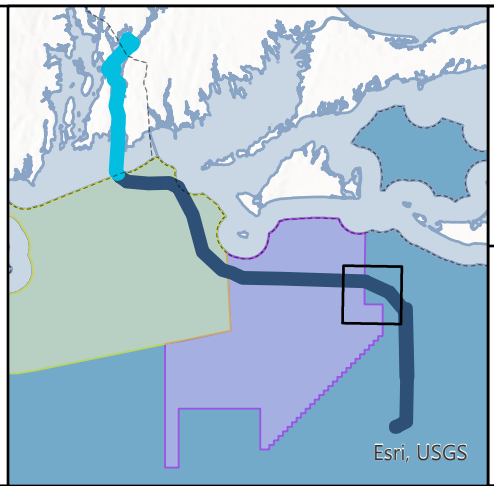

SOUTHCOAST WIND

FIGURE 1-7
NOAA HABITAT COMPLEXITY ALONG BRAYTON POINT EXPORT CABLE CORRIDOR WITHIN RI CRMC JURISDICTION

Date: 6/28/2023
WGS 1984 Web Mercator Auxiliary Sphere
Scale: 1:100,000

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Miles

Appendix 11

SouthCoast Wind Fisheries Communication Plan

MAYFLOWER WIND

Appendix W. Fisheries Communication Plan

Document Revision	B
Issue Date	August 2021

TABLE OF CONTENTS

Glossary

Term	Definition
ACC	Anderson Cabot Center for Ocean Life
BOEM	Bureau of Ocean Energy Management
CFCRI	Commercial Fisheries Center of Rhode Island
F-TWG	Fisheries – Technical Working Group
FCP	Fisheries Communication Plan
FSET	Fisheries Science and Emerging Technologies
LNM	Local Notice to Mariners
MLA	Massachusetts Lobstermen's Association
NBPA	New Bedford Port Authority
NEAq	New England Aquarium
NERACOOS	Northeastern Regional Association of Coastal Ocean Observing Systems
NYSERDA	New York State Energy Research and Development Authority
ROSA	Responsible Offshore Science Alliance
SMAST	School for Marine Science and Technology of the University of Massachusetts Dartmouth

1 Fisheries Communication Plan

1.1 Mayflower Wind and Fishermen

Mayflower Wind Energy LLC (Mayflower Wind) is committed to mitigating potential negative environmental impacts of the Mayflower Wind Project (the Project) to avoiding unreasonable interference with existing offshore activities and to setting the bar for the industry as shown by our Core Values:

Safety First, Safety Always. We are committed to treating our people, community, and environment with care.

Innovation and Industry Development. We expect innovation will continue to drive the rapid decline in the cost of wind energy and aim to be a leader in this space.

Investing in Communities. We are committed to building responsible partnerships with local communities by supporting jobs, economic development, and innovation that will flourish for decades to come.

These Core Values guide our actions and decisions and have led us to a development principle to engage early and often with all communities. In the fishing community, we work with the commercial and recreational fishing industries, private anglers, and onshore businesses in the seafood supply chain.

Co-existence with this fishing community, characterized by early, continuous, and productive engagement, is central to how we operate. The Project's success depends on our ability to reasonably co-exist alongside those in the fishing community who fish in areas including the Project Area (consisting of the OCS-A 0521 Lease Area and the Project's export cable corridor) for their livelihood, enjoy the area for recreation, and share in and enjoy it as a collective resource.

Accomplishing these goals requires effective, valuable two-way communication. Mayflower Wind will continue to share knowledge, experience, and expertise with the fishing, offshore wind, and academic communities because the ability of offshore wind developments to co-exist with fisheries relies on our ability to build trust within the environment in which we will operate. Mayflower Wind has and will continue to listen to the fishing industry – to hear concerns and to gather information – in order to conduct operations in a manner that is practical and achieves this co-existence. We strive to communicate with the fishermen working on the water and the shoreside communities they support in the most efficient ways possible and to build and operate our Project in a way that allows fishermen to continue to fish the Project Area and co-exist with the Project.

Mayflower Wind is privileged to operate in an area with such a strong fishing history. Lobster, crab, tuna, surf clams, squid, scup, scallops, and more are fished in and around the Lease Area. Mayflower Wind has carefully gathered information on these fisheries and continues to engage in research and communication with these fishermen both from the commercial and recreational industries. This FCP is a continually evolving document that is adapted based on feedback from fishermen. The communication and outreach elements described in this FCP will provide the current state of our efforts and methods of communication with the fishing industry. A key part of our communication strategy is to provide fishermen with current information in a way that is easy for them to access. To do that, in addition to

this document, our FCP will also exist on the Mayflower Wind website and have relevant, updated material easily accessible to fishermen.

Mayflower Wind believes and will demonstrate that offshore wind power can be sited and operated successfully, safely, and responsibly and without unreasonable interference with existing uses. We will show this using science and data-driven approaches and strive to do this cooperatively and collaboratively with the fishing industry. By working with research and industry organizations to support and produce credible science, fill data gaps, and build collaborative and cooperative science efforts, Mayflower Wind is able to leverage the efforts of our partners and bridge connections that make this science actionable.

Mayflower Wind is keenly aware of ongoing offshore wind development activities by other developers in U.S. waters and is committed to leading, not following, the industry. Mayflower Wind is focused on applying lessons learned and unique and innovative approaches to working with the local fishing industry. These efforts have been, and will continue to be, completed using input from stakeholders in the fishing industry to build this Project in a way that allows it to reasonably co-exist with fishermen that have been fishing in this area for hundreds of years.

1.2 Listening to Fishermen

Mayflower Wind's Fisheries Liaison Officer (Joel Southall, Joel.Southall@mayflowerwind.com), and other members of our Fisheries Communication Team talk directly with fishermen, sit on boards and working groups of organizations with fishermen, and engage directly with fishermen in scientific research and other efforts.

1.2.1 Port Hours

Mayflower Wind organizes and participates in Port Hours in Point Judith, RI and New Bedford, MA at least monthly in order to talk to commercial and recreational fishermen. In response to feedback from fishermen, we have partnered with other offshore wind developers to host a single event in ports near the offshore wind developments. We publicize Port Hours using our networks in the fishing industry and on our website to increase attendance at these events. Travel and gathering restrictions due to the COVID-19 pandemic have impacted these events beginning in March 2020 but Mayflower Wind made accommodations to allow modified versions of Port Hours to continue and developed alternative, virtual outreach efforts.

1.2.2 Fisheries Representatives

The Massachusetts Lobstermen's Association (MLA) is a Fisheries Representative of Mayflower Wind. MLA is a member-driven organization that accepts and supports the interdependence of species conservation and the members' collective economic interests. For the past 56 years, the MLA has

become a trustworthy voice for the industry on important issues and is looked to by both the fishing industry and the management community. Mayflower Wind and MLA will work together to identify potential impacts to the lobstering community in the Project Area and collaborate on science initiatives that can help to better understand natural impacts to lobster in the region and to investigate potential impacts or changes to lobster populations with the introduction of offshore wind project components.

The New Bedford Port Authority (NBPA), which is also a Fisheries Representative of Mayflower Wind, supports the Port of New Bedford through the implementation of best management practices over port resources and the development of economic growth strategies. The NBPA is also responsible for the maintenance of facilities and equipment, safety, security and emergency response, and management of parking on NBPA piers and wharves. New Bedford is the largest commercial fishing port in America by value of annual commercial fishery landings, and 85 percent of those landings come from scallops. The number of boats utilizing the port provides strong representation of the scallop industry, and Mayflower Wind's relationship with the Port and its vessels is critical to collaboratively minimizing potential impacts to scallopers.

The Commercial Fisheries Center of Rhode Island (CFCRI) was founded to preserve commercial fishing as a profession, culture, and way of life through promoting the sustainability of the resource. The CFCRI brings fishermen, scientists, managers, and elected officials together in a collaborative effort to improve fisheries and the understanding of the marine environment.

1.3 Outreach and Communication

As Mayflower Wind conducts studies, surveys, and other activities in our lease area and along our export cable corridor, we have and will continue to update and work with fishermen to manage how these activities interact with fishing activities and to avoid unreasonable interference. Mayflower Wind has put in place proactive strategies to decrease the likelihood of interactions between Project components and activities with fishing activity. Mayflower Wind recognizes the possibility of offshore wind activity and commercial fishing gear encounters and conflicts. The Mayflower Wind website provides links to Notice to Mariners (LNMs), charts, and other information for fishermen on our current and upcoming activities. There is also a link to a form and additional information for fishermen to submit claims on lost gear that may have come from interactions between fishing activities and offshore wind development activities.

Notice to Mariners – coordinated communications through the U.S. Coast Guard regarding daily operations.

Charts – navigational information regarding the area in and around the Rhode Island – Massachusetts Wind Energy Area.

Lost Gear Claim Form - in the event there is gear loss or damage caused by or resulting from Project activities, we have provided this claim/damage procedure.

1.4 Monitoring and Research

Mayflower Wind is supporting research on fisheries in and around our Lease Area. Work being conducted with the New England Aquarium (NEAq) Anderson Cabot Center of Ocean Life's (ACC) Fisheries Science and Emerging Technologies (FSET) program will monitor highly migratory fish species. By using acoustic tagging and monitoring, this work will allow for the management of these species to be founded in solid science.

Mayflower Wind is also partnering with a research organization to conduct fisheries monitoring and impact assessment surveys. By understanding a baseline of existing fisheries data near our lease area, this work will help us understand the short- and long-term impacts of offshore wind developments on fisheries.

Mayflower Wind was a founding Board member of the Responsible Offshore Science Alliance (ROSA). ROSA's vision is an improved understanding of ocean and coastal ecosystems that allows for informed compatibility of sustainable fisheries and offshore wind energy. ROSA will advance regional research and monitoring of fishery and offshore wind interactions in the waters from Maine to North Carolina, including representatives from both the commercial and recreational fishing industries.

Mayflower is displaying real-time wind and ocean current observations from our FLiDAR buoy in the Lease Area. We are working with NERACOOS to provide this data to their Mariners Dashboard showing ocean and wind information across the Northeast. Mayflower has also included an acoustic receiver on the buoy to identify tagged cod moving across the area to Cox's Ledge.

1.5 Other Efforts

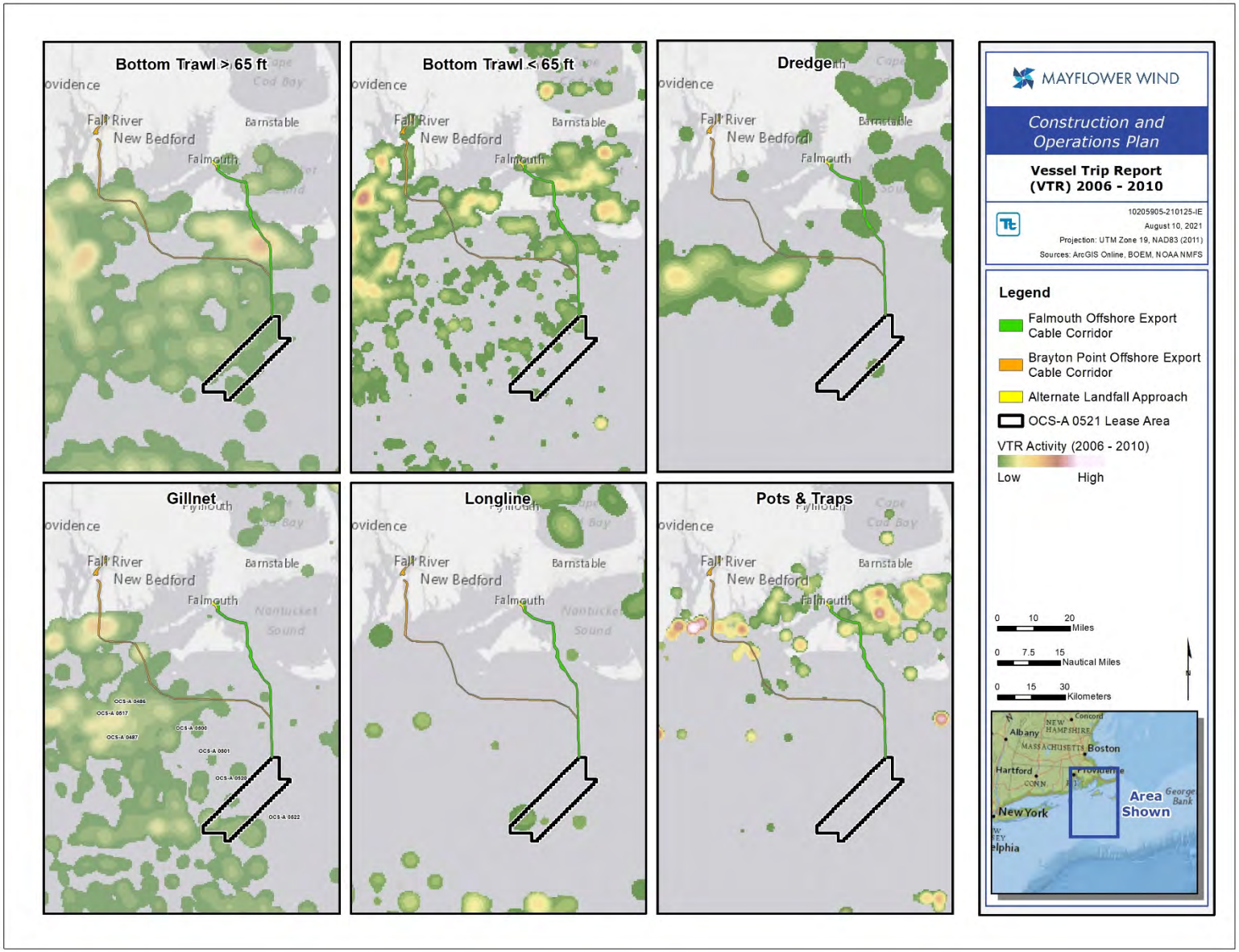
Mayflower Wind staff serve on the boards and working groups of a wide variety of organizations working on the intersection of wind and fishing. As efforts focusing on this intersection expand and new partnerships are formed, Mayflower Wind will continue to support and partner with these efforts to ensure that the development of offshore wind is conducted in a way that protects fisheries.

Appendix 12

Commercial & Recreational Fishing Effort Along the Brayton Point ECC

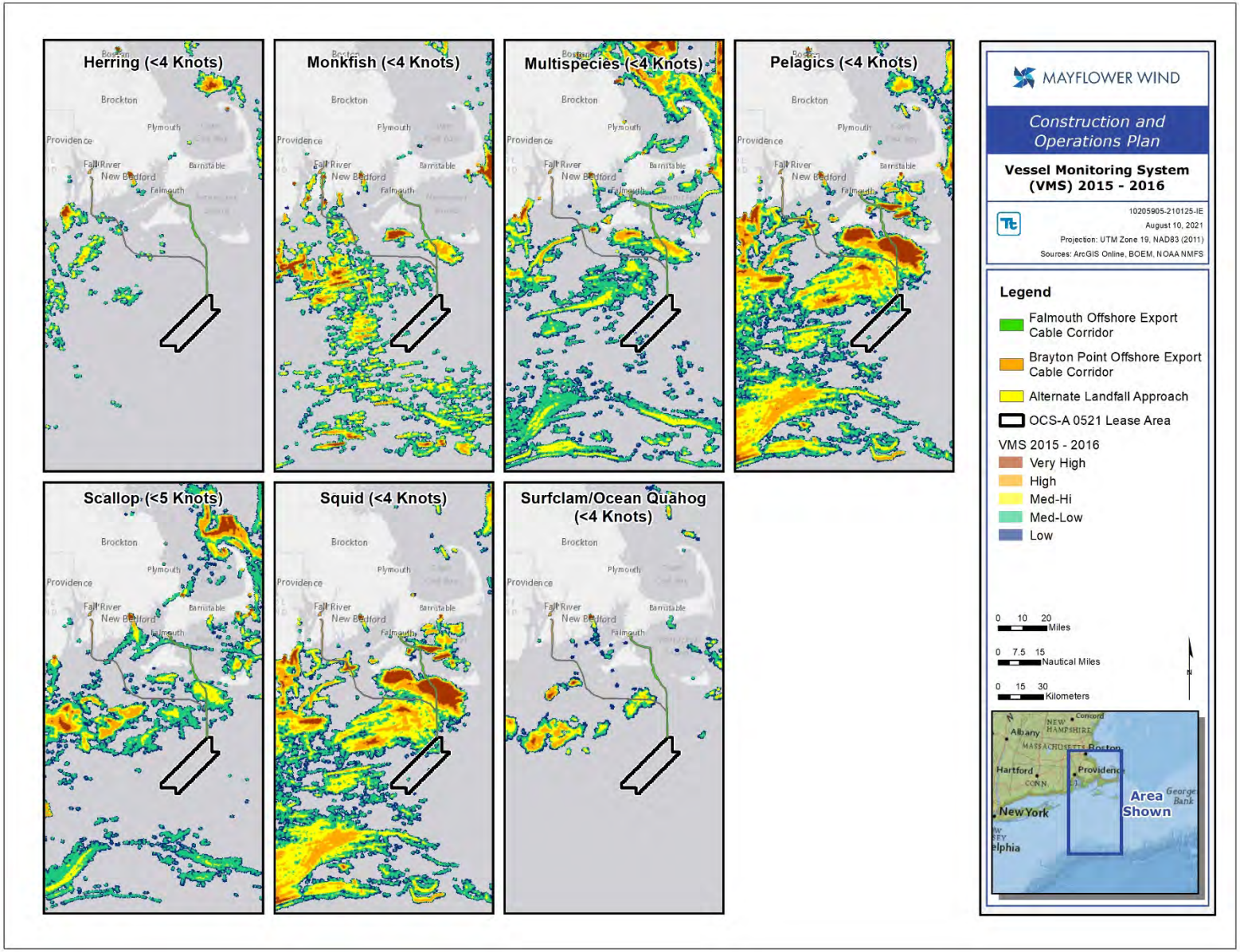
Source: NOAA NMFS, 2016

FIGURE 2-20. VTR FISHING EFFORT FOR THE YEARS 2011-2015



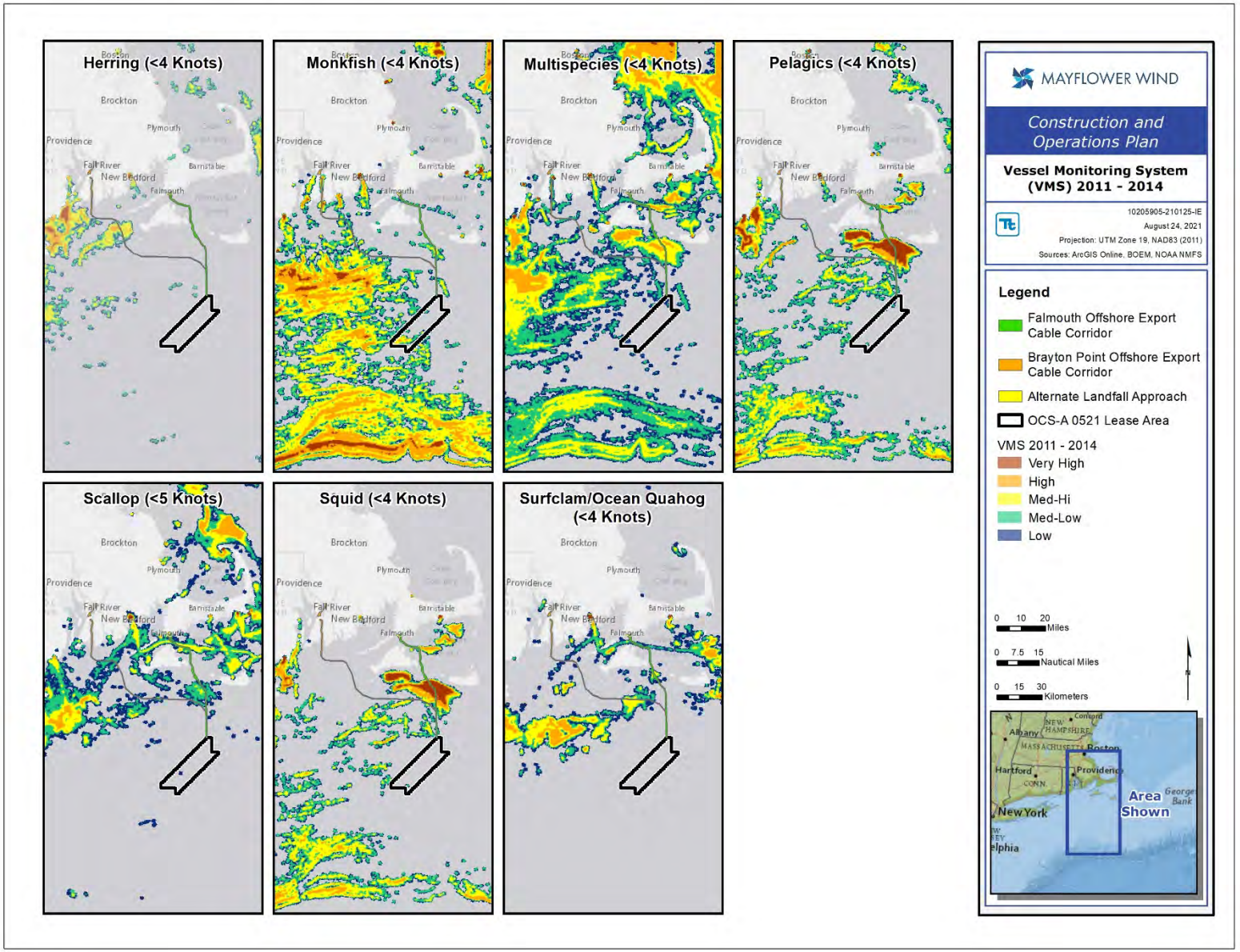
Source: NOAA NMFS, 2016

FIGURE 2-19. VTR FISHING EFFORT FOR THE YEARS 2006-2010



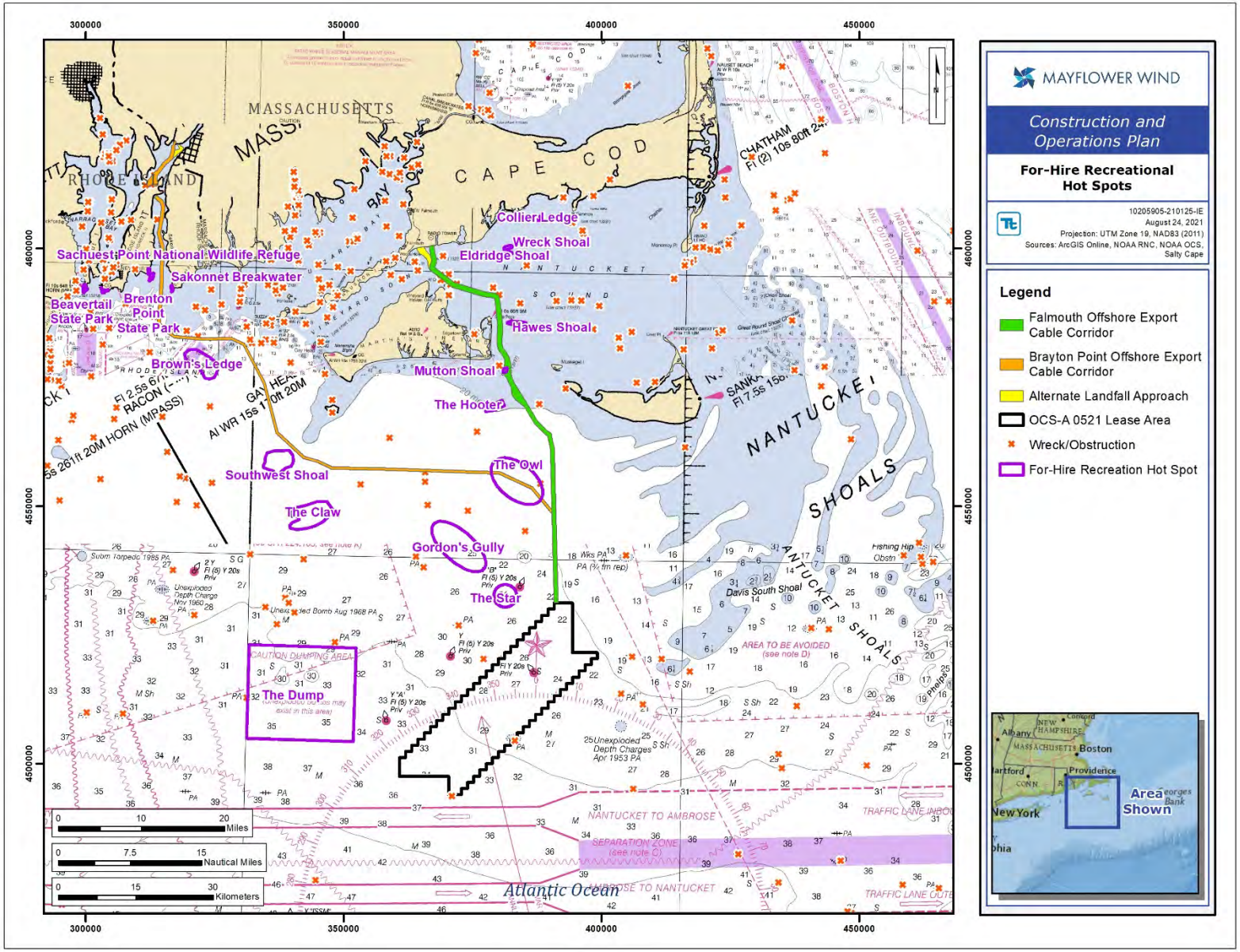
Source: NROC, 2018

FIGURE 2-18. VMS FISHING DENSITY FOR THE YEARS 2015-2016



Source: NROC, 2018

FIGURE 2-17. VMS FISHING DENSITY FOR THE YEARS 2011-2014



Sources: NOAA Office of Coast Survey, 2009 and 2011; Salty Cape, n.d.

FIGURE 3-1. RECREATIONAL FISHING LOCATIONS