Appendix O
Responses to Comments on the Draft Environmental Impact Statement

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O Responses to Comments on the Draft Environmental Impact Statement

O.1 Introduction

On December 23, 2022, the Bureau of Ocean Energy Management (BOEM) published a Notice of Availability for the Draft Environmental Impact Statement (EIS), consistent with the regulations implementing the National Environmental Policy Act (NEPA; 42 United States Code [USC] § 4321 et seq.) to assess the potential impacts of the Proposed Action and alternatives (Notice of Availability of a Draft Environmental Impact Statement for the Park City Wind LLC's Proposed Wind Energy Facility Offshore Massachusetts, 87 Fed. Reg. 78993 [December 23, 2022]). The Draft EIS was made available in electronic form for public viewing at https://www.boem.gov/renewable-energy/state-activities/new-england-wind-formerly-vineyard-wind-south, and hard copies and/or CDs were delivered to libraries and other entities as specified in Appendix N of the Draft EIS. The NEPA review process requires agencies to allow the public the opportunity to comment on a Draft EIS. The Notice of Availability initiated a 60-day public comment period for the Draft EIS. The public comment period closed on February 21, 2023. This appendix describes the Draft EIS public comment processing methodology and definitions, and also includes responses to the substantive comments received on the Draft EIS, and/or describes where specific updates to the Final Environmental Impact Assessment (EIS) can be found in the document.

O.2 Objective

BOEM reviewed and considered all written and oral public submissions received during the Draft EIS public review and comment period. BOEM's goal was to identify comments to be addressed in this Final EIS, and to categorize those comments based on the applicable resource areas or NEPA topics. This categorization scheme allowed subject matter experts to review comments directly related to their areas of expertise and allowed BOEM to generate statistics based on the resource areas or NEPA topics addressed in each of the comments. All public comment submissions received can be viewed online at http://www.regulations.gov by typing "BOEM-2022-0070" in the search field.

O.3 Methodology

O.3.1 Terminology

The following terminology is used throughout this appendix:

- Submission: The entire content submitted by a single person or group at a single time. For example, a 10-page letter from a citizen, an email with a portable document format (PDF) attachment, and a transcript of an oral comment given at a public hearing meeting were each considered to be a submission.
- Comment: A specific statement within a submission that expresses a sender's specific point of view, concern, question, or suggestion. A comment can consist of more than once sentence, as long as those grouped sentences express a single idea. One submission may contain many comments.
- Substantive Comment: Draft EIS submissions were reviewed to identify and categorize "substantive" comments. To be substantive, a comment must relate to the reasonably foreseeable impacts of the Proposed Action, alternatives, or cumulative actions and do one or more of the following:
  - Question (with supporting rationale) the accuracy of information in the Draft EIS

  - Question (with supporting rationale) the adequacy of, methodology for, or assumptions used for the environmental analysis
  - Present new information relevant to the analysis
  - Present reasonable alternatives or mitigation measures other than those analyzed in the Draft EIS
  - Present or cause modifications to alternatives or mitigation measures analyzed in the Draft EIS
  - Correct factual errors in the content of the Draft EIS
- • General Comment: General comments are comments other than substantive comments. General comments may: (1) express interest or concern regarding an impact topic without providing specific comments on the information, methods, or findings presented in the Draft EIS, (2) express general support for or opposition to the proposed Project, or (3) comment on a topic unrelated to the proposed Project.

O.3.2 Comment Submittals

Federal agencies, state/local/tribal governments, and the general public had the opportunity to provide comments on the Draft EIS via the following mechanisms:

- Electronic submissions via www.regulations.gov on docket number BOEM-2022-0021;
- Hard-copy comment letters submitted to BOEM via traditional mail; and
- Comments submitted verbally at each of the public hearings.

BOEM held three online public hearings via Zoom to solicit verbal comments to inform preparation of the Final EIS. The hearings were free and open to the public with no reservations required. Locations and dates of these hearings are outlined in Table O.3-1.

Table O.3-1: Public Hearings

Date	Time	Location
January 27, 2023	1:00 p.m. Eastern Time	Zoom Webinar
February 1, 2023	5:00 p.m. Eastern Time	Zoom Webinar
February 6, 2023	5:00 p.m. Eastern Time	Zoom Webinar

All submissions initially provided by methods other than www.regulations.gov, including the transcripts of comments recorded at each public hearing listed in Table O.3-1, were uploaded to the docket. Each submission, including testimony by individual speakers at the public hearings listed in Table O.3-1, was assigned a unique identification number. That unique Submission ID was retained throughout the comment management process, for both submissions and the individual comments within those submissions.

O.3.3 Comment Processing

BOEM downloaded and reviewed all submissions from regulations.gov. These submissions were provided in Hypertext Markup Language (html) format, while attachments provided by stakeholders as part of their Regulations.gov submission were typically provided in PDF or Microsoft Word format. Text from the html, as well as PDF, Word, and other text formats were parsed, coded, and exported into a single Microsoft Excel file that served as the primary submission database. In cases where an attachment did not contain comments specific to the docket for the Ocean Wind 1 Draft EIS, the attachment was retained separately for BOEM reference as applicable, linked to the main body of the submission through the unique Submission ID. Examples of this type of attachment include copies of comment letters that were originally submitted during the scoping period, copies of comment letters that were originally

submitted on another docket, or attached photos, published reports, news articles, or other secondary material. The submission database also included information about each submission, including the submitter's contact information, submission date, and whether the submitter was a government entity or agency.

Each submission and all oral testimony were read to identify individual substantive and general comments (as defined under Section O.3.1, Terminology). Each comment was parsed, coded, and exported to a spreadsheet that served as the master comment database. Each comment then received a unique comment ID number, tied to the Submission ID. For example, the fourth comment identified in regulations.gov submission 0001 was identified as BOEM-2022-0021-0001-0004.

Substantive comments from cooperating agencies and the lessee were organized by agency or organization and presented verbatim in Sections O.4 and O.5. Other agency, stakeholder, and public comments were each assigned to one section of the Draft EIS, based on the document's table of contents, or to a general topic such as "NEPA/Public Involvement Process." Substantive comments are presented verbatim in Section O.6. General comments are summarized in Section O.7. and the specific comments that contributed to a comment summary are identified by comment number.

Anonymous comments were not included in the comment database. As noted in the NOA, "BOEM does not consider anonymous comments. Please include your name and address as part of your comment. BOEM makes all comments, including the names and addresses of respondents, available for public review online and during regular business hours."

O.4 Responses to Cooperating Agency Comments on the Draft Environmental Impact Statement

O.4.1 Cooperating Federal Agencies

A complete list of cooperating federal agencies is provided Appendix A, Required Environmental Permits and Consultations. No formal comments on the Draft EIS were provided by Bureau of Safety and Environmental Enforcement (BSEE), the Federal Aviation Administration (FAA), or the U.S. Fish and Wildlife Service (USFWS). The following tables provide formal comments on the Draft EIS from the remaining cooperating federal agencies and the responses to those comments.

O.4.1.1 Advisory Council on Historic Preservation

Table O.4-1: Responses to Comments from the Advisory Council on Historic Preservation

Comment	Response
The ACHP reminds the BOEM that the Section 106 process does not establish a proportionality requirement regarding the resolution of adverse effects; however, a federal agency must meet the procedural of requirements of the regulations, which are exemplified through making a reasonable and good faith effort to consult and meaningfully consider and respond to consulting party input. This includes consulting on differences over the substance of the mitigation measures and where possible reaching agreement. We encourage the BOEM and Park City Wind to be receptive to such input from consulting parties as it considers the broadest spectrum of approaches to resolve adverse effects to historic properties, while also considering costs and implement-ability.	Appendix A of the EIS presents the consultations that have occurred for this Project.
ACHP would also like to emphasize the importance to providing for adequate consultation regarding treatment measures identified for those historic properties of religious and cultural significance to Indian tribes. We highlight the importance of providing avenues and time for Tribes to respond to these measures given the number of parallel consultations and workload constraints. The ACHP is an appreciative of the current measures presented in the draft MOA; however, given the cumulative nature of adverse effects to these properties from other offshore wind projects, the ACHP urges the BOEM and the applicant to consider, in consultation with Tribes, the largest spectrum of measures to resolve adverse effects.	Appendix E of the Draft EIS addressed this comment, and describes the Planned Activities Scenario evaluated in the EIS. In addition, the cumulative Historic Properties Visual Effects Assessment has also been provided to Tribes and other Consulting Parties.
given the number of envisioned treatment plans, the ACHP sees merit in the BOEM considering consolidating mitigation measures in the form of undertaking-wide mitigation approaches, such as context studies, local initiatives, or mitigation funds, which might be pursued in place of individual treatment plans. The ACHP sees these approaches as beneficial to avoiding challenges that might occur in finalizing treatment plans as well as representing tools that more broadly account for cumulative effects of the undertaking. These measures could also align with and bolster existing and future measures to resolve adverse effects, given the reasonably foreseeable future wind development in the surrounding area. When developed, as part of the Section 106 process, these measures can be useful for achieving broader preservation objectives and reflective of public values.	BOEM recognizes the benefits of undertaking-wide mitigation approaches as suggested by the ACHP and is willing to consider such an approach upon request by additional consulting parties. In fact, at the request of consulting parties for other Projects, BOEM has included a mitigation fund as a mitigation measure to replace individual HPTPs. Consultation on the resolution of adverse effects from this Project is ongoing and any suggested measures from consulting parties can be considered.

Comment	Response
[Draft MOA] How will the RI SHPO NAE [Rhode Island State Historic Preservation Office No Adverse Effect] be documented?	Appendix J of the Final EIS (the Draft MOA) has been revised to address this comment.
[Draft MOA] The preamble needs to be revised to better reflect the ACHP's involvement to date, which was first through FAST-41, then our NEPA sub notice and now with the AE finding participation under 106.	Appendix J of the Final EIS (the Draft MOA) has been revised to address this comment.
[Draft MOA page 4, top] This clause should include a reference to 36 CFR § 800.4(b)(2).	Appendix J of the Final EIS (the Draft MOA) has been revised to address this comment.
[Draft MOA page 8, mitigation measures committed to by Park City Wind] Is there a cost parameter for these?	The funding amounts for specific mitigation measures have not yet been determined as consultation remains ongoing (BOEM 2023; Appendix J). Cost parameters will be provided in future revisions to the MOA.
[Draft MOA page 9] Does development mean construction?	As this HPTP is further developed with the input of consulting parties, this ambiguity in language will be addressed and clarified in the MOA.
[Draft MOA section XVI] This should be the last line in the MOA.	Appendix J of the Final EIS (the Draft MOA) has been revised to address this comment.

O.4.1.2 U.S. Environmental Protection Agency

Table O.4-2: Responses to Comments from U.S. Environmental Protection Agency

Comment	Response
Power generated from the project will have potential local air quality benefits as fossil fuel generation is displaced over time and is intended to help Connecticut and Massachusetts meet their individual state climate targets. The project is also consistent with the Departments of Interior (DOI), Energy (DOE), and Commerce (DOC) shared goal to deploy 30 gigawatts (GW) of offshore wind in the United States by 2030.	Thank you for your comment.
Section G.2.1.1, Figure G.2.1-1...EPA notes that according to the scale on Figure G.2.1-1, it appears that statute miles were used to depict the geographic analysis area. However, EPA interprets the regulations at 40 CFR part 55 to use nautical miles for the purposes of determining potential emissions from the source...Furthermore, EPA's permitting scope extends 25 miles around the offshore wind development area. EPA recommends that the Final EIS clarify the metric used the in geographic analysis area and consider expanding the analysis area for offshore construction to correspond with the area analyzed in EPA's permitting action.	Section G.2.1.1 of the Final EIS has been revised to address this comment.
Appendix G (pg. G-57) of the Draft EIS indicates that the applicant's voluntarily committed emission-reduction measures include fuel-efficient engines; Tier 2 or higher engines for marine diesel engines; use of ultra-low sulfur diesel fuel for some engines and 1,000 parts per million sulfur fuel in others; complying with International Maritime Organization energy-efficiency regulations; complying with applicable VOC content limits and requirements involving the use of adhesives and sealants; following smoke and opacity standards; implementing anti-idling practices; covering and securing all loose materials and construction wastes that are transported to and from the SWDA and OECC; and other emission-reducing measures to further reduce air quality impacts. For Vineyard Wind 1 and South Fork Wind, EPA required Tier 3 and 4 engines located on WTGs and offshore substations, as well as Tier 4 engines for project vessels operating as OCS sources with allowances for lower tiered engines if those vessels with associated engines are not available at the time of deployment. Recommended Action: EPA recommends that the Final EIS acknowledge past determinations made by EPA on previous permits for engines operating on offshore substations and WTGs and consider building in conditions that mimic past requirements for the use tier-compliant engine standards. Additionally, EPA recommends acknowledging the vessel engine requirements in past EPA permits and consider adopting a similar structure in the Final EIS. Furthermore, EPA recommends that as an additional mitigation measure BOEM require New England Wind to pursue the procurement of the most efficient and lowest emitting vessels available during the vessel-contracting stage of the project. As part of this process, the Final EIS should provide a discussion of the various options that are available to reduce these emissions. The Final EIS should consider options for reducing emissions from offshore activity, such as the purchase of lower emitting or electrified crew vessels.	The OCS air permit will outline requirements on the type(s) of engines or control devices that should be used to support this project. These requirements will compare potential requirements with past WTG projects and will include both off-shore and on-shore activities. Text has been revised to acknowledge the potential for these additional requirements.

Comment	Response
Appendix G of the Draft EIS does not indicate that there are no Class I areas within the geographic analysis area. [The applicant] is required to conduct air quality modeling of emission sources that will be located on the OCS. [The applicant] will need to provide an analysis demonstrating that ambient impacts from Phase 1 and Phase 2 will not affect protected Class I area. This information would likely benefit BOEM's analysis of air quality impacts.	Section G.2.1 of the Final EIS has been updated to address Class I areas.
Appendix G (pg. G-58) of the Draft EIS indicates that emissions from vessels used to transport workers, supplies, and equipment to and from the construction areas would result in additional air quality impacts. The proposed project may require emergency generators at times, potentially resulting in increased emissions for limited periods. Recommended Action: EPA encourages BOEM to explore options to require alternate power sources such as battery backup or fuel cell technology to provide emergency power during operations. These options should be described in the Final EIS.	The COP provides a complete description of all emission points associated with the construction and operations stages of Phase 1, including engine sizes, hours of operation, load factors, emergency generators, emission factors, and fuel consumption rates, along with a description of the air emission calculation methodology (Volume III, Appendix B; Epsilon 2022). The proposed Project may require emergency generators at times, potentially resulting in increased emissions for limited periods. Appendix H of the Final EIS includes the mitigation and monitoring measures that BOEM could implement in the ROD.
Section G.2.1.1 (pg. G-48) of the Draft EIS indicates that construction ports are listed as a potentially impacted area. Many port communities are in areas that may have existing air quality issues and/or environmental justice concerns. Recommended Action: EPA recommends that the Final EIS explore the feasibility of requiring emission reduction best practices for ports such as vessel speed reduction requirements, sulfur restrictions in fuel, the use of marine shore power systems, and the use of Tier 4 Final EPA certified equipment. More information regarding air emissions reduction methods at ports can be accessed at https://www.epa.gov/ports-initiative.	The mitigation and monitoring measures that the applicant has committed to implement (including and in addition to those defined in the COP) are listed in Table H-1. Mitigation and monitoring measures that may result from reviews under the statutes listed above are shown in Table H 2. Some of these mitigation and monitoring measures are outside of BOEM's statutory and regulatory authority but could potentially be adopted and imposed by other governmental entities. Tables H-1 and H-2 provide descriptions of mitigation or monitoring measures, along with the resource or resources to which each measure applies. If the COP is approved or approved with conditions, it will include mitigation and monitoring measures developed under various consultations and permit reviews (e.g., ESA and Marine Mammal Protection Act) and adopted by the Final EIS Record of Decision (ROD). If BOEM decides to approve the COP, the ROD will state which of the additional mitigation and monitoring measures identified by BOEM in Tables H-1 and H-2 have been adopted; if measures are not adopted, the ROD will state why they were not. If the measures adopted differ substantially from those listed in Tables H-1 and H-2, BOEM will evaluate whether impacts analyses need to be modified to address those changes. The applicant will be required to implement the mitigation and monitoring measures applicable that are adopted in the ROD (Code of Federal Regulations, Title 40, Section 1505.3 [40 CFR § 1505.3]), and it will be required to certify compliance with certain terms and conditions as required under 30 CFR § 585.633(b)."

Comment	Response
Appendix G, page 52 states: ""Most air pollutant emissions and air quality impacts from future offshore wind projects would occur during construction, potentially from multiple co-occurring projects. All projects would be required to comply with the CAA. During the limited times of construction and decommissioning, emissions might exceed de minimis thresholds, requiring offsets and mitigation. Primary emission sources would include increased commercial vehicular traffic, air traffic, public vehicular traffic, construction equipment, and fugitive emissions leaks. As projects come online, emissions overall would decline, and the projects would benefit air quality overall."" Recommended Action: EPA recommends that BOEM conduct an analysis to determine whether emissions not covered by the OCS permit, particularly those emissions originating within the nonattainment area boundaries, will cause or contribute to a new violation of the NAAQS, increase the frequency or severity of any existing violation of the standards, or delay timely attainment of the standards. Furthermore, EPA recommends that BOEM include more detailed information on mitigation measures or emissions offsets such as the purchase of lower emitting (e.g., Tier 4) or electrified crew vessels and equipment.	The sources and activities not regulated through the OCS permit include construction equipment and vehicles used during the unloading and loading of components at the port facilities, during construction at the landfall sites, during installation of the onshore cables, and during construction of the onshore substations, further described in Section 2.1, and 2.2.5 through 2.2.8 of COP Volume III. The air emissions from these sources and activities would be under the jurisdiction of the local regulatory agency, of which the applicant may be required to conduct analyses and obtain permits and approvals, as applicable. However, due to the temporary and mobile nature of these sources and activities, it is expected that they will be exempt from air permit regulations and requirements.
Appendix G, page 58 states: ""Both NOx and VOC are O3 precursors, and these emissions may contribute to some increase in O3production during construction. There would be minor air quality impacts due to construction of Phase 1."" Page 60 states, ""[t]here would be minor air quality impacts due to the construction of Phase 2."" Recommended Action: EPA recommends the air quality analysis include information comparing the modelled concentrations to the NAAQS, state air quality standards, or other relevant reference measures, which would allow for a more quantitative assessment to determine if emissions would adversely impact the air quality resource. Absent such a comparison, it is unclear how a determination of minor air quality impacts can be made.	With the designation of minor or moderate, it is expected that there will be detectable increases in ambient pollutant concentrations from the proposed Project. Most construction emissions will occur from off-shore construction activities, which will be covered under an OCS air permit with the USEPA. This includes documentation that emissions will not cause or contribute to air pollution in excess of a NAAQS or applicable maximum allowable increase over the baseline concentration in any area under the PSD program. The applicant will comply with the conditions of the OCS Air Permit, which will minimize and mitigate emissions. More detailed information on expected OCS Air Permit conditions and other measures to avoid, minimize, and mitigate impacts to air quality is provided in Sections 5.1.2.1.2 and 5.1.2.2.2 of COP Volume III. Additionally, a table outlining the emission inventory for the non-attainment counties was added to Appendix G to provide a better quantitative comparison for project related emissions versus emissions from nonattainment counties.

Comment	Response
The Draft EIS states that potential environmental justice (EJ) impacts at specific ports cannot be evaluated because BOEM is not certain which ports may be utilized for this project; and, further, that near-port communities with EJ concerns could experience disproportionate air quality impacts depending on the ports that are used, ambient air quality, and the increase in emissions at any given port. The Draft EIS states that port facilities in New York, New Jersey, Connecticut, Massachusetts and Rhode Island could be used for berthing, staging, and loadout to support the construction and installation of offshore facilities. Recommended Action: Localized EJ impacts at the ports being considered for usage should be fully identified in the Final EIS for the selected alternative and affected communities, including port communities, should be given an appropriate opportunity to comment based on targeted outreach from BOEM. Additionally, port expansion and modifications to support the development of offshore wind infrastructure that may lead to increased port utilization constitute a reasonably foreseeable, indirect effect of the Proposed Action. Such impacts to communities with EJ concerns adjacent to such ports should be considered and disclosed.	As stated in the Draft EIS, the applicant is not conducting any port expansion activity specifically to support the proposed Project. Evaluations of any such expansions (including environmental justice evaluations) would be part of the permitting process for specific expansions.
While the Draft EIS analyzes other ongoing and reasonably foreseeable future activities, as currently written, BOEM's EJ analysis does not consider these cumulative impacts in the determination of disproportionately high and adverse impacts. In accordance with the Promising Practices for EJ Methodologies in NEPA Reviews, ""agencies may wish to consider factors that can amplify identified impacts (e.g., the unique exposure pathways, prior exposures, social determinants of health) to ensure a comprehensive review of potential disproportionately high and adverse impacts to minority populations and low-income populations."" CEQ's guidance, Environmental Justice: Guidance Under the National Environmental Policy Act (1997) also encourages agencies to consider relevant public health and industry data concerning the potential for multiple or cumulative exposures to human health or environmental hazards in the affected population and historical patterns of exposure to environmental hazards, to the extent such information is reasonably available. . . even if certain effects are not within the control or subject to the discretion of the agency proposing the action"". Recommended Action: BOEM should consider how relevant existing conditions in communities with EJ concerns across cumulative environmental, health, socioeconomic and climate stressors may ultimately lead to impacts that are disproportionately high and adverse. Please refer to a number of tools such as the Environmental Justice Screening and Mapping Tool (EJ Screen) and the Center for Disease Control and Prevention's Environmental Justice Index to obtain information on pre-existing pollutant and health burdens that may inform the cumulative impacts analysis.	The analysis in the Final EIS uses EJScreen percentiles, data and maps that address state-level analytical requirements, and NOAA Social Indicators mapping. The CDC EJ Index and CEQ Justice 40 tool use different (less accurate and out of date) census data, and thus were not used. The analysis provided in the Final EIS is sufficient to fulfill the purpose of NEPA: to enable a reasoned choice among alternatives.
Communities with EJ concerns are often disproportionately burdened by environmental hazards and stressors, unhealthy land uses, psychosocial stressors, and historical traumas, all of which drive environmental health disparities. Recommended Action: BOEM should analyze whether communities impacted by this project may already be experiencing existing pollution and social/health burdens. Additionally, BOEM should further describe the health effects of impacts.	The analysis in the Final EIS uses EJScreen percentiles, data and maps that address state-level analytical requirements, and NOAA Social Indicators mapping, which incorporate information about existing burdens, including health burdens.

Comment	Response
EPA recommends that BOEM develop a stakeholder outreach/EJ public participation plan for areas that may be impacted by the proposed action and provide an opportunity for affected communities to inform the project's mitigation measures. This includes communities in Barnstable County and Bristol County, MA, that are proposed landfall sites for offshore export cables and onshore substation(s). An appropriate public participation process for this project would include: A forward-looking outreach plan that includes detailed information on planned engagement milestones and commitments to meetings with potentially impacted communities and community organizations. Development of a brief community information sheet about the project that is written in plain language and that can be understood by all affected community members. The information sheet should be distributed as widely as possible, through posting on BOEM's project specific website and shared with parties who provided comments on the Notice of Intent for the project and the Draft EIS. Use of screening tools such as EPA's EJ Screen, supplemented with local knowledge, to determine if linguistically isolated populations reside in geographic areas impacted by the proposed project and provide appropriate translation and interpretation services to ensure meaningful engagement. Often the best way to assess translation and interpretation needs is to connect with people who live in impacted communities, including local government officials and community-based non-governmental organizations. Public meetings or hearings designed to be accessible to all and scheduled at times that accommodate the greatest number of participants.	Thank you for your comment. BOEM will consider this information as part of its ongoing stakeholder outreach efforts, and will also pass this information to the applicant for use in their ongoing stakeholder outreach efforts.
Explain whether any future supplemental NEPA analysis of the [South Coast Variant] will revisit the alternatives analyses from the first round with the new alternative (e.g., SCV) included in the overall mix. Develop and present information to explain if there are technical or grid interconnection issues, etc. at the West Barnstable substation that would require development of the SCV. As many sub-alternative scenarios may include the SCV, please provide more detailed information to explain whether alternatives incorporating the SCV represent the least environmentally damaging practicable alternative (LEDPA) under the Clean Water Act Section 404(b)(1) guidelines. Explain whether use of the SCV will require HVDC export. If so, please explain the effect on the number and impacts of ESPs, including the potential need for water-based cooling systems and associated NPDES discharges.	The South Coast Variant is currently included as one of several possible cable route scenarios for Phase 2 of the Project; however, the Project would only use the South Coast Variant if technical, logistical, grid interconnection, or other unforeseen issues arise during the COP review and engineering processes. More information on the South Coast Variant and what factors would be considered prior to choosing this cable route are discussed in COP Vol I, Section 4.1.3.3. If the South Coast Variant is chosen, additional NEPA analyses and COP modifications would be needed to evaluate the impacts of installing export cables through this area.
EPA recommends that the Final EIS analysis of alternatives contain a substantive discussion of how the selected alternative is consistent with the CWA Section 404(b)(1) Guidelines to support permitting by the U.S. Army Corps of Engineers. Such a discussion would demonstrate how the proposed/selected alternative qualifies as the LEDPA.	Section 2 of the Draft EIS included the required alternative analysis to support the NEPA analysis and the Final EIS has been updated to include the preferred alternative. Appendix A of the Final EIS has updated the status of permits and consultations required for the proposed Project. USACE is the agency that would be responsible for regulating activities under Section 404 of the Clean Water Act. In addition, Appendix A includes information on the coordination and consultation process to date for the proposed Project, and as noted in Appendix A, USACE is a cooperating agency in the preparation of the EIS.

Comment	Response
The analysis of export cable routes for the Vineyard Wind 1 project are presented in Appendix 1-G. However, sub-alternatives within the Western OECC presented in the Vineyard Wind OECC analysis, or other alternative cable routes do not appear to have been fully considered as part of the New England Wind Phase 1 cable route analysis. Phase 2 cable routing alternatives are described as ""scenarios". Recommended Action: We recommend that the Final EIS present a discussion of the range of alternatives considered for the Phase 1 cable route and that the Phase 2 routes be analyzed as sub-alternatives.	Section 2 of the Draft EIS stated that the Phase 1 OECC would be the same for all alternatives, and would route cables through Eastern Muskeget, and Phase 2 OECC could utilize either the Eastern or Western Muskeget Channel. Section 2 of the Final EIS has been updated to include Table 2.1-2 that provides a summary of the export cable scenarios for each alternative.
The Draft EIS (page 3.7-49) notes, "Currently, there is a large amount of uncertainty around large whale response to offshore wind facilities due to the novelty of this type of development on the Atlantic OCS. Monitoring studies would be able to determine more precisely any changes in whale behavior. Based on the best available information, no changes are anticipated. However, long-term, intermittent, and minor impacts on foraging, migratory movements, or other important behaviors may occur as a result of Phase 1. Additionally, temporary displacement from the SWDA during proposed Project construction into areas with higher risk of interactions with fishing and commercial vessels (see traffic IPF below) may also contribute to impacts on marine mammals." Recommended Action: We recognize the acknowledgement of uncertainty provided in the Draft EIS regarding project impacts to large whales because of construction and operation of the proposed project. The Final EIS should explain in detail the steps BOEM will take to reduce this uncertainty. We also encourage BOEM to continue to work closely with the National Marine Fisheries Service to develop appropriate measures to avoid impacts to whale habitat and behavior during project construction and operation. These measures should include a detailed monitoring and mitigation plan.	The mitigation and monitoring measures that the applicant has committed to implement (including and in addition to those defined in the COP) are listed in Table H-1. Mitigation and monitoring measures that may result from reviews under the statutes listed above are shown in Table H 2. Some of these mitigation and monitoring measures are outside of BOEM's statutory and regulatory authority but could potentially be adopted and imposed by other governmental entities. Tables H-1 and H-2 provide descriptions of mitigation or monitoring measures, along with the resource or resources to which each measure applies. If the COP is approved or approved with conditions, it will include mitigation and monitoring measures developed under various consultations and permit reviews (e.g., ESA and Marine Mammal Protection Act) and adopted by the Final EIS Record of Decision (ROD). If BOEM decides to approve the COP, the ROD will state which of the additional mitigation and monitoring measures identified by BOEM in Tables H-1 and H-2 have been adopted; if measures are not adopted, the ROD will state why they were not. If the measures adopted differ substantially from those listed in Tables H-1 and H-2, BOEM will evaluate whether impacts analyses need to be modified to address those changes. The applicant will be required to implement the mitigation and monitoring measures applicable that are adopted in the ROD (Code of Federal Regulations, Title 40, Section 1505.3 [40 CFR § 1505.3]), and it will be required to certify compliance with certain terms and conditions as required under 30 CFR § 585.633(b).
The Draft EIS states (p. 3.6-11), ""EMF does not appear to constitute a barrier to migration (Kavet et al. 2016)."" Kavet et al. (2016) only studied potential effects from DC cables, and the paper cautioned in its conclusions that the modeling results would not apply to 10 buried alternating current (AC) power cables for which modeling would be more complex. Recommended Action: EPA recommends the Final EIS cite a reference regarding EMF effects from AC cables."	Section 3.6 of the Final EIS has been updated to clarify that the Kavet et al. reference only pertains to DC cables, and that "there is no evidence to indicate that EMF from submarine AC power cables affects commercially and recreationally important fish species within the New England area (CSA Ocea Sciences, Inc. and Exponent 2019)."

Comment	Response
The Draft EIS states (p.3.4-10), ""Some benthic species can detect EMF, although EMF does not appear to present a barrier to animal movement."" In this case, no supporting citation is offered. Recommended Action: EPA recommends the Final EIS cite a reference regarding EMF effects from AC cables.	The Final EIS has been updated.
The Draft EIS also states, ""Burrowing infauna may be exposed to stronger EMF, but little information is available regarding the potential consequences."" (p. 3.6-11). Here and elsewhere, the Draft EIS points to limited research on the effects of EMF on marine organisms, but then suggests impacts from exposure to EMFs will likely be minor or negligible due to the lack of demonstrated effects. Recommended Action: Given the thousands of miles of cable that will be carrying either AC or DC currents throughout various habitats and water depths on the seafloor in New England and Mid-Atlantic waters, EPA recommends that BOEM address this concerning lack of understanding of EMF effects on both commercial and non-commercial marine and estuarine species through the support of peer-reviewed studies. EPA recommends that the BOEM Final EIS include a specific plan for addressing the research needs for this important issue.	The best available science was used to evaluate potential impacts from EMF and adequate cable burial depths. BOEM, the U.S. Department of Energy, and the U.S. Department of the Interior have performed several studies which have contributed to the impact determination in the EIS. These studies suggest that a 6 ft burial depth would have the least impact and reduce magnetic field signatures at the seafloor approximately four-fold. More information on potential impacts from EMF can be found in Sections 3.4.2.1 and 3.4.2.3 of the Final EIS.
The Benthic Resource Map (Figure 3.4-2) describes Area 223 as "Mid-position flats and depressions at moderate depths (144-246 feet) on fine to medium sand," but the area delineated has no depths within the stated depth range. In reviewing NOAA Chart 13237, we could find only one depth in Nantucket Sound that exceeds 100 feet (103'), and that sounding is not located in the area delineated as Area 223. Similarly, an area color-coded to represent Area 223 in the southern portion of Muskeget Channel has no depths close to the 144–246-foot range depicted. Recommended Action: EPA recommends correcting the depth range for Area 223 to reflect the actual depths in these areas.	Thank you for your comment. The data shown in Figure 3.4-2 are from the Mid-Atlantic Ocean Data Portal (MARCO). A footnote has been added to the figure to clarify that the water depths listed in the legend may not encompass the full depth range for each benthic habitat and that the MARCO data portal should be referenced for more information on specific water depths.
EPA is concerned that the Draft EIS generalizes project impacts with broad, general metrics to compare impacts across alternatives (negligible, minor, moderate or major impacts). The broad metrics often result in differing alternatives being characterized as having similar impacts when they are not. Recommended Action: The NEPA analysis would benefit from less focus on the presentation of generalized impacts (for example, table 2.4-1 on page 2-41 presents impact comparisons where generally no differences between impacts for various alternatives are indicated) and more on the clear tradeoffs between alternatives as measured by impacts. Such an approach would provide greater emphasis on the design of the alternatives that are intended to result in lowered impacts to benthic, finfish and EFH habitats. We recommend that BOEM continue to work to expand upon the discussion of the differences in impact across alternatives rather than focus on categorizing the impacts with broad metrics. These changes will benefit both the NEPA process and BOEM decision-making regarding alternatives.	Chapter 3 of the Draft EIS provided resource-specific impact level definitions for each resource section, and the impacts of each alternative align with the appropriate impact level, as supported by the analysis. Impacts to each resource area are also summarized in the EIS Executive Summary, Table ES-3. Alternatives reduced impacts on many resources; however, they did not always result in a change to the resource's impact level conclusion. The minimization of impacts is identified and quantified where possible in the Final EIS.

Comment	Response
The method used by BOEM in this Draft EIS and others for comparing alternative impacts using established ""geographic analysis areas"" (GAA) can, in many cases, limit opportunities for meaningful impact comparisons when the areas analyzed are grossly disproportionate to the project area. This can undermine the ability for the public to accurately compare anticipated project-specific impacts of the various alternatives under consideration. Recommended Action: EPA recommends that BOEM continue to work to develop more representative GAAs for making these alternative impact comparisons. This would allow the public to make a more informed and realistic assessment of impacts associated with the range of alternatives."	The Geographic Analysis Area for each resource is depicted and/or described within each associated resource section to provide context on their extent. The effects of the Project on each resource is described in each resource section.
For elements of project construction such as jet plowing to bury transmission cables and for aspects of future project operations such as potential effects of electromagnetic fields on organism behavior, significant effort was put forth in support of the Draft EIS to assess potential impacts through literature review and modeling. However, the scale and scope of the proposed activities for this and the other parallel wind development projects is unprecedented. We encourage a strong commitment by BOEM to require and provide resources for significant monitoring during construction and operation to confirm EIS assessments/predictions, to provide data needed for responsible management of operations and to guide future project assessments. We also encourage BOEM to follow the language in Section 3.6.2.3 of the Draft EIS and, "...require the applicant, as a condition of COP approval, to develop a fisheries monitoring plan for construction, operations, and decommissioning, similar to (or as an extension of) the fisheries monitoring plan implemented for Vineyard Wind 1 (Cadrin et al. 2019). Under such a plan, fisheries monitoring would be conducted before, during, and after construction in the proposed Project area and control areas to support a 'beyond before after control impact' analysis."	The mitigation and monitoring measures that the applicant has committed to implement (including and in addition to those defined in the COP) are listed in Table H-1. Mitigation and monitoring measures that may result from reviews under the statutes listed above are shown in Table H 2. Some of these mitigation and monitoring measures are outside of BOEM's statutory and regulatory authority but could potentially be adopted and imposed by other governmental entities. Tables H-1 and H-2 provide descriptions of mitigation or monitoring measures, along with the resource or resources to which each measure applies. If the COP is approved or approved with conditions, it will include mitigation and monitoring measures developed under various consultations and permit reviews (e.g., ESA and Marine Mammal Protection Act) and adopted by the Final EIS Record of Decision (ROD). If BOEM decides to approve the COP, the ROD will state which of the additional mitigation and monitoring measures identified by BOEM in Tables H-1 and H-2 have been adopted; if measures are not adopted, the ROD will state why they were not. If the measures adopted differ substantially from those listed in Tables H-1 and H-2, BOEM will evaluate whether impacts analyses need to be modified to address those changes. The applicant will be required to implement the mitigation and monitoring measures applicable that are adopted in the ROD (Code of Federal Regulations, Title 40, Section 1505.3 [40 CFR § 1505.3]), and it will be required to certify compliance with certain terms and conditions as required under 30 CFR § 585.633(b).

Comment	Response
The Draft EIS (Page 2-2) describes two ESPs co-located within 500 feet of each other. Recommended Action: The Final EIS should explain how the proposed separation is consistent with the agreed upon 1 by 1 nautical mile grid intended to preserve acceptable and safe navigation and fishing opportunities. Any coordination with the USCG regarding this separation distance should also be documented in the Final EIS.	The COP notes that New England Wind will adopt the 1 x 1 NM WTG/ESP layout in accordance with the USCG's recommendations contained in the May 2020 MARIPARS. Additionally, the 1 x 1 NM grid layout is also part of the Proposed Action in the EIS. Co-located ESPs could incrementally increase navigational risks and hazards from allision and collision and complicate SAR activities and could continue to result in moderate impacts on navigation and vessel traffic. Mitigation and monitoring measures for the project are presented in Appendix H of the EIS which include those mitigation and monitoring measures that BOEM would require as a condition of COP approval.
The Draft EIS notes (page 2-35) that, "...the applicant believes it would be challenging to route even one cable within the Western Muskeget Variant." Recommended Action: Explain in more detail how the Western Variant is being considered as a feasible contingency for Phase 2.	At the time of COP submission detailed engineering of the cable routes was not complete and thus uncertainties remained as to whether all three of the Phase 2 cables could be installed within the OECC through Muskeget Channel. The Western Muskeget Variant was therefore included in the COP as a contingency measure to potentially accommodate up to two of the three Phase 2 cables. It was never considered as a feasible route for the Phase 1 cables. And, while the COP allowed for potentially two Phase 2 cables to be routed within Western Muskeget Variant to provide maximum flexibility, the applicant has noted that it would be challenging to route even one cable within the variant for multiple technical reasons. It is thus considered a contingency option for Phase 2. Given the extensive technical challenges, the applicant has always contemplated that only one cable could likely be installed within the variant.
Table 2.2-1 includes a discussion of alternatives that were considered but dismissed for detailed analysis. The discussion for Alternative 8 explains how the project is designed to avoid impacts to Atlantic cod spawning and the North Atlantic right whale. Part of the rationale for eliminating the suggested alternative is to preserve remaining lease area for the applicant to be able to pursue a future offtake agreement. Recommended Action: We recommend that BOEM make sure that concerns raised regarding Atlantic Cod and North Atlantic right whales are fully addressed before eliminating considerations for project changes to avoid impacts based on potential future projects.	Alternative 8 would have required the largest available WTGs to minimize the number of foundations constructed to meet the proposed Project capacity, minimize impacts on marine habitat and resources, and reduce navigation and other space-use concerns. It was determined that there is no scientific evidence that this alternative would not avoid or substantially lessen one or more significant environmental impacts of the proposed project and would not be economically feasible or practicable. BOEM will ensure that all issues and concerns raised regarding Atlantic COD and North Atlantic right whales are fully addressed with the preferred alternative.
EPA supports the use of bubble curtains and other mitigation measures such as soft starts (Draft EIS 3-4.18, 3.6-26 and elsewhere) or other measures to reduce noise impacts associated with pile driving.	Thank you for your comment.

Comment	Response
The Final EIS would benefit from a more robust consideration of climate change risks to the proposed action in the description of the affected environment. Recommended Action: We recommend that the discussion be expanded to include consideration of climate resiliency measures, particularly for on and offshore infrastructure (including transformer stations) that may be vulnerable to the impacts associated with climate change (such as sea level rise, more frequent storms, flooding, etc.). This discussion would provide additional details regarding the durability of the proposed infrastructure (including WTGs and buried cables at all locations) in the face of more severe weather and more severe sea states. The Final EIS should also detail steps taken by the applicant to engage with host communities regarding the siting of project infrastructure and opportunities to avoid and minimize construction and operation period impacts.	The applicant has specifically considered the implications of sea level rise, shoreline change, and future storms in the Project design. For both Project phases, only the landfall sites and immediately proximate stretches of onshore routing are within existing Federal Emergency Management Agency (FEMA) flood zones. The transition joint bays, onshore export cables, and all associated infrastructure will be designed to withstand regular water inundation. When properly installed according to industry standards, underground cable systems are not affected by flooding and weather events. Although the substation sites are well outside the flood zone, they are still designed with robust stormwater management systems to accommodate current and likely future storm conditions The presence of New England Wind infrastructure will not make the coastline or adjacent areas more vulnerable to storm damage or sea level rise. Transition joint bays will be buried within the paved parking lots at each landfall site, and the horizontal directional drilling (HDD) conduits are expected to be approximately 40-50 feet below the surface of the beach and under adjacent beach, dunes, and coastal bank, significantly decreasing the probability of exposure during a severe storm event. Within the Offshore Export Cable Corridor (OECC), the offshore export cables will be buried within the stable seabed and therefore are not expected to be exposed to hydrodynamic forces or potential interference from fishing gear or anchor strikes. A Certified Verification Agent (CVA) verification process will be used for the offshore facilities, including the wind turbine generators (WTGs), electrical service platform (ESP), inter-array cables, and export cables. The structures will be designed for the extreme environmental conditions (including wind speed and wave height) verified by the CVA. Further, extensive studies have been performed for the impacts of hurricanes and nor'easters on the offshore infrastructure, including all hurricanes since 1924 and nor'easters since 1954 as well as a synthetic hurricane study which produced a 10,000-year reconstruction of realistic storm events. Results from these studies were combined to produce the baseline for the 1,000- and 10,000-year wind and wave conditions plus storm surge for turbine foundations and the offshore substation. An additional 1 meter of sea level rise was accounted for in these water level estimates. These studies have been factored into the ongoing design of the offshore facilities.

Comment	Response
We recommend that the Final EIS provide detailed information on how frequently and at what scale cable maintenance/repair/replacement will occur, as well as the level of impacts associated with cable maintenance/repair/replacement.	The mitigation and monitoring measures that the applicant has committed to implement (including and in addition to those defined in the COP) are listed in Table H-1. Mitigation and monitoring measures that may result from reviews under the statutes listed above are shown in Table H 2. Some of these mitigation and monitoring measures are outside of BOEM's statutory and regulatory authority but could potentially be adopted and imposed by other governmental entities. Tables H-1 and H-2 provide descriptions of mitigation or monitoring measures, along with the resource or resources to which each measure applies. If the COP is approved or approved with conditions, it will include mitigation and monitoring measures developed under various consultations and permit reviews (e.g., ESA and Marine Mammal Protection Act) and adopted by the Final EIS Record of Decision (ROD). If BOEM decides to approve the COP, the ROD will state which of the additional mitigation and monitoring measures identified by BOEM in Tables H-1 and H-2 have been adopted; if measures are not adopted, the ROD will state why they were not. If the measures adopted differ substantially from those listed in Tables H-1 and H-2, BOEM will evaluate whether impacts analyses need to be modified to address those changes. The applicant will be required to implement the mitigation and monitoring measures applicable that are adopted in the ROD (Code of Federal Regulations, Title 40, Section 1505.3 [40 CFR § 1505.3]), and it will be required to certify compliance with certain terms and conditions as required under 30 CFR § 585.633(b).
Figures: EPA recognizes and appreciates BOEM's efforts to include key figures in the body of the Draft EIS instead of just referencing external documents. We continue to encourage BOEM to do more in this area as figures and graphics improve the readers ability to understand the project and the potential for impacts.	Thank you for your comment.
While we understand the need to reference supporting information to meet established page limits, we recommend that BOEM could take steps to better bridge access to information referenced in the main body of the EIS and supporting documents such as the COP or Appendices to the EIS. We continue to recommend the use of hyperlinks so that a reviewer can click on the referenced information link (e.g., a COP table) and be taken directly to that table in a Draft EIS appendix. In the absence of a hyperlink, we appreciate the instances where specific source document information including page number, etc. is provided in the body of the EIS.	Thank you for your comment.
Table ES-2 there does not appear to be a footnote b as referenced. Draft EIS page 2-21 references Figure 2.1-9, which does not appear to show the OECCs for Western Muskeget variant or SCV. Figure 2.1-13 appears to provide a general depiction of the Western Muskeget Variant and SCV. Appendix A page A-3 notes that an application for an EPA NPDES permit is to be filed. Per a conversation with BOEM staff it is our understanding that a NPDES permit will not be required for the project so this reference should be removed.	The Final EIS has been updated where appropriate to address these comments.

O.4.1.3 National Oceanic and Atmospheric Administration, National Marine Fisheries Service

Table O.4-3: Responses to Comments from the National Oceanic and Atmospheric Administration, National Marine Fisheries Service

Comment	Response
We support alternatives that reduce adverse impacts to marine resources; however, the structure of Alternative C and the limited information provided to support the analysis make it challenging for us to identify the environmentally preferred cable route with respect to impacts on NOAA trust resources. Under the two sub-alternatives (C-1 and C-2), the Draft EIS identifies six possible scenarios for export cable routing for Phase 2 of the Project. This approach limits the reader's ability to understand the different impacts on resources from these six identified scenarios. We recommend BOEM consider these six identified scenarios as individual sub-alternatives under the Habitat Impact Minimization Alternative. That will allow the reader to understand how different resources are affected under each potential alternative routing scenario, and to compare the impacts of those scenarios to each other. Identification of an environmentally preferred sub-alternative is also challenged by the limited information included in the Draft EIS for each export cable routing scenario.	Section 2 of the Final EIS has been updated to include Table 2.1-2 that provides a summary of the export cable scenarios for each alternative.
The Draft EIS acknowledges that a COP revision and subsequent review by BOEM as well as supplemental NEPA analysis would be necessary prior to construction of an export cable along the SCV route. We agree that a supplemental NEPA analysis will be needed in order to fully analyze the SCV. We recommend the Draft EIS indicate what the scope of any supplemental NEPA analysis might be. For example, explain whether a supplement would evaluate a portion of the cable, the entire SCV route, or just for Phase 2 of the project, given that the SCV is only proposed for Phase 2. Additionally, we recommend BOEM evaluate the additional cable routing scenarios under the Habitat Impact Minimization Alternative included in this Draft EIS within the supplemental NEPA analysis. We suggest that the supplemental NEPA document include an analysis and comparison of all potential export cable routing scenarios with sufficient habitat data to allow for a clear and informed comparison. We recommend that the supplemental NEPA analysis for a COP revision proposing use of the SCV includes appropriate habitat data, an analysis of the full route, and comparison to other proposed routes.	If the applicant is unable to install all Phase 2 export cables in the proposed (Eastern Muskeget) OECC through Muskeget Channel, one or more Phase 2 cables could be installed in the Western Muskeget Variant. If technical, logistical, grid interconnection, or other unforeseen issues prevent all Phase 2 export cables from interconnecting at the West Barnstable Substation, the applicant would develop and use the SCV in place of or in addition to the currently proposed Phase 2 OECC and OECR (Figure 2.1-9 shows the OECCs for the Western Muskeget Variant and SCV). Because the SCV is a contingency, the applicant had not provided information on grid interconnection routes, onshore cable routes, landfall locations, and nearshore cable routes necessary to prepare a sufficient analysis of the SCV at the time of publication of this Final EIS. Therefore, the analysis of the SCV in this Final EIS includes available information but reflects some uncertainty. If the applicant determines that the SCV is necessary, the applicant would be required to file a COP revision per 30 CFR § 585.634, describing the need for the SCV and providing the information necessary to complete a sufficient analysis. In response, BOEM would complete additional environmental analysis and relevant consultations required by NEPA, NHPA, and other applicable statutes (including making the analysis available for public review and comment) to inform BOEM's decision to approve, approve with conditions, or disapprove the COP revision.
The export cable route, including passage through Muskeget Channel, overlaps with HAPC for juvenile Atlantic cod. The New England Wind lease overlaps with an area where in June 2022 the New England Fishery Management Council adopted a new HAPC for spawning Atlantic cod and complex habitats...This designation highlights the importance of this complex habitat and cod spawning habitats and creates an obligation to evaluate whether offshore wind development	"For BOEM: Recommend addressing this comment by enhancing the discussion around the juvenile cod HAPC, evidence of cod spawning activity in the lease area, and potential impacts the Project may have on these. The additional references mentioned here should also be included, along with any other new/recent data and research related to this. The trawl

Comment	Response
would adversely impact such habitats and, if so, to consider measures which would minimize that negative effect. Large-scale offshore wind development on and adjacent to areas of cod spawning activity and sensitive habitats remains a significant concern for our agency. Atlantic cod populations are in decline and significantly below target levels and the complex habitats used by this and other species are more vulnerable to long-term and permanent impacts from development. Reducing adverse impacts to these habitats will help minimize the risk of impacts on reproductive success of vulnerable cod populations, a species of biological, ecological, economic, and cultural significance to this region. We recommend BOEM evaluate measures that could be undertaken to ensure the New England Wind project avoids and minimizes impacts to these vulnerable habitats and sensitive life history stages. The Draft EIS does not analyze the full suite of potential impacts to designated HAPCs or cod spawning activity in the project area and does not consider the available data and information from studies conducted in the region . The Atlantic Cod Stock Structure Working Group identified five biological stocks in U.S. waters, which includes a Southern New England stock. The findings of this Working Group were recently published and this information should be incorporated into the analysis in the Final EIS. Recent trawl surveys have documented cod spawning activity within the lease area, though studies have not yet been conducted to identify specific aggregations overlapping with the lease area. We recommend BOEM include in the Final EIS all available information to analyze project impacts on cod spawning activity and juvenile cod HAPC and to develop appropriate avoidance and minimization measures. We recommend BOEM identify, describe, and evaluate a full range of mitigation measures in the Final EIS to protect (i.e., avoid or minimize disturbance of) cod spawning activity and juvenile cod HAPC from construction and operation of the project. We recommend the Final EIS evaluate mitigation measures, including time of year restrictions for construction activities to avoid impacting Atlantic cod spawning activity. We recommend BOEM incorporate into the Final EIS additional avoidance, minimization, and mitigation measures identified through the EFH consultation process. Given the vulnerability of the cod population, we are concerned that should this and other projects proposed in Southern New England continue to move forward absent appropriate avoidance and minimization measures, these actions will result in adverse population level effects (major adverse impacts) on the cod population in Southern New England.	surveys referenced here that have documented cod spawning activity in the lease area should also be included. Associated mitigation measures should also be included if necessary.
The Final EIS should clearly define the boundaries of each lease area for the proposed project. The Draft EIS does not clearly identify the footprint of the New England Wind Project. The maximum buildout scenario results in project structures being present in a portion of the Vineyard Wind Project 1 lease area (OCS-A 0501), which is outside of the New England Wind Project lease area. The Draft EIS does not identify when Vineyard Wind 1 will know whether it will use all of the turbine locations within lease area OCS-A 0501, which creates uncertainty about the geographic extent of the New England Wind project. The Purpose and Need statement expresses that the project must be built within the confines of the lease area. These issues should be resolved in the Final EIS.	Under the Proposed Action, the proposed Project would be developed in two phases, with a combined maximum of 130 wind turbine generator (WTG) and electrical service platform (ESP) positions, all located within the SWDA. Phase 1, also known as the Park City Wind Project, would deliver at least approximately 804 megawatts (MW) and would be immediately southwest of Vineyard Wind 1. Phase 2, also known as the Commonwealth Wind Project, would deliver at least 1,232 MW and would be constructed southwest of Phase 1 within the remainder of the SWDA. Collectively, the proposed Project would generate at least 2,036 MW and up to 2,600 MW. The Project is planning for up to 130 WTG/ESP positions with a maximum of 129 WTGs. The developer of the Vineyard Wind 1 Project (Vineyard Wind 1, LLC) will assign spare or extra positions in the southwestern portion of OCS A 0501 to Park City Wind for the New England Wind

Comment	Response
	Project if those positions are not developed as part of the Vineyard Wind 1 Project.
Van Hoeck, R., Rowell, T.J., Dean, M. J., Rice, A., Van Parijs, S.M. (In Press) Comparing Atlantic cod temporal spawning dynamics across a biogeographic boundary: insights from passive acoustic monitoring. Marine and Coastal Fisheries. https://www.fisheries.noaa.gov/new-england-mid-atlantic/science-data/analyzing-cod-populations-atlantic McBride R. S., R. K. Smedbol, (Editors). 2022. An Interdisciplinary Review of Atlantic Cod (Gadus morhua) Stock Structure in the Western North Atlantic Ocean. NOAA Technical Memorandum NMFS-NE-273. Woods Hole, Massachusetts: US Department of Commerce, National Oceanic and Atmospheric Administration, National Marine Fisheries Service, Northeast Fisheries Science Center. i-x, 264 pp. https://repository.library.noaa.gov/view/noaa/48082 Van Parijs, S., Dean, M., McGuire, C., Cadrin, S., and Frey, A. 2022, July 26-28. Preconstruction evaluation of Atlantic cod spawning in Southern New England offshore wind areas [Conference presentation]. NYSERDA State of the Science Workshop, Tarrytown, NY, United States.	Thank you for your comment.
The Draft EIS proposes to use a 1x1 nautical mile (nm) grid position, yet the proposed plan would co-locate two electric service platforms (ESPs) within 500 feet of each other. This configuration would not allow the 1x1 nm grid spacing for foundations mutually agreed upon by all developers to maintain a standard spacing across all RI/MA wind projects. Configurations that do not allow for the 1x1 nm grid space could result in adverse impacts to fishing operations, as it would increase navigation safety concerns and reduce fishing and survey vessel access around such positions. We recommend BOEM adopt the mitigation measure identified in Section 3.13 that would prohibit the co-location of two ESPs in one single position.	The COP notes that New England Wind will adopt the 1 x 1 NM WTG/ESP layout in accordance with the USCG's recommendations contained in the May 2020 MARIPARS. Additionally, the 1 x 1 NM grid layout is also part of the Proposed Action in the EIS. Co-located ESPs could incrementally increase navigational risks and hazards from allision and collision and complicate SAR activities, and could continue to result in moderate impacts on navigation and vessel traffic. Mitigation and monitoring measures for the project are presented in Appendix H of the EIS which include those mitigation and monitoring measures that BOEM would require as a condition of COP approval.
Support for Conclusions - We recommend BOEM thoroughly review the rationale for each impact level conclusion to ensure conclusions are fully supported by the text and the best available information. Impact determination should be consistent with the definition of the impact conclusion.	Chapter 3 of the Draft EIS provided resource-specific impact level definitions for each resource section, and the impacts of each alternative align with the appropriate impact level, as supported by the analysis. Impacts to each resource area are also summarized in the EIS Executive Summary, Table ES-3. Alternatives reduced impacts on many resources; however, they did not always result in a change to the resource's impact level conclusion. The minimization of impacts is identified and quantified where possible in the Final EIS.
Mitigation Measures - The Draft EIS contains sections where BOEM is relying on mitigation measures to reduce impacts, but does not specify which of these measures, if any, are factored into the impact determination. In addition, assumptions about the success of mitigation measures are made despite a lack of evidence or adequate detail regarding specific mitigation measures (e.g., fisheries and resource survey impact mitigation). We recommend the Final EIS address the anticipated impacts of the proposed action, mitigation measures that are considered to be part of that action, the effectiveness of these measures, the expected impacts if mitigation methods are applied, and the likelihood that such measures will be required and implemented. We ask that BOEM clarify if additional measures may be implemented upon COP approval but were not factored into the impact analysis.	"The mitigation and monitoring measures that the applicant has committed to implement (including and in addition to those defined in the COP) are listed in Table H-1. Mitigation and monitoring measures that may result from reviews under the statutes listed above are shown in Table H 2. Some of these mitigation and monitoring measures are outside of BOEM's statutory and regulatory authority but could potentially be adopted and imposed by other governmental entities. Tables H-1 and H-2 provide descriptions of mitigation or monitoring measures, along with the resource or resources to which each measure applies.

Comment	Response
Significance Criteria - The significance criteria for some resources, in combination with the defined area of analysis for each resource, do not fully consider variations in the intensity or scale of impacts and how these factors may affect resources at the project, regional, or population levels. The importance of the seasonal timing or temporal duration of impacts to resources is not clearly explained through the significance criteria or applied to the analysis. Consideration of both the scale and intensity of impacts in the definition and application of the significance criteria would allow for accurate impact conclusions and provide clear distinctions among action alternatives.	If the COP is approved or approved with conditions, it will include mitigation and monitoring measures developed under various consultations and permit reviews (e.g., ESA and Marine Mammal Protection Act) and adopted by the Final EIS Record of Decision (ROD). If BOEM decides to approve the COP, the ROD will state which of the additional mitigation and monitoring measures identified by BOEM in Tables H-1 and H-2 have been adopted; if measures are not adopted, the ROD will state why they were not. If the measures adopted differ substantially from those listed in Tables H-1 and H-2, BOEM will evaluate whether impacts analyses need to be modified to address those changes. The applicant will be required to implement the mitigation and monitoring measures applicable that are adopted in the ROD (Code of Federal Regulations, Title 40, Section 1505.3 [40 CFR § 1505.3]), and it will be required to certify compliance with certain terms and conditions as required under 30 CFR § 585.633(b)."
Geographic Analysis Area - The Draft EIS does not appear to capture the effects of the project on resources within the Southern New England region. The Final EIS should analyze project impacts within the bounds of an appropriate geographic scale to allow for a meaningful understanding of effects to each resource from IPFs of the project. A geographic analysis area that is too broad may not predict the direct and indirect effects of the proposed action on a finer scale defined by the IPF.	The Geographic Analysis Area for each resource is depicted and/or described within each associated resource section to provide context on their extent. The effects of the Project on each resource is described in each resource section.
Cumulative Analysis - The cumulative analysis in the Draft EIS by section is very general, and does not provide a meaningful analysis of how this project, in combination with adjacent projects, will impact the resources in Southern New England. While the cumulative analysis includes areas beyond Southern New England, the effects to this specific region from large-scale development are not analyzed in the document, a gap which should be addressed in each offshore wind project's EIS.	Appendix E of the Draft EIS stated that the impacts resultant from the planned activities scenario are the incremental impacts of the Proposed Action on the environment added to other reasonably foreseeable planned activities in the area (Code of Federal Regulations, Title 40, Section 1502.15 [40 CFR § 1502.15]). This appendix discussed resource-specific planned activities that could occur if the Proposed Action's impacts occur in the same location and timeframe as impacts from other reasonably foreseeable planned activities. Specifically, the Proposed Action here is the construction and installation (construction), operations and maintenance (operations), and conceptual decommissioning (decommissioning) of the New England Wind Project (proposed Project), a wind energy project that would occupy all of the Bureau of Ocean Energy Management's (BOEM) Renewable Energy Lease Area OCS-A 0534 and potentially a portion of Lease Area OCS-A 0501, hereafter referenced as the Southern Wind Development Area (SWDA).
NOAA Scientific Surveys: We continue to have significant concerns related to the major impacts offshore wind development will have on our NOAA scientific surveys. The Draft EIS does not include any discussion on how these major impacts will be mitigated at the project level other than referencing the ongoing BOEM/NMFS survey mitigation efforts. However, the mitigation strategy is not currently resourced and does not set requirements or standards with which projects must comply. In order to minimize the major adverse impacts expected on scientific surveys, we recommend mitigation measures be required and implemented before	BOEM has committed to working with NOAA to implement the Federal Survey Mitigation Strategy program (https://repository.library.noaa.gov/view/noaa/47925). As of February 2023, implementation is pending. As discussions between BOEM and NOAA on implementation of the program continue, specific details on appropriate mitigation measures will be added to the environmental analysis.

Comment	Response
development moves forward, consistent with our joint survey mitigation efforts. We will continue to work with you to ensure these details can be included in the Final EIS.	
The comparison of the Habitat Impact Minimization Alternative sub-alternatives focuses solely on the amount of acreage impacted and provides limited comparison of the different habitat types and resources encountered under each scenario. Levels of impact will vary depending on habitat type, as complex habitats, including juvenile cod Habitat Areas of Particular Concern (HAPC), are more vulnerable to long-term and permanent impacts. The variation in habitat impacts is not analyzed, as the Draft EIS does not clearly present available habitat data or analyze how impacts among these cable routes would vary based on habitats present within the proposed scenarios identified...We note that we responded to a January 20, 2023, data request from Epsilon Associates which includes information for both cable routes; we recommend this information be included in the Final EIS.	Section 2 of the Final EIS has been updated to include Table 2.1-2 that provides a summary of the export cable scenarios for each alternative.
There are no habitat data or landing location available for the South Coast Variant (SCV) cable. We recommend BOEM include this information in the Final EIS to allow for a full analysis and comparison of the different effects of these cable routes, as three of the six scenarios identified consider the SCV cable route. 3 The location where development is proposed is a critical component of the analysis of impacts to NOAA trust resources; a Project's effects may vary depending on the resources present. In addition to variations in habitat types, impacts to fishing operations will also vary depending on the location proposed for the export cable route, but the Draft EIS does not analyze impacts to fishing operations from cable installation and operation, particularly for the SCV.	The South Coast Variant is currently included as one of several possible cable route scenarios for Phase 2 of the Project; however, the Project would only use the South Coast Variant if technical, logistical, grid interconnection, or other unforeseen issues arise during the COP review and engineering processes. More information on the South Coast Variant and what factors would be considered prior to choosing this cable route are discussed in COP Vol I, Section 4.1.3.3. If the South Coast Variant is chosen, additional NEPA analyses and COP modifications would be needed to evaluate the impacts of installing export cables through this area.
There continue to be important analyses and conclusions that are absent from the Draft EIS. Certain impact producing factors (IPFs) are missing, such as Resource Monitoring Surveys (fisheries surveys and benthic monitoring) and unexploded ordnance (UXO) removal and relocation. Updated fishery impact data/analysis should also be included, along with an analysis of impacts to shoreside support and fishing communities. All anticipated IPFs should be fully analyzed for all resources and for both project phases.	All anticipated IPFs were fully reviewed and presented in the Draft EIS. An Economic exposure analysis for commercial fisheries is provided in COP Vol. III-N.
Incomplete Analysis of Both Project Phases - Because New England Wind has been proposed as a single phased project, we recommend that BOEM comprehensively analyze activities associated with both Phase 1 and Phase 2 in this Final EIS. This is particularly important when considering the effects of activities that will be different between the two phases, such as pile driving noise (Phase 2 considers larger diameter piles), different foundation types (Phase 2 considers using suction bucket foundations), and different cable routes. While the Draft EIS describes the activities that will be carried out in association with Phase 2, the resource sections of Chapter 3 that consider the effects of Phase 2 are extremely limited, with the document simply suggesting that impacts will be similar to Phase 1 but "marginally larger." If Phase 2 is being considered in the Final EIS as part of the proposed action for which BOEM has a decision on whether to approve, disapprove, or modify the COP, we recommend that the Final EIS fully describe and analyze the effects of all Phase 2 activities.	Phase 1 and Phase 2 of the Project are discussed in each resource section of Chapter 3. Where they exist, the differences between the Phases are called out and differing impacts are discussed. Overall, activities associated with Phase 1 and Phase 2 are similar in nature and addressed accordingly in the Final EIS. BOEM will further review the resource sections of Chapter 3 to make sure the activities and associated impacts of Phase 1 and 2 are discussed appropriately.
Document Inconsistencies - The level of analysis by project area and resources is inconsistent throughout the document. Some sections have more thorough evaluations but those analyses do	The Final EIS has been comprehensively reviewed and revised where appropriate to provide consistency between analyses and conclusions. The

Comment	Response
not always align with the impact conclusion (or an impact conclusion is missing). Other sections are much more limited in the analysis of potential project impacts. We recommend BOEM analyze the effects of each IPF for each project phase and development stage (i.e., construction, operation, and decommissioning) with equal rigor and draw a separate impact conclusion for the stressors associated with each activity; then explain how the impacts of all stressors are factored to draw an overall impact conclusion for a specific resource.	level of analysis in the Final EIS is sufficient to fulfill the purpose of NEPA: to enable a reasoned choice among alternatives.
The Final EIS should also incorporate the applicant's updated project information (e.g., construction schedule, fishery monitoring surveys and mitigation), marine mammal density, and exposure estimates as presented in their MMPA application addendum to prevent inconsistencies between the Final EIS and MMPA proposed rule.	The Final EIS has been updated to account for the new construction schedule and mitigation and monitoring measures.
Cumulative Effects of Alternative A (No Action) - All anticipated IPFs should be fully analyzed for all resources. There are varying levels of concluding statements for each IPF under the cumulative effects of Alternative A (No Action) across the resource sections. Without a clear concluding statement (including minor, moderate, or major; beneficial or adverse) for the impacts of each individual IPF, it is difficult for the reader to fully understand the makeup of the overall impact conclusion for the cumulative effects of the No Action alternative.	The Final EIS has been comprehensively reviewed and revised where appropriate to provide consistency between analyses and conclusions. The level of analysis in the Final EIS is sufficient to fulfill the purpose of NEPA: to enable a reasoned choice among alternatives. All anticipated IPFs were fully reviewed and presented in the Draft EIS.
The level of analysis across the different project stages for each IPF is also inconsistent. The construction phase is thoroughly described, but the operations and maintenance and decommissioning stage descriptions are lacking. We recommend BOEM add a sub-heading for each stage under each IPF so it is clear which stage is being discussed.	The Final EIS has been comprehensively reviewed and revised where appropriate to provide consistency between analyses and conclusions. The level of analysis in the Final EIS is sufficient to fulfill the purpose of NEPA: to enable a reasoned choice among alternatives.
This comment may show up under specific resources, but is applicable across all resources. The analysis of the Phase 2 portion of the project is incomplete and missing relevant details. While under some resources there is discussion of the actual project parameters of Phase 2 and ensuing impacts, it is generally incomplete. This section should be revised for the FEIS to clearly address all effects and IPFs of Phase 2 of the project on the respective resources. Simply stating that the impacts will essentially be the same as Phase 1 but marginally larger is not an analysis of project effects. We recommend that BOEM comprehensively analyze activities associated with Phase 2 in the FEIS. If Phase 2 is being considered in the EIS as part of the proposed action for which BOEM has a decision on whether to approve, disapprove, or modify the COP, we recommend that the EIS fully describe and analyze the effects of all Phase 2 activities. This is particularly important when considering the effects of activities that will be different between the two phases, such as pile driving noise (Phase 2 considers larger diameter piles), different foundation types (Phase 2 considers using suction bucket anchoring), and different cable routes.	Phase 1 and Phase 2 of the Project are discussed in each resource section of Chapter 3. Where they exist, the differences between the Phases are called out and differing impacts are discussed. Overall, activities associated with Phase 1 and Phase 2 are similar in nature and addressed accordingly in the Final EIS. BOEM will further review the resource sections of Chapter 3 to make sure the activities and associated impacts of Phases 1 and 2 are discussed appropriately.
To ensure full public access, please ensure that all tables, graphs, and figures are 508 compliant. That requires Alt Text titles and descriptions that can be captured by auto readers, table structured so they can be read by auto reader (no subheadings/columns/rows or split cells). Tables with colored cells should include the color and meaning in the Alt Text descriptions.	BOEM has and will continue to ensure that all tables, graphs, and figures are 508 compliant.
Please change the following to previously agreed upon language and to also accurately reflect the status of the ITA application received by NMFS: "In addition, the NMFS received a request for authorization (in the form of a Letter of Authorization) under the Marine Mammal Protection Act (MMPA) to take marine mammals incidental to construction activities related to the Project.	The suggested edit has been made in the Final EIS.

Comment	Response
NMFS' issuance of an MMPA incidental take authorization would be a major Federal action connected to BOEM's action (40 CFR 1501.9(e)(1)). The purpose of the NMFS action—which is a direct outcome of Park City Wind's request for authorization to take marine mammals incidental to specified activities associated with the Project (e.g., pile driving)—is to evaluate Park City Wind's request pursuant to specific requirements of the MMPA and its implementing regulations administered by NMFS, considering impacts of the applicant's activities on relevant resources, and if appropriate, issue the permit or authorization. NMFS needs to render a decision regarding the request for authorization due to NMFS' responsibilities under the MMPA (16 U.S.C. 1371(a)(5)(A) & (D)) and its implementing regulations. If NMFS makes the findings necessary to issue the requested authorization, NMFS intends to adopt, after independent review, BOEM's environmental impact statement (EIS) to support that decision and fulfill its NEPA requirements."	
This only discusses public involvement relative to scoping. It should include all available information regarding the public comment meetings, dates of deadlines, methods of collecting comments, etc.	Information regarding the public comment meetings has been added to the Final EIS.
WSR - Weather Surveillance Radar." Change to: "WSR-88D Weather Surveillance Radar - 1988 Doppler"	The suggested edit has been made in the Final EIS.
Please change the following to previously agreed upon language and to also accurately reflect the status of the ITA application received by NMFS: "In addition, the NMFS received a request for authorization (in the form of a Letter of Authorization) under the Marine Mammal Protection Act (MMPA) to take marine mammals incidental to construction activities related to the Project. NMFS' issuance of an MMPA incidental take authorization would be a major Federal action connected to BOEM's action (40 CFR 1501.9(e)(1)). The purpose of the NMFS action—which is a direct outcome of Park City Wind's request for authorization to take marine mammals incidental to specified activities associated with the Project (e.g., pile driving)—is to evaluate Park City Wind's request pursuant to specific requirements of the MMPA and its implementing regulations administered by NMFS, considering impacts of the applicant's activities on relevant resources, and if appropriate, issue the permit or authorization. NMFS needs to render a decision regarding the request for authorization due to NMFS' responsibilities under the MMPA (16 U.S.C. 1371(a)(5)(A) & (D)) and its implementing regulations. If NMFS makes the findings necessary to issue the requested authorization, NMFS intends to adopt, after independent review, BOEM's environmental impact statement (EIS) to support that decision and fulfill its NEPA requirements."	The suggested edit has been made in the Final EIS.
Materials that are incorporated by reference need to be summarized in the text (40 CFR 1501.12) – "Agencies shall cite the incorporated material in the document and briefly describe its content." NMFS recommends adding the abstract of these documents here.	The suggested edit has been made in the Final EIS.
Please include a short explanation at the end of the paragraph about whether the list of activities in Appendix E has been developed for this specific project, or whether this same list of activities was developed for and is being included for all OWS projects in the Atlantic, regardless of project location, scale, or details. Please see related comment in Appendix E. This issue has also been identified by NMFS in CVOW, Ocean, Empire, Mayflower, and Sunrise.	The suggested clarifying text has been added to Final EIS Section 1.6.

Comment	Response
Please add "Environmental Consequences Section" to the first sentence so that it reads: "Each resource-specific Environmental Consequences section in Chapter 3 of this..."	The suggested edit has been made in the Final EIS.
Under Alternative B, the proposal to use one position to co-locate two ESPs within 250 feet of each other would likely violate the 1 nm x 1 nm agreement for turbine spacing among RI/MA wind projects and would increase safety concerns for navigation and search and rescue and reduce fishery access around such positions. We recommend BOEM disapprove this measure to minimize adverse impacts to safety and access.	The COP notes that New England Wind will adopt the 1 x 1 NM WTG/ESP layout in accordance with the USCG's recommendations contained in the May 2020 MARIPARS. Additionally, the 1 x 1 NM grid layout is also part of the Proposed Action in the EIS. Co-located ESPs could incrementally increase navigational risks and hazards from allision and collision and complicate SAR activities and could continue to result in moderate impacts on navigation and vessel traffic. Mitigation and monitoring measures for the project are presented in Appendix H of the EIS which include those mitigation and monitoring measures that BOEM would require as a condition of COP approval.
DEIS Table 2.1-1, Alternative B (proposed action): "Up to 132 total foundations for 125 to 129 WTGs and 1 to 5 ESPs would be installed in 130 positions"; footnote: "incorporate 132 foundations in 130 WTG/ESP positions." The table contradicts its footnote and the document elsewhere, including the Executive Summary, that states: "Up to 130 WTGs" & pg. 1-5: "Under the Proposed Action, the proposed Project would be developed in two phases, with a combined maximum of 130 wind turbine generator (WTG)." Were 130 WTGs or 129 WTGs analyzed? The DEIS FR Notice also states 129 WTGs. Please clarify and check for consistency of WTG numbers.	The EIS states throughout the document that there will be a maximum of 130 positions that will be used for WTGs AND ESPs, with a maximum of 129 WTGs.
Please clarify when it will be known whether Vineyard Wind 1 will utilize all of the turbine locations in Lease Area 0501 and if such locations will be incorporated into the proposed project. The uncertainty of the footprint makes it difficult for the reader to fully understand the impacts for this project.	Under the Proposed Action, the proposed Project would be developed in two phases, with a combined maximum of 130 wind turbine generator (WTG) and electrical service platform (ESP) positions, all located within the SWDA. Phase 1, also known as the Park City Wind Project, would deliver at least approximately 804 megawatts (MW) and would be immediately southwest of Vineyard Wind 1. Phase 2, also known as the Commonwealth Wind Project, would deliver at least 1,232 MW and would be constructed southwest of Phase 1 within the remainder of the SWDA. Collectively, the proposed Project would generate at least 2,036 MW and up to 2,600 MW. The Project is planning for up to 130 WTG/ESP positions with a maximum of 129 WTGs. The developer of the Vineyard Wind 1 Project (Vineyard Wind 1, LLC) will assign spare or extra positions in the southwestern portion of OCS A 0501 to Park City Wind for the New England Wind Project if those positions are not developed as part of the Vineyard Wind 1 Project.
The rationale provided for the considered but dismissed alternative (Table 2.2-1: Alternatives Considered but Not Analyzed in Detail, Alternative #8) that would exclude WTG positions does not consider the most up-to-date scientific evidence and includes inaccurate statements regarding the habitat requirements for Atlantic cod spawning. We recommend this be updated for the FEIS. While the VW/SMAST trawl survey summary reports do not include spawning conditions, the data is being collected and was recently presented at the NYSERDA SOS workshop (Van Parijs, S., Dean, M., McGuire, C., Cadrin, S., and Frey, A. 2022, July 26-28.	The suggested references (NYSERDA conference presentation an Van Hoek et al. (in press)) could not be located and have not been included. If NMFS has these references readily available and is able to share, BOEM could include these references. The Fahay et al. references have been corrected, and Alternative #8's Rationale for Dismissal has been updated to elaborate on the fact that complex benthic habitat is not a requirement for spawning Atlantic Cod.

Comment	Response
Preconstruction evaluation of Atlantic cod spawning in Southern New England offshore wind areas [Conference presentation]. NYSERDA State of the Science Workshop, Tarrytown, NY, United States). This data indicates that spawning condition cod were captured both within and adjacent to the NE Wind lease area during the Vineyard Wind/NE Wind (Avangrid Renewables) pre-construction fisheries surveys completed with SMAST. The presence of ripe and ripe & running cod in the trawl indicates that spawning occurs within the immediate vicinity of captured spawning condition cod; however, surveys to detect the location of spawning aggregations have not yet been conducted in this area. Van Hoek et al. (in press) have identified that spawning activity in the vicinity of Cox Ledge begins in November with active spawning occurring during daylight hours when pile driving would be expected to occur, and note that a time of year restriction is the most successful measure available to minimize pile driving impacts on spawning aggregations even with other mitigative measures available, including bubble curtains. This analysis should be incorporated into the FEIS. Additionally, the provided references appear to be incorrect, misinterpret information contained within them, and/or are based on outdated information. For example, the Fahay et al. (1999) citation is for a different species (bluefish), and the correct citation - Fahay et al. (1999) "Atlantic Cod, Gadus morhua, Life History and Habitat Characteristics" - does not include the information that is cited in the rationale. Fahay et al. (1999) formed the basis of original EFH text description for Atlantic cod that stated: "Spawning Adults: Bottom habitats with a substrate of smooth sand, rocks, pebbles, or gravel in the Gulf of Maine, Georges Bank, southern New England, and the Mid-Atlantic south to Delaware Bay as depicted on the map below. Generally, the following conditions exist where spawning cod adults are found: Water temperatures below 10° C, depths from 10 - 150 meters, and a wide range of oceanic salinities. Cod are most often observed spawning during fall, winter, and early spring." The recently updated EFH text descriptions merged the spawning life history stage text description into the adult EFH text descriptions. The updated adult cod EFH text description states: "Adults: Sub-tidal benthic habitats in the Gulf of Maine, south of Cape Cod, and on Georges Bank, between 30 and 160 meters (see Map 41), including high salinity zones in the bays and estuaries listed in Table 19. Structurally complex hard bottom habitats composed of gravel, cobble, and boulder substrates with and without emergent epifauna and macroalgae are essential habitats for adult cod. Adult cod are also found on sandy substrates and frequent deeper slopes of ledges along shore. South of Cape Cod, spawning occurs in nearshore areas and on the continental shelf, usually in depths less than 70 meters." The information presented, which suggests complex habitat is required for cod spawning, is inaccurate and should be modified in the FEIS. While recent studies have noted that complex habitats adjacent to spawning aggregation areas may be used during periods of rest, there has been no linkage to a requirement for complex habitats and such a requirement was not included in the EFH text descriptions or the recently proposed HAPC for cod spawning in SNE. We do not recommend citing a prior EIS generated for another project (BOEM VW FEIS), as supporting rationale for dismissing this alternative, as new information related to the occurrence of cod spawning activities within and adjacent to the lease area have since become available (e.g. Van Parijs et al. 2022, and Van Hoek et al. (in press)). Information related to spawning activity in the lease area was not known at the time of the VW1 project review. We recommend any reference, or reliance on such information be removed from the provided	Alternative 8 would have required the largest available WTGs to minimize the number of foundations constructed to meet the proposed Project capacity, minimize impacts on marine habitat and resources, and reduce navigation and other space-use concerns. It was determined that there is no scientific evidence that this alternative would not avoid or substantially lessen one or more significant environmental impacts of the proposed project and would not be economically feasible or practicable. BOEM will ensure that all issues and concerns raised regarding Atlantic Cod and North Atlantic right whales are fully addressed with the preferred alternative.

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rationale. We also recommend BOEM reconsider the basis for rejecting this alternative using the most-up-to-date and accurate information.	
Resource monitoring surveys/gear utilization and UXOs (noise and habitat impacts) are missing from the list of IPFs. Resource monitoring surveys may be included in the Anchoring and Gear Utilization IPF per the table but it should be split out as its own IPF.	The suggested edits have been made to Section 3, Table 3.1-1 in Final EIS.
After the end of the 3rd sentence ("in the preferred alternative"), please add language along the lines of: "If any mitigation measures are analyzed in the impact analyses and those measures influence the impact determinations, those measures will be included in the preferred alternative." Any mitigation and monitoring terms that influence the impact conclusions and final agency decision need to be committed measures in order for the assumptions and conclusions of the analysis to be accurate. They are not optional measures. This comment has been made previously in other EISs.	The suggested text has been added to Final EIS Section 3.2.
The Geographical Analysis Area was selected to include a 10-mile radius around the SWDA and the OECC. This section states that these buffers will account for benthic invertebrate larval transport, however, recent studies suggest that several larval invertebrate species present in this area can be transported for much further than 10 miles. For example, surfclams can drift 119 km along shore (1.5-10km inshore/offshore) (Zhang et al., 2015), while scallops can travel 100s of km (Tian et al., 2019) and lobsters can travel up to 280 km (Incze and Naimie, 2000). As such, a much larger larval distribution buffer (and thus a larger GAA) is needed for this section that takes into consideration the best available science and information for species present in this area. Additionally, the DEIS should clarify if this 10-mile radius is used to evaluate the cumulative analysis or impacts to benthic resources from the proposed action itself.	While some species have certain life stages that may have a larger range than 10 miles, as discussed in Final EIS Section 3.4.2.3, the vast majority of the Project's impacts to benthic resources would occur and be detectable within a 10-mile radius of the Project footprint. Therefore, a Geographical Analysis Area of 10 miles for benthic resources is adequate for evaluating the projects impacts to benthic resources. The following clarifying text has been added to Final EIS Section 3.4.1: "Some species have ranges that extend beyond the GAA at certain life stages such as larval invertebrates (Zhang et al. 2015 and Incze and Naimie 2020); however, this analysis focuses on impacts within the Geographic Analysis Area." Clarifying language was also added to Final EIS Appendix D.
A map and associated information is provided for the benthic resources and habitat types within the GAA, SWDA, and OECC for Phase I. However, this information is not provided for Phase 2 which includes the SCV route. Because the SCV is included in several of the sub-alternatives, any available information on benthic habitat types in this area, including potential landing area and corridors in state waters, should be identified for a complete impacts analysis.	The South Coast Variant is currently included as one of several possible cable route scenarios for Phase 2 of the Project; however, the Project would only use the South Coast Variant if technical, logistical, grid interconnection, or other unforeseen issues arise during the COP review and engineering processes. More information on the South Coast Variant and what factors would be considered prior to choosing this cable route are discussed in COP Vol I, Section 4.1.3.3. If the South Coast Variant is chosen, additional NEPA analyses and COP modifications would be needed to evaluate the impacts of installing export cables through this area.
Under the Accidental Releases portion of the Cumulative Impacts, the DEIS mentions that "best management practices (BMPs) for waste management and mitigation of marine debris would be required and would reduce this risk." Please elaborate or provide information/references to these BMPs or provide specific mitigation measures that would be implemented.	The mitigation and monitoring measures that the applicant has committed to implement (including and in addition to those defined in the COP) are listed in Table H-1. Mitigation and monitoring measures that may result from reviews under the statutes listed above are shown in Table H-2. Text has been added which refers to Table H-2 in Appendix H. Similar mitigation measures, such as those detailed in Appendix H will be followed by each planned offshore wind project.
Please provide a reference for the following information in the Accidental Releases section, "In the event of an accidental release (e.g., small fuel spill), the contaminant could be transported,	The most recent source has been included and the text revised.

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adhere to particulates in the water column, and eventually sink to the seafloor, possibly resulting in elevated sediment hydrocarbon concentrations but not likely at levels that would affect benthic communities. In most cases, the corresponding impacts on benthic resources within the geographic analysis area are unlikely to be detectable unless there is a catastrophic spill from ongoing activities (e.g., an accident involving a tanker ship)."	
Presence of Structures - The final paragraph under this IPF suggests that offshore wind development could result in the regulatory exclusion of some currently fished areas from future fishing, and that the impacts of fishing would not occur in those areas under that scenario. While fishing may need to halt in certain areas during the construction phase and certain gears may have a more difficult time operating within wind farms, there are no current fishery management actions that would exclude fishing within wind farms via fishing regulations. Additionally, this paragraph does not differentiate the impacts of fishing (a temporary alteration of the seafloor) from the impacts of offshore wind (permanent conversion of the seafloor). There may be physical impacts from fishing, but offshore wind has physical, electromagnetic, noise, and vibratory impacts, among others. The scale, duration, and diversity of the impacts are different for the two activities and they are not interchangeable. Any fishery regulations would be directed at reducing fishing mortality on affected species and will analyzed through separate NEPA documents if and when such actions are developed by state or regional fishery management bodies. Please consider removing the last two sentences of this paragraph.	The suggested edit has been made in the Final EIS.
Accidental Releases - The DEIS should evaluate the potential for the Proposed Action to facilitate the establishment and range expansion of non-native species. This should include a discussion of the stepping stone effect. Please review and incorporate relevant literature. Statements made should be supported by scientific evidence.	The text on invasive species was expanded with references added.
This section states that "little is known about the potential impacts of EMF on benthic resources, although the available information suggests that field strengths expected from Phase 1 would be below levels shown to cause impacts." However, field strength levels expected from Phase 1 are not explicitly provided. A previous paper is referenced in a previous section that presumably presents these field strength levels, however, we recommend providing the EMF field strength levels anticipated from Phase 1 (as well as Phase 2) within the FEIS in order to be clear and transparent of anticipated impacts. Please review and incorporate the current literature into the discussion of potential impacts of EMF on benthic resources. Statements made should be supported by scientific evidence.	Project-specific EMF levels were included as well as supporting literature from recent studies.
Please provide a reference for the following statement: "The seafloor would be disturbed by cable trenches, skid tracks, and spud prints. Although active construction would temporarily disturb benthic habitat, non-complex habitats would rapidly return to pre-Project conditions following impacts from burial."	Citations and text referring to benthic recovery have been added.
Noise – Please provide a more in-depth discussion of the potential noise impacts on benthic resources including substrate vibration and support statements with scientific evidence. Impacts of noise should also be analyzed for all phases of development including Pile Driving, G&G, O&M, Cable Laying/Trenching, and Decommissioning.	Noise is addressed at the same level of detail provided within the COP and is supported by recent literature. Additional text and citation were added.

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This section states that the applicant is considering the use of a bubble curtain for far-field noise mitigation. Please confirm/clarify whether or not the applicant will utilize this mitigation measure during construction. Currently, a description of the mitigation measure is provided, but it is uncertain whether this technique will actually be used and therefore cannot be fully considered when evaluating mitigation measures for this IPF. It is unclear if BOEM is considering this mitigation measure as part of the proposed action when making the impact level determination.	The applicant will implement noise attenuation mitigation technologies to reduce sound levels by an approximate target of 12 decibels or greater. Bubble curtains is one potential noise attenuation technology that could be implemented. Applicant-proposed mitigation measures are discussed in Final EIS Appendix H, Table H-1.
Presence of Structures – Please include an analysis of both local and broad scale hydrodynamic (i.e., wind wakes) effects, the potential for the establishment and range expansion of non-native species, habitat conversion, artificial reef effect, and the modification of the prey field and diet for upper level predators. Please also include relevant supporting literature to support statements made. There is a growing body of knowledge on these topics and the majority of this information is missing from the analysis.	The analysis of impacts from presence of structures on benthic resources includes hydrodynamic effects, the potential for establishment and range expansion of non-native species, habitat conversion, and artificial reefs. Additional text has been added to Final EIS Section 3.4.2.3 regarding diet modification for upper level predators. Supporting literature is also included in this section.
The analysis of the Phase 2 portion of the project in this section is incomplete and missing relevant details. This is inconsistent with how Phase 2 is treated in other sections where there is some discussion of the actual project parameters of Phase 2 and ensuing impacts. This section should be revised for the FEIS to clearly address all IPFs and effects from Phase 2 of the project on benthic resources. Simply stating that the impacts will essentially be the same as Phase 1 but marginally larger is not an analysis of project effects. We recommend that BOEM comprehensively analyze activities associated with Phase 2 in the FEIS. If Phase 2 is being considered in the EIS as part of the proposed action for which BOEM has a decision on whether to approve, disapprove, or modify the COP, we recommend that the FEIS fully describe and analyze the effects of all Phase 2 activities. This is particularly important when considering the effects of activities that will be different between the two phases, such as pile driving noise (Phase 2 considers larger diameter piles), different foundation types (Phase 2 considers using suction bucket anchoring), and different cable routes.	Phase 1 and Phase 2 of the Project are discussed in each resource section of Chapter 3. Where they exist, the differences between the Phases are called out and differing impacts are discussed. Overall, activities associated with Phase 1 and Phase 2 are similar in nature and addressed accordingly in the Final EIS. BOEM will further review the resource sections of Chapter 3 to make sure the activities and associated impacts of Phase 1 and 2 are discussed appropriately.
Please provide a complete analysis of benthic resources and potential IPFs for Alternative C. Simply stating that the cumulative impacts of both Alternative C-1 and C-2 would be similar to those of Alternative B does not allow the reader to understand how impacts to benthic resources may differ from the proposed action. Different areas, habitats, and species would be impacted through Alternative C and thus must be evaluated individually. Additionally, there is currently not enough information provided to support the determination of "negligible to moderate and moderate beneficial" impacts for this alternative, as components of the alternative under consideration remain unknown.	Phase 2 offshore export cable scenarios are provided in Final EIS Table 2.1-2 and the scenarios corresponding to each Alternatives are addressed in Table 2.1-1. A description of how each Alternative impacts benthic habitat is addressed in Final EIS Section 3.4.2.4.
Please ensure that impacts determinations are provided for each IPF under each alternative and that these determinations accurately reflect the information presented in your analysis as there are some discrepancies and inconsistencies throughout this section. Some examples include: Page 3.4-7 under Accidental Releases which states, "the overall impacts of accidental releases on benthic resources are likely to be localized and short term, resulting in undetectable changes to benthic communities." However, in the analysis above you state that impacts from "establishment of a [released] invasive species on benthic resources could be strongly adverse, widespread, and permanent." These two statements, as well as other information within the	Impact determinations for the Proposed Action are provided under each IPF, and have been reviewed. The discussion about accidental release for example is evaluating the small potential of accidental release in the No Action Alternative, so not project specific impacts. Each of the planned wind farm projects, through the BOEM permitting process, will have to follow noise mitigation measures. Similar mitigation measures, such as those detailed in Appendix H will be followed by each planned offshore wind project.

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analysis, are inconsistent. Additionally, on page 3.4-11 under Noise, it states that "noise transmitted through water and/or through the seabed is assumed to have the potential to cause injury and/or mortality to benthic resources..." and may cause "...behavioral changes [that] could affect the same populations or individuals multiple times in a year or in sequential years." However, you do not provide a clear impact determination for this IPF. Clear and accurate impacts determinations for each IPF based on a thorough analysis and the best available science are needed in order for NMFS to provide a complete review of impacts to trust resources and to properly evaluate alternatives. Please be sure to adhere to the criteria and guidance presented in Table 3.4-1: Impact Level Definitions for Benthic Resources when assigning impact determinations.	
Please ensure descriptions of proposed mitigation measures are provided if they are to be considered in overall impacts determinations. For example, on page 3.4-15 under Anchoring and Gear Utilization, it states "BOEM assumes that survey procedures would have sufficient mitigation procedures in place to reduce potential impacts including, but not limited to, avoidance of sensitive benthic habitats." However, no description or reference to these mitigation procedures is provided.	The mitigation and monitoring measures that the applicant has committed to implement (including and in addition to those defined in the COP) are listed in Table H-1. Mitigation and monitoring measures that may result from reviews under the statutes listed above are shown in Table H-2. Some of these mitigation and monitoring measures are outside of BOEM's statutory and regulatory authority but could potentially be adopted and imposed by other governmental entities. Tables H-1 and H-2 provide descriptions of mitigation or monitoring measures, along with the resource or resources to which each measure applies. See Final EIS Appendix H, Table H-2, Measure 10 for more information.
There is limited information on benthic resources among the sub-alternatives considered. This is particularly true for the proposed SCV export cable which does not include a complete route or landing location. The incomplete analysis of the different cable routes under consideration make it difficult to understand and compare impacts of the alternative cable routes on benthic resources.	Final EIS Section 3.4.2.4 discusses the potential impacts to benthic resources from Alternative C-1 and C-2. Additional information on potential Phase 2 offshore export cable scenarios are provided in Final EIS Table 2.1-2. The South Coast Variant is currently included as one of several possible cable route scenarios for Phase 2 of the Project; however, the Project would only use the South Coast Variant if technical, logistical, grid interconnection, or other unforeseen issues arise during the COP review and engineering processes. More information on the South Coast Variant and what factors would be considered prior to choosing this cable route are discussed in COP Vol I, Section 4.1.3.3. If the South Coast Variant is chosen, additional NEPA analyses and COP modifications would be needed to evaluate the impacts of installing export cables through this area.
The GAA described in 3.5.1.2 and depicted in Figure 3.5-1 does not include areas impacted by the SCV. "Geological zones for the OECC" does not include the OECC for the SCV. Please update this information and these figures to reflect all potential landfall sites, coastal habitats, and fauna potentially impacted by each alternative in each phase of the Project.	The South Coast Variant is currently included as one of several possible cable route scenarios for Phase 2 of the Project; however, the Project would only use the South Coast Variant if technical, logistical, grid interconnection, or other unforeseen issues arise during the COP review and engineering processes. More information on the South Coast Variant and what factors would be considered prior to choosing this cable route are discussed in COP Vol I, Section 4.1.3.3. If the South Coast Variant is

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	chosen, additional NEPA analyses and COP modifications would be needed to evaluate the impacts of installing export cables through this area.
This section should include a discussion on impacts of potential invasive species releases.	The accidental release of invasive is discussed in Final EIS Section 2.6.2.1 and Section 3.6.2.3.
The impact determination for this section is based off of the assumption that methods would avoid the need for dredging. However, previously in this section you mention that "if sufficient burial is not achieved on the first installation pass, the applicant would make subsequent attempts, possibly using other installation techniques to achieve sufficient burial. In certain cases, alternative installation methods may be needed." We recommend that the impact determination reflect the potential for these alternative installation methods and provide a range of potential impact levels accordingly.	As noted in Final EIS Section 2.1.2.2, as part of the PDE, several cable installation methods could be used for the inter-array cables, inter-link cables, and offshore export cables. The applicant would typically use post-lay burial techniques for cables, which involve laying cable sections on the seafloor using a jet plow or jet trenching (or possibly a mechanical plow) to bury the cables. Other burial methods could be more rarely used, although the choice of installation method would depend on seafloor conditions and sediment characteristics (COP Volume I, Section 3.3.1.3). The ocean-to-land transition at each landfall site would employ HDD technologies to avoid or minimize impacts to the beach, intertidal zone, and nearshore areas.
This text states that "BOEM could require as a condition of COP approval, that the applicant restrict its dredging and cable installation methods and timing, as described in Appendix H, potentially in combination with additional habitat characterization." We support the use of time of year restrictions to avoid and minimize impacts to resources; however, it is unclear if BOEM plans to require time of year restrictions, and for what resources, or if it is considered in BOEM's impact level determination. Please clarify.	The mitigation and monitoring measures that the applicant has committed to implement (including and in addition to those defined in the COP) are listed in Table H-1. Mitigation and monitoring measures that may result from reviews under the statutes listed above are shown in Table H-2. Some of these mitigation and monitoring measures are outside of BOEM's statutory and regulatory authority but could potentially be adopted and imposed by other governmental entities. Tables H-1 and H-2 provide descriptions of mitigation or monitoring measures, along with the resource or resources to which each measure applies. See Final EIS Appendix H, Table H-2, Measure 10 for more information.
Please provide a source or reference for the conclusions/determinations made in this section.	The sources and references for this section have been included in the appropriate locations throughout Final EIS Section 3.5.2.3.
We appreciate that some level of analysis is provided for Phase 2 in this section and acknowledge that BOEM states they will provide a more detailed analysis of the impacts of the SCV and the Phase 2 OECC and OECR in a supplemental NEPA analysis. The DEIS currently does not provide an evaluation of impacts to coastal habitats and fauna for Phase 2 because the information presented in this section does not fully consider all aspects of the alternatives is presented.	Final EIS Section 3.5.2.3 discusses Phase 2 impacts from the Proposed Project on coastal habitats and fauna. If the South Coast Variant is chosen, additional NEPA analyses and COP modifications would be needed to evaluate the impacts of installing export cables through this area. More information on the South Coast Variant and what factors would be considered prior to choosing this cable route are discussed in COP Vol I, Section 4.1.3.3.
Please provide a description or a map of SSU habitats within the proposed Project area (including SCV and associated corridors/landfall sites). Avoidance of such habitats is mentioned throughout this section, however, no identification of the locations of these habitats within the Project area is provided. This information should be present within the EIS and not just referenced in the COP.	The proposed Project's cable corridor survey data were compared to existing data to assess the potential for SSU habitats in the immediate vicinity of the OECC. The proposed OECC and historically mapped sensitive areas provided by Massachusetts are shown in COP Volume II, Appendix A. The areas of habitats within 328 feet of the offshore export cable centerline are provided in Final EIS Section 3.5.1.2, Table 3.5-1.
This section does not fully describe and highlight the importance of the varying characteristics and habitats within the Project area that my impact specific fin fish and invertebrates. Analyses	Section 3.6.1 of the EIS provides a description of the different habitats located within the GAA that are necessary for the impact determinations. It

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overall are brief and would benefit from consideration of all relevant project details. Clear and robust definitions of the lease area and identification of different Project region habitats are necessary to meaningfully and accurately distinguish and evaluate impacts among the alternatives under consideration. We recommend providing a thorough characterization of the Project area, including a more refined description of the diverse benthic habitat be incorporated into the alternatives analysis in the FEIS. Additionally, we recommend that available figures (i.e. backscatter, boulder locations) be included to provide a clear distinction between the variation in habitat types and resources present in the Project area that could impact finfish, invertebrates, and EFH. This distinction should then be considered in the analysis of project impacts and comparison of alternatives.	is not intended or necessary for an encyclopedic description of all habitat. For additional description of habitats, please refer to the COP. Chapter 2 provides a detailed description of each alternative analyzed and therefore, it is not needed within each resource section. For additional discussion and details on the various benthic habitats please refer to Section 3.04, Benthic Resources. In addition, the level of habitat characterization and impact analysis is commensurate with other BOEM wind Farm Final EISs.
The analyses in this section lack substantive evaluation of impacts likely to occur to Atlantic cod spawning activity. The evaluation and analysis of project activities should be revised to include an evaluation and analysis of all activities that could disrupt spawning activity and should be based on the best available information (see comments and references identified in our letter and under Chapter Two PDF page 78-79 in the comment table). Particular emphasis should be placed on activities that will result in benthic disturbance or generate noise as such activities may disrupt aggregations or mask vocalizations. Further, spawning cod exhibit strong site-fidelity to spawning grounds. The potential for abandonment of the spawning grounds within the lease area due to the extensive modification of habitats under the proposed action should be acknowledged and included in the analysis. We recommend the FEIS evaluate additional mitigation measures, including time of year restrictions for construction activities to avoid impacting Atlantic cod spawning activity. In addition, a more robust analysis of project impacts to all life stages of species of Atlantic cod (e.g., egg and larvae) that overlap with the project area is recommended. This includes acknowledgment of the amount and location of Project area overlap with Atlantic cod HAPC. It is stated that Phase 1 could affect HAPC for juvenile Atlantic cod, but the total amount of HAPC is unknown. This information is necessary to evaluate impacts to these habitats. Please provide a more robust analysis of potential juvenile Atlantic cod HAPC impacted for both Phase 1 and Phase 2, including the extent of HAPC to be impacted.	A discussion regarding potential impacts to Atlantic Cod spawning activity is included in Section 3.6.2.1 of the EIS including noise and bottom disturbing activities.
The EIS should identify all Habitat Areas of Particular Concern (HAPC) overlapping with the project and evaluate whether construction, operation, and decommissioning of the New England Wind project would adversely impact such habitats and, if so, consider measures which would minimize that negative effect. The project overlaps with HAPC for summer flounder, and juvenile cod, and the recently approved HAPC for spawning cod and complex habitats. The NEFMC approved an HAPC that is focused on protecting two elements - 1) complex habitats; and 2) cod spawning activity - from the anthropogenic pressure and development in Southern New England, specifically offshore wind development. To be considered for an HAPC designation, the 2002 EFH regulations (50 CFR Part 600.815(a)(8)(i)-(iv)) requires one or more of the following four criteria to be met: 1) importance of historic or current ecological function for managed species; 2) sensitivity to anthropogenic stresses; 3) extent of current or future development stresses; and/or 4) rarity of the habitat type. As described in detail in the NEFMC's Draft Submission to us dated August 22, 2022, the Council's approved HAPC meets all four of	Section 3.6.1.3 of the EIS includes a discussion of the HAPCs along with the overlapping acres within the project footprint and their location within the project area and the potential impacts are discussed in the detailed IPF discussions where applicable in Section 3.6.2.3.

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these criteria for the designation of an HAPC for Atlantic cod spawning activity and three of the criteria for the designation of an HAPC for complex habitat. The Council's approved HAPC applies to any area where cod spawning activity is identified (based upon specified criteria) regardless of the habitat type where spawning occurs. This is particularly important to clarify as cod spawn over a variety of habitat types and use different habitat types within aggregation areas. These HAPCs should be accurately described and impacts evaluated in the EIS.	
Section 3.6.1.3 EFH states that HAPCs for summer flounder occur within the OECC. However, section 3.6.2.3 (Cable Emplacement) states that Phase 1 would not affect beds or loose aggregations of eelgrass EFH HAPC for juvenile and adult summer flounder because Phase 1 would avoid eelgrass aggregations. Please provide a more information on eelgrass in the project area, including distance of eelgrass from proposed activities, and measures proposed to avoid eelgrass habitats. It should also be noted that HAPC for summer flounder also includes macroalgae, but it unclear if the project will avoid these areas well. It is unclear if or how summer flounder HAPC, including eelgrass beds, would be affected by Phase 2 of the project. The FEIS should clearly describe impacts to submerged aquatic vegetation (SAV) from Phase 1 and 2 and describe how impacts to these habitat will be avoided. If impacts are anticipated, mitigation plans should also be described.	While eelgrass has been identified near the landfall locations, at this time, no impacts to eelgrass are expected during the course of project development. Locations where eelgrass has been identified is provided in Section 3.4.1.1 in the Final EIS. Potential impacts to eelgrass are detailed in the Project-specific EFH Assessment, including requirements for additional surveys prior to construction and potential minimization and mitigation measures should eelgrass be identified.
The Geographic Analysis Area does not match the scale of project activities. The analysis area provided spans the entire southern New England sub-region of the Northeast U.S. Continental Shelf Large Marine Ecosystem (LME), which extends from the southern edge of the Scotian Shelf (in the Gulf of Maine) to Cape Hatteras, North Carolina. However, the project area is a much smaller subset of this area. The large size of the analysis area may dilute the effects of the project specific impacts to finfish and EFH, especially when making conclusions such as "The affected area for gravel or hard bottom would be less than 0.1 percent of the total area of that type of sediment." We recommend providing a more reasonable GAA that allows for a more meaningful evaluation of the impact producing factors (IPFs) of the proposed action and alternatives.	The Geographic Analysis Area for each resource is depicted and/or described within each associated resource section to provide context on their extent. The effects of the Project on each resource is described in each resource section.
The Vineyard Wind 1 biological assessment (BOEM 2019c) is not a NOAA document and thus should not be attributed as such. The bullet point about ESA-listed species occurrence should list all ESA-listed species by name and should be specific to the proposed action, encompassing the area/waters where all project activities will occur. Additionally, it states that four species occur, however, five species are listed on page 3.6-5.	The EIS has been changed to clarify that the Vineyard Wind 1 BA is a BOEM document. ESA listed and candidate species are listed in the Vineyard Wind 1 BA. Four species are presented in the Section 3.6.1.
Distinct population segments (DPS) is not the appropriate term to describe species that occur in New England/MAB; "region" should be used instead. Ensure that the entire action area is being considered for listed species occurrence, inclusive of all vessel routes. Additionally, this section should list the DPSs of listed species that may occur in the action area. This pertinent to Atlantic sturgeon (all) and Atlantic salmon (Gulf of Maine DPS). The DEIS should contain a summary of the findings in the BA. If the BA will not be included as an appendix to the final document, we encourage BOEM to make the BA publicly available on the New England Wind webpage (not just on the ESA consultation page) so that the information can be easily referenced by the public.	The EIS has been changed based on recommendations. The BA has been referenced and will be publicly available once it has been finalized.

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Shortnose sturgeon and Atlantic salmon (if vessel transit routes include the Gulf of Maine) are missing from the list of species that may be affected. Resource monitoring surveys are missing from IPFs listed under all the Alternatives. Impact determinations should be made for all listed species that may occur in the action area and for all IPFs, not just for two species under one IPF (giant manta ray and oceanic whitetip shark - Noise). Additionally, include citations to support the assertions about impacts. The use of BOEM 2022d is not a clear reference to support the statement that all IPFs and impacts on finfish and EFH apply to listed species as it is the BA to support ESA consultation and does not consider effects to finfish that are not listed under the ESA or EFH. We suggest including a clarifying sentence how BOEM 2022d is a relevant reference.	The EIS has been updated to address these two ESA species.
The analysis of the Phase 2 portion of the project in this section is incomplete and missing relevant details. This is inconsistent with how Phase 2 is treated in other sections where there is some discussion of the actual project parameters of Phase 2 and ensuing impacts. This section should be revised for the FEIS to clearly address all effects and IPFs of Phase 2 of the project on benthic resources. Simply stating that the impacts will essentially be the same as Phase 1 but marginally larger is not an analysis of project effects. We recommend that BOEM comprehensively analyze activities associated with Phase 2 in the FEIS. If Phase 2 is being considered in the EIS as part of the proposed action for which BOEM has a decision on whether to approve, disapprove, or modify the COP, we recommend that the EIS fully describe and analyze the effects of all Phase 2 activities. This is particularly important when considering the effects of activities that will be different between the two phases, such as pile driving noise (Phase 2 considers larger diameter piles), different foundation types (Phase 2 considers using suction bucket anchoring), and different cable routes. Specific to the discussion of the South Coast Variant (SCV) route, it is stated that the SCV will disturb up to 329 acres of seafloor and that the impacts of SCV construction on finfish, invertebrates, and EFH would be similar to those for the Phase 2 OECC. The impacts would range from negligible to moderate and would be highest if EFH cannot be avoided. If it is unclear how the disturbed acreage and potential impacts of the SCV are calculated if the route is not finalized at this time and it is in a different location than the other potential cable routes. It is important to note that the SCV may transit through Buzzard's Bay, which will impact an estuary, and associated estuarine resources. Additionally, EFH is designated along the entire range of the export cable routes considered for both Phase 1 and Phase 2 so impacts to EFH cannot be avoided. The DEIS does not present enough information to support the conclusion stated in the document related to impacts to EFH from Phase 2 of the project.	Phase 1 and Phase 2 of the Project are discussed in each resource section of Chapter 3. Where they exist, the differences between the Phases are called out and differing impacts are discussed. Overall, activities associated with Phase 1 and Phase 2 are similar in nature and addressed accordingly in the Final EIS. The South Coast Variant is currently included as one of several possible cable route scenarios for Phase 2 of the Project; however, the Project would only use the South Coast Variant if technical, logistical, grid interconnection, or other unforeseen issues arise during the COP review and engineering processes. More information on the South Coast Variant and what factors would be considered prior to choosing this cable route are discussed in COP Vol I, Section 4.1.3.3. If the South Coast Variant is chosen, additional NEPA analyses and COP modifications would be needed to evaluate the impacts of installing export cables through this area.
Shortnose sturgeon and Atlantic salmon (if vessel transit routes include the Gulf of Maine) are missing from the list of species that may be affected. Additionally, there is no analysis of the proposed action effects to listed fish species, the DEIS only presents unsupported conclusory statements. These statements also do not cover all relevant IPFs nor take into consideration any mitigation and monitoring measures. It is also unclear why a table summarizing ESA effects determinations for listed marine mammals is presented in this section about finfish, perhaps an error? Additionally, many IPFs (UXOs, resource monitoring surveys, benthic/habitat disturbance, etc.) are missing from the table. The DEIS should contain a summary of all the	The EIS has been updated to address these two ESA species.

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relevant findings/IPFs in the BA. We suggest that additional context be provided to explain how the ESA effects determinations correspond with NEPA impact levels laid out at the beginning of the resource section.	
Accidental Releases – This section should evaluate the potential for the Proposed Action to facilitate the establishment and range expansion of non-native species. This should include a discussion of the stepping stone effect. Please review and incorporate relevant literature. Statements made should be supported by scientific evidence.	The EIS has been updated to discuss the potential for nonnative species and the stepping stone effect.
Please provide more support to the conclusion that the permanently altered seabed profile would result in a minor level of impact to finfish, invertebrates, and EFH.	The EIS has been added to additional support.
EMF – This section should include a more in depth analysis of EMF particularly as it relates to EMF sensitive species in the region. This should include potential effects on movement patterns and migration. The body of knowledge on this topic is continuing to grow to include additional species and life stages. This information should be included (e.g., Cresci et al. 2022, https://doi.org/10.1093/pnasnexus/pgac175; Harsanyi et al. 2022, https://doi.org/10.3390/jmse10050564	A discussion of EMF and the potential effect on fish and invertebrates is included in Section 3.6.2.1 of the EIS. Additional discussion regarding EMF has been added.
There is some discussion in this section about the impacts of noise on eggs, embryo, and larvae, but no specific discussion of the impact of noise on cod spawning even though the OECC and lease area will overlap with juvenile cod HAPC and HAPC recently approved by the NEFMC for cod spawning.	Noise impacts associated with the Project's WTG operation and vessel noise was found to be minor. Noise associated with the Project and its potential impact on fish, invertebrates, and EFH are addressed in Final EIS Section 3.6.2.3.
Noise – This section should include discussion on the potential for noise to mask communication and the resulting effects on feeding and reproduction; There should also be some analysis of particle motion as well as effects of substrate vibration on early life stages. Relevant literature includes, e.g., de Jong et al. 2020, doi.org/10.1007/s11160-020-09598-9; Siddagangaiah et al. 2021, doi: 10.1002/rse2.231; Stanley et al. 2020, doi.org/10.1242/jeb.219683; Sigray et al. 2022, doi.org/10.1016/j.marpolbul.2022.113734; Sole et al. 2022, doi.org/10.1016/j.envpol.2022.119853; Hawkins 2022 https://doi.org/10.1121/10.0013994	A discussion regarding particle motion has been added to Section 3.6.2.3 of the Final EIS.
Noise/Operational Phase – Regarding this sentence: “That compilation found that the combined noise levels from multiple turbines is lower or comparable to that generated by a small cargo ship (Tougaard et al. 2020).” Please describe how the turbine size at the New England Wind project compares to those in Tougaard et al. 2020. Turbine size will affect the amount of noise emitted during operation.	As stated in Section 3.6.2.3 of the EIS, Tougaard et al. 2020 includes that the turbine size affects the noise emitted and looked at a variety of wind farms internationally with different turbine sizes and included 0.2 MW to 6.15 MW turbine sizes in the modeling and analysis.
Presence of Structures/Non-native species – This section should evaluate the potential for the Proposed Action to facilitate the establishment and range expansion of non-native species. This should include a discussion of the stepping stone effect. Please review and incorporate relevant literature. Statements made should be supported by scientific evidence.	Additional text was added to Final EIS Section 3.6.2.3 regarding invasive species and stepping-stone effect.
Presence of Structures/Hydrodynamics – It should be noted that NMFS has suggested that the Johnson et al. 2021 report undergo an open and transparent peer review process. Currently, this report has not undergone peer-review.	Additional text has been added to Final EIS Section 3.6.2.3 to provide more clarity.

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Presence of Structures/Hydrodynamics – This discussion should include a discussion on potential effects on thermohaline stratification and potential impacts to primary and secondary production (See Daewel et al. https://doi.org/10.21203/rs.3.rs1720162/v1 and the potential scale of wind wake effects (10's of km from the wind farm).	Discussion about the results from hydrodynamic models has been added to Section 3.6.2.3 of the Final EIS, including Daewel et al. 2022 and similar studies. Text has also been added to briefly address the differences between the modeled North Sea turbines, and the aquatic setting of the Proposed Action.
Presence of Structures – In regards to this sentence: "The potential impacts of wind energy facilities on offshore ecosystem functioning have been studied using simulations calibrated with field observations (Raoux et al. 2017; Pezy et al. 2018; Wang et al. 2019)" -- Only Wang et al. 2019 reported post-construction patterns. No wind farms have been built yet in the study area of the other two papers cited so there has been no "field calibration." Also, note that Wang et al. 2019 concluded that there would be both adverse and beneficial effects on the ecosystem. If using this citation in the analysis, then both beneficial and adverse effects should be presented.	References have been corrected and additional text has been added to discuss the potential beneficial and adverse effects from the presence of structures.
NMFS has released the draft 2022 SARs. Please update the FEIS with the new NARW information in tables and in text (e.g., annual M/SI rate on page 3.7-8). Also update the FEIS closer to publishing with all UME numbers.	Final EIS Section 3.7 has been updated with the most recent SAR.
NMFS has released the draft 2022 SARs. Please update the FEIS with the new NARW information in tables and in text (e.g., annual M/SI rate on page 3.7-8). Also update the FEIS closer to publishing with all UME numbers.	Final EIS Section 3.7 has been updated with the most recent SAR.
NMFS appreciates this table as it makes our action very clear. However, Park City Wind has requested a small amount of take for a number of rare species that are not included here. Our proposed rule isn't out yet but we ask the species included in Table ES-3 of Park City Wind's application be included in this EIS table. For these rare species, including blue whales, NMFS suggests identifying how that the impact of the IPFs on these species is expected to be similar for other marine mammals of their group (e.g., mysticetes, odontocetes, pinnipeds).	Final EIS Section 3.7.1 has been updated to indicate that rare species with take assessed in the MMPA LOA application are considered relative to their group (i.e., mysticetes, odontocetes, pinnipeds). Additionally, all species (including rare) have been added to Table 3.7-1. However, these species have not been added to Table 3.7-3 since this table is only focused on commonly occurring species within the OECC and SWDA.
The No Action Conclusions section makes impact determinations on the baseline conditions of marine mammals. However, it is missing an impact determination on not approving the COP (i.e., the incremental impact of taking No Action). NMFS advises adding a paragraph along the lines of the following: "Under the No Action Alternative, BOEM would not approve Park City Wind's COP. Hence, stressors from construction, operation, and maintenance of the New England Wind Project would not occur. Baseline conditions of the existing environment would remain unchanged. Hence, not approving the COP would have no additional incremental effect on marine mammals. Similarly, NMFS No Action alternative (i.e., not issuing the requested incidental take authorization) would also have no additional incremental impact on marine mammals and their habitat."	The EIS has been updated in the No Action Alternative introduction section to address this comment, which has been additionally edited for clarity.
Ongoing offshore wind activities within the geographic analysis area should also include the site assessment (G&G surveys, fisheries surveys) activities that are ongoing.	Ongoing site assessment and site characterization surveys (e.g., geotechnical and geophysical surveys, habitat monitoring surveys, fisheries monitoring surveys) have been added to the list of ongoing offshore wind activities.
Please cite/provide a source used for background information of sound.	The EIS has been updated to include primary sources for background information on sound.

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Vibratory Pile Driving - Please include more detail to support the conclusion that vibratory pile driving is not expected to be long lasting or biologically significant to marine mammal populations.	The EIS has been updated to provide more supportive information for that impact determination
The Summary of Noise section omits UXOs. In addition, NMFS encourages that mitigation measures be required that would avoid the potential for mortality and non-auditory injury that is identified as a potential impact on page 3.7-28.	Section 3.7.2.1 of the EIS discussed UXOs. Additionally, mitigation will be specific to the project so UXO mitigation is only discussed in detail for the Proposed Action in Section 3.7.2.3, but the overall discussion of UXO in Section 3.7.2.1 has been updated
Please provide an updated sources for vessel strikes and mortalities of the North Atlantic right whale. The same statistic is used again on page 3.7-50 (228) and should be updated.	Final EIS Section 3.7.2.3 the text and data related to NARW mortality resulting from vessel strike has been edited and updated.
Conclusions - A more thorough explanation is needed to support the conclusion. It is unclear when/how the IPF stressors would be removed under the No Action alternative, as it describes impacts from current regional trends. If this statement is only in regard to the completion of current offshore wind projects, it needs to be stated. A similar edit should be made with the conclusion specific to the North Atlantic right whale at the end of the paragraph.	Conclusions for the Impacts of Alternative A and the Cumulative Impacts of Alternative A have been updated for clarity and specificity, including impacts for NARWs.
Please provide more detail on any additional impacts caused by dredging.	The EIS analysis of dredging impacts has been expanded.
The statement "With noise mitigation and the additional proposed mitigation and monitoring measures, it is not expected any marine mammal would experience permanent impacts from pile driving such as PTS" is not accurate. Park City has demonstrated the potential for PTS from impact pile driving does exist and has requested take accordingly.	The EIS has been revised to indicate that, even with mitigation measures implemented, exposures leading to PTS is still possible
The statement "Vibratory setting and drilling would, therefore, result in minor impacts on marine mammals" appears to be made in consideration of the duration of the time these activities would occur. The analysis omits the potential results of exposure (e.g., ceasing foraging, decreased communication, masking, etc.) and the large spatial distances at which these behaviors may occur. NMFS suggests BOEM include a behavioral component in their analysis to further support (or alter) their impact finding.	The potential for behavioral disturbances was considered in the EIS; however, though the ranges to the behavioral disturbances are large, the overall duration of the exposure would be limited to a few hours a days for a portion of the total number of piles proposed during construction. Because of the limited duration of these activities relative to the full construction period, no prolonged changes in behavior are expected for any species. The text has been updated to address this.
The top of this page indicates that impacts are moderate for all mysticetes because the lower frequency of sound [emitted by vessels] overlaps with the most sensitive hearing range. However, in the pile driving section (a much louder sound sources also in low frequency ranges) the impact from pile driving is minor for NARWs (which is a mysticete). It is difficult to reconcile that noise from vessels has more of an impact than noise from pile driving.	The impact determinations for vessel noise have been updated to be minor for all marine mammals as no population level effects are expected, and pile driving would pose a greater acoustic risk for marine mammals
The EIS states "While the significance level of impacts would remain the same, BOEM could further reduce impacts on marine mammals by requiring as a condition of COP approval...." and "the use of noise-reduction technology....would reduce the area impacted..." It is unclear why BOEM is indicating that use of noise attenuation device would further reduce impacts when the use of such device is already considered in the analysis above (i.e., there is no analysis/impact conclusion for pile driving without use of noise attenuation system). It is also unclear why BOEM indicates that impact levels would still be the same regardless of impact mitigation and monitoring measures were prescribed. For example, the potential for mortality from UXO detonation certainly increases without any mitigation and monitoring as does more severe	The statement "While the significance level of impacts would remain the same, BOEM could further reduce impacts on marine mammals by requiring as a condition of COP approval...." has been removed as you are correct, all these mitigation measures were included in the assessment and contributed to the final impact determinations.

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impacts from pile driving (particularly for NARWs). NMFS recommends that if BOEM is not committing to include any mitigation at this time, the EIS include an analysis for each IPF with and without such mitigation for each IPF.	
The "minor" conclusion for vessel strikes during Phase 1 appears to be incongruous with the analysis initially presented in Alternative A and in the "traffic" section of Alternative B. Both sections identified vessel strikes with regards to NARW are likely during OSW activities. If the proposed measures are going to reduce the likelihood of vessel strikes please indicate to what level they will be reduced (0, negligible, etc.). If vessel strikes are unlikely (please further describe) due to the measures put in place, please explain why. Similar analysis can be found in other OSW EISs currently under development.	The analysis for vessel strike has been updated as follows: "With implementation of known and highly effective measures such as reduced vessel speeds and ships maintaining minimum distances from marine mammals, this impact is considered negligible for pinnipeds and odontocetes, as impacts would be barely detectable, and minor for non-listed mysticetes because impacts would be detectable but not lead to population-level consequences. As the death of a single NARW could lead to population-level consequences and the application of mitigation cannot rule out the potential for this to occur, this impact is considered major for NARW and moderate for all other listed mysticetes, whose populations would be expected to sufficiently recover."
The DEIS states that the effects of the presence of structures of Phase 2 will be the same as Phase 1. It is not fully described as to why/how that is the case. More detail should be provided in this section, as even though the number of foundations to be added under Phase 2 are close to that of Phase 1, the DEIS does not discuss that Phase 1 structures will also exist in the area where Phase 2 structures will be added. This will greatly increase the space occupied by structures, and will collectively increase most impacts such as migratory movements, altered fishing practices, and potential oceanographic effects. While this clarification might be more appropriate in a different section, it should be included under this resource.	The analysis for Phase 2 Presence of Structures IPF has been re-assessed and edited accordingly.
In regards to the table summarizing ESA effects determinations for listed marine mammals, many IPFs (UXOs, resource monitoring surveys, benthic/habitat disturbance, etc.) are missing from the table. The FEIS should contain a summary of all the relevant findings/IPFs in the BA. We suggest that additional context be provided to explain how the ESA effects determinations correspond with NEPA impact levels laid out at the beginning of the resource section. If the BA will not be included as an appendix to the final document, we encourage BOEM to make the BA publicly available on the New England Wind webpage (not just on the ESA consultation page) so that the information can be easily referenced by the public.	This table and accompanying text has been removed from the EIS as, without the accompanying analysis from the BA, is not necessary or justified in inclusion within this EIS.
The "minor beneficial impacts on marine mammals" is not in line with the conclusions in the earlier sections or in the impact determination tables.	Minor beneficial impacts had been reviewed in earlier sections for marine mammals (only applicable to the reef effect due to the presence of structures IPF). Language on beneficial impacts throughout has been edited and verified.
Please modify the "Conclusions" section for "Impact of Alternative B" with regards to referencing BOEM's BA. Currently this section reads as though the BA was written by and conclusions approved by NMFS. The BA is only a representation of BOEM's initial assessment and does not necessary reflect the determinations of other agencies (NMFS). Please modify the references to this document to only read "BOEM's BA" and "from the Bureau of Ocean Energy Management's Biological Assessment" (Table 3.7-12).	This table and accompanying text has been removed from the EIS as, without the accompanying analysis from the BA, is not necessary or justified in inclusion within this EIS.

Comment	Response
Please describe how a decreased disturbance of complex habitat lessens associated impacts from cable emplacement and maintenance, noise, and presence of structures to marine mammals.	The analysis of Alternatives C-1 and C-2 have been updated and edited accordingly.
Mitigation and monitoring measures are only briefly referenced with no analysis of their effectiveness. Additionally, measures that are mentioned in-text and in Appendix H are very sparse. Given the reliance on mitigation measures as part of the analysis, the lack of details regarding the actual measures, how they will be implemented, and their effectiveness is problematic and does not allow for a complete analysis. This should be addressed in the FEIS.	Additional text about the specific mitigation measures that would be implemented under the Proposed Action for applicable IPFs in Section 3.8.2.3 has been added with discussion of how this contributed to the impact determinations.
Overall, the analyses of each IPF would benefit from a more well-reasoned and organized analysis to understand the various impacts of the proposed project over the three phases (construction, O&M, and decommissioning). As part of this analysis, seasonality of the impacts and sea turtle biology should be taken into consideration, along with applicable mitigation and monitoring measures.	The discussion of the IPFs in Section 3.8.2.3, where appropriate, has been updated to include more information about differences between the three phases (if any) and sea turtle presence/biology that would affect the impact determination.
NMFS biological opinions should not be cited to support impacts of the proposed action. Primary sources should be cited and independent analyses should be conducted.	The analysis of impacts for all alternatives assessed have been updated to cite primarily sources instead of referring to NMFS BOs.
The FEIS should contain a summary of the findings in the BA, not just state that a certain impact was analyzed in the BA. If the BA will not be included as an appendix to the final document, we encourage BOEM to make the BA publicly available on the New England Wind webpage (not just on the ESA consultation page) so that the information can be easily referenced by the public.	All references to the BA impact analysis with no accompanying discussion have been removed.
References should be reviewed throughout this section to ensure they are up to date and reflect the best available information. Summaries of sea turtle status are available in the most recent recovery plans and 5-year reviews prepared by NMFS and USFWS and should be referenced here. This should be revised in the FEIS.	All references have been checked/updated with more recent ones where applicable, and all the most recent recovery plans and 5-year status reviews for sea turtle species have been reviewed/incorporated.
Throughout the sea turtle section, the text references back to the marine mammal section for much of the noise impact analysis and also other information. This information should be included in the sea turtle section and be specific to sea turtles, not a general comparison to marine mammals.	The references back to the marine mammal section are specific to the description of the acoustic modeling which is done to meet the BOEM page limit and reduce repetition in the EIS; any discussion points essential to the impact determinations for sea turtles are included in Section 3.8 of the EIS.
It would be helpful to include which sources were used for each density presented in the table. These densities do not match those used in previous draft BAs for nearby lease areas. Please review the South Fork Wind Biological Opinion, Revolution Wind BA, Empire Wind BA, and Sunrise Wind BA (and our relevant comments) and ensure there is consistency among sources and sea turtle density estimates.	The sea turtle densities were obtained from the COP modeling report which is cited in the footnote of Table 3.8-2, and the sources used for the densities based on the information provided in the COP are described in the text preceding the table.
Ongoing offshore wind activities within the geographic analysis area should also include the site assessment (G&G surveys, buoy deployments, fisheries surveys) activities that are ongoing.	This has been included in the list of ongoing activities in Section 3.8.2.1 of the EIS.
Please expand on the claim that accidental releases may impact sea turtles due to their impacts on prey species. Provide examples of the type of accidental release, the prey species, and the specific impact it would have on sea turtles.	The EIS has been updated with additional text to expand on this claim about sea turtle prey species and potential effects of accidental releases.
Please expand on the impacts that would occur if multiple projects occur in close proximity. Provide details as to how this would affect sea turtles and how they would not be biologically significant.	The EIS has been updated with additional text to discuss the potential effects of cable emplacement projects in close proximity and why BOEM determined this would not pose a biologically significant risk to sea turtles.

Comment	Response
Statement concludes that events will limit "marine mammals potentially present during construction." Please update as this section discusses sea turtles.	The EIS has been updated for sea turtles and all erroneous references to marine mammals have been removed.
Please add a more recent statistic for percentage of strandings of loggerhead sea turtles with evidence of vessel strike. Adding an additional number will show a full time series from 1980, to 2004, to near present which helps illustrate the point and gives an accurate representation of the current trend.	More recent statistics for sea turtle strandings with evidence of vessel strikes has been added in Section 3.8.2.1 of the EIS.
NMFS 2022b is cited in a sentence about oil spill modeling, however, NMFS 2022b in Appendix K is listed twice, once as the 2017–2022 Minke Whale Unusual Mortality Event along the Atlantic Coast webpage and also the Endangered Species Act Section 7 Consultation Biological Opinion: Construction, Operation, Maintenance, and Decommissioning of the New England Wind Offshore Energy Project (Lease OCS-A 0534). Please revise references accordingly as neither of these appear to be a relevant citations.	References have been revised accordingly.
The text states that accidental releases would not increase the risk than what was described in Alternative A, though this is likely true given the large scope of Alternative A, the analysis of Alternative B should focus on the proposed action and provide an accurate analysis of the project impacts.	The impact determination for Section 3.8.2.3 is based on just the Proposed Action and text has been updated to clarify this point.
Please clarify if ropeless gear will be used for all trap/pot fisheries surveys. A brief description of the survey activities, type of gear, number of tows/sets/trawls...etc. should be included. There is no related mitigation measure in Appendix H that mentions ropeless gear. Additionally, please provide citations that short tow times pose a negligible threat to sea turtles that may be captured by trawl gear. Lastly, suggest splitting out Marine Resource Surveys as their own IPF and not including it with Anchoring.	Yes ropeless gear will be considered as part of the mitigation and the text has been updated to include that as an option. The text has also been updated to provide additional information about the proposed surveys and clarification for the short tow times has been added. Lastly, BOEM has reviewed this and found that no restructuring to add additional IPFs is not required.
Specify the type of dredge that will be used for cable installation activities and if any seafloor preparation will be needed (sand wave leveling). Dredging, in particular suction/hopper dredging, can result in the impingement and/or entrainment of sea turtles. An analysis of the impacts to sea turtle species with respect to dredging activities is missing and should be described. Additionally, provide justification that sea turtles would be able to successfully forage in other areas not affected by cable laying activities.	The EIS has been updated to describe that dredging may be accomplished through the use of a TSHD or through jetting by controlled flow excavation, and dredging of sand waves along portions of the OECC may occur under Alternative B; however, it would be limited to only the extent required to achieve the desired cable burial depth. Additional text regarding potential effects on sea turtles due to dredging has been included.
Operations and maintenance phase should also be included in the Climate Change section as there will be GHG emissions from vessel traffic and other associated activities. Turbines also contain SF6 which can leak.	The operations phase has been included in the climate change IPF.
Please clarify in the EMF section if in areas where cable cannot be buried and cable protection is required if EMF levels will be higher.	It is not anticipated that EMF would be higher as the cables will still be partially buried and the presence of the cable protection would act as a buffer for potential EMF levels. This has been updated in Section 3.8.2.3.
Please clarify that impacts from vessel lighting during decommissioning would be the same as project operations rather than project construction. If kept, please provide additional details.	Additional text has been added to this section to clarify the distinction between the lighting produced during construction, operations, and decommissioning.
In the Lighting section, short-term impacts during construction should also be analyzed, not just long-term. This is especially relevant as construction (and ensuing lighting) will likely occur in the months when sea turtle density is highest in the area.	The EIS has been updated to clearly distinguish the risk of effects from construction, decommissioning, and operations and assess each accordingly.

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Please include a table with acoustic thresholds used for exposure modeling with citations.	The thresholds are provided in Table B-43 in Appendix B with the citations.
Clarify if the statement "incorporation of the mitigation is provided in Section 3.7" is referring to the noise mitigation system.	Yes, this statement was referring to the noise mitigation system. This sentence has been adjusted to provide more clarity.
Clarify in-text that the exposure ranges in Tables 3.8-6 and 3.8-7 are for impact pile driving. Please also include a table with the number of sea turtles exposed, not just the PTS and behavioral distances. Additionally, clarify if nighttime pile driving is proposed.	The exposure ranges in the tables are for impact pile driving and, the table headers have been clarified. In addition, sea turtle exposures are provided in Section B.5 of Appendix B. Nighttime pile driving will be avoided to the extent feasible, but the Proposed Action does anticipate that some of the piles may require nighttime pile driving in which case a nighttime pile driving plan will be developed to outline the additional measures put in place to help protect sea turtles. Additional text has been added to the pile driving discussion to address this.
The text states that sea turtles will swim away from the ensonified area, given this the FEIS should discuss the risk that sea turtles may incur from swimming away and into areas with potentially higher fishing effort and/or vessel traffic. Additionally, sea turtles eliciting a behavioral response may have increased surface intervals and be at greater risk of ship strike, this should be addressed. Also, please include supporting information that sea turtles will indeed swim away, what are the consequences if they do not?	The discussion of behavioral effects on sea turtles due to impact pile driving has been updated in Section 3.8.2.3 of the EIS.
Additional information from the COP should be included in the EIS to support the impacts of vibratory and drilling piles. The current text is very sparse. This should include an explanation of the different methods and when they will be used, including the potential exposure to sea turtles.	Additionally information from the COP has been added to support this discussion.
The assessment of UXO impacts on sea turtles is incomplete. Exposure modeling should be completed to estimate the impacts of UXO detonations on sea turtle species. Please provide additional details with respect to the pre-survey clearance monitoring measures that will be implemented prior to UXO detonation/blasting. Specifically, explain how the MEC/UXO clearance zones will be monitored for the presence for sea turtles prior to UXO detonations.	Exposure modeling is not available for sea turtles in the COP so the Final EIS assessment uses the best available information to describe the potential effects. Ultimately, BOEM erred on the side of caution which is what resulted in the moderate impact determination when other Final EIS (e.g., OCW1) had minor determinations for UXO for sea turtles. In addition, the Project's BA discusses UXO exposure modeling on sea turtles based on the modeling results from the Revolution Wind Project. This is now mentioned in Final EIS Section 3.8.2.1.
The text above states a minimum of 10 dB attenuation will be achieved for impact pile driving and UXO detonation but the text here states that only a 6dB attenuation will be achieved, please clarify.	The EIS has been updated to indicate that a minimum of 10 dB noise attenuation is included under the Proposed Action.
The Operational Noise section is very sparse with no project specific information about the types of turbine drive trains that are proposed to be used. Please consider reviewing past EISs and revising this section. Additional information and citations are needed in the FEIS to support the assertion that operational noise of wind turbines would not reach levels that could result in behavioral effects to sea turtles.	A full description of the type of WTG technology that is being considered is provided in Volume I of the COP. BOEM has reviewed previous EIS and the information provided is consistent, to the extent practicable, with those EISs, and additional supportive literature has been added to enhance the discussion.
The Presence of Structures section should contain a site-specific analysis of the proposed action, not refer the reader back to Alternative A as that is not an accurate representation of the proposed action. Additionally, the impact of the resource monitoring surveys are previously	The EIS has been updated accordingly to address this comment.

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considered in the Anchoring section above and should not be repeated here. The analysis of the impact of increased fishing effort around turbine structures is lacking references and essentially dismisses the potential for any impact without any analysis. Turbine structures have been shown to draw recreational fishing effort which has the potential to increase the risk of incidentally hooked sea turtles. The consideration of the effects of the presence of structures on oceanographic conditions is missing. A single structure and wind farm/regional analysis is also needed. This section should consider the range of other potential oceanographic impacts, how different sea turtles forage, and how the presence of structures may/may not impact their ability to forage efficiently, both pelagically and near the seafloor. It should also be noted that presently there is no way to mitigate potential oceanographic/atmospheric impacts. Thus this section should thoroughly explain both turbine and project-scale oceanographic and atmospheric impacts and subsequent ecosystem impacts.	
Hazel et al. 2007 states that sea turtles cannot likely avoid vessels traveling over 4 km/hr, not vessels going 10 knots. This should be corrected. Additionally, the Vineyard Wind 1 Bi-Op should not be used as justification for the impact on project vessels here, an independent analysis should be conducted. Overall the vessel strike section is incomplete with no analysis of the risk of vessel strike on sea turtles. Given that all project vessels will travel at least 10 knots and no mitigation measures are included, the risk of lethal vessel strike risk to sea turtles should be addressed thoroughly. Additional information should be provided regarding the frequency and severity of vessel strikes anticipated and which sea turtle species are expected to experience serious injury or mortality. This information is necessary to support the conclusion that there will be no population level effects. This section should not rely on the analysis of the Vineyard Wind 1 Bi-Op.	The EIS has been updated to include primary sources and the proposed mitigation measures applied to all project vessels. Additional information about Project vessel traffic and sea turtle densities within the SWDA have also been included to help assess the risk of vessel strikes in lieu of vessel strike modeling (which was not able to be conducted for this EIS).
The analysis of the Phase 2 portion of the project is incomplete and missing all relevant details. This is inconsistent with how Phase 2 is treated in the Marine Mammal section where there is some discussion of the actual project parameters of Phase 2 and ensuing impacts. This section should be significantly revised for the FEIS and clearly address all effects of Phase 2 of the project and not merely state that the impacts will essentially be the same as Phase 1 but marginally larger. We recommend that BOEM comprehensively analyze activities associated with Phase 2 in the FEIS. If Phase 2 is being considered in the EIS as part of the proposed action for which BOEM has a decision on whether to approve, disapprove, or modify the COP, we recommend that the EIS fully describe and analyze the effects of all Phase 2 activities. This is particularly important when considering the effects of activities that will be different between the two phases, such as pile driving noise (Phase 2 considers larger diameter piles), different foundation types (Phase 2 considers using suction bucket anchoring), and different cable routes.	The EIS has been updated to be more consistent with the marine mammal section.
Avoid using qualifying terms like 'small' to describe increases in vessel traffic. The data on vessel size, speed, presence, and number of trips is sufficient.	The EIS has been updated, where appropriately, to address this comment.
In regards to the table summarizing ESA effects determinations for sea turtles, many IPFs (UXOs, resource monitoring surveys, benthic/habitat disturbance, etc.) are missing from the table. The DEIS should contain a summary of the findings in the BA, merely stating that the impacts were similarly addressed in the BA is insufficient. If the BA will not be included as an appendix to the final document, we encourage BOEM to make the BA publicly available on the	The table of BA determinations and accompanying text has been removed from this section as, without the accompanying analysis from the BA, is not necessary or justified in inclusion within this EIS. Without that analysis, the determinations listed may be incorrectly interpreted. In addition, similar

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New England Wind webpage (not just on the ESA consultation page) so that the information can be easily referenced by the public. As currently presented, it is unclear why ESA effects determinations definitions are included in the EIS. We suggest that additional context be provided to explain how the ESA effects determinations correspond with NEPA impact levels defined at the beginning of the resource section.	tables such as this are not included in other EISs (including OW1), so for consistency, it has been removed here.
Please update this section to include a quantitative evaluation of fishery impacts using the most recent data available through the January 20, 2023, data request submitted to NMFS from Epsilon Associates. This section refers to Tables 7.6-9 and 7.6-12 in Volume III of the COP. At a minimum, these tables should be included in this EIS instead of merely a reference to the COP to enable the reader to understand the potential impacts to the commercial fishery, including the inter-annual variability of fishery revenue. For example, while the average revenue affected is listed in COP Table 3.6-9 as $569,360, 2016 revenue was over $1 million. This variability is important to note in the EIS, not just the COP. Consistent with our recommendations, EISs should include the most recent data available, including within 2 years of the project publication. Data through 2021 will be provided in response to the January 2023 data request and should be used. Finally, to ensure consistency with BOEM's draft fishery mitigation guidance, estimates of fishing revenue and shoreside support services impacted by the project should be included in the EIS to facilitate the development and evaluation of any mitigation measures or compensation programs.	Additional information has been added in Section 3.9.1.2 to provide the reader with landings and revenue data from the Lease Area as provided by NMFS in their March 2023 lease area specific planning level assessment.
Please remove reference to BOEM 2021 and the general statement that the lobster fishery is considered depleted.	The reference and sentence have been removed.
Please clarify the source of the information in Figure 3.9-3.	The popular fishing location information was taken from the following website: https://saltycape.com/top-9-spots-for-tuna-fishing-south-of-marthas-vineyard/
Please note that the fishery management measures will lead to long-term sustainability of the resource and fishery participation, as required by the Magnuson-Stevens Fishery Conservation and Management Act. Also, please reference the NMFS Stock SMART tool for information on the status of and recent trends in stock abundance and catch in the geographic analysis area and project area (available at: https://apps-st.fisheries.noaa.gov/stocksmart?app=homepage). Evaluation of such trends is necessary to understand the current biological status or future condition of fishery resources in the lease area. It also helps put the assessment of alternative impacts into context in subsequent sections such as the reference to regional trends on page 3.9-7 in Section 3.9.2.1.	Thank you for your comment.
Please insert additional details of how the No Action alternative would differ from the cumulative impacts of other regional wind and non-wind projects. The discussion in this section continues to conflate the No Action analysis with the cumulative impact analysis, as noted in previous comment letters. This section suggests the impacts would be different, but offers no detail regarding the temporal and geographical differences. This section should identify those differences and how the No Action alternative may be affected (e.g., reduced impacts to fisheries operating in this area that would not occur in other areas.). It is not enough to just note	The No Action Alternative consists of the current baseline conditions as influenced by past and ongoing activities and trends and serves as the baseline against which all action alternatives are evaluated. The EIS presented a complete description and analysis of impacts from ongoing activities and trends (i.e., No Action Alternative) and impacts from the Proposed Action and action alternatives. The No Action Alternative provides a current baseline for analysis of impacts from the action alternatives. A separate analysis of the No Action Alternative when

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that the impacts of the No Action alternative would be different, but not discuss how; even a qualitative discussion referencing other sections of the document would suffice.	combined with future planned activities (i.e., cumulative actions) provides the future baseline as a basis for comparison of the cumulative impacts of the action alternatives.
Under Noise, please note that pile driving noise could permanently disrupt spawning activity in a particular location even after the noise has ended, especially for species with elaborate spawning behavior such as cod and longfin squid. Both species have concentrated spawning locations in close proximity to several wind projects which would likely conduct construction activities during spawning seasons for several years.	The EIS has been updated to address this comment.
Under Presence of Structures, please include a comprehensive cumulative impacts analysis and note that species availability changes, existing/future regulations, market/fuel prices, and other social and cultural factors influence whether a vessel can or will adapt to fish in different locations (see references provided in previous EIS comment letters regarding fishing behavior patterns). If such factors limit or prevent vessels from fishing elsewhere, economic impacts could be the same as or greater than historic fishery exposure. Also, the revenue exposure does not factor increased operational costs from less efficient fishing operations, reduced product quality, or steaming to find alternative fishing grounds, which would exacerbate potential impacts. As we noted in the Ocean Wind DEIS comments, additional detail is necessary to replicate the analysis in Table 3.92 referenced in this section. Finally, Table 3.9-2 does not include the proposed action and does not represent a true cumulative impacts analysis.	The cumulative analysis includes those impacts from Alternative A in combination with other planned non-offshore wind activities and planned offshore wind activities (other than Alternative B). It is not a speculative analysis of unidentified potential future fishing regulations, market/fuel prices or other unidentified social or cultural factors. The table referenced is the annual fishing revenue in areas exposed to wind energy and cannot include the proposed action as the revenues are what they are. The level of impact analysis is commensurate with the Ocean Wind I Final EIS, and BOEM believes that the analysis is sufficient.
Under Anchoring and Gear Utilization, please revise the impact conclusions to moderate to be consistent with impact definitions in Table 3.9.2.1 and provide information on gear utilization referenced in this discussion heading. As noted in this section, fishing activities would be temporarily disrupted, but could return to normal once anchoring is completed. This is consistent with moderate impacts. Further, a June 2020 presentation by Orsted for the CVOW project indicated that spud can holes resulting from anchoring the construction vessels can substantially alter the bottom and require additional scour protection beyond that used for the turbine foundation itself. This should be noted if not already included in the 178 acres affected as identified in the COP reference noted here.	The EIS has been updated where the impact conclusion has been modified. This paragraph adequately discusses the impacts and gear utilization for Phase 1 of the proposed Project.
Under Cable Emplacement and Maintenance, please revise impacts to moderate and describe the potential impacts associated with cable preparation activities, including the use of boulder plow and grab. These activities would disrupt normal fishing operations for weeks or months, as described, but could return to normal once completed. This is consistent with moderate impacts under Table 3.9.2.1, not minor impacts. Also, please note that all gear types would likely be displaced during construction activities, not just fixed gear and that such activities may increase gear damage/loss by moving or creating new hangs and obstacles. Finally, please discuss cable armoring needs, unless discussed under presence of structures. Without additional information on potential cable repairs, it is not possible to conclude that such activities would be negligible. As noted, this section states that fishing vessels would be excluded from the area. This is consistent with moderate impacts, not negligible, regardless of the frequency of such activities.	The EIS has been updated where the impact conclusion has been modified. This section currently discusses potential impacts associated with cable preparation activities such as pre-lay grapnel run and dredging. As discussed in COP Volume I, Section 3.3.2.3, it is expected that the cables will be surveyed within six months of commissioning, at years one and two, and every three years thereafter.
Please remove discussion of Climate Change, unless Alternative B would impact climate change. This discussion is relevant to the No Action Alternative, not the proposed action.	Climate change influences ocean acidification and ocean temperatures, and has the ability to have minor to moderate long term effects on commercial

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	and recreational for-hire fisheries. The implementation of the Proposed Project and other future offshore wind projects would likely result in a net decrease in greenhouse gases which influences climate change. Therefore, climate change has been included in the impacts discussion for this section.
Under Noise, please revise impacts to moderate and include information similar to that under the No Action alterative. The No Action discussion indicated noise from project activities could result in behavior changes up to 8 miles away from the source, which could affect fisheries operations and result in lower catch rates and potential biological impacts (see previous comment). Impacts should be revised to moderate to be consistent with Table 3.9.2.1 because they are measurable (see research cited in the previous section) and would temporarily disrupt fishing activities for up to 78 days, as described.	The EIS has been updated where the impact conclusion has been modified.
Under Port Utilization, please insert a discussion of how port utilization would affect fisheries operations and fishing communities. Text from the No Action alternative could serve this purpose. Ensure discussion that port utilization could reduce access to port services needed by fishing vessels (fuel, provisions, repair, dockage, etc.).	The EIS has been updated where the suggested text has been added to Section 3.9.2.3.
Under Presence of Structures, please present all data and information used to justify impact conclusions and focus on impacts from presence of structures, not other IPFs. Text describing regulated fishing should be contained under the No Action alternative, as it's not relevant to the discussion of presence of structures for the proposed action. Impact conclusions are listed, but no information related to criteria listed in Table 3.9.2.1 are provided to justify those conclusions. For example, the presence of structures could have indefinite impacts on fisheries if such structures are not removed upon decommissioning, resulting in major impacts under Table 3.9.2.1. There is no information to support why impacts would be negligible or minor. Please also note that habitat conversion from soft to hard bottom could also negatively affect distribution and availability of soft-bottom species such as skates and squid, which are often caught in the project area, resulting in adverse impacts to fisheries for these species indefinitely. As such, please indicate if any differential impacts among fisheries are expected from this alternative. For specific revenue impacts from this project area, please specifically reference and include individual tables from the COP, not just an appendix (COP Appendix III-N) to help direct the reader to the source of the information. Further, this section references an analysis document that is not available to the public (King and Associates 2021) when estimating fisheries impacts. We strongly recommend the FEIS include information and analysis on fishery operations, landings, and revenue derived from information provided in response to a January 20, 2023, data request by Epsilon Associates in relation to this project and export cable routes. This will provide more recent data to assess fishery impacts if fishing effort is displaced due to project activities, including the degree of dependence upon this area for individual vessel annual fishing revenue. Finally, because this section notes that vessel operations would be impacted consistent with moderate impacts, please note if any remedial action would be taken to ensure that impacts to fisheries would not be measurable, consistent with impact definitions in Table 3.9.2.1.	Regulated fishing effort information has been removed from this section. Additional information has been added in Section 3.9.1.2 to provide the reader with landings and revenue data from the Lease Area as provided by NMFS in their March 2023 lease area specific planning level assessment.
Please update the analysis of the Phase 2 portion of the project to include all relevant details, data, analysis, and support/justification for impact conclusions. This section is incomplete and	Because impacts under Phase 2 would essentially be the same as Phase 1, the analysis for Phase 2 has been purposefully drafted to be brief to avoid

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should be significantly revised for the FEIS and clearly address all effects of Phase 2 of the project and not merely state that the impacts will essentially be the same as Phase 1 but marginally larger. We recommend that BOEM comprehensively analyze activities associated with Phase 2 in the FEIS. If Phase 2 is being considered in the EIS as part of the proposed action for which BOEM has a decision on whether to approve, disapprove, or modify the COP, we recommend that the EIS fully describe and analyze the effects of all Phase 2 activities. This is particularly important when considering the effects of activities that will be different between the two phases, such as pile driving noise (Phase 2 considers larger diameter piles), different foundation types (Phase 2 considers using suction bucket anchoring), and different cable routes. Because the majority of vessels fishing within the project area come from ports to the west, a more detailed description of the impacts from the South Coast Variant under Phase 2 is necessary. NMFS received a data request for fishery revenue affected within the project area and the two cable corridors on January 20, 2023. Such data should be analyzed and integrated into the FEIS.	redundancy. Additional information has been added in Section 3.9.1.2 to provide the reader with landings and revenue data from the Lease Area as provided by NMFS in their March 2023 lease area specific planning level assessment.
Under Cumulative Impacts, please insert information and appropriate analysis to support the impact conclusions listed here. As noted, up to seven wind projects in the immediate vicinity of the proposed action (i.e., the RI/MA lease areas) would be under construction, along with other regional wind projects that affect similar fishery resources and fishing ports. Such projects should be specifically listed, along with the fisheries and ports that may be affected to offer a more complete description of the cumulative impacts of this action. This section does not contain any estimate of cumulative fishery revenue exposure to vessels or shoreside support services from the proposed and expected projects. Data are available to estimate such impacts based on the January 20, 2023, data request submitted by Epsilon Associates and available on the GARFO website (https://www.greateratlantic.fisheries.noaa.gov/ro/fso/reports/WIND/ALL_WEA_BY_AREA_DATA.html). Recommendations to assist with estimating shoreside impacts based on changes to fishery landings is outlined in BOEM's draft fishery mitigation guidance (https://www.boem.gov/sites/default/files/documents/renewableenergy/DRAFT%20Fisheries%20Mitigation%20Guidance%2006232022_0.pdf) and associated Appendix A (https://www.regulations.gov/document/BOEM-2022-0033-0001). We strongly recommend you include such an analysis in the FEIS to enable readers can understand the regional cumulative impacts of offshore wind projects on fishery operations and associated communities and that appropriate mitigation and compensation measures can be identified consistent with BOEM's guidance.	Ongoing offshore wind leasing activities on the Atlantic OCS are described in Final EIS Appendix E, Table E-1.
Under Conclusions, please incorporate revisions based on our previous comments. For example, climate change is not related to Alternative B and should be removed from this section, with only IPFs relative to the proposed action being discussed. As noted in earlier sections, impacts are measurable in the project area. Therefore, please describe any mitigation measures or proper remedial action that would be adopted to reduce or eliminate any measurable impacts and provide support for the conclusion that resources would likely recover over time. The mitigation measures described at the bottom of page 3.9-30 do not contain sufficient detail to understand the amount of funding dedicated and why only Connecticut fishermen would	Climate change influences ocean acidification and ocean temperatures, and has the ability to have minor to moderate long term effects on commercial and recreational for-hire fisheries. The implementation of the Proposed Project and other future offshore wind projects would likely result in a net decrease in greenhouse gases which influences climate change. Therefore, climate change has been included in the impacts discussion for this section. The mitigation and monitoring measures that the applicant has committed to

Comment	Response
benefit when vessels from MA, RI, and NY are substantially more impacted by this project than CT vessels according to our estimates.	implement (including and in addition to those defined in the COP) are listed in Final EIS Appendix H, Table H-1. Mitigation and monitoring measures that may result from reviews under certain statutes are shown in Table H 2. Tables H-1 and H-2 provide descriptions of mitigation or monitoring measures, along with the resource or resources to which each measure applies.
Please simplify the description of these alternatives and more fully discuss the potential impacts to affected fisheries from the combined effects of Phase 1, 2, and other adjacent projects using the same route to put such impacts into context. The narrative explaining the combinations of alternative routes and implications on fisheries is difficult to follow. Integrating or referencing the cable route table in Section 2 may be helpful in allowing the reader to appreciate the impacts. This section should also note that fisheries for both hard bottom and soft bottom species operate in and around Muskeget Channel that will be impacted differently by each alternative. It is difficult to suggest that impacts on fisheries would be lower for one route or another, as it depends upon the species habitat that is affected. Impacting softer sediment on the eastern route will more greatly affect the longfin squid fishery, which is the primary fishery affected in terms of landings and revenue in both Vineyard Wind 1 and New England Wind project areas. Therefore, Alternative C-1 would have more impacts on the squid and conch fisheries, while Alternative C-2 would impact more hard bottom fisheries such as striped bass, black sea bass, and cod. Also, because South Coast (Mayflower) Wind intends to locate their export cable along the western route (see Figure 2.1-1) and Vineyard Wind 1 will already use the eastern route, impacts to all fisheries are likely to result from the combined projects regardless of the option selected for this project.	A reference to Table 2.1-2 in Section 2 was added to provided additional reference to the potential cable route scenarios. As noted in Final EIS Section 3.9.2.4 Alternatives C-1 and C-2 could have marginally lower impacts on commercial and for-hire recreational fishing than the Proposed Alternative. However, these differences in impacts would not result in meaningful different impacts that those of the Proposed Alternative. More information on the potential impacts associated with Project Alternatives C-1 and C-2 on commercial and for-hire recreational fisheries were addressed in Section 3.9.2.4.
NMFS agrees with the USCG concerns expressed regarding the potential location of two ESP foundations at a single position within the SWDA. This would violate the 1nm x 1nm turbine layout proposed by developers to reduce navigation and safety concerns expressed by both the USCG and fishery participants. NMFS supports the mitigation measure suggested by BOEM (prohibit the co-location of two ESP foundations on one foundation position), but suggest it should not be considered a mitigation measure, but rather a component of the project design and proposed action, as initially announced to the public.	The COP notes that New England Wind will adopt the 1 x 1 NM WTG/ESP layout in accordance with the USCG's recommendations contained in the May 2020 MARIPARS. Additionally, the 1 x 1 NM grid layout is also part of the Proposed Action in the EIS. Co-located ESPs could incrementally increase navigational risks and hazards from allision and collision and complicate SAR activities, and could continue to result in moderate impacts on navigation and vessel traffic. Mitigation and monitoring measures for the project are presented in Appendix H of the EIS which include those mitigation and monitoring measures that BOEM would require as a condition of COP approval.
Please describe and analyze navigation impacts of Phase 2 of the project. This must be included in the FEIS if it is to be a component of the proposed action.	Phase 1 and Phase 2 of the Project are discussed in each resource section of Chapter 3. Where they exist, the differences between the Phases are called out and differing impacts are discussed. Overall, activities associated with Phase 1 and Phase 2 are similar in nature and addressed accordingly in the Final EIS.
Please insert reference to the NMFS-BOEM survey mitigation plan throughout this section, noting that while the plan has been finalized, additional development of survey-specific mitigation plans is ongoing and that funding is still lacking to implement these plans once	The NMFS-BOEM survey mitigation program is discussed in Final EIS Section 3.14.2.1. Additional text regarding this program was also added to Final EIS Section 3.14.1.6.

Comment	Response
completed, which will limit the potential mitigation of such a strategy until resources become available.	
Both Rutgers University and the Woods Hole Oceanographic Institution operate oceanographic high-frequency (HF) radar systems in the region of the project, and all these HF-radars are part of the NOAA IOOS National Network. In § 3.14.1.5 "Existing Radar Systems" (p. 3.14-6; Vol. 1), would you please: (1) Replace the first sentence of the second paragraph with the following: "Rutgers University and the Woods Hole Oceanographic Institution maintain a series of coastal high-frequency (HF) radars that study ocean currents as part of the NOAA Integrated Ocean Observing System (IOOS) National Network, including installations on Nantucket, Martha's Vineyard, and Block Island (Roarty 2020)." and (2) Replace the last sentence of the third paragraph with the following: "Additionally, 12 oceanographic HF radar sites of the NOAA IOOS network were identified in the vicinity of the SWDA. Also there are two navigational aid sites in Martha's Vineyard and Nantucket." [NOAA/NOS/IOOS]	Final EIS Section 3.14.1.5 has been revised to address this comment.
In the sentence: "Next Generation Weather Radar (NEXRAD) is a network of 160 high-resolution Doppler weather radars, operated by the National Weather Service (NWS), used for weather forecasting purposes." - Please change number of NEXRAD radars to 159. [NOAA/NWS/ROC]	Final EIS Section 3.14.1.5 has been revised to address this comment.
Under Scientific Research and Surveys, delete reference to climate change and replace it with "other offshore wind projects" as ongoing activities affecting scientific research and surveys. Climate change does not cause the effects listed, but other wind projects would.	Final EIS Section 3.14.2.1 has been revised to address this comment.
This section omits that both Rutgers University and the Woods Hole Oceanographic Institution operate oceanographic high frequency (HF) radar systems close enough for the WTGs to adversely impact, and that all these HF-radars are part of the NOAA IOOS National Network. Additionally, the section neglects to mention that neither the FAA nor the Clearinghouse evaluate NOAA oceanographic HF radar systems and that mitigations for HF radars are to be evaluated by the NOAA IOOS Surface Currents Program. On pp. 3.14-14 to 3.14-15 (p. 441–442 of Vol. 1 PDF) in "Radar Systems", would you please: (1) In the first paragraph, replace its third sentence which begins "Rutgers University" with the following: "Rutgers University indicates that the operational WTGs could affect signals from the oceanographic HF radars it and the Woods Hole Oceanographic Institution operate as part of the NOAA IOOS network (Roarty 2020)." (2) Replace the second paragraph with the following: "Through partnership with the NOAA IOOS Surface Currents Program plans will be developed to mitigate WTG interference to oceanographic HF radars. The FAA would evaluate potential impacts on those radar systems that fall within its purview, as well as mitigation and monitoring measures for those impacts through their review of Form 7460-1 for individual WTGs within U.S. territorial waters (as explained in the National Security and Military Uses discussion) (FAA 2019a). Developers of other offshore wind projects would be required to coordinate with Federal agencies managing potentially impacted radar systems, including military and national security agencies to identify potential impacts and any mitigation and monitoring measures specific to radar systems, in accordance with FAA Order JO 7400.2M (FAA 2019a). For example, the Bay State Wind Project received Determinations of No Hazard for WTGs with heights of up to 1,049 feet AMSL. Although WTGs associated with the Bay State Wind Project were found to be	Final EIS Section 3.14.2.1 has been revised to address this comment.

Comment	Response
within the direct line-of-sight for the Falmouth ASR-8, Nantucket ASR-9, and Coventry (Rhode Island) ASR-9 radar systems, the aeronautical study determined that the Bay State Wind Project's WTGs would not have a substantial impact on radar operations at the time of study (FAA 2019b). BOEM assumes that each project applicant would conduct an independent radar analysis, particularly for WTGs outside of U.S. territorial waters, to identify potential impacts and any mitigation and monitoring measures specific to aeronautical, military, ocean observing, and weather radar systems for each WTG analyzed, per BOEM-identified BMPs (Table E-5 in Appendix E).31 BOEM would continue to coordinate with the Clearinghouse and NOAA IOOS to review each proposed offshore wind project on a project-by-project basis and would attempt to de-conflict project concerns identified through such consultation related to oceanographic (via NOAA IOOS) and military and national security (via the Clearinghouse) radar systems with COP approval conditions, including concerns related to installation of multiple projects. Impacts on radar systems would gradually decrease during decommissioning as WTGs are decommissioned and removed." [NOAA/NOS/IOOS]	
This section needs to clarify that the applicant won't just "evaluate" interference to IOOS oceanographic HF radars, but will also mitigate it. In Section 3.14.2.3 "Radar Systems" (p. 3.14-23; Vol. 1), would you please: (1) Replace the second to the last sentence of the third paragraph with the following: "For oceanographic HF radar systems, the applicant would consult with the radar operators and NOAA's IOOS Office to evaluate whether the proposed WTGs are expected to cause radar interference to the extent that radar performance is affected and implement mitigations identified by the IOOS Surface Currents Program accordingly." [NOAA/NOS/IOOS]	Final EIS Section 3.14.2.3 has been revised to address this comment.
For weather radars, a U.S. Department of Energy screening tool for WTG siting did not identify any potential conflicts between Phase 1 and ground-based NOAA NEXRAD weather radars (COP Volume III, Section 7.9.2; Epsilon 2022a) - Would it be possible for the Radar Operations Center to be involved in such determinations. We run analysis on all wind farms to ensure there are no issues? [NOAA/NWS/ROC]	Review by the Radar Operations Center is outside of BOEM's statutory and regulatory authority under NEPA but could potentially be adopted and imposed by NOAA as part of its permitting process.
2nd sentence same paragraph: "WTGs located in other NEXRAD lines of sight can affect radar reflectivity, internal algorithms that generate alerts and derive weather products, and other attributes and functions." - This needs to include velocity. [NOAA/NWS/ROC]	Final EIS Section 3.14.2.3 has been revised to address this comment.
3rd sentence same paragraph: "In general, the severity of impacts is related to the separation distance between the WTGs and the NEXRAD facility, with impacts increasing as distance decreases, especially for WTGs located within 11 miles of the NEXRAD facility (COP Volume III, Section 7.9.2.2; Epsilon 2022a)." - NEXRAD WSR-88D radars can be affected as far out as 60 nautical miles depending on terrain. [NOAA/NWS/ROC]	Final EIS Section 3.14.2.3 has been revised to address this comment.
Under Presence of Structures, please revise the impact conclusions for Scientific Research and Surveys to major instead of minor to moderate, or specifically reference major impacts to NMFS surveys throughout this section and note that other surveys and research may have lower impacts due to the use of smaller vessels or different gear types. This is consistent with impact level definitions in Table 3.15-1 and previous impact conclusions for other project EISs.	The minor to moderate impact is for construction only. The remainder of the section discusses the major impacts during operations; therefore, the EIS has not be changed.

Comment	Response
Under Noise, please reference or describe the mitigation and monitoring measures that would be implemented to prevent population-level harm to fish and marine mammal populations. This is necessary to validate claims that no long-term impacts would occur from noise.	The EIS has been revised to indicate that this sentence refers to measures included in the RODs for other projects. Restating the mitigation measures for every other project is outside of the scope of this Final EIS.
Please ensure that all references to recreational fishing for highly migratory species includes both private angling and for-hire fishing operations and that the impacts to both types of operations are the same. In several instances throughout this section, the text implies that fishing for such species is limited to for-hire operations and that impacts to private anglers and for-hire vessels would be different. Because both type of operations utilize the same gear types and fishing activities, impacts would be similar for both (moderate), which should be noted throughout this section.	The EIS has been updated to include a note indicating that the section speaks generally of both kinds of recreational fishing, and referring readers to Section 3.9 for more information.
Please modify all references to the BA to read "BOEM's BA." Currently this section reads as though that document was written and approved by other agencies. Please modify the sentence "BOEM has initiated consultation on the proposed....." to read "BOEM has REQUESTED consultation on the proposed....."	The EIS has been updated to address this comment.
Please modify the last sentence that reads "The Final EIS analysis of effects and conclusions...." to read "The analysis of effects and conclusions..."	The EIS has been updated to address this comment.
NMFS requests further clarification for the bounding of the Geographic Analysis Areas (GAAs). Please either provide a detailed explanation in the text for the reason the GAA was restricted to capturing "the majority of the movement range for most species," and not all movement and all species, or expand the boundary of the GAA to include all movement of all species. NMFS has made this comment on multiple other project EISs, but this issue remains unresolved.	A number of the species captured within the resource areas are highly mobile and can be cover a significantly large range. The Geographic Analysis Areas developed for each resource is intended to capture the majority of the species movement range within U.S. and Canadian waters. While some species or life stage may extend past the designated GAAs, such highly migratory fish species, larval transport, and migratory marine mammals, it has been determined that the GAAs for each resource are adequate for evaluating the impacts of the New England Wind Project. Clarifying text was added to Final EIS Appendix D. The Geographic Analysis Area for each resource is depicted and/or described within each associated resource section to provide context on their extent. The effects of the Project on each resource is described in each resource section.
Please include a short explanation at the end of the paragraph about whether the list of activities in Appendix E has been developed for this specific project, or whether this same list of activities was developed for and is being included for all OWS projects in the Atlantic, regardless of project location, scale or details. This issue has also been identified by NMFS in CVOW, Ocean, Empire, and Mayflower.	As noted in Final EIS Appendix E.3, BOEM analyzed the possible extent of future offshore wind energy development activities on the OCS, and provides Table E-1 which represents the status of projects as of April 5, 2023. This table is generated by BOEM for all OSW projects in the Atlantic.
Anchoring and gear utilization/marine resource surveys is included in all three alternatives (Sections 3.7.2.1 - 4) as a primary IPF but not included in the table. UXOs (noise and habitat impacts) should also be included.	Anchoring and gear utilization and UXOs have been added Table G.1-4 in Final EIS Appendix G.
Please modify the third paragraph, second sentence, to read something like: "If BOEM decides to approve the COP, the ROD will state which of the additional mitigation and monitoring measures identified by BOEM in Tables H-1 and H-2 have been adopted, and indicate that any	The EIS has been updated to address this comment.

Comment	Response
mitigation measures that are analyzed in the impact analysis of the selected alternative, and which influenced the impact determinations under that alternative, will be adopted." Please either delete the sentence that reads: "If the measures adopted differ substantially from those listed in Tables H-1 and H-2, BOEM will evaluate whether impacts analyses need to be modified to address those changes," or modify it to explain that additional NEPA analyses will be conducted in such circumstances. Any mitigation and monitoring measures/terms that influence the impact conclusions and final agency decision need to be committed measures in order for the assumptions and conclusions of the analysis to be accurate. This comment has been made previously in other EISs. NMFS continues to have concerns that uncommitted mitigation measures are being included in the analysis that change the impact determinations.	
Despite being mentioned in several places throughout Vol. 1 of this DEIS, mitigation of WTG interference to the oceanographic HF radar systems has been omitted from Appendix H. All other OSW project DEIS's have this in their "Mitigation and Monitoring" appendices, so its omission from this New England Wind DEIS is a noticeable oversight. For Table H-2 on p. H-24 (Appendix H), after the row with "Measure Number" 81, would you please insert another row with the following values (and then renumber the remaining rows' Measure Numbers accordingly)?: • "Measure Number" = 82. • "Project Stage" = Construction, Operations, Decommissioning. • "Measure Title" = Mitigation for oceanographic high-frequency radars. • "Measure Description" = To mitigate operational impacts on oceanographic high-frequency (HF) radars, the applicant will develop a plan with the NOAA Integrated Ocean Observing System (IOOS) Surface Currents Program for data sharing from turbine operators to include: (a) sharing real-time telemetry of surface currents, waves, and other oceanographic data measured at locations in the Project into the public domain; and (b) if needed by the IOOS Surface Currents Program to enhance mitigation, additionally sharing time-series of WTG blade rotation rates, nacelle bearing angles, and other information about the operational state of each of the Project's turbines with HF radar operators to aid interference mitigation. • "Resource Area Addressed (EIS Section)" = Other Uses (3.14) • "BOEM's Identification of the Anticipated Enforcing Agency" = NOAA, BOEM, BSEE. [NOAA/NOS/IOOS]	The EIS has been updated to address this comment.
There are references with the same citation abbreviation throughout this section, for example NMFS 2022b is listed twice but as different references. The page number for that example is noted here, but please review the entire section.	The EIS has been updated to address this comment.

O.4.1.4 National Park Service

Table O.4-4: Responses to Comments from the National Park Service

Comment	Response
We are a bit confused as to whether the Terrestrial Archaeological Resources Assessment (TARA) has been made available. We received a set of terrestrial archaeological reports that the developer prepared as an appendix to the Construction and Operations Plan (COP). Is that Appendix considered the TARA? It is also unclear which of these historic documents are supposed to be prepared by BOEM or its contractor; which can be prepared by the developer as a part of the COP; and of those, which have been reviewed by BOEM's subject matter experts.	The applicant is required to prepare the TARA, which is provided as COP Appendix III-G for the proposed Project.
the Draft EIS states, "BOEM assumes that FAA hazard lighting for all offshore wind projects in the RI/MA Lease Areas would use ADLS" (Draft EIS, pg. 3.10-13). The draft Memorandum of Agreement (MOA) addressing impacts under Section 106 of the National Historic Preservation Act (NHPA) states that "Park City Wind will equip all WTGs and ESPs with an aircraft detection lighting system to reduce the duration of nighttime lighting" (MOA, pg. 7). But this is an unsigned draft prepared by BOEM. Please clarify the level of commitment the developer has to ADLS use or that BOEM would require in order to approve the COP. In addition, we appreciate the addition of requiring compliance with NPS sustainable lighting best practices "where safe and feasible" (Measure No. 87 in Appendix H, Mitigation and Monitoring, Table H2, pg. H-25).	As stated in Appendix H, Table H-1 of the Final EIS, the applicant has committed to the use FAA-approved aircraft detection lighting system, which will only activate the FAA hazard lighting when an aircraft is in the vicinity of the wind facility to reduce the visibility of nighttime lighting and, thus, reduce nighttime visual impacts.
NPS had questioned how BOEM arrived at the conclusion that "nighttime lighting impacts would be restricted to cultural resources for which a dark night sky is a contributing element to their historic integrity, cultural resources stakeholder use at night, and resources that do not generate a substantial amount of their own light pollution," and asked for a law or policy citation. In response in other Draft EISs recently issued, BOEM stated that their approach to nighttime lighting impacts is currently being revised. Is this revision complete? NPS is interested in understanding the approach BOEM is (now) planning to use. We don't see any change in approach in this Draft EIS. It should be noted that dark and dark nighttime sky may not, and more often than not will not, be explicitly identified as a contributing element of a site's historic integrity or cultural resources stakeholders use at night. For resources such as light houses/stations and observatories it should be assumed, but there are many resource types with nighttime/ dark sky values. For example, resources associated with historic events that may have occurred in night hour such as underground railroad network to freedom and battlefields and other values associated with darkness as part of a setting, or place of contemplation for visitors.	Thank you for pointing out the wide range of historic properties for which a dark nighttime sky would be a contributing element. The HRVEA documentation that supports the assessment of visual effects in the Draft EIS does not simply rely upon National Historic Landmark or National Register of Historic Places nominations and whether or not those identify a dark night sky as a contributing element (Epsilon 2022; Appendix H.b). Rather, each historic property is analyzed to consider the historic significance and character and whether or not an ocean view or a dark nighttime sky is a character-defining feature. Further, the use of ADLS and the project amount of time lighting would be activated is also a factor in the visual analysis (BOEM 2023; Appendix I).

O.4.1.5 U.S. Coast Guard

Table O.4-5: Responses to Comments from the U.S. Coast Guard

Comment	Response
The proposed action to co-locate ESPs is a deviation from the developer's previously agreed upon layout proposals as discussed with the USCG and based on recommendations from the MARIPARS. This deviation could result in increased risk to navigation and vessel traffic and may complicate USCG SAR activities. Therefore, the USCG supports the identified mitigation measure to eliminate the option for co-located ESP foundations as a condition of Construction and Operations Plan approval.	The COP notes that New England Wind will adopt the 1 x 1 NM WTG/ESP layout in accordance with the USCG's recommendations contained in the May 2020 MARIPARS. Additionally, the 1 x 1 NM grid layout is also part of the Proposed Action in the EIS. Co-located ESPs could incrementally increase navigational risks and hazards from allision and collision and complicate SAR activities, and could continue to result in moderate impacts on navigation and vessel traffic. Mitigation and monitoring measures for the project are presented in Appendix H of the EIS which include those mitigation and monitoring measures that BOEM would require as a condition of COP approval.
USCG recommends all Applicant-Proposed Measures (Table H-1) and Other Potential Mitigation Measures (Table H-2) of Appendix H be made mandatory, especially measures that address major impacts to USCG SAR activities such as providing access to web-based cameras.	"The mitigation and monitoring measures that the applicant has committed to implement (including and in addition to those defined in the COP) are listed in Table H-1. Mitigation and monitoring measures that may result from reviews under the statutes listed above are shown in Table H 2. Some of these mitigation and monitoring measures are outside of BOEM's statutory and regulatory authority but could potentially be adopted and imposed by other governmental entities. Tables H-1 and H-2 provide descriptions of mitigation or monitoring measures, along with the resource or resources to which each measure applies.
The USCG also does not oppose either Alternative C-1 or C-2, which addresses the Project's export cable routing impacts to complex fisheries habitat.	If the COP is approved or approved with conditions, it will include mitigation and monitoring measures developed under various consultations and permit reviews (e.g., ESA and Marine Mammal Protection Act) and adopted by the Final EIS Record of Decision (ROD). If BOEM decides to approve the COP, the ROD will state which of the additional mitigation and monitoring measures identified by BOEM in Tables H-1 and H-2 have been adopted; if measures are not adopted, the ROD will state why they were not. If the measures adopted differ substantially from those listed in Tables H-1 and H-2, BOEM will evaluate whether impacts analyses need to be modified to address those changes. The applicant will be required to implement the mitigation and monitoring measures applicable that are adopted in the ROD (Code of Federal Regulations, Title 40, Section 1505.3 [40 CFR § 1505.3]), and it will be required to certify compliance with certain terms and conditions as required under 30 CFR § 585.633(b)."
The USCG does not oppose the Proposed Action Alternative, noting the Project would maintain a uniform east-west and north-south grid pattern of 1 x I nautical mile (NM) spacing between wind turbines and alignment with proposed adjacent wind farms.	Thank you for your comment.
The USCG requests all references to Navigation and Vessel Inspection Circular (NV1C) 02-07 be replaced with the most recent version; NVIC 0 1-1 9.	Thank you for your comment.

Comment	Response
The Commander, Coast Guard First District may consider the establishment of safety zones in the Project area on a case-by-case basis. Safety zones will not be granted for the sole purpose of keeping project construction on schedule and the authority should not be used as a mitigation measure when considering potential risks and impacts.	The Final EIS has been updated to include this reference.
Post Record of Decision Involvement: The USCG requests timely access to construction plans, such as Facility Design Reports and/or Fabrication Installation Reports for the purpose of identifying activities impacting Navigation, Vessel Traffic, and USCG missions on the Marine Transportation System, especially Cable Burial Plans and their associated risk and feasibility assessments. Early access to these documents may prevent conflicts with planned activities.	Thank you for your comment.
The USCG requests the opportunity to suggest amendments to approved mitigations and terms and conditions at any time before, during, or after installation of the wind farm should material facts or circumstances come to light that were either unforeseen or were not reasonably available at the time these conditions were issued...The USCG requests the opportunity to re-evaluate any future mitigation analyses required by the Department of Interior, especially related to Navigation and Vessel Traffic, USCG missions, and Other Uses, such as National Security and Military Activities, Aviation and Air Traffic, and Radar Systems.	BOEM will work with the USCG on the required reviews of these reports to allow for proper considerations.

O.4.2 Cooperating State Agencies

O.4.2.1 The Massachusetts Office of Coastal Zone Management

Table O.4-6: Responses to Comments from the Massachusetts Office of Coastal Zone Management

Comment	Response
CZM is supportive of alternative C (and C-1) to minimize disturbance to important fisheries habitats in Muskeget Channel. As Vineyard Wind is currently installing cable, they should share site-specific information with NEW and BOEM regarding seafloor conditions to facilitate the planning of a specific cable-placement plan that results in the least impact on important benthic habitats. Unless site-specific information dictates otherwise, it appears that alternative C-1 will reduce impacts as all cables would run alongside the Vineyard Wind and Phase 1 cables. This is primarily because cable crossings with SouthCoast Wind would be avoided in the C-1 alternative, and because disturbance and monitoring would be confined geographically to one area.	Thank you for your comment.
BOEM notes that the SCV could not be excluded from the project design envelope because it is a necessary contingency for project feasibility. However, every effort should be made to avoid this contingency to minimize seafloor disturbance. In the event that the SCV OECC cannot be avoided, PCW and BOEM should coordinate with SouthCoast Wind to collocate the SCV with the Somerset-bound cables already planned by SouthCoast Wind. Colocation with SouthCoast Wind will minimize disturbance, hard cable protection, and overall impact to seafloor habitats.	The South Coast Variant is currently included as one of several possible cable route scenarios for Phase 2 of the Project; however, the Project would only use the South Coast Variant if technical, logistical, grid interconnection, or other unforeseen issues arise during the COP review and engineering processes. More information on the South Coast Variant and what factors would be considered prior to choosing this cable route are discussed in COP Vol I, Section 4.1.3.3. If the South Coast Variant is chosen, additional NEPA analyses and COP modifications would be needed to evaluate the impacts of installing export cables through this area.
The COP Appendix III-N contains a draft economic exposure of commercial fisheries that includes both direct impacts to fisheries (e.g. lost landings) as well as indirect and induced impacts (e.g. broader economic impacts of those lost landings) via a multiplier. There is also an addendum for the SCV export cable route specific to the economic exposure for that contingent cable corridor. The economic exposure analysis shows that 45% of the average annual commercial fishing revenue from the NEW area is landed in Massachusetts. PCW should use the most accurate and complete data to inform the economic analysis. A complete analysis should also include economic exposure from all phases of the project from construction through operation and decommissioning, a breakdown by port, gear type, and species for each economic factor examined, and it should include exposure from 3 | P a g e for-hire and charter recreational fisheries as well as commercial fisheries. Most importantly, a multiplier should be determined with local knowledge and input that accurately reflects the broader impacts to the economy beyond lost landings.	BOEM believes the economic exposure analysis presented is sufficient to properly analyze potential impacts to commercial and for-hire recreational fishing from the proposed project.
The commitment by PCW to target a 12 dB noise reduction using NAS [Noise Attenuation System] for all pile-driving activities is a critical mitigation measure that will protect marine mammals, sea turtles, as well as other species. As	The mitigation and monitoring measures that the applicant has committed to implement (including and in addition to those defined in the COP) are listed in Table H-1. Mitigation and monitoring measures that may result from reviews under the statutes listed above are

Comment	Response
construction plans are finalized, PCW should pursue the best available NAS technology, including single or double bubble curtains or other technologies to minimize impacts on sensitive marine species. PCW should also assess the use of NAS during the controlled detonation of unexploded ordnance.	shown in Table H 2. Some of these mitigation and monitoring measures are outside of BOEM's statutory and regulatory authority but could potentially be adopted and imposed by other governmental entities. Tables H-1 and H-2 provide descriptions of mitigation or monitoring measures, along with the resource or resources to which each measure applies.
PCW should coordinate with Massachusetts agencies on mitigation opportunities for avifauna impacts, including identifying opportunities to support conservation and habitat restoration or enhancement for protected avian species.	The mitigation and monitoring measures that the applicant has committed to implement (including and in addition to those defined in the COP) are listed in Table H-1. Mitigation and monitoring measures that may result from reviews under the statutes listed above are shown in Table H 2. Some of these mitigation and monitoring measures are outside of BOEM's statutory and regulatory authority but could potentially be adopted and imposed by other governmental entities. Tables H-1 and H-2 provide descriptions of mitigation or monitoring measures, along with the resource or resources to which each measure applies.
As monitoring plans are further refined, the proponents of this project should continue to work with ROSA, RWSC, and other research groups and offshore wind developers to coordinate reporting of data generated. In particular, PCW should share data publicly in streamlined and standardized formats that include metadata such as coordinates, depths, measurement units, method and instruments used, and other details needed to understand and replicate the data and analyses. When relevant, data should be shared in a standardized format appropriate for spatial data such as shapefiles. Data recording protocols should also conform to accepted standards of practice for the data type, e.g. Coastal and Marine Ecological Classification Standard (CMECS) for benthic data.	If the COP is approved or approved with conditions, it will include mitigation and monitoring measures developed under various consultations and permit reviews (e.g., ESA and Marine Mammal Protection Act) and adopted by the Final EIS Record of Decision (ROD). If BOEM decides to approve the COP, the ROD will state which of the additional mitigation and monitoring measures identified by BOEM in Tables H-1 and H-2 have been adopted; if measures are not adopted, the ROD will state why they were not. If the measures adopted differ substantially from those listed in Tables H-1 and H-2, BOEM will evaluate whether impacts analyses need to be modified to address those changes. The applicant will be required to implement the mitigation and monitoring measures applicable that are adopted in the ROD (Code of Federal Regulations, Title 40, Section 1505.3 [40 CFR § 1505.3]), and it will be required to certify compliance with certain terms and conditions as required under 30 CFR § 585.633(b).
For the proposed New England Wind project, potentially impacted SSU [Special, Sensitive, or Unique] resources include areas of hard/complex seafloor, eelgrass, and North Atlantic right whale core habitat...Maps of hard/complex seafloor were developed for the OMP [Massachusetts Ocean Management Plan] using the best available data at the time. The resulting map "…is based upon the highest resolution data available, and a specific project may obtain higher resolution data for project planning purposes." Additional data collected by a project proponent may be required to confirm the presence or absence of an SSU resource and that certain projects may acquire the higher resolution data through site-specific characterization. NEW should consult with CZM regarding the conformance of the project with the siting and performance standards of the OMP.	The mitigation and monitoring measures that the applicant has committed to implement (including and in addition to those defined in the COP) are listed in Table H-1. Mitigation and monitoring measures that may result from reviews under the statutes listed above are shown in Table H 2. Some of these mitigation and monitoring measures are outside of BOEM's statutory and regulatory authority but could potentially be adopted and imposed by other governmental entities. Tables H-1 and H-2 provide descriptions of mitigation or monitoring measures, along with the resource or resources to which each measure applies. If the COP is approved or approved with conditions, it will include mitigation and monitoring measures developed under various consultations and permit reviews (e.g., ESA and Marine Mammal Protection Act) and adopted by the Final EIS Record of Decision (ROD). If BOEM decides to approve the COP, the ROD will state which of the additional mitigation and monitoring measures identified by BOEM in Tables H-1 and H-2 have been adopted; if measures are not adopted, the ROD will state why they were not. If the measures adopted differ substantially from those listed in Tables H-1 and H-2, BOEM will evaluate whether impacts analyses need to be modified to address those changes. The applicant will be required to implement the mitigation and monitoring measures applicable that are adopted in the ROD (Code of Federal Regulations, Title 40, Section 1505.3 [40 CFR § 1505.3]), and it will be required to certify compliance with certain terms and conditions as required under 30 CFR § 585.633(b).

O.4.2.2 Rhode Island Coastal Resource Management Council

Table O.4-7: Responses to Comments from Rhode Island Coastal Resource Management

Comment Council	Response
Rhode Island CRMC recommends the cable routing alternatives, Alternative C, be utilized as they would minimize impacts to Rhode Island coastal resources and users located and identified in the CRMC's 2011 and 2018 GLDs. Alternative C-1 would avoid using the Western Muskeget Variant cable scenario and limit the total number of potential crossings of the SouthCoast Wind cable. Alternative C-2 would minimize the use of the Eastern Muskeget cable corridor. Both alternatives would potentially reduce impacts on productive habitats along the Muskeget Channel by collocating cables with the Vineyard Wind project and by providing a more direct route from the lease area to interconnection points at Barnstable, Massachusetts.	Thank you for your comment.
The SCV passes through both the 2011 and 2018 GLDs and would be located in reasonable proximity to South Coast Wind's Brayton Point export cable corridor. This route passes through extensive stretches of dense surface and subsurface boulder fields as well as complex bottom habitats, each of which has similar characteristics, values and resources as those found in Rhode Island state waters. Additional seafloor disturbance would result in unnecessary impacts to benthic resources and commercial/recreational fishers.	The South Coast Variant is currently included as one of several possible cable route scenarios for Phase 2 of the Project; however, the Project would only use the South Coast Variant if technical, logistical, grid interconnection, or other unforeseen issues arise during the COP review and engineering processes. More information on the South Coast Variant and what factors would be considered prior to choosing this cable route are discussed in COP Vol I, Section 4.1.3.3. If the South Coast Variant is chosen, additional NEPA analyses and COP modifications would be needed to evaluate the impacts of installing export cables through this area.
[a] COP revision [for the South Coast Variant] would require a new CZMA consistency certification under 15 C.F.R. § 930.85 and/or § 930.51(b) (major amendment). BOEM should contact and coordinate with state cooperating agencies to inform decisions surrounding the SCV.	The South Coast Variant is currently included as one of several possible cable route scenarios for Phase 2 of the Project; however, the Project would only use the South Coast Variant if technical, logistical, grid interconnection, or other unforeseen issues arise during the COP review and engineering processes. More information on the South Coast Variant and what factors would be considered prior to choosing this cable route are discussed in COP Vol I, Section 4.1.3.3. If the South Coast Variant is chosen, additional NEPA analyses and COP modifications would be needed to evaluate the impacts of installing export cables through this area.

O.5 Responses to Other Agency, Stakeholder, and Public Comments on the Draft Environmental Impact Statement

O.5.1 Purpose and Need

Table O.5-1: Responses to Comments on the Purpose and Need

Comment Number	Comment	Response
0003-01	This project will help us meet our increasing energy needs and address the worsening climate crisis. I urge you to approve this project.	Thank you for your comment.
0004-01	Committed to helping our island of Martha Vineyard reach our 100% renewable energy and fossil fuel reduction targets by 2040.	Thank you for your comment.
0005-01	Temperatures and sea levels are rising - projects like this one are essential to protect Cape Cod from these existential threats.	Thank you for your comment.
0007-01	These comments support the approval of the New England Wind Draft Environmental Impact Statement. The approval of the Draft Environmental Impact Statement will assist in significant environmental improvements. Please proceed with approval.	Thank you for your comment.
0008-02	I am equally concerned about the role offshore wind will play in securing the reliability of the New England electric grid. In short, offshore wind must be New England's energy future, and New England Wind is central to that future. As New England loses its nuclear power resources and has no guarantee of substantially more Canadian hydro power, offshore wind is simply the only way New England can assure the reliability of its electricity supply. Thankfully, solar power is expanding, but solar in our area of the country has a capacity factor of only about 14%, as compared to the capacity factor of offshore wind in southern New England of close to 50%.	Thank you for your comment.
0008-03	At this point in history, offshore wind is a completely mature, reliable technology. I am sure you know better than I the experience with offshore wind in the North Sea and other areas of Europe—tens of wind farms and thousands of wind turbines.	Thank you for your comment.
0008-04	I appreciate that the effects of wind power on fisheries, marine mammals, and birds must be mitigated. But let's remember that climate change itself has seriously adverse effects in these regards. Offshore wind in Massachusetts and this region is, literally, our lifeline—for an adequate power supply as we turn increasingly to electrification, as we reach for our climate goals, and as we develop clean energy jobs.	Thank you for your comment.

Comment Number	Comment	Response
0009-01	The clean energy to be produced by New England Wind is urgently needed to enable Martha's Vineyard and the Commonwealth to meet their declared renewable energy goals and their growing demand for electricity. While other parts of the country may have other renewable energy resources, in the Northeast the major resource we have and the one we need to rely on is offshore wind. Without offshore wind projects such as New England Wind, we simply can't hope to significantly reduce our carbon emissions and mitigate our contribution to climate change...As the Commonwealth and many Massachusetts municipalities work toward their ambitious goals of moving off fossil fuels, their need for electricity from the grid will increase greatly. Offshore wind power will be critical to enabling the utilities to meet this need.	Thank you for your comment.
0009-02	New England Wind has specifically committed to help our island of Martha's Vineyard to reach its targets of 100 percent renewable energy and fossil fuel reduction by 2040. The project also will help to meet the growing need for electricity in the region.	Thank you for your comment.
0016-01	We know that the Danish have decades of experience and proof that the windmills are sustainable and efficient. We see the impact of climate change here and around the world. Time to act! We are already decades behind the power curve.	Thank you for your comment.
0020-01	This project has considerable environmental and economic benefits, and I fully support it. The vast majority of the potential impacts examined in the Draft EIS are either determined to be of minor concern at best or are even potentially beneficial. We so desperately need a more well-rounded economy on Martha's Vineyard. Please approve this project.	Thank you for your comment.
0021-01	Offshore wind even if it ends up being a stopgap approach is our best bet for creating much needed additional generation, a more stable grid and the cleanest and most renewable energy available. We have no time to waste. Climate change is accelerating and the damage to our oceans, vistas and marine life is at a much greater threat from climate change and additional fossil fuel use than from the construction and installation of offshore wind.	Thank you for your comment.
0022-01	I support this project due to the critical need for our state and region to address climate change and reduce our reliance on fossil fuels.	Thank you for your comment.
0024-01	The New England Wind Project (the Commonwealth Wind and Park City Wind projects) will greatly contribute to our efforts to mitigate climate change by reducing global greenhouse gas emissions; and it will have a positive impact on sea level rise and reduce potential negative impacts to our coastal shorelines and ocean acidification impacts.	Thank you for your comment.
0025-01	Renewable energy projects at this industrial scale are essential if local towns, states, and the Nation are to achieve the ambitious goals set to combat climate change.	Thank you for your comment.

Comment Number	Comment	Response
0025-02	All six towns on Martha's Vineyard have committed to being 100% renewable in transportation, heating, and electricity by 2040.	Thank you for your comment.
0028-01	The New England Wind project, proposed by Avangrid, is the largest renewable energy project proposed in the New England region and will play a major role in helping the Northeast meet regional commitments for offshore wind energy production.	Thank you for your comment.
0032-01	We support the New England Wind project for three reasons. First and foremost is the critical need to address climate change and reduce the region's carbon usage. The project will generate enough renewable, affordable power to reduce emissions by nearly four million tons. In addition, the more than 2 gigawatts of energy are enough to power over one million households across New England and will significantly reduce consumer costs over time.	Thank you for your comment.
0044-01	This project has been in the works for a long time, despite many Cape Codders' belief that it's suddenly been sprung on us, planned behind closed doors, etc. I am very proud that my hometown will be a model for green energy works in the future. Temporary inconveniences for us are well worth what we all gain in the end.	Thank you for your comment.
0046-11	The effects of Global Warming have also not been accounted for. There will be changes in the wind production as heat gradients change. This will render wind farms less effective producers of clean energy. The destruction and cost to benefits ratio must be re-evaluated. Rising ocean levels will make Hydro power production even a greater leading source of clean energy than the 71% worldwide position it now occupies.	Thank you for your comment.
0049-01	Big wind offshore projects are based on the false premise of " taming Mother Nature". It doesn't work. It's an expensive, inefficient , toxic complicated system that puts our fragile coastal ecosystems, our 217 mass. Endangered species—18 of which are federally protected—our environment and our way of life at risk. There are alternatives!! Big wind offshore projects are plagued by catastrophic failures above n below sea level . Even their own partner Orsted got out due to " catastrophic undersea issues. They r not green or clean but use copious amounts of petrochemicals n fossil fuels :coal,steel,plastic,cement,lead,crude oil, diesel fuel. Etc.	Thank you for your comment.
0049-07	we urge u to do the due diligence that was not done when the 2030 goal was thrown out there, to honor our state n federal laws designed to protect ag. Thus destruction, to protect our whales n sea life, to look at alternatives n to do what's right for our country.	The New England Wind Project will adhere to all applicable federal, state, and local laws.

Comment Number	Comment	Response
0054-03	WE FEEL THAT THIS RUSHED INDUSTRIAL PROJECT AT THE MERCY OF AN ARBITRARY AND UNREASONABLE DATE OF 2030 TO ACCOMPLISH, WILL IRREPARABLY HARM A PRISTINE PLACE AND ALL WHO LOVE IT AND LIVE HERE.	Thank you for your comment.
0055-01	The SWDA includes lease area 534 and potentially a portion of lease area 501 which is assigned to Vineyard Wind 1. This section also states that the project could generate up to 2,600 MW across both phases to meet existing and potential future offtake demands (Table 2.1-1). The project size and minimum number of turbines that would meet BOEM's purpose and need is unclear. This poses challenges for determining which final configurations of the alternatives (or additional modified alternatives) could meet BOEM's purpose and need, while reducing the negative environmental and socioeconomic impacts of the project. We recommend that the Final EIS for this project, as well as future Draft EIS and Final EIS documents for other wind projects, more clearly indicate that BOEM is not bound to considering approval only of projects that can produce a certain amount of electricity. BOEM should consider federal and state renewable energy targets and mandates as well as existing procurements when preparing an EIS and determining whether to approve a project. However, it should be made clearer that BOEM can approve a smaller project than what was proposed or procured. We suggest expanding on this to make it clear that the project will avoid risks to the health of marine ecosystems, ecologically and economically sustainable fisheries, and ocean habitats. BOEM should clearly acknowledge that if these risks cannot be avoided, they should be minimized, mitigated, and compensated for.	Under the Proposed Action, the proposed Project would be developed in two phases, with a combined maximum of 130 wind turbine generator (WTG) and electrical service platform (ESP) positions, all located within the SWDA. Phase 1, also known as the Park City Wind Project, would deliver at least approximately 804 megawatts (MW) and would be immediately southwest of Vineyard Wind 1. Phase 2, also known as the Commonwealth Wind Project, would deliver at least 1,232 MW and would be constructed southwest of Phase 1 within the remainder of the SWDA. Collectively, the proposed Project would generate at least 2,036 MW and up to 2,600 MW. The Project is planning for up to 130 WTG/ESP positions with a maximum of 129 WTGs. The developer of the Vineyard Wind 1 Project (Vineyard Wind 1, LLC) will assign spare or extra positions in the southwestern portion of OCS A 0501 to Park City Wind for the New England Wind Project if those positions are not developed as part of the Vineyard Wind 1 Project.
0056-07	The emergence of this new industry has the potential to create thousands of local jobs, promote port infrastructure, and go a long way in realizing the Commonwealth and the Nation's climate and renewable energy goals	Thank you for your comment.
0061-03	The Town of Barnstable operates under federal and state mandates to do those things that will have measurable impact on reducing the use of fossil fuels. Wind power is being used successfully as part of the solution in a number of places. We need wind power to help us with this puzzle. The damage that has been done by disregard for the environmental impact has been done by Cape Codders as well as others. Now Cape Codders must be part of finding a best path forward. Putting wind power off limits is no solution.	Thank you for your comment.

Comment Number	Comment	Response
0062-01	Climate change is no longer just a threat – it is real. I see the impact of it every season on the Cape, with coastal erosion being of increasing concern...After reading up on the project, I believe the clean energy benefit derived from this project vastly outweighs any temporary impact to the Barnstable shoreline and beaches. Minor disruptions to quiet parking lots and streets during the winter months is a small price to pay for this important renewable energy project.	Thank you for your comment.
0064-01	The CCTC supports the development of innovative solutions to meet the anticipated energy needs of the Commonwealth of Massachusetts. One of the most promising of these solutions is wind energy. The New England Wind Project has the potential to meet these needs while advancing the state of wind energy technology.	Thank you for your comment.
0065-01	The time has come for our community to accept that a relatively minor, off-season disruption of the area is a small price to pay for the very tangible long-term benefits that renewable energy has to offer.	Thank you for your comment.
0067-01	Development of both phases of this project will make important contributions towards national and state offshore wind goals and the establishment of a local supply chain. Advancement of this project is in the declared public interests of the United States and the states of New England. Presidential Executive Order No. 14008, issued on January 27, 2021, states it is the policy of the United States to combat the climate crisis, reduce climate pollution in every sector of the economy, and spur well-paying jobs and economic growth especially through the development of clean energy technologies and infrastructure. Furthermore, the executive order specifically calls on the Secretary of the Interior to review permitting processes in offshore waters to increase renewable energy production in those waters, with the goal increasing offshore wind power in the United States to 30 GW and creating good jobs.	Thank you for your comment.
0067-03	Actions that delay project timelines must be avoided to the greatest extent possible. Project investments are ongoing and demand for materials, skilled labor, and critical equipment is dependent upon timely implementation. The Network urges BOEM to advance New England wind project on their timeline.	Thank you for your comment.
0067-07	The Business Network for Offshore Wind and its members strongly encourage BOEM to maximize the ability of the lease area to generate and transmit as much electricity as possible to support the goals, both national and regional, for renewable energy delivered to the grid.	Thank you for your comment.

Comment Number	Comment	Response
0067-10	actions by the Department of Interior are already driving substantial investment decisions. The Network closely tracks the market and found that public and private investors committed $2.2 billion in new funding in 2021, including commitments to develop nine major component facilities that will manufacture the foundations, towers, cables and blades of offshore wind turbines. In 2022, the market generated $5.44 billion in new lease revenues for the U.S. government, reflecting increased investor confidence in the U.S. market which will be crucial to a 1 The Business Network for Offshore Wind contributed to the report. 3 full build-out of the U.S. industry. Advancing New England Wind is crucial to maintaining this momentum.	Thank you for your comment.
0070-01	The promise of offshore wind goes beyond decarbonization. We are committed to an offshore wind industry that creates high-quality union jobs, builds projects with content manufactured in the U.S., delivers environmental justice and community benefits, and takes all action necessary to develop projects in an environmentally responsible manner by avoiding, minimizing and mitigating impacts to wildlife and natural resources.	Thank you for your comment.
0072-01	We support the New England Wind project for multiple reasons. First and foremost is the critical need to address climate change and reduce the region's reliance on fossil fuels. The project will generate enough clean, affordable power to reduce emissions by nearly four million tons. In addition, the more than 2 gigawatts of energy that will be produced is enough to power over one million households across New England and will significantly reduce consumer costs over time.	Thank you for your comment.
0073-01	In its move to reach the Country goal toward renewable energy, the Government is throwing money/tax incentives to voracious companies with few, and in Avangrid's case, no track record in Wind Power Projects. Tax dollars should be spent after issues have been studied by all sides and monies dispersed to companies based on proven results, efficiency, and SMART PLANNING.	Thank you for your comment.
0065-01	The time has come for our community to accept that a relatively minor, off-season disruption of the area is a small price to pay for the very tangible long-term benefits that renewable energy has to offer.	Thank you for your comment.
0073-01	In its move to reach the Country goal toward renewable energy, the Government is throwing money/tax incentives to voracious companies with few, and in Avangrid's case, no track record in Wind Power Projects. Tax dollars should be spent after issues have been studied by all sides and monies dispersed to companies based on proven results, efficiency, and SMART PLANNING.	Thank you for your comment.

Comment Number	Comment	Response
0073-02	In the Dowses Beach plan it is obvious that Avangrid has selected this landing site because it is the shortest distance between the wind farm and the Boston area power station and that they got a "sweet deal" from Barnstable.	Multiple cable landfall locations have been considered for each Phase of the Project to minimize disruption to residents and minimize impacts on the onshore environment. The Phase 2 offshore export cables will come ashore at the Dowses Beach Landfall Site in Barnstable, unless technical, logistical, grid interconnection, or other unforeseen issues arise that preclude the applicant from installing one or more Phase 2 offshore export cables within the OECC and a second grid interconnection point is needed (see Section 4.1.3.3 of COP Volume I in Appendix C). The ocean to land transition at the Dowses Beach Landfall Site will be made using horizontal directional drilling (HDD), which will avoid or minimize impacts to the beach, intertidal zone, and nearshore areas and achieve a burial significantly deeper than any expected erosion.
0073-07	The Town seems to have been swayed by the promise of "5 Million Dollars, up to 26 Million Dollars' ' over a 25 year period…"UP TO" does NOT mean it is a certainty. The reality could very well be that the Town receives 5 Million Dollars over 25 years, or nothing due to Avangrid's poor financial ability to perform or repair/replace any disturbance to public and private property…hardly an incentive for the devastation of public land, wildlife, and loss of quality of life for residents. The Town of Barnstable has negotiated with an unproven LLC who is already trying to renegotiate their agreement with the State. Avangrid says the plan is not financially feasible. Is this an attempt to get more taxpayer money and tax incentives to finish their venture? The company is a start up with shaky financials.	Thank you for your comment.
0075-01	Avangrid, the developer of New England Wind, has proven it is a proactive community partner, and we look forward to continuing that relationship on this project. The Good Neighbor Agreement between the Town, the company, and local nonprofits is guiding our collaborations on mutually beneficial projects to combat the local effects of global climate change, enhance coastal resiliency, and protect local cultural and historic resources. The Town is confident this commitment and approach will continue.	Thank you for your comment.
0078-01	As one of the first large-scale offshore wind projects sited within the United States, New England Wind will deliver significant benefits to our districts by generating clean, reliable energy to our constituents, working towards climate resiliency goals, and cementing Massachusetts as a hub for the burgeoning offshore wind industry in the United States.	Thank you for your comment.
0078-02	The approval and construction of the New England Wind project will be a tangible and urgently needed demonstration of our commitment to a clean energy future. Indeed, New England Wind serves as a vital project to help achieve both the nation's and the New England region's ambitious climate resiliency goals.	Thank you for your comment.

Comment Number	Comment	Response
0079-03	Approving and implementing the New England Wind project will be a tangible demonstration of our commitment towards a clean energy future and serves as a vital project to help achieve both the nation's and New England region's ambitious climate resiliency goals. The project will generate more than 2,000 Megawatts of clean, affordable energy – enough to power over one million households and reduce emissions by nearly four million tons. That is the equivalent of taking more than 800,000 cars off the road annually. This critical power to the grid will significantly reduce the region's reliance on fossil fuels and will diversify the regional energy supply. Massachusetts has been a leader in clean energy policy, starting with the 2008 Global Warming Solutions Act which mandated carbon reductions in the Commonwealth, the 2016 Energy Diversity Act which seeks to grow renewable energy in Massachusetts energy mix, and most recently the 2022 Act Driving Clean Energy and Offshore Wind.	Thank you for your comment.
0080-01	Salem, an Environmental Justice community, home first to a coal-fired power plant and now a gas-fired power plant, knows well the health impacts of having fossil fuel polluters in our community. We are pleased that with the coming of Offshore Wind to our port we can now begin to imagine a cleaner and healthier future and ultimately the decommissioning of the gas plant earlier than 2050 (the negotiated decommissioning date).	Thank you for your comment.
0080-02	First and foremost is the critical need to address the climate crisis and reduce the region's reliance on fossil fuels. The project will generate enough clean, affordable power to reduce emissions by nearly four million tons. In addition, the more than 2 gigawatts of energy that will be produced is enough to power over one million households across New England, significantly reducing consumer costs over time while also lowering emissions with all the subsequent benefits.	Thank you for your comment.
0084-02	There are hundreds of miles of shoreline along MA, RI and CT. For Avangrid, is Dowses Beach the optimal location because it's public land and considerably easier to acquire than private land? There are other landing options for them to consider including buying private land.	Section 2 of the Draft EIS included the required alternative analysis to support the NEPA analysis and the Final EIS has been updated to include the preferred alternative.
0086-07	Why should Avangrid, a Spanish owned company and a "newbie" in the OSW industry, destroy this Cape Cod natural treasure simply to further its business interests, especially when there are other feasible MA landing alternatives available?	Thank you for your comment.

Comment Number	Comment	Response
0086-13	Many minerals to manufacture wind turbines are required such as "iron ore, aluminum and rare earth metals such as neodymium, terbium, and dysprosium." This is problematical because many of these materials are in areas outside the United Slates "where there are geopolitical tensions...Russia holds 22 percent of the world's rare earth metal reserves." Wind turbines use large amounts of copper, with copper and aluminum also necessary "to expand the electricity grid." How will the OSW developers address this challenge? It is one thing to say we will build OSW projects but the reality of making them come to life due to uncontrollable and unforeseeable world events is challenging indeed. In the United States, demand for copper has increased. President Biden states that his Administration's policy is "to improve air and water quality ... and to create more opportunities .. .in hard-hit communities, including rural communities." New Mexico is now in the midst of dealing with the harmful side effects of copper mining: air pollution and aquifer contamination. How can air pollution and water contamination be reconciled with President Biden's call to improve air and water quality?	Activities such as mining of critical minerals for the construction of wind turbines and other project components are not within the scope of the analysis or BOEM's authority. Analysis of impacts from mining activities in the United States would be conducted by the agency with applicable permitting authority for those activities. NEPA applies to major federal actions (in other words, activities undertaken or permitted by the United States government). Mining activities in other countries would not be subject to NEPA and any analysis of impacts from those activities would be covered by any laws or requirements those countries have.
0086-15	There is a narrative among environmentalists that wind is "cheaper, cleaner energy" but in truth, it is cheap only in the early transition phase. Fossil fuels are the basic support of our electricity needs and also stand in "for intermittent wind." Batteries are necessary to store the "excess electricity that's generated when there's too much wind...and releasing it later when there's not enough." An MIT research study shows "that battery storage costs need to fall by 90% to replace fossil fuels." The false narrative that renewable energy such as OSW is cheap and abundant has to be addressed: in fact, the cost is "$30.3 trillion of investment in clean energy and Infrastructure by 2030" as estimated by World Energy Outlook 2021. Adding to the rising costs would be the hard reality that any OSW construction, operations, maintenance or decommissioning would entail heavy usage of fossil fuels, whether by using boats, land vehicles, aircraft, or manufacturing of wind turbines, etc. President Biden calls for stopping fossil fuel subsidies so there is uncertainty on how much this will affect OSW finances It bears noting that the only operational OSW project is Rhode Island's Block Island Wind Farm. It had an upfront $300 million cost and the state gave an additional $20 million incentive alter National Grid complained about the effect of the project on its credit rating. Incentive payments are "common in Massachusetts• and "rely on significant financial support on tax revenues." The bad news is that despite the massive amount of dollars poured into the 5 turbine OSW project, only one (1) turbine is allegedly working.	Thank you for your comment.

Comment Number	Comment	Response
0087-01	First and foremost is the critical need to address climate change, reduce the region's reliance on fossil fuels and reduce carbon emissions. These projects will generate enough clean, affordable power to reduce emissions by nearly four million tons. In addition, the more than 2 gigawatts of energy that will be produced is enough to power over one million households across New England and will significantly reduce consumer costs over time.	Thank you for your comment.
0095-1-02	While other parts of the country may have other renewable energy resources, in the Northeast, the major resource we have, and the one we need to rely on, is offshore wind. Without offshore wind projects such as New England Wind, we simply can't hope to significantly reduce our carbon emissions and mitigate our contribution to climate change.	Thank you for your comment.
0095-4-01	the climate and health benefits of offshore wind is one of the big reasons that we support the development of this renewable energy resource. And analyses have shown that it's likely to provide around 50 percent of our energy supply by 2050 if we are to succeed in reaching our climate goals. We are really encouraged by the potential in offshore wind to help stabilize and decrease energy cost across our region, and also to increase reliability.	Thank you for your comment.
0097-3-01	The biggest threat to whales, and the ocean ecosystem that they live in, is climate change...Industrial development destroys ecosystems. More industrial development by the installation of hundreds of offshore wind turbines will not solve the problem of climate change...The production of materials, as well as manufacturing processes for wind turbines and associated infrastructure, or the extracted energy storage and transmission, are made possible by burning fossil fuels. To obtain the raw materials used in wind turbines, habitat is destroyed through open pit mining, mountain top removal. These are then transported to processing plants to be turned into (inaudible) parts. It will take a tremendous amount of energy, to find mining materials, transport and transform them through industrial processes like smelting to turn them into wind turbines, batteries, infrastructure and industrial machinery.	Activities such as mining of critical minerals for the construction of wind turbines and other project components are not within the scope of the analysis or BOEM's authority. Analysis of impacts from mining activities in the United States would be conducted by the agency with applicable permitting authority for those activities. NEPA applies to major federal actions (in other words, activities undertaken or permitted by the United States government). Mining activities in other countries would not be subject to NEPA and any analysis of impacts from those activities would be covered by any laws or requirements those countries have.
0097-3-02	I would also like to respectfully note that there are already 12 existing cable landings on our beloved beaches on Cape and the islands, including Martha's Vineyard in Nantucket. These ocean and onshore cable infrastructure projects are necessary for the integration of our islands into the electrical grid, and certainly not a new concept in terms of construction and implementation for our region, and our local communities on the Cape and islands.	Thank you for your comment.

Comment Number	Comment	Response
0097-4-01	All six towns on Martha's Vineyard have committed to being a hundred percent renewable in transportation, heating and electricity by 2040. Our island cannot reach these targets without offshore wind, and the New England Wind Project is critical in helping not only our island, but Massachusetts reach these goals. New England Wind is a critical transmission project for our Commonwealth, and the region, delivering an additional 2,000 megawatts of clean electricity into our grid, which will save rate payers money and contribute to the growth of a new industry here in New England and on the South Coast.	Thank you for your comment.
0097-4-02	I would also like to respectfully note that there are already 12 existing cable landings on our beloved beaches on Cape and the islands, including Martha's Vineyard in Nantucket. These ocean and onshore cable infrastructure projects are necessary for the integration of our islands into the electrical grid, and certainly not a new concept in terms of construction and implementation for our region, and our local communities on the Cape and islands.	Thank you for your comment.

O.5.2 Proposed Action and Alternatives

Table O.5-2: Responses to Comments on the Proposed Action and Alternatives

Comment Number	Comment	Response
0006-01	Ecological design elements should be incorporated into the offshore wind infrastructure, specifically for scour and cable protection where benthic habitat could be maximized. Using nature-based design elements significantly increases species settlement, richness, and abundance. Furthermore, nature-based design elements allow the structure to magnitude and frequency of maintenance leading to increased lifespan. Using ecological concrete as a mitigation measure and design alternative supports compliance with strict environmental regulations...all concrete materials should solely be fabricated from ecological concrete, including all cable and scour protection, in order to minimize impacts and create marine habitat opportunities.	Section 2.1.2 of the Draft EIS presented a discussion of scour protection alternatives and are also discussed in the New England Wind COP Vol I, Section 3.2.1.4.
0018-01	There are 100 reasons why this large-scale offshore wind project should not move forward, and some of those yes are environmental concerns. But moreso are the costs (upfront, maintenance, direct, indirect, hidden) of the project and the lack of a meaningful ROI on this project. The project will cost an extreme amount of funds, and already associated developers seem to convinced that it is not economically feasible.	Thank you for your comment.
0018-02	These large turbines and blades will likely need replacement or significant repairs in the 12-15 year timeframe, and any of that work will be extremely expensive and certainly not environmentally friendly. Where will the old blades go? From my understanding, they are not recyclable.	Factors such as how damaged and/or replaced project components are disposed of or recycled are not within the scope of the analysis or BOEM's authority.
0019-02	I want the developer to have the cheapest and easiest/fastest to construct cable landing option, and it’s clear that Dowses is that option.	Thank you for your comment.
0019-05	I spoke recently with one of the leaders of the opposition to the Dowses landing site...[who] mentioned above that the cable would be buried as shallow as 8 feet below the beach, leading to concerns about electromagnetic radiation exposure to beach goers. I was also told that there were legitimate concerns that, if the cable were to be routed under East Bay, the fresh water aquifer could be pierced. On the Feb 6th Zoom, experts from the BOEM stated that the estimated depth of the cable under the beach is 9 meters (nearly 30 feet) and that electromagnetic radiation amounts reaching the beach surface would be undetectable. I was also told that if cables are laid under East Bay, they would be well above the fresh water aquifer. If these statements are accurate, and I believe they are, the only potentially significant concerns I have heard re the cables coming into Dowses are ungrounded.	Section 2 of the Draft EIS stated that the Phase 2 offshore export cables would make landfall within paved parking areas at either the Dowses Beach Landfall Site or the Wianno Avenue Landfall Site in the Town of Barnstable (Figure 2.1-8). The ocean-to-land transition at the Dowses Beach Landfall Site would employ the HDD technique, which would avoid or minimize impacts on the beach, intertidal zone, and nearshore areas. As noted in the New England Wind COP Vol I Section 3.3.1.8, the engineering trajectory of the HDD shows the cable passing at a depth of approximately 9 m (30 ft) below the ground surface at Mean High Water. With the expected use of HDD at the landfall sites and the target burial depth of the offshore export cables, New England Wind is not expected to permanently alter nearshore hydrodynamics so as to affect shoreline erosion or accretion. Impacts on coastal habitats and fauna at the landfall site(s) would be avoided by locating the sea-to-shore transition vault in a

Comment Number	Comment	Response
		paved area and, at the Dowses Beach Landfall Site, by using HDD to install the cable beneath the beach.
0029-01	Brattle Group conducted a study "Offshore Wind Transmission: an analysis of planning in New England and New York" which considered the "planned approach" similar to what BOEM calls "open access." Having various OSW projects share a single transmission line is advantageous due to lower costs for the OSW developers and also more beneficial to the marine life and habitat and coastal communities. This open access/planned approach is a superior approach to Avangrid's separate plan to land cables at estuarine Dowses Beach on Nantucket Sound...There is truly no reason to consider Dowses Beach as an OSW cable landing site when an intelligent open access/planned approach is available. BOEM writes that it has not considered the open access approach at this time and I ask "why not ask the OSW developer to do it for the next Draft EIS"?	Section 2.2 of the Draft EIS described those alternatives considered by not analyzed in detail. Developing a shared export cable corridor would not be technically or economically practicable because each other offshore wind project has distinct interconnection points to the electric power grid.
0029-11	A more suitable location if the "open access/planned approach" is not used, is the South Coast Variant (SCV), where New Bedford is welcoming OSW projects. The mayor has expressed much interest in the long term well-paying jobs for his constituents and the local community college has started a waterfront training facility for future OSW workers. Avangrid will base its CW office in New Bedford, making the location particularly feasible for CW. There will be advantages in fewer fossil fueling costs and proximity to the OSW turbines making for easier construction, operations and maintenance...New Bedford would truly benefit from the OSW jobs. New Bedford has a younger able-bodied population ideal for the OSW jobs and has proven expertise with handling industrial projects. The cutoff of fossil fuel subsidies would mean savings for CW as everything OSW is already there. Likewise, SCV is better for the environment because of shorter commutes for OSW workers, translating to less air pollution. Lastly, there is the important human element that the locals will feel affirmed that they are doing their active part to help the environment.	The South Coast Variant is currently included as one of several possible cable route scenarios for Phase 2 of the Project; however, the Project would only use the South Coast Variant if technical, logistical, grid interconnection, or other unforeseen issues arise during the COP review and engineering processes. More information on the South Coast Variant and what factors would be considered prior to choosing this cable route are discussed in COP Vol I, Section 4.1.3.3. If the South Coast Variant is chosen, additional NEPA analyses and COP modifications would be needed to evaluate the impacts of installing export cables through this area.
0029-12	HDD is cheaper, less precise and more prone to maintenance issues due to its flexible nature compared to microtunneling. Even a layperson will discern that there will be major adverse impacts to Dowses Beach.	To avoid impact natural resources, trenchless drilling/HDD is proposed which allows the least impact to the sensitive natural resources. As described in COP Vol I, Sections 3.3.1.8 and 4.3.1.8, horizontal directional drilling (HDD) is expected to be used at the Phase 1 and Phase 2 landfall site to avoid impacts of standard cable burial techniques in the nearshore region. Impact to surface ground and sediment disturbance are at the entry and exit points.
0029-13	CW is a multiyear project, barring any delays manmade or from acts of God, and the parking lot to be used as a staging area would be ugly, disruptive, noisy and dirty for years. Whether it is HDD or microtunneling, the impact to the citizens is major and adverse. BOEM	All staging areas used for the construction of the Project would be temporary and restored to its original state after completion. The actual onshore substation location has not been chosen yet, but it will not be located in the Dowses beach parking lot. More information on Project

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	has to accurately state the major adverse impacts to the coastal habitat, the marine life, the human quality of life, the wildlife and bird refuge, the aquifer's supply of drinking water, the air quality and the ADA rights of the disabled to the accessible fishing pier. BOEM cannot minimize the realities of this dirty fossil-fuel-heavy project masquerading as a green clean project. It has to revise the Draft EIS for accuracy.	construction and staging areas are addressed in NE Wind COP Vol. 1, Section 3.2.2 and 4.2.2.
0031-01	Estuarine Dowses Beach is the wrong location for CW. A more suitable site includes the South Coast, where New Bedford has Marine Commerce Terminal (MCT) and Foss Terminal - that will provide construction, maintenance, and other services to the offshore wind (OSW) industry. Avangrid's CW operations and maintenance will be based in New Bedford. An important factor is that MCT plans to expand its North Terminal to be capable of handling two separate future OSW installations. The proximity of these terminals to CW is ideal because there will be far less use of fossil fuels for boats and other staff vehicles traveling to do maintenance once the OSW projects are operational, making the South Coast location a cleaner, climate-friendly and lower carbon emission choice.	"The South Coast Variant is currently included as several possible cable route scenarios for Phase 2 of the Project; however, the Project would only use the South Coast Variant if technical, logistical, grid interconnection, or other unforeseen issues arise during the COP review and engineering processes. More information on the South Coast Variant and what factors would be considered prior to choosing this cable route are discussed in COP Vol I, Section 4.1.3.3. If the South Coast Variant is chosen, additional NEPA analyses and COP modifications would be needed to evaluate the impacts of installing export cables through this area.
0034-04	Also, this project..... doesn't seem to consider take in the potential of rising oceans by placing the three vaults in the beach parking lot, where the rising ocean would cause an increase in the flooding of the parking lot (the parking lot currently floods a few times each year). Even the proposed canal bridge replacement project is looking to raise the height of the new bridges by 3 feet to keep the same clearance levels because of rising oceans.	Thank you for your comment.
0034-09	I strongly encourage you to require a planned approach for any of these wind projects. Two studies conducted by the Brattle Group compared two approaches for OSW transmission: the "generator lead line" and the "planned approach." The first has "project specific generator lead lines" and the second is "planned to minimize overall risks and costs." In the second "planned approach" benefits included lower impacts on coastal communities, marine life and marine environment. BOEM refers to "open access" transmission that will let various OSW farms "to connect to a single transmission line, potentially consolidating cabling systems, landing areas, and onshore infrastructure." Reducing total miles of cables to connect separate OSW farms, lessening "environmental impacts" of deep sea cables, and lowering "costs of development and operation" are some of the positives of this approach. A marine health and public health benefit of the planned approach is that the consolidation of individual cables into one transmission line "could be a significant move in mitigating cumulative electric and magnetic (EMF) effects across multiple OSW projects."	Section 2.2 of the Draft EIS described those alternatives considered by not analyzed in detail. Developing a shared export cable corridor would not be technically or economically practicable because each other offshore wind project has distinct interconnection points to the electric power grid.

Comment Number	Comment	Response
0034-11	As for alternative landing sites - Estuarine Dowses Beach is the wrong location for CW. A more suitable site includes the South Coast, where New Bedford has Marine Commerce Terminal (MCT) and Foss Terminal - that will provide construction, maintenance, and other services to the offshore wind (OSW) industry. Avangrid's CW operations and maintenance will be based in New Bedford. An important factor is that MCT plans to expand its North Terminal to be capable of handling two separate future OSW installations. The proximity of these terminals to CW is ideal because there will be far less use of fossil fuels for boats and other staff vehicles traveling to do maintenance once the OSW projects are operational, making the South Coast location a cleaner, climate-friendly and lower carbon emission choice.	Multiple cable landfall locations have been considered for each Phase of the Project to minimize disruption to residents and minimize impacts on the onshore environment. The Phase 2 offshore export cables will come ashore at the Dowses Beach Landfall Site in Barnstable, unless technical, logistical, grid interconnection, or other unforeseen issues arise that preclude the applicant from installing one or more Phase 2 offshore export cables within the OECC and a second grid interconnection point is needed (see Section 4.1.3.3 of COP Volume I in Appendix C). The ocean to land transition at the Dowses Beach Landfall Site will be made using horizontal directional drilling (HDD), which will avoid or minimize impacts to the beach, intertidal zone, and nearshore areas and achieve a burial significantly deeper than any expected erosion.
0035-01	I oppose landfall of the electrical lines at any beach, including Dowses Beach or Craigville Beach. There are several alternative landfall sites on the Cape that are quasi-industrial including Hyannis and Woods Hole. Two reasons.	Multiple cable landfall locations have been considered for each Phase of the Project to minimize disruption to residents and minimize impacts on the onshore environment. The Phase 2 offshore export cables will come ashore at the Dowses Beach Landfall Site in Barnstable, unless technical, logistical, grid interconnection, or other unforeseen issues arise that preclude the applicant from installing one or more Phase 2 offshore export cables within the OECC and a second grid interconnection point is needed (see Section 4.1.3.3 of COP Volume I in Appendix C). The ocean to land transition at the Dowses Beach Landfall Site will be made using horizontal directional drilling (HDD), which will avoid or minimize impacts to the beach, intertidal zone, and nearshore areas and achieve a burial significantly deeper than any expected erosion.
0036-02	This project, which is one of many to help fight climate change and supply other sources of renewable clean energy, doesn't seem to take in the potential of rising oceans by placing the three vaults in the beach parking lot, where the rising ocean would cause an increase in the flooding of the parking lot (the parking lot currently floods a few times each year). Even the proposed canal bridge replacement project (Sagamore and Bourne Bridges) is looking at raising the height of the new bridges by 3 feet to maintain the required 30 foot clearance levels due to potential rising oceans levels.	Thank you for your comment.
0037-03	[Dowses Beach landing site] There are alternative existing industrial sites for this project.	Multiple cable landfall locations have been considered for each Phase of the Project to minimize disruption to residents and minimize impacts on the onshore environment. The Phase 2 offshore export cables will come ashore at the Dowses Beach Landfall Site in Barnstable, unless technical, logistical, grid interconnection, or other unforeseen issues arise that preclude the applicant from installing one or more Phase 2 offshore export cables

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		within the OECC and a second grid interconnection point is needed (see Section 4.1.3.3 of COP Volume I in Appendix C). The ocean to land transition at the Dowses Beach Landfall Site will be made using horizontal directional drilling (HDD), which will avoid or minimize impacts to the beach, intertidal zone, and nearshore areas and achieve a burial significantly deeper than any expected erosion.
0040-01	A "Planned Approach" to coordinate multiple landings in industrial areas, currently equipped for such projects, makes far more sense on many fronts.	Thank you for your comment.
0041-02	While reading through the different alternative's impacts I noticed that the "No Action" alternative refers to the instance when the New England Wind project isn't built, but the surrounding offshore wind farms are. I think this is deceiving. The "No Action" alternative in all documents should be a true no action, as in no offshore wind construction is approved and carried out.	The No Action Alternative consists of the current baseline conditions as influenced by past and ongoing activities and trends and serves as the baseline against which all action alternatives are evaluated. The Draft EIS presented a complete description and analysis of impacts from ongoing activities and trends (i.e., No Action Alternative) and impacts from the Proposed Action and action alternatives. The No Action Alternative provides a current baseline for analysis of impacts from the action alternatives. A separate analysis of the No Action Alternative when combined with future planned activities (i.e., cumulative actions) provides the future baseline as a basis for comparison of the cumulative impacts of the action alternatives.
0046-10	Comparisons to wind farms in Denmark are invalid. There are no hurricanes in Denmark. Denmark has had multiple problems with their cables. Horizontal drilling projects are usually done in remotes areas where there is adequate space for the equipment and it can be done without disruption of the surrounding area.	Section 2.2 of the Draft EIS addressed how WTGs are designed to sufficiently withstand severe storm events as well as how the HDD would be implemented. Chapter 3 of the Draft EIS addressed the potential impacts on resources areas during the HDD.
0048-03	BOEM states that many alternatives were considered. I presume these "alternatives" were submitted at least in part by the developer? Further study is needed. Please consider that there are plenty of viable and suitable alternative landings for these three high voltages (1200mw) cables that were not submitted by the developer and therefore not considered by BOEM, many outside of the town of Barnstable, in less environmentally sensitive areas.	Section 2.2 of the Draft EIS described those alternatives considered by not analyzed in detail.
0048-04	The best landing sites for these cables (short of an offshore "planned approach" proposed by the Brattle Group, which is ideal) are those that are closer to the users of the power, like Boston, Providence, Hartford, or the South Coast of Massachusetts. These locations have ample power plants and also decommissioned, existing, or underutilized power plants, all of which could be built up (for example, Acushnet) and would greatly reduce the onshore environmental and community damage and minimize the overall environmental damage...Fundamentally Cape Cod is not built to push power to the mainland. Per many electricity experts, it does not have	Multiple cable landfall locations have been considered for each Phase of the Project to minimize disruption to residents and minimize impacts on the onshore environment. The Phase 2 offshore export cables will come ashore at the Dowses Beach Landfall Site in Barnstable, unless technical, logistical, grid interconnection, or other unforeseen issues arise that preclude the applicant from installing one or more Phase 2 offshore export cables within the OECC and a second grid interconnection point is needed (see Section 4.1.3.3 of COP Volume I in Appendix C). The ocean to land

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	the infrastructure and also would result in more instances of grid instability, brown-outs and higher costs to the end consumer.	transition at the Dowses Beach Landfall Site will be made using horizontal directional drilling (HDD), which will avoid or minimize impacts to the beach, intertidal zone, and nearshore areas and achieve a burial significantly deeper than any expected erosion."
0048-05	The South Coast Variant, which is named in the Draft EIS, is a viable alternative that needs further study.	The South Coast Variant is currently included as one of several possible cable route scenarios for Phase 2 of the Project; however, the Project would only use the South Coast Variant if technical, logistical, grid interconnection, or other unforeseen issues arise during the COP review and engineering processes. More information on the South Coast Variant and what factors would be considered prior to choosing this cable route are discussed in COP Vol I, Section 4.1.3.3. If the South Coast Variant is chosen, additional NEPA analyses and COP modifications would be needed to evaluate the impacts of installing export cables through this area.
0049-05	they only work if the wind blows consistently between 15-50 mph—-that rarely happens—	Thank you for your comment.
0049-06	they can't withstand strong storms, hurricanes, tornadoes, thu def storms, lightning, downspouts —etc. All of which are predicted to increase . One turbine in N Texas even incinerated when struck by lightning n one fisherman almost got decapitated when a blade flew off.	Thank you for your comment.
0051-03	I would strongly encourage consideration of alternate venues, such as the existing power station along the cape canal, or the New Bedford area, neither of which is nearly as vulnerable to the potential long effects unique to Dowses Beach.	Multiple cable landfall locations have been considered for each Phase of the Project to minimize disruption to residents and minimize impacts on the onshore environment. The Phase 2 offshore export cables will come ashore at the Dowses Beach Landfall Site in Barnstable, unless technical, logistical, grid interconnection, or other unforeseen issues arise that preclude the applicant from installing one or more Phase 2 offshore export cables within the OECC and a second grid interconnection point is needed (see Section 4.1.3.3 of COP Volume I in Appendix C). The ocean to land transition at the Dowses Beach Landfall Site will be made using horizontal directional drilling (HDD), which will avoid or minimize impacts to the beach, intertidal zone, and nearshore areas and achieve a burial significantly deeper than any expected erosion.
0053-01	Dowses beach should not be abused by large commercial international conglomerate Oil Companies, such as Shell Oil Inc and its many "shell" LLC's. I demand that all of the Wind Farm on-shoring immediacy cease and desist until a well-engineered 'modular' transmission plan be put in place , such as the proposed 5 New England States 8.4 GW offshore model is completed.	Multiple cable landfall locations have been considered for each Phase of the Project to minimize disruption to residents and minimize impacts on the onshore environment. The Phase 2 offshore export cables will come ashore at the Dowses Beach Landfall Site in Barnstable, unless technical, logistical, grid interconnection, or other unforeseen issues arise that preclude the applicant from installing one or more Phase 2 offshore export cables within the OECC and a second grid interconnection point is needed (see

Comment Number	Comment	Response
		Section 4.1.3.3 of COP Volume I in Appendix C). The ocean to land transition at the Dowses Beach Landfall Site will be made using horizontal directional drilling (HDD), which will avoid or minimize impacts to the beach, intertidal zone, and nearshore areas and achieve a burial significantly deeper than any expected erosion.
0055-03	If the developer uses this variant, we recommend that BOEM develop a supplement to the EIS so stakeholders can evaluate and provide comments on the proposal (page ES-11). Updates to the COP only are not sufficient for this purpose. As part of this supplemental EIS, we also recommend an evaluation of tradeoffs around different inter-array cable layouts given the exact design depends on the turbine and electrical service platform locations used (page 2-10). Generally, we recommend an inter-array layout that uses the least amount of cabling to minimize impacts to habitats and fisheries.	The South Coast Variant is currently included as one of several possible cable route scenarios for Phase 2 of the Project; however, the Project would only use the South Coast Variant if technical, logistical, grid interconnection, or other unforeseen issues arise during the COP review and engineering processes. More information on the South Coast Variant and what factors would be considered prior to choosing this cable route are discussed in COP Vol I, Section 4.1.3.3. If the South Coast Variant is chosen, additional NEPA analyses and COP modifications would be needed to evaluate the impacts of installing export cables through this area.
0055-04	The Draft EIS is unclear on how likely it is that the "representative inter-array cable layout" shown on Figure 2.1-3 will be used and whether certain areas within the lease are more likely be developed so this project can use the same offshore export cable route as Vineyard Wind 1.	The precise layout and amount of cable required for inter-array cabling is not known at this time and will be determined upon final engineering design of the WDA. The Final EIS has evaluated the maximum case amount of inter-array for potential impacts. The amount and length of inter-array cabling would not exceed the maximum design parameter as outlined in Appendix C.
0055-06	The alternatives are not well described, and it is not clear how the impacts to complex habitat would be minimized. Furthermore, Figures 4.1-8a through 4.1-8f of COP Volume 1 (page 225-230) show which export cables go into which corridors; however, it is not clear how these offshore export cable scenarios relate to Alternatives C-1 and C-2 in the Draft EIS. Similarly, Figures 3.5-3 through 3.5-7 of the Draft EIS show seafloor habitats within the offshore export cable corridor; however, it is confusing how these figures relate to Alternatives C-1 and C-2. We recommend one figure showing the seafloor habitats of both Alternative C sub-alternatives to fully understand the tradeoffs of constructing export cable corridors through the Muskeget Channel.	Phase 2 offshore export cable scenarios are provided in Final EIS Table 2.1-2 and the scenarios corresponding to each Alternatives are addressed in Table 2.1-1. A description of how each Alternative impacts benthic habitat is addressed in Final EIS Section 3.4.2.4.
0056-09	The NBPA continues to promote the responsible development of offshore wind and therefore a "No Action Alternative (ES.4.1 Alternative A)" is not a practicable substitute if the goal is to achieve the ambitious climate goals laid out by the federal and state governments.	Thank you for your comment.
0056-10	as the most profitable fishing port in the country representing an industry that employs over 7,000 people, we strongly support alternatives that minimizes habitat impact. In this case, we prefer ES.4.3 Alternative C - Habitat Impact Minimization Alternative that would minimize impacts on complex fisheries habitats.	Thank you for your comment.

Comment Number	Comment	Response
0057-03	Plans are to install industrial cables on this fragile piece of land. I understand these only last 20 years. Then what?	Decommissioning plans and timelines were discussed in Section 2 of the Draft EIS. The decommissioning approach is unchanged from the Draft EIS; therefore, no changes to the Final EIS were necessary. Further, additional NEPA analysis will be conducted prior to making a determination on the decommissioning application that needs to be submitted for purposes of authorizing decommissioning activities, including the methods to be used.
0060-03	nor has there been adequate consideration of alternative locations across numerous commercial areas to the north and south of Dowses. There are ZERO guarantees that our beloved Dowses Beach will not be destroyed and unable to recover from this attack. Accordingly, there is a solution. Avangrid must land their cables in an industrial area that can handle 1200mw of energy that will not pose a threat to Dowses.	Multiple cable landfall locations have been considered for each Phase of the Project to minimize disruption to residents and minimize impacts on the onshore environment. The Phase 2 offshore export cables will come ashore at the Dowses Beach Landfall Site in Barnstable, unless technical, logistical, grid interconnection, or other unforeseen issues arise that preclude the applicant from installing one or more Phase 2 offshore export cables within the OECC and a second grid interconnection point is needed (see Section 4.1.3.3 of COP Volume I in Appendix C). The ocean to land transition at the Dowses Beach Landfall Site will be made using horizontal directional drilling (HDD), which will avoid or minimize impacts to the beach, intertidal zone, and nearshore areas and achieve a burial significantly deeper than any expected erosion.
0067-05	While the Network appreciates environmental considerations undertaken during the process including impacts to habitat to fauna, it is clear that pursuing either Alternative C1 or C2 do not offer significant benefits over Alterative B and could lead to unneeded project delays as shown in the analysis. ....the Network encourages BOEM to think about holistic economic and environmental impacts when considering alternatives.	Thank you for your comment.
0067-06	The Network recommends that BOEM implement the goals of Alternative B, while recognizing, based on the valuable input that BOEM has received during the process, there may be ways to improve upon the project while ensuring the timeline continues to move forward without delay.	Thank you for your comment.
0070-03	We support BOEM's decision to provide a supplemental EIS (SEIS) if the developer chooses to use the South Coast Variant export cable corridor route, as they did not provide any environmental analysis of this route for the Draft EIS. Further, we note that the SEIS is even more important since the construction schedule for Phase 2 indicates that project construction would not begin until Q4 of 2028, when environmental, wildlife, and economic conditions may have significantly changed and technology and research may have improved. We recommend that BOEM revise the description of the affected environment section to incorporate an independent analysis of all species likely to occur in the Project Area, using relevant and up-to-date primary sources to support its analysis.	The South Coast Variant is currently included as one of several possible cable route scenarios for Phase 2 of the Project; however, the Project would only use the South Coast Variant if technical, logistical, grid interconnection, or other unforeseen issues arise during the COP review and engineering processes. More information on the South Coast Variant and what factors would be considered prior to choosing this cable route are discussed in COP Vol I, Section 4.1.3.3. If the South Coast Variant is chosen, additional NEPA analyses and COP modifications would be needed to evaluate the impacts of installing export cables through this area.

Comment Number	Comment	Response
0070-05	We appreciate the consideration of suction bucket foundations for Phase 2 of the project, but believe the analysis supporting the conclusion that a quieter foundation alternative for Phase 1 is infeasible is lacking and BOEM should provide a full analysis to the public.	As discussed in COP Vol I Section 4.2.1.2 and 4.2.3.3.3, jackets with suction buckets and bottom-frame foundations (with piles or suction buckets) are relatively immature technologies and have been used in offshore wind for only two small projects. While these technologies are not suitable for Phase 1 of this project from a risk and economic standpoint, an initial screening analysis has indicated that they may be feasible for Phase 2.
0070-08	Through the use of project labor agreements and community benefits agreements, offshore wind can create job transition opportunities for workers affected by this resource shift. The Final EIS should consider these impacts in its analysis of all alternatives, particularly the "No Action Alternative." Without offshore wind, it is likely that fossil fuel energy facilities would either come online or be kept online to meet future power demand in New England. Therefore, BOEM should reject the "No Action Alternative" because it would drive up pollution, prevent states from achieving mandated climate goals, increase energy costs, and threaten grid reliability by continuing our region's overreliance on fossil fuels for electricity generation.	Thank you for your comment.
0074-03	OSW in Nantucket Sound is not a good idea. There are other intelligent alternatives such as the “planned approach” which consolidates separate OSW projects into one deep ocean cable management.	Thank you for your comment.
0076-03	BOEM has not considered a reasonable range of Alternatives per NEPA. It has merely analyzed only those Alternatives that meet developer contracts and goals of full buildout, rather than considering prevention of interference with reasonable uses of the ocean or safety, as required under the Outer Continental Shelf Lands Act. No differing Project components or other Alternatives were analyzed, primarily because they did not meet the goals of the developer or were determined by "BOEM's technical experts" to be "technically infeasible" or "economically infeasible". We request that BOEM explain which technical experts make these determinations, the criteria or thresholds for determining "infeasibility", where BOEM sources its information about "infeasibility", and the process for assessing feasibility vs infeasibility.	Section 2 of the Draft EIS included the required alternative analysis to support the NEPA analysis and the Final EIS has been updated to include the preferred alternative.
0076-05	Alternative 4, the Transit Lane Alternative that was rejected by BOEM and is discussed on p. 2-36 of the Draft EIS as an Alternative Considered but Not Analyzed in Detail. BOEM maintains that this Alternative was negated by the developer's 1x1 nm layout that was recommended by the USCG MARIPARS, and because "wider routes could make the proposed Project economically infeasible". Again, we do not know what metrics BOEM has used to support this statement; please publicly disclose those metrics.	BOEM has consulted with USCG throughout the processes for identifying lease areas, reviewing individual COPs, and preparing this Draft EIS. Developers and applicants for projects in the RI/MA Lease Areas have agreed to develop (and have designed) all projects based on a uniform, orthogonal, 1- × 1-nautical-mile (1.15-mile) grid, as recommended by the USCG’s May 2020 Final Massachusetts and Rhode Island Port Access Route Study. Further, Chapter 2.2 of the Draft EIS indicates that an alternative that includes wider structure-free corridors throughout the

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		RI/MA Lease Areas, including the SWDA, was considered but not analyzed in detail and explains further why it was discounted.
0076-06	BOEM does not provide enough detailed information to differentiate between alternatives and associated impact producing factors, leading essentially to conclusions that all impacts are the generally the same. BOEM makes conclusions with no analysis to support its conclusions.	Chapter 3 of the Draft EIS provided resource-specific impact level definitions for each resource section, and the impacts of each alternative align with the appropriate impact level, as supported by the analysis. Impacts to each resource area are also summarized in the Final EIS Executive Summary, Table ES-3. Alternatives reduced impacts on many resources; however, they did not always result in a change to the resource's impact level conclusion. The minimization of impacts is identified and quantified where possible in the Final EIS.
0076-08	At the Draft EIS stage, the project boundaries are still uncertain. The developer/BOEM cannot differentiate which part of the lease will be Phase 1 or Phase 2 of the proposed Project, much less the boundary between Vineyard Wind 1 and New England Wind. BOEM must finalize the actual project boundaries, what on what lease assignments the proposed project would be located, finalize any potential necessary lease reassignments, and release those finalized boundaries in a future supplemental Draft EIS. BOEM cannot move forward on Project review when it has not finalized the boundaries of the proposed Project. This is especially true when the lease portion that would be potentially be reassigned to New England Wind would be coming from the Vineyard Wind 1 lease/Project which is subject to current litigation.	Under the Proposed Action, the proposed Project would be developed in two phases, with a combined maximum of 130 wind turbine generator (WTG) and electrical service platform (ESP) positions, all located within the SWDA. Phase 1, also known as the Park City Wind Project, would deliver at least approximately 804 megawatts (MW) and would be immediately southwest of Vineyard Wind 1. Phase 2, also known as the Commonwealth Wind Project, would deliver at least 1,232 MW and would be constructed southwest of Phase 1 within the remainder of the SWDA. Collectively, the proposed Project would generate at least 2,036 MW and up to 2,600 MW. The Project is planning for up to 130 WTG/ESP positions with a maximum of 129 WTGs. The developer of the Vineyard Wind 1 Project (Vineyard Wind 1, LLC) will assign spare or extra positions in the southwestern portion of OCS A 0501 to Park City Wind for the New England Wind Project if those positions are not developed as part of the Vineyard Wind 1 Project.
0081-08	At a minimum, an additional alternative should be analyzed and compared against the design envelope of the project for which the Draft EIS has been prepared: a No Development Alternative. The No Action Alternative as presented should still be included in the Draft EIS, but a complimentary No Development Alternative should also be provided. Again, this demonstrates the need for a robust cumulative impact assessment and mitigation measures aimed to address cumulative impacts to understand the true impacts of OSW in the Atlantic.	Section 2 of the Draft EIS included the required alternative analysis to support the NEPA analysis and the Final EIS has been updated to include the preferred alternative.
0081-09	The Draft EIS should explicitly include alternatives for analysis that serve to mitigate the project's impacts to fishing, including...comments raised during scoping and in previous comment letters and those listed on RODA's website. The NE Wind Draft EIS includes alternatives intended to minimize habitat impacts from the export cable through the Muskeget Channel. While inclusion of these alternatives is appreciated, and we agree minimizing impacts to important habitat features is important; these do very little to protect the dependent recreational and commercial fishing	Section 2 of the Draft EIS included the required alternative analysis to support the NEPA analysis and the Final EIS has been updated to include the preferred alternative.

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	communities. RODA recommends other habitat features important to fisheries in the lease area be afforded similar protection as well.	
0081-12	RODA, and the fishing industry, are disappointed that Vineyard Wind (Copenhagen Infrastructure Partners and Avangrid Renewables, LLC) and New England Wind (Avangrid Renewables, LLC) are not honoring their commitment for a transit lane for navigation. In fact, it is even more disappointing that this was not even considered as an alternative in the Draft EIS preparation. The rationale for dismissal provided in the Draft EIS includes "wider routes could make the proposed Project economically infeasible because fewer WTGs would be installed" (Draft EIS p. 2-36). This is incomprehensible because at the time of the commitment to include a transit lane, Vineyard Wind planned to use 9.5 MW turbines, and yet the turbine capacity for Vineyard Wind 1 is 13 MW and for New England Wind is 13-16 MW. The fishing industry came to the table in good faith and worked with the offshore wind industry on an equitable solution to promote safety and protect navigation that is now being ignored.	Section 2.2 of the Draft EIS described those alternatives considered by not analyzed in detail. Developers and applicants for projects in the RI/MA Lease Areas have agreed to develop (and have designed) all projects based on a uniform, orthogonal, 1- × 1 nautical mile (1.15-mile) grid. USCG's May 2020 Final Massachusetts and Rhode Island Port Access Route Study recommended the same grid to maximize safety and navigation consistency (USCG 2020) and stated that 1- × 1 nautical mile (1.15 mile) spacing provides ample maneuvering space for typical fishing vessels expected in the proposed Project area. Addition of wider routes could make the proposed Project economically infeasible because fewer WTGs would be installed, with an accompanying reduction in the amount of electricity generated.
0081-15	The alternatives are poorly presented in the Draft EIS, and often require the reader to refer back to details only found in the COP. All pertinent information should be presented in the Draft EIS, including a basic schematic of cable export routes for the different alternatives and phases.	Section 2 of the Draft EIS included the required alternative analysis to support the NEPA analysis and the Final EIS has been updated to include the preferred alternative.
0081-16	It is confusing in the Draft EIS how each of the alternatives minimize impacts to habitat, and their relationship to anticipated (Vineyard Wind) and proposed (Mayflower Wind) export routes. At a minimum, there should be clear schematics in the Executive Summary with all the alternatives with legends consistent with the language used in the Draft EIS, and the difference in impacts from each alternative. It is nearly impossible to understand these seemingly basic components as presented in the Draft EIS.	Chapter 3 of the Draft EIS provided resource-specific impact level definitions for each resource section, and the impacts of each alternative align with the appropriate impact level, as supported by the analysis. Impacts to each resource area are also summarized in the Final EIS Executive Summary, Table ES-3. Alternatives reduced impacts on many resources; however, they did not always result in a change to the resource's impact level conclusion. The minimization of impacts is identified and quantified where possible in the Final EIS.
0081-20	BOEM's draft analyses recognize the potentially major impacts to fishing, marine mammals, and navigation of the proposed projects and their respective alternatives. Yet, not all mitigation proposals offered by the fishing industry were evaluated as alternatives in the Draft EIS.	The mitigation and monitoring measures that the applicant has committed to implement (including and in addition to those defined in the COP) are listed in Table H-1. Mitigation and monitoring measures that may result from reviews under the statutes listed above are shown in Table H 2. Some of these mitigation and monitoring measures are outside of BOEM's statutory and regulatory authority but could potentially be adopted and imposed by other governmental entities. Tables H-1 and H-2 provide descriptions of mitigation or monitoring measures, along with the resource or resources to which each measure applies. If the COP is approved or approved with conditions, it will include mitigation and monitoring measures developed under various consultations and permit reviews (e.g., ESA and Marine Mammal Protection Act) and adopted by the Final EIS Record of Decision (ROD). If BOEM decides to approve the COP, the ROD will state which of the additional mitigation and monitoring

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		measures identified by BOEM in Tables H-1 and H-2 have been adopted; if measures are not adopted, the ROD will state why they were not. If the measures adopted differ substantially from those listed in Tables H-1 and H-2, BOEM will evaluate whether impacts analyses need to be modified to address those changes. The applicant will be required to implement the mitigation and monitoring measures applicable that are adopted in the ROD (Code of Federal Regulations, Title 40, Section 1505.3 [40 CFR § 1505.3]), and it will be required to certify compliance with certain terms and conditions as required under 30 CFR § 585.633(b).
0081-22	We recommend utilizing larger capacity turbines to make the geologic footprint, in terms of WTGs deployed, smaller. This, in turn, could assist in the avoidance and/or minimization of impacts resulting from the project. This alternative should be considered and made clear to the public as turbine size is fundamental to the number of turbines that will be used in a project area.	Alternative 8 would have required the largest available WTGs to minimize the number of foundations constructed to meet the proposed Project capacity, minimize impacts on marine habitat and resources, and reduce navigation and other space-use concerns. It was determined that there is no scientific evidence that this alternative would not avoid or substantially lessen one or more significant environmental impacts of the proposed project and would not be economically feasible or practicable. BOEM will ensure that all issues and concerns raised regarding Atlantic COD and North Atlantic right whales are fully addressed with the preferred alternative.
0082-01	Rather than provide regulatory approval of the "generator lead line" approach being proposed by Avangrid in the Draft EIS, we ask BOEM to reject this project and require Avangrid and all wind farm developers to utilize a planned approach as outlined in the attached Grid Innovation Program Concept Paper – Joint State Innovation Partnership for Offshore Wind, dated January 13, 2023 (see Attachment 1). This Concept Paper was jointly submitted to the U.S. Department of Energy by the Connecticut Department of Energy and Environmental Protection, the Maine Governor's Energy Office, the Massachusetts Department of Energy Resources and the Rhode Island Office of Energy Resources, with the support of the States of New Hampshire and Vermont.	Thank you for your comment.
0082-04	The siting of this industrial scale project and three high-capacity electric cables on/near Dowses Beach is beyond comprehension. This local, beloved beach is at the heart of the Village of Osterville and is used year-round by citizens from all of Barnstable's seven villages. Dowses Beach, an area that is frequently subject to flooding during storms and extreme high tides, supports a fragile estuarine environment, is a significant wildlife habitat, and provides a handicap accessible fishing pier for disabled and mobility-restricted members of our community.	Section 2 of the Draft EIS stated that the Phase 2 offshore export cables would make landfall within paved parking areas at either the Dowses Beach Landfall Site or the Wianno Avenue Landfall Site in the Town of Barnstable (Figure 2.1-8). The ocean-to-land transition at the Dowses Beach Landfall Site would employ the HDD technique, which would avoid or minimize impacts on the beach, intertidal zone, and nearshore areas. As noted in the New England Wind COP Vol I Section 3.3.1.8, the engineering trajectory of the HDD shows the cable passing at a depth of approximately 9 m (30 ft) below the ground surface at Mean High Water. With the expected use of HDD at the landfall sites and the target burial depth of the offshore export cables, New England Wind is not expected to permanently alter nearshore hydrodynamics so as to affect shoreline

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		erosion or accretion. Impacts on coastal habitats and fauna at the landfall site(s) would be avoided by locating the sea-to-shore transition vault in a paved area and, at the Dowses Beach Landfall Site, by using HDD to install the cable beneath the beach.
0083-01	Require a supplemental EIS (SEIS) if the developer selects the South Coast Variant export cable corridor route. We support BOEM's decision that, should the South Coast Variant be selected, a SEIS would be needed, as New England Wind did not provide any environmental analysis of this route for the Draft EIS.	The South Coast Variant is currently included as one of several possible cable route scenarios for Phase 2 of the Project; however, the Project would only use the South Coast Variant if technical, logistical, grid interconnection, or other unforeseen issues arise during the COP review and engineering processes. More information on the South Coast Variant and what factors would be considered prior to choosing this cable route are discussed in COP Vol I, Section 4.1.3.3. If the South Coast Variant is chosen, additional NEPA analyses and COP modifications would be needed to evaluate the impacts of installing export cables through this area.
0083-08	Because BOEM has not provided any environmental analysis of the potential South Coast Variant route in the Draft EIS, we agree that a supplemental analysis of the South Coast Variant would be necessary... As discussed, a number of uncertainties around the Project, in particular Phase 2 (e.g., the potential use of the South Coast Variant requiring additional analysis, potential renegotiation of the PPA, and timing of cable and WTG installation) could lead to meaningful changes.	The South Coast Variant is currently included as one of several possible cable route scenarios for Phase 2 of the Project; however, the Project would only use the South Coast Variant if technical, logistical, grid interconnection, or other unforeseen issues arise during the COP review and engineering processes. More information on the South Coast Variant and what factors would be considered prior to choosing this cable route are discussed in COP Vol I, Section 4.1.3.3. If the South Coast Variant is chosen, additional NEPA analyses and COP modifications would be needed to evaluate the impacts of installing export cables through this area.
0083-109	[F]or the purposes of mitigating impacts to benthic resources, finfish, invertebrates, and EFH, we recommend that BOEM select Alternative C: Habitat Impact Minimization Alternative (Habitat Alternative), and specifically Alternative C-1, which would avoid siting the OECC in the western portion of Muskeget Channel. The western area of Muskeget Channel contains hard bottom, complex habitat that is important for a number of finfish and invertebrates species. Because Alternative C-1 would avoid, minimize, and mitigate impacts to such habitats in Muskeget Channel more so than the other alternatives, BOEM should select this option. We also urge BOEM to require New England Wind to undertake several mitigation and monitoring measures identified in the Draft EIS.	Thank you for your comment.
0083-115	Alternative C-1, which would avoid siting the OECC in the western portion of Muskeget Channel, would result in reduced impacts to complex benthic habitats, the EFH that overlap with such areas, and finfish, and we urge BOEM to select this alternative to mitigate impacts to benthic resources, finfish, invertebrates, and EFH... The fact that complex habitat areas–like Muskeget Channel–may take a decade or longer to recover from offshore wind development activities provides additional justification	Thank you for your comment.

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	for selecting Alternative C-1. Moreover, because the eastern Muskeget Channel contains a variety of habitat types, including soft- bottom habitats, siting the OECC exclusively in the eastern portion of Muskeget Channel under Alternative C-1 avoids impacts to complex habitats more than Alternative C-2, which would still site part of the OECC in the western Muskeget Channel. Accordingly, BOEM should select Alternative C-1.	
0083-117	New England Wind proposes to avoid installing the OECC in sensitive and important habitats, including eelgrass beds and hard-bottom habitats, if feasible. While Alternative C-1 would reduce impacts to complex benthic habitats in Muskeget Channel, this alternative would still result in construction occurring in complex habitats in some areas of the channel. To further reduce impacts, BOEM should require New England Wind to employ micro-routing of cables to avoid siting in complex benthic habitats and other sensitive habitat areas.	Although both Alternatives C-1 and C-2 will result in impacts to complex benthic habitats, as noted in Final EIS Section 3.4.2.4, Alternative C-1 would result in less impacts to complex benthic habitats. Microrouting the cable around complex habitat may reduce the amount of impacts; however, this is likely not possible due to the additional length of cable needed and the fact that these cables would be fabricated prior to establishing an alternative cable route.
0083-127	We appreciate the consideration of suction bucket foundations for Phase 2 of the project. However, the Draft EIS's analysis of the feasibility of using a quieter foundation alternative for Phase 1 is cursory. It states that, "The applicant determined that the Phase 2 foundation types suggested by commenters were not suitable for Phase 1 due to local site conditions, as well as technical and supply chain considerations," and then determines, without analysis, that, "The suggested alternative [quieter foundations] would, therefore, be technically and economically infeasible and impractical." For New England Wind... BOEM should provide the analysis it uses to determine the feasibility of various turbine technologies to the public.	As discussed in COP Vol I Section 4.2.1.2 and 4.2.3.3.3, jackets with suction buckets and bottom-frame foundations (with piles or suction buckets) are relatively immature technologies and have been used in offshore wind for only two small projects. While these technologies are not suitable for Phase 1 of this project from a risk and economic standpoint, an initial screening analysis has indicated that they may be feasible for Phase 2.
0084-04	Find another location that can truly withstand an industrial type installation - one that does not potentially wreak havoc on a fragile ecosystem. These alternative locations do exist. Please find them.	Multiple cable landfall locations have been considered for each Phase of the Project to minimize disruption to residents and minimize impacts on the onshore environment. The Phase 2 offshore export cables will come ashore at the Dowses Beach Landfall Site in Barnstable, unless technical, logistical, grid interconnection, or other unforeseen issues arise that preclude the applicant from installing one or more Phase 2 offshore export cables within the OECC and a second grid interconnection point is needed (see Section 4.1.3.3 of COP Volume I in Appendix C). The ocean to land transition at the Dowses Beach Landfall Site will be made using horizontal directional drilling (HDD), which will avoid or minimize impacts to the beach, intertidal zone, and nearshore areas and achieve a burial significantly deeper than any expected erosion.
0085-03	The transit lane alternative that was supported by the commercial fishing industry that was rejected by BOEM must be re-analyzed in light of the 2022 National Academy of Sciences report "Wind Turbine Generator	Section 2.2 of the Draft EIS described those alternatives considered by not analyzed in detail. Developers and applicants for projects in the RI/MA Lease Areas have agreed to develop (and have designed) all projects based

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	Impacts to Marine Vessel Radar," review of radar interference. As noted on page 12 of the report, "WTGs will impact visual navigation by hiding small contacts. If transiting through the wind farm during periods of restricted visibility, the mariner's reliance on marine vessel radar (MVR) increases. Therefore, knowing the impacts WTGs have on MVR and possible mitigating solutions is critical to ensuring that navigation can continue by the safest means possible. With hub heights exceeding 100 m, and structures predominantly made of steel, 4 WTGs are large installations that can have significant electromagnetic reflectivity. As a result, WTGs installed within the line of sight of a radar system can cause clutter and interference, in some cases detrimentally impacting radar performance...Furthermore, rotating blades can have large and numerous Doppler returns due to their motion relative to the radar system. The installation of WTGs across the U.S. OCS therefore poses potential conflicts with a number of radar missions supporting air traffic control, weather forecasting, homeland security, national defense, maritime commerce, and other activities relying on this technology for surveillance, navigation, and situational awareness."1 In light of the NAS report, BOEM must re-analyze the Transit Lane Alternative again, with at least 4-mile wide corridors so as to protect fishermen and other mariners in a way that radar can be effectively used in all forms of weather must be reconsidered.	on a uniform, orthogonal, 1- × 1 nautical mile (1.15-mile) grid. USCG's May 2020 Final Massachusetts and Rhode Island Port Access Route Study recommended the same grid to maximize safety and navigation consistency (USCG 2020) and stated that 1- × 1 nautical mile (1.15 mile) spacing provides ample maneuvering space for typical fishing vessels expected in the proposed Project area. Addition of wider routes could make the proposed Project economically infeasible because fewer WTGs would be installed, with an accompanying reduction in the amount of electricity generated.
0086-02	A more suitable site includes the South Coast, where New Bedford has Marine Commerce Terminal (MCT) and Foss Terminal • that will provide construction, maintenance and other services to the offshore wind (OSW) industry. Avangrid's CW operations and maintenance will be based in New Bedford. An important factor is that MCT plans to expand its North Terminal to be capable of handling two separate future OSW installations. The proximity of these terminals to CW is ideal because there will be far less use or fossil fuels for boats and other staff vehicles traveling to do maintenance once the OSW projects are operational, making the South Coast location a cleaner, climate-friendly and lower carbon emission choice.	Multiple cable landfall locations have been considered for each Phase of the Project to minimize disruption to residents and minimize impacts on the onshore environment. The Phase 2 offshore export cables will come ashore at the Dowses Beach Landfall Site in Barnstable, unless technical, logistical, grid interconnection, or other unforeseen issues arise that preclude the applicant from installing one or more Phase 2 offshore export cables within the OECC and a second grid interconnection point is needed (see Section 4.1.3.3 of COP Volume I in Appendix C). The ocean to land transition at the Dowses Beach Landfall Site will be made using horizontal directional drilling (HDD), which will avoid or minimize impacts to the beach, intertidal zone, and nearshore areas and achieve a burial significantly deeper than any expected erosion.
0086-18	Two studies conducted by the Brattle Group compared two approaches for OSW transmission: the "generator lead line" and the "planned approach." The first has "project specific generator lead lines" and the second is "planned to minimize overall risks and costs." In the second "planned approach" benefits included lower impacts on coastal communities, marine life and marine environment. BOEM refers to "open access" transmission that will let various OSW farms "to connect to a single transmission line,	Section 2.2 of the Draft EIS described those alternatives considered by not analyzed in detail. Developing a shared export cable corridor would not be technically or economically practicable because each other offshore wind project has distinct interconnection points to the electric power grid. However, several of the Project alternatives could utilize the Eastern Muskeget OECC which is where the Vineyard Wind 1 Project export cables have been installed. If these Alternatives and associated cable route

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	potentially consolidating cabling systems, landing areas, and onshore infrastructure." Reducing total miles of cables to connect separate OSW farms, lessening "environmental impacts of deep sea cables, and lowering costs of development and operation• are some of the positives of this approach. A marine health and public health benefit of the planned approach is that the consolidation of individual cables into one transmission line "could be a significant move in mitigating cumulative electric and magnetic (EMF) effects across multiple OSW projects." BOEM needs to seriously consider this environment-friendly, more cost effective, and intelligent planned/open access approach. This will take cooperation among OSW developers but BOEM's federal mandate is Ocean Energy Management. This means that BOEM has a leadership responsibility role and not simply accept whatever OSW developers place in front of it. BOEM must encourage and compel various separate OSW entities with their separate business interests to come together for the common good of the ocean and the environment. Destroying the ocean and industrializing it to depletion and death is wrong.	scenarios are chosen, Dowses Beach or Wianno Ave. would still be possible Phase 2 export cable landfall sites.
0096-1-01	The six New England states submitted two proposals to the U.S. Department of Energy, one of which relates directly to the proposal currently before BOEM and advocates coordinated offshore transmission of ocean-based wind power...I'm going to cite FOA 2740 at netl.doc.gov as the source for the proposal that was filed on Monday...As BOEM is well aware, the planned approach would connect turbines to an ocean-based transmissions system that would involve a landing at two and possibly three appropriate and grid proximate locations on the Massachusetts coast. This opposed to potentially 18 cable landings in addition to the two underway and the five under -- under review on the beaches of Cape Cod. The fact of the matter is that the unplanned approach as compared to the planned approach is far more costly and will result in greater instability of the grid in terms of overloads, brownouts, and outright failures...We ask that BOEM reject the proponent's plan to land cables at Dowses Beach, but also to consider the promotion of a planned approach for electrical transmission from its OCS lease areas south of Martha's Vineyard.	Section 2.2 of the Draft EIS described those alternatives considered by not analyzed in detail. Developing a shared export cable corridor would not be technically or economically practicable because each other offshore wind project has distinct interconnection points to the electric power grid.

O.5.3 Benthic Resources

Table O.5-3: Responses to Comments on Benthic Resources

Comment Number	Comment	Response
0028-02	Since the proposed routing of the offshore cable closely aligns with the extensively analyzed routing for Vineyard Wind, it is assumed that minimal and temporary impacts to the seabed and habitat are to be expected, which is supported by BOEM's analysis in the Draft EIS.	Section 3.4.2.3 of the Draft EIS discussed the impacts to benthic resources from the Proposed Action.
0055-18	The Draft EIS indicates that hydrodynamic effects and disturbances on benthic resources will result from the presence of human-made structures in the water column; however, we are concerned that their extent may be underestimated. The expected impacts are likely more than "undetectable to small, localized, and to vary seasonally" (page 3.4-12). For example, the presence of structures could impact the structure of the Mid-Atlantic Cold Pool, causing changes in temperature, mixing, larval transport of important commercial and recreational fish species (e.g., sea scallops), and temperature corridors used for migration for multiple important fishery species. This is an area of ongoing research. The Final EIS should clearly document what is known about potential impacts to the Cold Pool and resulting potential impacts to marine species and fisheries. The Final EIS should acknowledge data gaps and ongoing research and should fully consider potential impacts resulting from this project, as well as cumulative impacts from all planned wind energy projects throughout the region.	Section 3.6.2.1 of the Draft EIS presented a discussion on the presence of Project structures and the associated impact analysis, particularly their potential impact on the existing cold pool feature in the lease area.
0074-01	BOEM minimizes these major adverse impacts by stating that it will affect a small geographical area and is "discontinuous in nature." BOEM vaguely refers to "a relatively limited extent of the geographic analysis area." How limited is limited? BOEM has to be more precise about the size of this geographical area. It appears that BOEM minimizes the negative impacts on benthic resources to allow OSW activity in Nantucket Sound.	Appendix D of the Draft EIS stated that the geographic analysis area for Benthic Resources was a 10-mile radius around the SWDA and the OECC. The quantity of benthic habitat impacted by the Project's Proposed Action was addressed in Section 3.4 of the Draft EIS. The cumulative impact sections address the larger area, including adjacent proposed or planned wind farms and ongoing activities.
0074-04	BOEM states that "sediment disturbance would be temporary." That is vague and unscientific as it does not have any specific basis for making that statement. Temporary to whom? For a benthic organism living in that particular area where the "sediment disturbance" occurred, that means being uprooted from its benthic habitat, separated and/or displaced from its benthic community of other benthic organisms, even be mortally affected. How can mortality of a benthic organism be considered "temporary"? That would be considered a permanent and major adverse impact.	Despite unavoidable mortality, injury/damage, or displacement of benthic invertebrate organisms, the area affected by the Project would be minimal when compared to the Geographic Analysis Area. No population-level impacts are expected, and disturbed areas overtime would be recolonized by neighboring benthic communities. Also, most benthic resources in the geographic analysis area are adapted to turbidity and periodic sediment deposition that occurs naturally. More information on the Project's potential impacts to benthic resources are addressed in Section 3.4.2 of the Final EIS.
0081-36	Qualitative conclusions of soft to hard substrate as beneficial, as this is generally believed to create habitat, fails to discuss impacts to species reliant on soft sediments. It is unclear whether this newly created, harder	Section 3.4.2.1 of the Final EIS has been updated to include references to new research and more discussion around potential adverse impacts associated with changing soft bottom benthic habitat to hard bottom.

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	habitat will give other species a competitive advantage over species that prefer, or require soft bottom for their life cycle.	
0081-37	The primary concern regarding cables remaining in the water is the dynamic nature of the seabed – scour protection is required because sediment moves and therefore cables can become uncovered. It is unclear who is responsible for uncovered cables left in the ocean after decommissioning. These cables are a major safety concern for fishing vessels operating mobile bottom tending gear as they can hang-up on cables.	Decommissioning plans and timelines were discussed in Section 2 of the Draft EIS. The decommissioning approach is unchanged from the Draft EIS; therefore, no changes to the Final EIS were necessary. Further, additional NEPA analysis will be conducted prior to making a determination on the decommissioning application that needs to be submitted for purposes of authorizing decommissioning activities, including the methods to be used.
0083-06	We recommend that BOEM... Select Alternative C-1, to avoid offshore export cable corridor siting in the western portion of the Muskeget Channel, an area of ecologically important hard bottom, complex habitat.	Thank you for your comment.
0083-35	Because both the Block Island Study and the New England Wind Draft EIS itself find the potential for long-term to permanent impacts on sensitive benthic habitats from offshore wind development, BOEM should include more justification in the New England Wind Final EIS for why it expects that these potential impacts to sensitive benthic habitats will not result in any population-level impacts to the species that rely on them, and particularly to overfished species like Atlantic cod. More specifically, because the OECC will traverse juvenile Atlantic cod HAPC, as well as possible cod spawning grounds in the complex habitats of Muskeget Channel, BOEM should analyze whether the potential long-term to permanent impacts from cable emplacement and anchoring activities in the OECC could lead to population-level impacts on Atlantic cod.	Section 3.4 of the Final EIS includes recent studies on Atlantic cod.
0083-40	The purpose of the Habitat Management Alternatives is to minimize impacts on complex fisheries habitats by limiting the potential OECC construction scenarios. Alternative C-1, the Western Muskeget Variant Avoidance alternative, would avoid routing the OECC within the western Muskeget Channel altogether and avoid a crossing of a proposed OECC route for the SouthCoast Wind project within the western Muskeget Channel. Conversely, Alternative C-2, the Eastern Muskeget Route Minimization alternative, would minimize, to the degree practicable, use of the eastern Muskeget Channel route and maximize use of the western Muskeget Channel route (and/or the South Coast Variant, which BOEM notes would require a Supplemental Environmental Impact Statement prior to selection). BOEM finds that either Alternative C-1 or C-2 would reduce or avoid impacts on benthic resources when compared to Alternative B. However, according to BOEM, the western portion of Muskeget contains more complex habitat than the eastern portion, which contains a wider variety of habitat types. Accordingly, by avoiding siting the OECC in the western Muskeget Channel, Alternative C-1 would impact less complex benthic habitat than either the Proposed Action or	Thank you for your comment.

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	Alternative C-2. Alternative C-1 may also result in less impacts on sensitive habitats than Alternative C-2 because more of the Alternative C-1 OECC route would be collocated with the Vineyard Wind 1 offshore export cable corridor than the Alternative C-2 route.	
0083-111	In general, benthic habitats can be classified based on their level of physical complexity, ranging from relatively simple habitats to more complex habitats... [M]ore complex habitats provide a heterogeneous variety of hard surfaces and fine material that provide habitat for many different species. Given their relative structural permanence and complexity, glacial moraines create a unique bottom topography, which enables a high level of biodiversity... [T]he Draft EIS denotes the substrate types in the areas of New England Wind and the OECC as either (1) hard/complex bottom or (2) soft, low complexity bottom habitats... [N]o hard-bottom habitat has been identified in the planned New England Wind area. As for the OECC, although most areas are soft-bottom, there is significant hard-bottom habitat coverage in the Musket Channel area of the OECC. In fact, sections of the OECC in the vicinity of Muskeget Channel contain special, sensitive, or unique resources that consist of "hard/complex bottom," as defined in the Massachusetts Ocean Management Plan (MA Ocean Plan). While most of the complex habitats in Muskeget Channel consist of cobble and gravel substrate, isolated boulders are also found in the area. The New England Wind COP finds that the cobble and pebble substrates in the Muskeget Channel area of the OECC correspond to the "most productive habitats" of the OECC, "with the highest number of invertebrate species and observations of fish." In general, complex, hard bottom habitat provides EFH for a number of species, including both juvenile and adult Atlantic cod. Offshore, both juvenile and adult cod prefer structurally complex hard bottom habitats comprising mostly pebbles, cobble, and boulders. Cobble substrate is critical for the survival of juvenile cod because it helps them avoid predators. Studies have also shown that hard bottom habitats are important for cod reproduction. Atlantic cod demonstrate spawning site fidelity, meaning they return to the same bathymetric locations year-after-year to spawn. Boulders and cobbles, which are more prevalent in complex habitats, also provide EFH for other species such as black sea bass juveniles and adults, Atlantic sea scallop larvae, ocean pout and herring eggs, as well as certain invertebrates that attach to hard surfaces, including mussels, oysters, starfish, sea urchin, etc.	Expected recovery rates are expected to vary based on the available literature, with complex or gravel habitats taking longer to recover. Text has been added to address this under anchoring and gear utilization in Sections 3.4.2.1 and 3.4.2.3. It should be noted that recovery rates in these habitats are based on commercial fishing, mostly from scallop dredge. Scallop dredging activities are different from the Proposed cable laying activities planned within Muskeget Channel or other complex habitats of the OECC.
0083-112	In several instances, the Draft EIS observes that the presence of WTG structures, anchoring, and cable emplacement can result in long-term impacts to benthic habitats and EFH. For example, the Draft EIS explains that where anchoring results in the degradation of sensitive habitats, such	The installation of foundations, scour protection, and cable protection could cause permanent to long-term impacts to sensitive benthic habitats such as eelgrass beds, but will only be measurable on a site-specific level and will not have population-level impacts on benthic species or resources.

Comment Number	Comment	Response
	as eelgrass beds and hard-bottom habitats, impacts could be long-term to permanent. Similarly, it states that where cable routes intersect with eelgrass or hard-bottom habitats, the impacts may be long-term to permanent. It also observes that where anchoring degrades sensitive EFH, the impacts can be long-term to permanent. The analysis in the New England Wind Draft EIS on potential long-term impacts to benthic habitats from offshore wind development is consistent with what has been observed at the Block Island Wind Farm. In a study of the Block Island Wind Farm, non-complex habitats, consisting mainly of sand and mud, demonstrated a high rate of recovery. Conversely, complex habitats have been shown to take longer to recover from offshore wind construction. In the Block Island study, zero percent of complex habitat areas, containing mainly cobbles and pebbles, had completely recovered from baseline conditions after the wind farm had been in operation for nearly two years. Overall, the New England Wind Draft EIS concludes that the impacts to benthic habitats from cable emplacement and anchoring will be minor if sensitive habitats are avoided and moderate if sensitive habitats are not avoided, and that complex habitats are expected to recover completely from cable emplacement. The conclusion that complex habitats will recover completely is inconsistent with the findings in the Draft EIS that offshore wind activities may result in long-term or permanent impacts.	Activities such as cable emplacement and anchoring may have long-term impacts on sensitive benthic habitats, but these habitats will recover completely based on the best available science. It should also be noted that sensitive and complex benthic habitats such as eelgrass will be avoided to the best of the Project's ability during the construction and installation phases of the Project. More information on the Project's potential impacts to benthic resources are addressed in Final EIS Section 3.4.2.3 under Anchoring and gear utilization.
0086-12	Stating that "Although sediment transport beyond ten miles is possible, sediment transport...would likely be limited to a smaller spatial scale than 10 miles" is vague, unscientific and must be addressed by BOEM before any future OSW discussions pertaining to [New England Wind] and Dowses Beach.	More details on the Project's sediment transport modeling is provided in COP Volume III, Appendix III-A.

O.5.4 Coastal Habitats and Fauna

Table O.5-4: Responses to Comments on Coastal Habitat and Fauna

Comment Number	Comment	Response
0023-001	the proponent has engaged in what we believe are inaccurate representations in the required permitting filings for the project. Among these are self-serving depictions of the ecology present at the greater Dowses environment. Figure 5.2-7 in Volume II of the COP indicates that three areas of complex habitat exist along the OECC. Two of these are well offshore in the Muskeget cut. The third encompasses the entire nearshore length of the barrier spit known as Dowses Beach and continues across the East Bay channel that is part of the associated estuarine environment. The map's misleading inset completely eliminates the greater Dowses beach and embayment from view, showing instead only a portion of the designated complex habitat and beaches further to the east. Additionally, the "possible" eel grass bed on the western edge of Dowses beach, also indicated in the COP, is given little consideration in either the COP or the Draft EIS.	Appendix A of the Final EIS includes a complete list of permits that will be required for the Project along with the status of the permits. Section 3.5 of the Draft EIS stated that impacts on coastal habitats and fauna at the landfall site(s) would be avoided by locating the sea-to-shore transition vault in a paved area and, at the Dowses Beach Landfall Site, by using HDD to install the cable beneath the beach. The onshore export cable crossing of East Bay, if used, would use microtunneling, HDD, or other trenchless installation methods to pass beneath the bay and avoid impacts on coastal habitats. Neither approach to the Phase 2 landfall sites would pass near Spindle Rock's hard-bottom habitat and eelgrass bed. Eelgrass locations will be avoided by New England Wind activities based on the planned routes, with over 650 feet to the west of the eelgrass bed at Spindle Rock and the possible Phase 2 cable approximately 3,000 feet from the eelgrass near the Dowses Beach landfall. Vessel anchors will be required to avoid these eelgrass beds as long as it does not compromise vessel's safety.
0023-004	While the greater Dowses Beach area is recognized as a watershed estuary, as designated by the Massachusetts Estuary Project (2006), it is nowhere described as an estuarine environment in the COP, and, as a result, does not appear to be considered as such in the Draft EIS. The greater Dowses area differs significantly from the proposed landing areas for Phase 1, Barnstable's Craigville and Covell's beaches, which are straight line coastal beaches, neither of which are barrier spits fronting embayment's critical to local wildlife, featuring a large public mooring field, or equipped with a pier providing handicapped access to the waterfront.	Section 2 of the Draft EIS stated that the Phase 2 offshore export cables would make landfall within paved parking areas at either the Dowses Beach Landfall Site or the Wianno Avenue Landfall Site in the Town of Barnstable (Figure 2.1-8). The ocean-to-land transition at the Dowses Beach Landfall Site would employ the HDD technique, which would avoid or minimize impacts on the beach, intertidal zone, and nearshore areas. As noted in the New England Wind COP Vol I Section 3.3.1.8, the engineering trajectory of the HDD shows the cable passing at a depth of approximately 9 m (30 ft) below the ground surface at Mean High Water. With the expected use of HDD at the landfall sites and the target burial depth of the offshore export cables, New England Wind is not expected to permanently alter nearshore hydrodynamics so as to affect shoreline erosion or accretion. Impacts on coastal habitats and fauna at the landfall site(s) would be avoided by locating the sea-to-shore transition vault in a paved area and, at the Dowses Beach Landfall Site, by using HDD to install the cable beneath the beach.
0029-07	President John F. Kennedy's lasting gift to humanity is creating the Cape Cod National Seashore. On a smaller scale but no less meaningful, protecting estuarine Dowses Beach and the Nantucket Sound marine environment would be a step in the right direction. Aquatic biodiversity can only happen if the aquatic habitat itself is protected. BOEM must give importance to the state of Nantucket Sound and to its essential role in	Thank you for your comment.

Comment Number	Comment	Response
	biodiversity...Given the large number of endangered fauna in Nantucket Sound, BOEM must seriously take into account the major adverse impacts to biodiversity. Aquatic biodiversity will suffer, marine animals will die. CW must not be allowed to destroy a thriving coastal community and should reconsider its poor choice of its cable landing location.	
0029-08	There is a fragile Causeway on Dowses Beach that separates East Bay from Phinney's Bay. BOEM vaguely mentions a "paved area," but does this "paved area" actually refer to the Dowses Beach Causeway? BOEM states that "Impacts on coastal habitats and fauna at the landfall site(s) would be avoided by locating the sea-to-shore transition vault in a paved area and, at the Dowses Beach Landfall Site, by using HDD to install the cable beneath the beach. The onshore export cable crossing of East Bay, if used, would use microtunneling , HDD, or other trenchless installation methods to pass beneath the bay and avoid impacts on coastal habitats." How is this impact-free approach on "coastal habitats and fauna" even possible? By their very nature, any of these aforementioned installation methods require some digging, using heavy machinery, causing air, noise and water pollution, disturbing the fin fishes and shellfish in their natural marine habitat, disrupting the peaceful existence of the wildlife, piping plovers, ospreys who call Dowses Beach home.	As described in Sections 3.3.1.8 and 4.3.1.8 of COP Volume I, horizontal directional drilling (HDD) is expected to be used at the Phase 1 and Phase 2 landfall site to avoid impacts of standard cable burial techniques in the nearshore region. HDD drilling is least invasive of all methods such as open trenching. Impact to surface ground and sediment disturbance are at the entry and exit points. See Section 3.3.1.8 for a description of HDD The engineering trajectory shows the HDD will be passing at a depth of 9m (30ft) below the surface. COP Vol III 4.3.1.8.1 Page 4-98
0031-04	Estuarine Dowses Beach is a Cape Cod natural treasure, home to the endangered piping plover, spawning habitat for fin fishes, a wildlife and sea bird refuge, environmental home of horseshoe crabs, oysters and other shellfish	Thank you for your comment.
0031-06	Landing OSW cables on estuarine Dowses Beach and using the parking lot as a convenient staging area for Avangrid's multiyear industrial heavy machinery project would destroy the fragile natural beauty of Dowses Beach	The ocean to land transition at the Dowses Beach Landfall Site will be made using HDD, which will avoid or minimize impacts to the beach, intertidal zone, and nearshore areas and achieve a burial significantly deeper than any expected erosion. COP Vol III 2.3.1.6
0033-01	We understand that Avangrid has alternatives that are better for the environment and would not compromise the fragile ecology that is Dowses Beach and East Bay.	Thank you for your comment.
0034-01	The Greater Dowses Beach area... will be impacted by this project, includes Dowses Beach, Phinney's Bay and East Bay and a narrow causeway that allows access to the beach...It is a barrier spit and a fragile coastal estuary...provides a wildlife refuge for migratory and resident birds, including endangered species...that depend on this unique environment including a nesting area for piping plovers.	Thank you for your comment.
0035-02	[opposition to Dowses Beach landing site due to] the potential damage and disruption to the natural habitat and fragile ecosystems.	Thank you for your comment.
0036-01	The disruption to the Covell beach and the entire Hyannis area by the Vineyard Wind Project is a living example of the disruption and	Thank you for your comment.

Comment Number	Comment	Response
	destruction these projects create. They never stay on schedule and never restore the sites areas to their original habitat.	
0039-02	I am strongly opposed to the "Phase 2" onshore electrical cable landings at Dowses Beach...this ecosystem is a fragile estuary environment, providing homes to many species needing the specific habitat	Thank you for your comment.
0040-03	Ecologically, the Dowses Beach estuarine environment is too small, fragile, and intricate to subject to any industrial entity's invasive, unproven approach.	Section 2 of the Draft EIS stated that the Phase 2 offshore export cables would make landfall within paved parking areas at either the Dowses Beach Landfall Site or the Wianno Avenue Landfall Site in the Town of Barnstable (Figure 2.1-8). The ocean-to-land transition at the Dowses Beach Landfall Site would employ the HDD technique, which would avoid or minimize impacts on the beach, intertidal zone, and nearshore areas. As noted in the New England Wind COP Vol I Section 3.3.1.8, the engineering trajectory of the HDD shows the cable passing at a depth of approximately 9 m (30 ft) below the ground surface at Mean High Water. With the expected use of HDD at the landfall sites and the target burial depth of the offshore export cables, New England Wind is not expected to permanently alter nearshore hydrodynamics so as to affect shoreline erosion or accretion. Impacts on coastal habitats and fauna at the landfall site(s) would be avoided by locating the sea-to-shore transition vault in a paved area and, at the Dowses Beach Landfall Site, by using HDD to install the cable beneath the beach.
0046-02	The environmental impact of this site is staggering to this pristine barrier beach. It is not only a peaceful haven to our residents yearlong but protects and allows for the aquatic and bird life of East Bay, the Centerville river, Scudder Bay and the Craigville marshes behind Craigsville beach.	Thank you for your comment.
0046-03	Bringing the industrial cables across the narrow isthmus connecting to the mainland will without a doubt ruin the spawning pond of the multiple fish species not only during the multiple years of construction but possibly forever.	Section 3.5 of the Draft EIS addressed the potential impacts associated with the Project's cable crossing of East Bay and Centerville River.
0047-01	it is a pristine and fragile estuary that cannot be altered	Thank you for your comment.
0047-02	2. it is a documented wildlife habitat	Thank you for your comment.
0048-07	There is eel grass at Dowses Beach, which the COP or Draft EIS does not adequately illustrate this. Once eel grass is gone, it is gone forever, and this invasive project could greatly impact its health.	While eelgrass has been identified near the landfall locations, at this time, no impacts to eelgrass are expected during the course of project development. Locations where eelgrass has been identified is provided in Section 3.4.1.1 in the Final EIS. Potential impacts to eelgrass are detailed in the Project-specific EFH Assessment, including requirements for additional surveys prior to construction and potential minimization and mitigation measures should eelgrass be identified.

Comment Number	Comment	Response
0048-08	[Dowses Beach landing site] Blue crabs, (necessary for cleaning up the sea bottom by harvesting decomposing plant and animal matter), and horseshoe crabs (used for human medical uses), also will also be at peril.	Chapter 3 of the Draft EIS presented a detailed discussion on the potential impacts associated with the Project's cable crossing of East Bay and Centerville River.
0051-01	I would like to register my opposition to the proposed onshore electrical cable landings at Dowses Beach...This area is part of a fragile estuary system and home to many varieties of wildlife on the registry of endangered species.	To avoid impact natural resources, trenchless drilling/HDD is proposed which allows the least impact to the sensitive natural resources. As described in Sections 3.3.1.8 and 4.3.1.8 of COP Volume I, horizontal directional drilling (HDD) is expected to be used at the Phase 1 and Phase 2 landfall site to avoid impacts of standard cable burial techniques in the nearshore region. HDD drilling is least invasive of all methods such as open trenching. Impact to surface ground and sediment disturbance are at the entry and exit points. See Section 3.3.1.8 for a description of HDD The engineering trajectory shows the HDD will be passing at a depth of 9m (30ft) below the surface. COP Vol III 4.3.1.8.1 Page 4-98
0054-01	THE CABLES WILL THEN TRAVEL TO THE CAUSEWAY WHICH ACCORDING TO THE TOWN OF BARNSTABLE'S ATTORNEYS REPORT TO MEPA ON NOVEMBER 28, 2022, THREATEN THE CULVERT WHERE THE 2 BAYS EXCHANGE TIDAL ACTIVITY BACK AND FORTH.	Thank you for your comment.
0055-14	We appreciate that benthic grabs and transects along the offshore export cable corridor will be done in order to update habitat maps based upon the 2020 Recommendations for Mapping Fish Habitat (Appendix H). These maps will be important to avoid and minimize the impact on eelgrass and complex habitat.	Thank you for your comment.
0055-28	We strongly support all efforts to avoid impacts to submerged aquatic vegetation (SAV) and other structured habitats along the cable route, as recommended in the Council policies. The New England Council has designated inshore areas from the coastline to 20 meters depth as HAPC for juvenile Atlantic cod...In inshore waters, young-of-the-year juveniles prefer gravel and cobble habitats and eelgrass beds after settlement, but in the absence of predators also utilize adjacent un-vegetated sandy habitats for feeding. The New England Council recently recommended an HAPC for cod spawning habitat and complex habitats. The designation overlaps the New England Wind lease area and other Southern New England lease areas and is pending approval by NOAA Fisheries. The Mid-Atlantic Council has designated all native species of macroalgae, seagrasses, and freshwater and tidal macrophytes in any size bed, as well as loose aggregations, as HAPC for summer flounder. In defining this HAPC, the Mid-Atlantic Council also noted that if native species of SAV are eliminated, then exotic species should be protected because of functional value; however, all efforts should be made to restore native species.	Thank you for your comment.

Comment Number	Comment	Response
0057-01	Dowses Beach and the village of Osterville is not an appropriate spot. Dowses is an estuary where the Centerville River, East Bay and Phinneys Bay join. There is wild life galore in the bays and on the beach.	Thank you for your comment.
0061-02	In the last 75 years, the Town has done a solid job of turning the beach into a space where thousands of people every year find a bit of renewal. But the causeway, the jetties, and the large paved parking lot are certainly not the products of nature. They have dramatically altered the beach environment. To oppose plans to bring New England Wind cables under Dowses because that will destroy a natural habitat is clearly grossly inaccurate. The current situation is manmade.	Thank you for your comment.
0063-01	Don't destroy Dowses because it is a estuary Filled with marine life.	Thank you for your comment.
0073-03	Dowses Beach is a fragile estuarine beach. The topography alone displays its fragility as only a narrow(barely 2 car widths wide) causeway with salt bays on either side, is the sole means of connection to the mainland.	Thank you for your comment.
0074-02	Likewise, an activity that is “discontinuous” does not mean it cannot have a major adverse impact. Eelgrass is an endangered marine plant and essential to biodiversity: regular OSW anchoring activities in Nantucket Sound could affect eelgrass	While eelgrass has been identified near the landfall locations, at this time, no impacts to eelgrass are expected during the course of project development. Locations where eelgrass has been identified is provided in Section 3.4.1.1 in the Final EIS. Potential impacts to eelgrass are detailed in the Project-specific EFH Assessment, including requirements for additional surveys prior to construction and potential minimization and mitigation measures should eelgrass be identified.
0086-04	Estuarine Dowses Beach is a Cape Cod natural treasure, home to the endangered piping plover, spawning habitat for fin fishes, a wildlife and sea bird refuge, environmental home of horseshoe crabs, oysters and other shellfish...	Thank you for your comment.
0095-5-04	I'm concerned about the aquatic pressure waves. The impact that it will have on the natural environment. And we know that these waves cause all kinds of problems as far as humans onshore. I have to believe that it's going to also cause an aquatic impact. I don't know that's discussed elsewhere. I'm concerned about the relationship to that. I'm also concerned about the breaks in -- breaks and weakening in the wind and its impact especially on our salt marshes that protect us from ocean storms and northeasters and hurricanes. The wind change or the weakening of wind could indeed have a significant impact on the rooting system on our salt marshes, making the plants, the root system, not go as deep because of the change in wind pressure and direction that results when a storm comes through, that it -- it devastates those -- those marsh areas in causing potentially more damaging floods in our areas that currently are in danger.	The wake affect is described in Project Appendix B of the EIS.

O.5.5 Finfish, Invertebrates, and Essential Fish Habitat

Table O.5-5: Responses to Comments on Finfish, Invertebrates and Essential Fish Habitat

Comment Number	Comment	Response
0023-05	Because of the estuarine character of greater Dowses, nearly countless species of taxa make their home, either permanently or on a migratory basis, in and around the beach, the bays, and the estuary. We believe the HDD operation on and under the seabed will divert the natural movement patterns of local fish stock, greatly decimate shellfish numbers, and negatively impact the considerable local horseshoe crab population...The ditching of the causeway, if that is the option used, will inhibit cross-bay spawning for species of fish that use the calm waters of Phinney's Bay to reproduce each spring.	Section 2 of the Draft EIS stated that the Phase 2 offshore export cables would make landfall within paved parking areas at either the Dowses Beach Landfall Site or the Wianno Avenue Landfall Site in the Town of Barnstable (Figure 2.1-8). The ocean-to-land transition at the Dowses Beach Landfall Site would employ the HDD technique, which would avoid or minimize impacts on the beach, intertidal zone, and nearshore areas. As noted in the New England Wind COP Vol I Section 3.3.1.8, the engineering trajectory of the HDD shows the cable passing at a depth of approximately 9 m (30 ft) below the ground surface at Mean High Water. With the expected use of HDD at the landfall sites and the target burial depth of the offshore export cables, New England Wind is not expected to permanently alter nearshore hydrodynamics so as to affect shoreline erosion or accretion. Impacts on coastal habitats and fauna at the landfall site(s) would be avoided by locating the sea-to-shore transition vault in a paved area and, at the Dowses Beach Landfall Site, by using HDD to install the cable beneath the beach. More information on potential impacts to finfish and coastal habitats were addressed in Sections 3.6.2.3 and 3.5.2.3 of the Draft EIS, respectively.
0055-15	We recommend the Final EIS evaluate impacts relative to the new NEFMC HAPC designation, currently under review by NMFS. Per the Southern New England HAPC Framework document, the HAPC is defined as the presence of cod spawning and complex habitat within areas where offshore wind development is being planned and/or constructed. The spatial extent of this habitat area is limited to offshore wind lease areas, given that impacts associated with offshore wind development are of significant concern to the New England Council.	Section 3.6.1.3 of the Final EIS has been updated and now includes a discussion on the new Atlantic cod HAPC.
0055-17	Beneficial reef effect impacts are merged with minor/moderate adverse impacts of habitat conversion. Different species are likely to be affected negatively or positively by the addition of artificial substrates and structures to their environment and by the removal or alteration of existing benthic habitats. The potential for interactions between species attracted to the artificial substrates and structures and other species in the ecosystem should also be considered, for example in terms of predation rates. Whether these structures will increase fish production, or simply cause spatial aggregation, is unclear.	The conclusion of both adverse and potential beneficial impacts is based on the understanding that habitat conversion effects resulting from project construction and the presence of structures will benefit some finfish and EFH species at the expense of others depending on their habitat preferences. The best available science indicates that reef effects resulting from the presence of structures clearly benefits some fish and invertebrate species that associate with hard substrates and/or vertical structures in the water column. Related reef effects on food web productivity and changes in predator prey relationships are also likely to benefit some species at the expense of others, but the specific nature of these effects is difficult to predict with certainty. These complex effects will interact with changes in

Comment Number	Comment	Response
		commercial and recreational fishing and other activities, also likely resulting in additional effects that are difficult to predict.
0055-23	The Councils support time of year restrictions to reduce potential impacts to sensitive life stages of fishery species, to reduce impacts to fisheries, and to minimize impacts to important habitat throughout the project area, including the offshore cable route...Appendix H states that pile driving activities will not occur from January 1 to April 30 and that non-horizontal directional drilling cable laying activity within Nantucket Sound waters will not occur from April to June (Table H-1). The Draft EIS states that the pile driving restrictions are meant to protect the North Atlantic Right Whale, which would confer benefits to any cod spawning activity in the area (page 2-37). The purpose of the cable laying activity time-of-year-restriction is a request from Massachusetts Department of Marine Fisheries to avoid high concentration of fishing activities (squid, whelk, flounder) and spawning and egg laying activities (page 3.9-24). The Draft EIS should clarify which species are spawning and egg laying during this time period in this area and whether this includes cod spawning. There is also the assumption that species would return to the area and normal fish behavior would resume once the pile driving stops (page 3.6- 27 and 3.9-10). Additional rationale should be provided on this as it is possible the impacts could be longer-term or even permanent, depending on the species. For example, research by the Massachusetts Department of Marine Fisheries found that relatively minor disturbances from gillnet fishing interrupted the development of cod spawning aggregations (Dean et al. 2012); it is reasonable to expect construction activities may do so as well. Also, given time-of-year restrictions are mitigation measures, the rationale for why this restriction is proposed should be included in Appendix H and cross-referenced in the Draft EIS.	The mitigation and monitoring measures that the applicant has committed to implement (including and in addition to those defined in the COP) are listed in Table H-1. Mitigation and monitoring measures that may result from reviews under the statutes listed above are shown in Table H 2. Some of these mitigation and monitoring measures are outside of BOEM's statutory and regulatory authority but could potentially be adopted and imposed by other governmental entities. Tables H-1 and H-2 provide descriptions of mitigation or monitoring measures, along with the resource or resources to which each measure applies. If the COP is approved or approved with conditions, it will include mitigation and monitoring measures developed under various consultations and permit reviews (e.g., ESA and Marine Mammal Protection Act) and adopted by the Final EIS Record of Decision (ROD). If BOEM decides to approve the COP, the ROD will state which of the additional mitigation and monitoring measures identified by BOEM in Tables H-1 and H-2 have been adopted; if measures are not adopted, the ROD will state why they were not. If the measures adopted differ substantially from those listed in Tables H-1 and H-2, BOEM will evaluate whether impacts analyses need to be modified to address those changes. The applicant will be required to implement the mitigation and monitoring measures applicable that are adopted in the ROD (Code of Federal Regulations, Title 40, Section 1505.3 [40 CFR § 1505.3]), and it will be required to certify compliance with certain terms and conditions as required under 30 CFR § 585.633(b).
0055-31	The potential impacts of detonating unexploded ordnance (UXO) are evaluated for mammals but not for fisheries, and should be evaluated for both resources, as well as in terms of possible impacts to navigation. If noise above different thresholds impact mammals and not fish, and such thresholds are exceeded by specific impact producing factors, these details should be specified.	Section 3.7 of the Final EIS discusses UXO impacts in detail. Specific noise and acoustic impacts to finfish and invertebrates are discussed in Section 3.6.2.3 of the Final EIS.
0055-38	Entrainment of water during some types of cable installation equipment is briefly mentioned as an adverse impact on pelagic eggs and larvae of some species on pages 3.4-8, 3.4-21, 3.6-20, and 3.6-22. The Final EIS should estimate the numbers of eggs, larvae, and zooplankton that may be entrained due to this type of cable installation technique to provide justification for the rationale behind the resulting impacts determination.	"Section 3.6.2.3 of the Final EIS discusses entrainment. Additional information on entrainment impacts on finfish, pelagic eggs, and larvae is also provided in Section 5.1.2.1 of the Project's Essential Fish Habitat (EFH) Assessment.

Comment Number	Comment	Response
0083-07	We recommend that BOEM... Select Alternative C-1, to avoid offshore export cable corridor siting in the western portion of the Muskeget Channel, an area of ecologically important hard bottom, complex habitat.	Thank you for your comment.
0083-34	We note that the Magnuson Stevens Fishery Conservation and Management Act 306 requires federal agencies, such as BOEM, to consult with NMFS on activities that could adversely affect EFH... The area of New England Wind and the associated OECC will take place in EFH designated for many species, including several overfished fish populations such as Atlantic cod, Atlantic wolffish, winter flounder, witch flounder, yellowtail flounder, and ocean pout. Atlantic cod is a fish species of particular concern in the waters off southern New England as their once legendary populations are now severely depleted. Rebuilding overfished cod populations hinges on access to healthy spawning, nursery and juvenile habitats. There are also several fish species listed under the ESA that are present in the Project Area, including giant manta ray, Atlantic sturgeon, Atlantic salmon, and shortnose sturgeon. NOAA also identifies habitat areas of particular concern (HAPCs), which are high-priority areas for conservation, management, or research because the areas are rare, sensitive, stressed by development, or important to ecosystem function. HAPCs are discrete subsets of EFH that provide important ecological functions or are especially vulnerable to degradation. While HAPCs are recognized due to their importance for conservation, management, and research, designation as an HAPC does not confer any specific habitat protection; however, regional management councils may take HAPCs into consideration when minimizing adverse impacts from fishing.	Appendix A of the EIS presents the consultations that have occurred for this Project.
0083-36	The Draft EIS also finds that changes in fluid flow caused by the presence of many structures on the OCS could potentially influence finfish, invertebrates, and EFH on a broader spatial scale. It notes that an important seasonal feature influencing finfish and invertebrates is the cold pool, a mass of cold bottom water in the Mid-Atlantic Bight overlain and surrounded by warmer water. The Draft EIS explains that the "cold pool forms in late spring and persists through summer" and that "[d]uring summer, local upwelling and mixing of the cold pool with surface waters provides a source of nutrients, influencing the ecosystem's primary productivity, which in turn influences finfish and invertebrates." According to the Draft EIS, offshore wind foundation structures could affect local mixing of cool bottom waters with warm surface waters. Moreover, the "presence of many offshore wind structures could affect local oceanographic and atmospheric conditions by reducing wind-forced mixing of surface waters and increasing vertical mixing of water forced by currents flowing around foundations." Although BOEM does not anticipate that these local impacts will cumulatively impact the	Section 3.6.2.1 of the Draft EIS presented a discussion on the presence of Project structures and the associated impact analysis, particularly their potential impact on the existing cold pool feature in the lease area.

Comment Number	Comment	Response
	approximately 11,580 square mile cold pool, it acknowledges that the impacts on the cold pool are not fully understood. In the Final EIS, BOEM should attempt to better quantify the general hydrodynamic impacts, including impacts to the cold pool, from WTG structures and include such revised impacts in its impact level ratings.	
0083-37	Unlike the Draft EIS for the Revolution Wind Draft EIS, the New England Wind Draft EIS provides only cursory analysis of the potential effects of hydrodynamic impacts on spawning fish populations in the vicinity of the proposed project's infrastructure. For example, the Revolution Wind Draft EIS notes that hydrodynamic effects caused by the presence of WTG structures could alter dispersal patterns for pelagic and demersal eggs and larvae, which could influence the productivity of some spawning fish populations. The Revolution Wind Draft EIS also observes that WTG structures have the potential to alter stratification patterns that support the base of the marine food web and that these changes in circulation patterns have the potential to negatively affect the reproductive success of numerous fish and invertebrate species. The Final EIS for New England Wind should provide similar analysis on the impacts to spawning fish populations from hydrodynamic turbulence, including any particular fish stocks that are known to spawn in areas of the New England Wind area.	Section 3.6.2.3 of the Final EIS has been updated to include additional text relating to the potential impacts on larval dispersal and settlement patterns as a result of hydrodynamic impacts arising from the presence of structures.
0083-38	Noise could lead to interference of cod acoustic communication. Cod produce vocalizations (“grunts”) during spawning that overlap in frequency with anthropogenic noise. Measurements of cod grunts along with shipping and ambient sound levels made during spawning periods in the vicinity of Stellwagen Bank suggest that the distances over which cod can detect grunts might be reduced due to masking by vessel noise. Cod grunts are thought to serve a role in courtship and attracting mates, and interference of this communication by wind farm-related noise could potentially compromise spawning success and hence population health. Studies relating to European wind farms have suggested that operational noise from wind turbines might be detectable by cod to distances of 4-13 km. In one study, tracking of small numbers of tagged cod at a Belgian wind farm during periods when individual wind turbines were out of operation relative to periods before and after suggested no evidence of behavioral avoidance. In contrast, another study observed an increase in catchability of cod within 100 m of a wind turbine when it was not operating. Overall, impacts within the range of noise detectability might more likely relate to masking of cod calls and reduction of communication ranges than to avoidance or similar behavior. The Draft EIS’s conclusions on the likely noise impacts on Atlantic cod and other species from the New England Wind project are largely consistent with these studies... The Draft EIS recognizes that noise associated with operational WTGs may be	Thank you for your comment.

Comment Number	Comment	Response
	audible to some finfish and invertebrates. It notes that when operational, "WTGs would produce noise that can cause masking impacts, but thus far, noise related to operational WTGs have not been found to have an impact on finfish." It similarly observes that there is no information suggesting behavioral impacts on finfish from noise generated by WTGs.	
0083-39	BOEM has not conducted a separate analysis on the extent to which either Habitat Alternative would reduce noise impacts to EFH and finfish that inhabit the cable route areas under consideration. While Alternatives C-1 and C-2 both involve separate cable route options and would not result in changes to the WTG layout, in the Final EIS, BOEM should improve its analysis of whether the two Habitat Alternatives would reduce noise impacts from cable emplacement activities in the areas in which OECC siting is avoided under the different cable route alternatives.	Section 3.6.2.3 of the Draft EIS noted the overall noise impacts arising from cable emplacement activities are expected to be localized, short-term, and negligible, i.e. too small to be measurable. As such any differences that may exist between the two proposed alternatives would also be too small to be measurable.
0083-42	The Draft EIS finds that either Habitat Management Alternative would avoid some impacts on finfish, invertebrates, and EFH due to a decrease in the extent of cable installation in complex habitats, including the avoidance of cod habitat in the areas avoided. It notes that "because of the rare habitats provided by complex and hard coarse deposit seafloor types, avoidance of disturbance to these habitats would also result in lower impacts." The Draft EIS concludes that "overall, Alternative C-2 would have greater impacts than Alternative C-1 on finfish and invertebrates that use complex seafloor habitats and on EFH in those habitats." Although BOEM still assigns the same impact rating for benthic resources, invertebrates, finfish and EFH for Alternative C-1–negligible to moderate– as for the Proposed Action, the reduced impacts to complex habitats, and the finfish and invertebrates that rely on them, when compared to the other alternatives, provides justification for selection of this option. The Muskeget Channel is part of the HAPC for inshore juvenile Atlantic cod. Further, the western Muskeget Channel consists mainly of complex habitats, and areas of complex habitat like Muskeget Channel are important for Atlantic cod spawning. Selecting Alternative C-1 and avoiding siting the OECC in the western Muskeget Channel will, therefore, reduce impacts to the juvenile cod HAPC and has the potential to reduce impacts to spawning cod as well. In the Final EIS, BOEM should expand on its analysis of the impacts resulting from Alternative C-1 and, specifically, include more detailed analysis on any reduced impacts to juvenile cod HAPC and spawning cod habitat under this alternative.	Section 3.6.2.4 of the Draft EIS included a discussion of the potential impacts of Alternative C.
0083-110	The proposed OECC corridors will cross areas that have been designated HAPC for juvenile Atlantic cod in Massachusetts state waters. The juvenile cod HAPC is a subset of the area designated as juvenile cod EFH, and is defined as the inshore areas of Southern New England between 0 to 66 feet deep relative to mean high water. This HAPC contains structurally	Potential Project impacts to juvenile and adult summer flounder HAPC and juvenile Atlantic cod HAPC are addressed in Final EIS Section 3.6.2.3. Further discussion of impacts to HAPC as a result of the proposed Project are provided in the Project EFH Assessment.

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	complex hard bottom habitats that provide juvenile cod with protection from predators and supports juvenile cod prey. The proposed OECC will also cross areas that have been designated HAPC for adult and juvenile summer flounder in state waters. The Mid-Atlantic Fishery Management Council has identified HAPC for summer flounder as "all native species of macroalgae, seagrasses, and freshwater and tidal macrophytes in any size bed, as well as loose aggregations, within adult and juvenile summer flounder EFH." Additionally, in July 2022, the New England Fishery Management Council (NEFMC) approved a proposed HAPC that overlaps offshore wind energy lease areas in southern New England, including that of New England Wind. NEFMC selected this area "to highlight its concerns over potential adverse impacts from offshore wind development on: (1) sensitive hard-bottom habitats; and (2) cod spawning activity." In addition to Atlantic cod, this proposed HAPC emphasizes the importance of complex habitat on the egg, juvenile, and adult life stages of species ranging from herring and scallops to monkfish, skates, winter flounder, and red hake.	
0083-113	The presence of WTG structures could also cause hydrodynamic effects... The Draft EIS observes that human-made structures, especially tall vertical structures such as foundations, alter local water flow at a fine scale. While the Draft EIS notes that a study found that WTG foundations in southern New England would not have a significant influence on southward larval transport during storm events, foundation placement could either increase or decrease larval dispersion and speed, depending on initial location. It finds that disruption of mean water flows could occur within 230 feet and downstream of each WTG foundation, but that the disruption of water flows is unlikely to reach from one WTG foundation to an adjacent foundation. The Draft EIS notes that a study of the hydrodynamic impacts of offshore wind in the North Sea "indicated a reduction in sea surface currents and potentially a reduction in the temperature and salinity distribution and stratification within areas of wind farm operations." Although the study did not identify an overwhelming impact on biological productivity, the Draft EIS recognizes that the potential change in surface water mixing could result in changes to biological productivity of the southern New England Wind.	Section 3.6.2.1 of the Draft EIS presented a discussion on the presence of Project structures and the associated impact analysis, particularly their potential impact on the existing cold pool feature in the lease area.
0083-114	Underwater noise from anthropogenic sources, including from offshore wind development, can have a variety of effects on marine fishes, including behavioral impacts, masking of communication or other biologically-important sounds, physiological changes, hearing loss, and physical injuries. Noise impacts to fish vary depending on the type of fish species. The hearing specialist group of fish, which includes Atlantic cod, hake, and black sea bass, rely on sound for communication and other	Noise impacts associated with the Project's WTG operation and vessel noise was found to be minor. Noise associated with the Project and its potential impact on fish, invertebrates, and EFH were addressed in Section 3.6.2.3 of the Draft EIS.

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	behaviors and, thus, are more susceptible to noise impacts. Atlantic cod, in particular, have relatively strong hearing abilities, over a frequency range that overlaps with many forms of anthropogenic noise, including pile-driving, vessels, and wind turbine operation. Moreover, as recognized by BOEM, "noise impacts could be greater if they occur in important spawning habitat, occur during peak spawning periods, and/or result in reduced reproductive success in one or more spawning seasons, which could result in long-term effects to populations if one or more year classes suffer suppressed recruitment." There are multiple studies pointing to reasons for concern over possible impacts of wind farm-related noise on cod spawning. Experimental work exposing captive adult cod during the spawning period to playback of noise over frequencies typical of shipping and wind turbine operation has shown negative impacts on egg production and fertilization rates in adult cod, reducing viable embryos by 50 percent. Playback of recordings of ship noise has shown impacts on growth and body shape in larval cod as well as increased susceptibility to predators and hence implications for compromised survival. Spawning behavior in the wild is known to be generally sensitive to disruption: fishing activity on spawning grounds, for instance, has been shown to disrupt spawning even for those fish not captured.	
0083-126	We recommend that BOEM... Conduct Atlantic cod spawning surveys in the area of Muskeget Channel to better understand impacts from offshore wind development and cable laying on spawning cod.	New England Wind has collected pre-construction fisheries data in cooperation with University of Massachusetts Dartmouth School of Marine Science and Technology via trawl and drop camera surveys within the SWDA and OECC that includes a neuston net survey during May through December, a demersal otter trawl survey, and a drop camera survey. The fisheries monitoring framework will be further developed for construction and post-construction monitoring. More information fisheries surveys can be found in Appendix H of the Final EIS.
0086-16	Prominent marine scientist Arthur Popper has studied the effects of anthropogenic (human made) noise on fishes and found - along with his fellow marine scientists from Germany, the Netherlands and Belgium - that noises from "ships, construction, and sonar." etc. have the potential to affect the distribution of fish and their ability to communicate, reproduce, and avoid predators." Importantly, noises could also lead fishes to avoid their "preferred spawning sites." Noises also "mask natural sounds" that are necessary for fish to thrive including •communication sounds from other fish, and sounds produced by prey and approaching predators." British marine scientists found that fishes exposed to noise pollution suffer from "stress, hearing loss, behavioral changes." The importance of hearing (whether temporary or permanent) cannot be underestimated and the behavioral disorientation or the inability to hear a nearby predator can be a matter of life and death. Stressed marine animals are more susceptible to	Project noise impacts to fish and invertebrates are addressed in Final EIS Section 3.6.2.1 (Noise impacts associated with Alt A), Section 3.6.2.3 (Noise impacts associated with Alt B), and Section 3.6.2.4 (Alt C-1 and C-2).

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	disease, early death and to predators. Plastic pollution is visible but noise pollution suffered by marine animals is "silent" to humans because "few citizens stick their head in the water" long enough and "our heads are not designed to hear in the water,"· according to marine scientist Carlos Duarte.	
0095-5-03	I'm concerned about the possibility of no aquatic swim zones that would be caused by a combination of factors. The low frequency noise of the windmills working themselves, the windmill motors themselves, and the generation of electricity. These buffer or no swim zones, that I'm fearing, would indeed cut off the flow of aquatic activity from ocean -- from the open ocean into our rivers, bays and salt marshes.	The noise generated from the Project would have negligible to minor impacts on finfish and invertebrates and their distribution around the Project's structures. Additional information on noise generated from the Project and potential impacts on fish and invertebrates are addressed in Final EIS Section 3.6.2.3.
0095-6-02	what is your definition of cumulative impacts? Does it take into account the hydrological and ecological function like wind wakes, changes in upwelling, temperature, or other ecological functions or hydrological functions that, say, might affect something like phytoplankton, which, as I understand, absorbs a lot of carbon. And necessary for fish to feed on, on food whale.	Appendix E of the Draft EIS stated that the impacts resultant from the planned activities scenario are the incremental impacts of the Proposed Action on the environment added to other reasonably foreseeable planned activities in the area (Code of Federal Regulations, Title 40, Section 1502.15 [40 CFR § 1502.15]). This appendix discussed resource-specific planned activities that could occur if the Proposed Action's impacts occur in the same location and timeframe as impacts from other reasonably foreseeable planned activities. Specifically, the Proposed Action here is the construction and installation (construction), operations and maintenance (operations), and conceptual decommissioning (decommissioning) of the New England Wind Project (proposed Project), a wind energy project that would occupy all of the Bureau of Ocean Energy Management's (BOEM) Renewable Energy Lease Area OCS-A 0534 and potentially a portion of Lease Area OCS-A 0501, hereafter referenced as the Southern Wind Development Area (SWDA).
0097-1-02	I've read different articles that would suggest that some scientists are pretty concerned about what may happen to phytoplankton blooming and whatnot with the changes in wind forces that will be imparted by the wind turbines themselves, and the wind farms. And as more farms come online, it would seem that the cumulative effects would expand also with that. There's wind wakes... I just would like to know what plans there are to include that in the ecosystem, slash, environmental study.	Potential impacts associated with wake -related wind speed deficits are addressed in Final EIS Section 3.6.2.3. Based on the best available science and data, Project impacts to wake-related wind speed deficits in lee of wind turbine structures and associated biological productivity would be negligible.

O.5.6 Marine Mammals

Table O.5-6: Responses to Comments on Marine Mammals

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0015-01	I strongly disagree with offshore wind farms.https://dgrnewsservice.org/civilization/ecocide/climate-change/how-many-more-dead-whales/?utm_source=DGR+News+Service&utm_campaign=19bd79de17-RSS_EMAIL_CAMPAIGN&utm_medium=email&utm_term=0_51489b99cd-19bd79de17-481430028	Thank you for your comment.
0019-03	I do find the noise caused by pile driving in construction of the turbines to be concerning in terms of possible effects on whales, dolphins, and possibly other marine life (still, the overall benefits to marine life of offshore wind projects far outweigh the downsides I believe).	The mitigation and monitoring measures that the applicant has committed to implement (including and in addition to those defined in the COP) are listed in Table H-1. Mitigation and monitoring measures that may result from reviews under the statutes listed above are shown in Table H 2. Some of these mitigation and monitoring measures are outside of BOEM's statutory and regulatory authority but could potentially be adopted and imposed by other governmental entities. Tables H-1 and H-2 provide descriptions of mitigation or monitoring measures, along with the resource or resources to which each measure applies. If the COP is approved or approved with conditions, it will include mitigation and monitoring measures developed under various consultations and permit reviews (e.g., ESA and Marine Mammal Protection Act) and adopted by the Final EIS Record of Decision (ROD). If BOEM decides to approve the COP, the ROD will state which of the additional mitigation and monitoring measures identified by BOEM in Tables H-1 and H-2 have been adopted; if measures are not adopted, the ROD will state why they were not. If the measures adopted differ substantially from those listed in Tables H-1 and H-2, BOEM will evaluate whether impacts analyses need to be modified to address those changes. The applicant will be required to implement the mitigation and monitoring measures applicable that are adopted in the ROD (Code of Federal Regulations, Title 40, Section 1505.3 [40 CFR § 1505.3]), and it will be required to certify compliance with certain terms and conditions as required under 30 CFR § 585.633(b)."
0029-14	Extreme noise pollution would ensue from the heavy machinery drillings, tunneling, digging, pile driving, helicopters, land vehicles, boats, service vehicles, drones, etc. There are studies by marine scientists that fishes and marine mammals such as whales became deaf, disoriented, even die because of anthropogenic noise pollution. Unable to hear an approaching predator, the prey is caught.	Section 3.7.2.3 of the Final EIS addressed the potential impacts of underwater noise within the Noise IPF subsections.
0029-15	Are the whales washing up on the beaches of New Jersey victims of disorientation caused by anthropogenic noises?	Based on necropsy current reports, the recent whale stranding on NY and NJ beaches are predominately the result of vessel strikes; and many are

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		from unknown causes. Noise sources resulting from offshore wind development is from high resolution geophysical surveys and geotechnical surveys. These noise sources do not produce enough acoustic energy within the frequency of marine mammal (particularly large whale) hearing to result in auditory injury or non-auditory injury. Additionally, all wind-based activities are required to have trained lookouts who must report all whale, dolphin, and sea turtle detections to NMFS, and to date there have been no vessel strikes of marine protected species resulting from any wind survey activities. The vessel strikes are not known to be correlated with any anthropogenic noise; but rather are attributed to large numbers of vessels in areas that overlap with foraging and migrating whales.
0046-05	The impact of the wind turbines vibration themselves in the migration of fish and especially whales goes without question	Thank you for your comment.
0049-03	They emit constant noise n vibration below n above sea level messing with our sea life that uses echolocation —sharks, whales, seals dolphins n even bats—all critical to a healthy ecosystem n causing their deaths.	Thank you for your comment.
0068-02	What about the whale population to be affected and endangered with a severely detrimental impact on their use of echolocation and ability to navigate safely through Nantucket Sound?	Section 3.7 of the Draft EIS presented a detailed discussion of potential impacts on marine mammals from the proposed Project. In addition, Appendix H includes the proposed mitigation and monitoring measures.
0070-04	The North Atlantic right whale is entering its seventh year of an Unusual Mortality Event due to vessel strikes and entanglement with fishing gear, and the population cannot withstand additional mortality. It is therefore critical that BOEM accurately assess risks to the species by using the most up-to-date population estimate of 340 individuals, rather than the out-of-date abundance estimate used in the Draft EIS of 368 individuals. Given the right whale habitat use of the area as well as the importance of the area for multiple age classes of right whales, socializing animals, and as core foraging habitat, we recommend BOEM extend the time period of its proposed seasonal restriction for pile driving from January1-April 1 to December 1-April 30.	Section 3.7.1.2 of the Final EIS has been updated to include the most current population estimate for the NARW and is provided in Table 3.7-1 and all other occurrences. As discussed in Section 3.7.2.3 of the Final EIS, the seasonal restriction for pile driving for this Project is January 1 through April 30 which coincides with the months of greatest predicted NARW abundance within and in the vicinity of the Project area.
0083-02	We recommend that BOEM... Use the best available science and primary sources when determining which [marine mammal] species occur in the Project Area and with what frequency. Use the more accurate population estimate of 340 individuals for the critically endangered North Atlantic right whale.	Section 3.7.1.2 of the Final EIS has been updated to include the most current population estimate for the NARW and is provided in Table 3.7-1 and all other occurrences.
0083-11	BOEM misrepresents several estimates of seasonality and occurrence of marine mammals... in the Project Area, and these inaccuracies should be corrected in the Final EIS... The Draft EIS should include information on the feeding biologically important area (BIA) for fin whales designated by NMFS east of Montauk Point from March to October. Feeding behavior	Section 3.7.1.2 of the Final EIS has been updated to include the most current population estimate for the marine mammals and are provided in Table 3.7-1. These estimates are based on the best available data from the most recent NMFS stock assessment reports (SARs) and published

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	for this species has also been observed in and near the proposed Project Area.	literature. Information on the fin whale BIA has been added to the text in Section 3.7.1.3 in the Final EIS.
0083-12	[In the Draft EIS] The overall impact for marine mammals and increased noise and vessel traffic is lowered based on timing restrictions and other mitigation measures specifically intended to avoid adverse effects on right whales. However, as discussed in Section II.C, our groups find the proposed mitigation measures inadequate. For those reasons and the reasons detailed below, the impact analysis for marine mammals... requires revision.	The mitigation and monitoring measures that the applicant has committed to implement (including and in addition to those defined in the COP) are listed in Table H-1. Mitigation and monitoring measures that may result from reviews under the statutes listed above are shown in Table H 2. Some of these mitigation and monitoring measures are outside of BOEM's statutory and regulatory authority but could potentially be adopted and imposed by other governmental entities. Tables H-1 and H-2 provide descriptions of mitigation or monitoring measures, along with the resource or resources to which each measure applies. If the COP is approved or approved with conditions, it will include mitigation and monitoring measures developed under various consultations and permit reviews (e.g., ESA and Marine Mammal Protection Act) and adopted by the Final EIS Record of Decision (ROD). If BOEM decides to approve the COP, the ROD will state which of the additional mitigation and monitoring measures identified by BOEM in Tables H-1 and H-2 have been adopted; if measures are not adopted, the ROD will state why they were not. If the measures adopted differ substantially from those listed in Tables H-1 and H-2, BOEM will evaluate whether impacts analyses need to be modified to address those changes. The applicant will be required to implement the mitigation and monitoring measures applicable that are adopted in the ROD (Code of Federal Regulations, Title 40, Section 1505.3 [40 CFR § 1505.3]), and it will be required to certify compliance with certain terms and conditions as required under 30 CFR § 585.633(b).
0083-13	There are critical omissions from BOEM's sound exposure analysis presented in the Draft EIS that must be addressed in the Final EIS... it is unclear from the impacts analysis if noise attenuation technology will be required during impact pile driving and other activities. Three levels of noise attenuation (0 dB, 10 dB and 12 dB) are modeled in the marine mammal section but it is not stated in the Draft EIS which level must be attained, if any. The acoustic impact analysis presented in Appendix III-M of the New England Wind COP states that a noise abatement system (NAS) performance of 10 dB broadband attenuation was chosen for the study of acoustic impacts, but also notes that New England Wind expects to implement noise attenuation mitigation technology to reduce sound levels by approximately 12 dB or greater. A 12 dB target reduction is echoed in the mitigation and monitoring measures listed in Appendix H of the Draft EIS, which states that the applicant will implement noise attenuation mitigation to reduce sound levels by a target of approximately 12 dB or greater. However, in the sea turtle section, the Draft EIS states that the applicant has committed to a minimum of 6 dB of noise reduction	The mitigation and monitoring measures that the applicant has committed to implement (including and in addition to those defined in the COP) are listed in Table H-1. Mitigation and monitoring measures that may result from reviews under the statutes listed above are shown in Table H 2. Some of these mitigation and monitoring measures are outside of BOEM's statutory and regulatory authority but could potentially be adopted and imposed by other governmental entities. Tables H-1 and H-2 provide descriptions of mitigation or monitoring measures, along with the resource or resources to which each measure applies. If the COP is approved or approved with conditions, it will include mitigation and monitoring measures developed under various consultations and permit reviews (e.g., ESA and Marine Mammal Protection Act) and adopted by the Final EIS Record of Decision (ROD). If BOEM decides to approve the COP, the ROD will state which of the additional mitigation and monitoring measures identified by BOEM in Tables H-1 and H-2 have been adopted; if measures are not adopted, the ROD will state why they were not. If the measures adopted differ substantially from those listed in

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	from abatement. BOEM's analysis of noise impacts in the Draft EIS should clearly state what level of noise attenuation will be required so potential impacts to marine mammals can be accurately evaluated.	Tables H-1 and H-2, BOEM will evaluate whether impacts analyses need to be modified to address those changes. The applicant will be required to implement the mitigation and monitoring measures applicable that are adopted in the ROD (Code of Federal Regulations, Title 40, Section 1505.3 [40 CFR § 1505.3]), and it will be required to certify compliance with certain terms and conditions as required under 30 CFR § 585.633(b).
0083-14	There are critical omissions from BOEM's sound exposure analysis presented in the Draft EIS that must be addressed in the Final EIS... the Draft EIS's description of potential noise effects from operational WTGs is also cursory and does not provide any analysis of sound source levels compared to thresholds or ambient noise. Instead, it is merely compared to vessel noise, which is not an appropriate comparison because vessel noise consists of moving, ephemeral noise sources not laid out in a permanent grid like what is proposed for New England Wind. A wealth of research exists on the impacts of operational noise from offshore wind turbines on marine life and the importance of reducing this impact. Best available scientific information indicates that, during the operation phase, offshore wind turbines may generate noise audible and potentially impactful to large whales and other marine species over significant distances. Understanding levels and impacts of operational noise should be an immediate research and monitoring priority for BOEM as the first offshore wind projects are constructed in the United States. The Final EIS should include a proper, quantitative analysis that considers the operational noise generated by turbines.	Section 3.7.2.1 and 3.7.2.3 of the Final EIS includes a discussion on WTG operational noise. While BOEM acknowledges that offshore wind operational noise monitoring is a key data collection goal, there is not a wealth of research and empirical data regarding the sound field produced by WTGs or its perception by and potential impacts to marine species. Data that have been published can lend some information but are not fully comparable to the operations, or species, that will be conducted in the US. Data are also often conflicting in the published science owing that site conditions and local acoustic environment likely have a significant role in understanding potential WTG noise impacts.
0083-18	The waters off southern New England are a critically important foraging area for North Atlantic right whales; for this Final EIS, and other Draft EISs that are forthcoming, BOEM must fully assess the impacts associated with disturbance of North Atlantic right whales and other marine mammal species during foraging, at the spatial and temporal scale those impacts are expected to occur, for individual projects and cumulatively across projects. As the energetic requirements of many marine mammal species are not yet known, we recommend BOEM proceed with this analysis in a precautionary manner, and support research aimed at addressing these knowledge gaps.	"The best available data and information has been used to evaluate NARW and other marine mammal distributions, foraging behaviors and the potential impacts the Proposed Project may have on these animals in Sections 3.7.2.3 of the Final EIS. BOEM will continue to evaluate these animals and potential interactions they may have with future offshore wind developments as more research and data become available.
0083-48	According to the Draft EIS, 38 marine mammal species, which comprise 39 management stocks, are known to occur year-round, seasonally, and/or incidentally in the geographic analysis area, which covers the Northwest Atlantic OCS. Sixteen of these species and stocks are identified as being potentially present in the proposed offshore export cable corridors (OECC) and Southern Wind Development Area (SWDA), including species and stocks with regular, common, and uncommon occurrence... Our groups have several general and specific concerns with BOEM's	Sources used for determining species occurrences and seasonality have been reviewed and are provided in Section 3.7.1.2 of the Final EIS, Table 3.7-1 (footnote 'c'), as well as in text as appropriate. These sources cover the best available data for the Project area, and include data collected for surveys that overlap with the Project area. Appendix B has species information and Draft EIS Section 3.7.1.2 provides an overview of occurrences, including seasonality. Given the

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	analysis of marine mammal... occurrence, abundance, and seasonality in the Project Area... the Draft EIS does not provide a comprehensive assessment of all marine mammal... species with common occurrence in the Project Area. BOEM provides minimal descriptions of general and Project Area-specific occurrence of individual species expected to occur in the Project Area. The most detailed description is provided for the North Atlantic right whale, but thorough descriptions are missing for the other species. Information on species is scattered across pages and therefore difficult to find and assess. Descriptions of species-specific occurrence in the Project Area should be provided by BOEM as the agency responsible for assessing environmental impacts of the proposed activity, not by the developer or another agency. BOEM can certainly refer readers to these documents for more information, but still should provide a summary of such information to inform the public and its own analysis.	page limit requirements for this EIS, only a brief overview of species can be provided in the Affected Environment section; additional information is included in appendices and the reader is referenced to other documents where more detailed descriptions can be provided.
0083-49	BOEM says "Additional information regarding life history characteristics and population status of additional marine mammal species is provided in Appendix B, Supplemental Information and Additional Figures and Tables." This appendix includes general information but does not include specific occurrence information for the Project Area. BOEM needs to summarize the data and information that has been collected during studies that overlapped with the Project Area (e.g., sightings data from the Atlantic Marine Assessment Program for Protected Species (AMAPPS), sightings and acoustic data from the Northeast Large Pelagic Survey Collaborative studies, Protected Species Observer (PSO) data, etc.). We recommend that BOEM revise the description of the affected environment section to incorporate an independent analysis of all species likely to occur in the Project Area, using relevant and up-to-date primary sources to support its analysis.	Sources used for determining species occurrences and seasonality have been reviewed and are provided in Section 3.7.1.2, Table 3.7-1 of the Final EIS. These sources cover the best available data for the Project area, and include data collected for surveys that overlap with the Project area as indicated in your comment. More information can also be found in Final EIS Appendix B.
0083-51	Fewer than 340 individuals [of the North Atlantic right whale] now remain in the population, including fewer than 70 reproductive females. The species is entering its seventh year of a UME–designated by NMFS due to unsustainable levels of mortality and serious injury from vessel strikes and entanglement in fishing gear–and its recovery is further hindered by underwater noise pollution and climate change driven habitat shifts. The Draft EIS correctly states that the right whale is in dramatic decline and is experiencing high mortality combined with low calving rates, implying a population that cannot withstand further losses or additional stress if the species is to reverse its decline and eventually recover. However, BOEM uses the latest stock assessment report's estimate of abundance of 368 individuals, a number that is now at least three years out of date. We encourage the use of the 340 population	The most current population estimate has been updated for the NARW (Section 3.7.1.2, Table 3.7-1 of the Final EIS and all in-text occurrences). Further, the seasonal restriction for pile driving for this Project is January 1 through April 30, which coincides with the months of greatest predicted NARW abundance within and in the vicinity of the Project area. This comment is addressed in Section 3.7.2.3 of the Final EIS.

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	estimate to reflect the species' true status and subsequent risk assessment more accurately. NMFS also recently included whales experiencing sublethal injury and illness as part of the UME, which the agency refers to as "morbidity." BOEM must incorporate into consideration that, to date, 97 right whales have been impacted by the UME (i.e., from mortality, serious injury, and morbidity).	
0083-52	BOEM misrepresents several estimates of seasonality and occurrence of marine mammals... in the Project Area, and these inaccuracies should be corrected in the Final EIS. It is unclear what the seasonal occurrence designations are based on. For example, blue whales are expected to occur in the Project Area only rarely, but seasonal occurrence in the SWDA is listed as winter. BOEM should provide more detail on the sources of data for information on seasonality, and, as a general matter, define the seasons referred to throughout the Draft EIS by month or date.	BOEM acknowledges the comment and will provide months for the seasonality; however, as stated in an earlier comment, these months may shift as climate shifts. This comment is addressed in Section 3.7.1.2, Table 3.7-1 of the Final EIS footnote 'd'. Additionally, seasonal occurrences in this table have been reviewed, and are now only provided for species with common, regular, or uncommon occurrences (i.e., not for the rare blue whale).
0083-55	The Draft EIS does not include the original data source(s) for the average monthly and annual average marine mammal densities, instead referencing Park City Wind (2022) and the project proponent's incidental harassment authorization (IHA) application. However, the acoustic impacts analysis presented in Appendix III-M of the New England Wind COP states that density estimates for marine mammals were obtained from the Roberts et al. models, including the 2021 updated model for North Atlantic right whales. BOEM should clarify the source of the marine mammal density estimate in the Draft EIS, including whether or not they reflect the best available scientific information (i.e., the 2022 ver. 12 update to the Roberts et al. models).	The density estimates provided in the EIS are from the Applicant's modeling report which was updated in January 2023 to include the most up to date density data from Roberts et al. (2022) for all species, which reflects the best available information for these species at the time of publishing the Final EIS. This has been updated in Section 3.7.1.2 the EIS.
0083-56	BOEM anticipates that the Proposed Action (encompassing construction, operations, and decommissioning of Phase 1 and Phase 2, including Phase 2 South Coast Variant) would have negligible to moderate adverse impacts and could potentially include minor beneficial impacts on marine mammals."... The overall impact for marine mammals and increased noise and vessel traffic is lowered based on timing restrictions and other mitigation measures specifically intended to avoid adverse effects on right whales. However... our groups find the proposed mitigation measures inadequate. For those reasons... the impact analysis for marine mammals..... requires revision.	The mitigation and monitoring measures that the applicant has committed to implement (including and in addition to those defined in the COP) are listed in Table H-1. Mitigation and monitoring measures that may result from reviews under the statutes listed above are shown in Table H 2. Some of these mitigation and monitoring measures are outside of BOEM’s statutory and regulatory authority but could potentially be adopted and imposed by other governmental entities. Tables H-1 and H-2 provide descriptions of mitigation or monitoring measures, along with the resource or resources to which each measure applies. If the COP is approved or approved with conditions, it will include mitigation and monitoring measures developed under various consultations and permit reviews (e.g., ESA and Marine Mammal Protection Act) and adopted by the Final EIS Record of Decision (ROD). If BOEM decides to approve the COP, the ROD will state which of the additional mitigation and monitoring measures identified by BOEM in Tables H-1 and H-2 have been adopted; if measures are not adopted, the ROD will state why they were not. If the measures adopted differ substantially from those listed in

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		Tables H-1 and H-2, BOEM will evaluate whether impacts analyses need to be modified to address those changes. The applicant will be required to implement the mitigation and monitoring measures applicable that are adopted in the ROD (Code of Federal Regulations, Title 40, Section 1505.3 [40 CFR § 1505.3]), and it will be required to certify compliance with certain terms and conditions as required under 30 CFR § 585.633(b).
0083-58	BOEM's conclusion that marine mammal species would experience no more than moderate adverse impacts from the Proposed Action, and that the impacts posed by vessel traffic would be minor with no population-level impacts expected, significantly underestimates the risk of vessel strike on marine mammals, and particularly the North Atlantic right whale... Even a single lethal vessel strike could jeopardize the species' survival. BOEM defines major impacts as "detectable and measurable," "of severe intensity," and "can be long lasting or permanent." Further, major impacts "to individuals and/or their habitat would have severe population-level effects and compromise the viability of the species." Based on this definition, vessel strike clearly represents a major impact for North Atlantic right whales. BOEM should capture this distinction for this critically endangered species in its impact analysis, as it has done so previously; this will help ensure that appropriate avoidance, minimization, and mitigation measures are developed and required to address the outsized risk posed to North Atlantic right whales.	BOEM agrees that vessel strikes on NARWs could have population-level effects. The vessel traffic IPF section has been reviewed and the impact determinations were reevaluated, resulting in a change in determinations. This is presented in Section 3.7.2.3 of the Final EIS within the Traffic IPF subsection.
0083-59	BOEM provides support for its "moderate" adverse impacts conclusion by stating that "the resource would likely recover completely when IPF stressors are removed and/or remedial or mitigating actions are taken." Vessel strike risk for right whales, and large whales generally, will never be simply "removed," either under the No Action Alternative or Proposed Action. BOEM is thus reliant on remedial or mitigating actions to support a minor or moderate impact determination. Indeed, BOEM discounts the possibility of vessel strike based upon adherence to voluntary implementation of measures by the developer to reduce vessel strike risk. Non-mandatory and non-enforceable measures should not be considered effective mitigation strategies. Moreover, to justify a minor determination for a major source of mortality, some discussion and/or quantitative analysis should be conducted regarding the base likelihood for vessel strikes and the effectiveness of required mitigation strategies.	BOEM agrees that vessel strikes on NARWs could have population-level effects. The vessel traffic IPF section has been reviewed and the impact determinations were reevaluated, resulting in a change in determinations. This is presented in Section 3.7.2.3 of the Final EIS within the Traffic IPF subsection.
0083-60	We also remind BOEM that there is little to no literature currently available to support the assumption that offshore wind development will provide tangible benefit to marine mammals. In fact, recent scientific information suggests that hydrographic changes induced by the turbines may affect marine mammal prey in a variety of ways, many of which are still to be determined. Due to a lack of evidence and significant	BOEM agrees that there is limited information; and the beneficial component, if any, is not considered in "balancing" negative and positive impacts. The impacts for potential increase in prey is evaluated on its own merit and for its own assessment. i.e., minor beneficial impacts are only applicable to seals and small odontocetes as a result of increased foraging and sheltering opportunities due to the presence of structures IPF; this

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	uncertainties, BOEM should not include an assumption of increased prey availability as a benefit as part of its overall conclusion on the impacts of the Proposed Action.	benefit does not have any effect on the overall assessment of impacts resulting from the presence of structures. Additionally, a statement regarding a caveat to beneficial effects is included in the Draft EIS ("Beneficial effects, however, may be offset given the increased risk of entanglement due to derelict fishing gear on the structures."). This comment is addressed in Section 3.7.2.1 of the Final EIS within the Presence of structures IPF sub header.
0083-61	There are critical omissions from BOEM's sound exposure analysis presented in the Draft EIS that must be addressed in the Final EIS. While this information is included in the appendices to the New England Wind COP, BOEM should transpose all information critical to supporting its impact analysis into the Final EIS. First, in the model predicted exposure ranges for monopile and jacket foundations, the distances to the behavioral threshold vary between species within the same hearing group. This may be unexpected given how exposure ranges are often calculated solely by hearing group. BOEM should explain the reason behind this variation (i.e., that exposure ranges are computed using the simulated movements of individual animals within each species group considered in the animal movement and exposure modeling). In addition, BOEM should correct the source information for Table 3.7-8 and Table 3.7-9.	Supportive information from the modeling report that is not in Section 3.7.2.3 is provided in Appendix B of the EIS. The calculation of exposure ranges takes into account the dosage of sound energy that modeled individuals accumulate during predicted swim and dive behaviors which are species-specific. Though the threshold is the same for all species, incorporation of individual species behavior in this exposure range method is more biologically accurate because it accounts for the received sound levels as animals move within the modeled sound field then computes the range at which each species meets the PTS threshold over thousands of model runs. A brief explanation of this modeling is provided in Section 3.7.2.3 of the EIS and EIS Appendix B Section B.4.2. Also, the source reference for Tables 3.7-8 and 3.7-9 have been fixed to refer to the correct tables in the COP modeling report from which this information was obtained.
0083-62	There are critical omissions from BOEM's sound exposure analysis presented in the Draft EIS that must be addressed in the Final EIS... estimates of the number of individual marine mammals that may experience injury (i.e., permanent threshold shift, PTS), temporary threshold shift (TTS), or behavioral disturbance are not included in the impacts analysis. As this information represents a key component of assessing the potential for impact, BOEM must incorporate this information into the Final EIS. Appendix III-M of the New England Wind COP provides exposure estimates for marine mammals... that could be included in the Draft EIS. For all marine mammals, and North Atlantic right whales in particular, it is unreasonable to make any determination of impact levels for IPFs that have large areas of potential PTS, TTS, and behavioral impacts (e.g., impact pile driving, vibratory pile driving, UXO detonations) without having an understanding of the number of individuals that could be affected.	The ranges to the thresholds that were modeled for this Project were provided in Section 3.7.2.3 of Draft EIS as well as in Appendix B for each activity modeled by the applicant. he mitigation and monitoring measures that the applicant has committed to implement (including and in addition to those defined in the COP) are listed in Table H-1. Mitigation and monitoring measures that may result from reviews under the statutes listed above are shown in Table H 2. Some of these mitigation and monitoring measures are outside of BOEM's statutory and regulatory authority but could potentially be adopted and imposed by other governmental entities. Tables H-1 and H-2 provide descriptions of mitigation or monitoring measures, along with the resource or resources to which each measure applies. If the COP is approved or approved with conditions, it will include mitigation and monitoring measures developed under various consultations and permit reviews (e.g., ESA and Marine Mammal Protection Act) and adopted by the Final EIS Record of Decision (ROD). If BOEM decides to approve the COP, the ROD will state which of the additional mitigation and monitoring measures identified by BOEM in Tables H-1 and H-2 have been adopted; if measures are not adopted, the ROD will state why they were not. If the measures adopted differ substantially from those listed in Tables H-1 and H-2, BOEM will evaluate whether impacts analyses need

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		to be modified to address those changes. The applicant will be required to implement the mitigation and monitoring measures applicable that are adopted in the ROD (Code of Federal Regulations, Title 40, Section 1505.3 [40 CFR § 1505.3]), and it will be required to certify compliance with certain terms and conditions as required under 30 CFR § 585.633(b).
0083-64	Within the Draft EIS, BOEM asserts that pile-driving activities will likely exceed PTS and TTS for all marine mammal functional hearing groups. We note that behavioral impacts resulting from noise exposure can also be significant and the best available scientific information on this matter is not incorporated into the Draft EIS. For example, BOEM states: "For marine mammals, assessing the severity of behavioral effects associated with anthropogenic noise exposure presents unique challenges due to the inherent complexity of behavioral responses and the contextual factors affecting them, both within and between individuals and species," but does not provide further analysis of what is known. Yet there are data available that BOEM should consider. For example, scientific information on North Atlantic right whale functional ecology shows that the species employs a "high-drag" foraging strategy that enables them to selectively target high-density prey patches, but is energetically expensive. Thus if access to prey is limited in any way, the ability of the whale to offset its energy expenditure during foraging is jeopardized. Researchers have concluded: "right whales acquire their energy in a relatively short period of intense foraging; even moderate changes in their feeding behavior or prey energy density are likely to negatively impact their yearly energy budgets and therefore reduce fitness substantially." North Atlantic right whales are already experiencing significant food stress: juveniles, adults and lactating females have significantly poorer body condition relative to southern right whales and the poor condition of lactating females may cause a reduction in calf growth. A recent study confirmed that larger females do, indeed, have more calves. These studies provide an indication of the significant impact disturbance during foraging may have on a marine mammal species.	Assessment of behavioral impacts from pile driving based on available published literature is discussed in Section 3.7.2.1 of the EIS, and the assessment based on results of the modeling is discussed in Section 3.7.2.3. The Final EIS and associated appendices provide significant input regarding behavioral disturbance and consequences for marine mammals, including NARWs. While the Draft EIS asserts that noise levels produced by pile driving will exceed PTS and behavioral thresholds, mitigation measures are designed to eliminate the risk of PTS exposures being realized and minimize behavioral exposures which could lead to prolonged changes in biologically relevant behaviors. In the case of NARWs, they are not expected to be feeding during the pile driving window as pile driving would not occur between January 1 and April 30 when NARW are expected to have a heightened abundance in the SWDA; therefore the risk of disturbing critical foraging activity is very low. An additional statement to clarify this point and how the seasonal restriction on pile driving activities would help mitigate behavioral disturbances, and not just PTS, has been added to Section 3.7.2.3 of the Final EIS to clarify.
0083-65	"[U]nder the noise analysis for marine mammals for the Proposed Alternative, high- resolution geophysical (HRG) surveys are afforded only a paragraph and impacts based on the impacts assessment and mitigation measures found in the 2021 BOEM Biological Assessment (BA). We have profound concerns with the 2021 BOEM BA, and the programmatic informal consultation it supports, because it relies on grossly outdated scientific information about the right whale and fails to include mitigation measures that meet the ESA's requirements...	Section 3.7.2.1 of the Final EIS has been updated to include more recent references studying effects of HRG surveys on marine mammals including Ruppell et al. (2022), Kates Varghese et al. (2020, 2021), Cholewiak et al. (2017), and Quick et al. (2017) to provide a more up to date assessment of potential risks. Section 3.7.2.3 also refers to the information in this section but has been updated to rely more on the take assessment available in the Project's final LOA application rather than the 2021 BOEM BA.

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0083-75	"BOEM proposes a four-month seasonal restriction on impact pile driving from January 1 through April 30 to minimize impacts to North Atlantic right whales. However, these dates do not reflect the best available scientific information for the Project Area and broader region where right whales are often detected outside of this period. Since 2010, the distribution and habitat use of North Atlantic right whales and other large whale species off the U.S. East Coast has shifted in response to climate change-driven shifts in prey availability. Best available scientific data indicates that North Atlantic right whales now rely heavily on the waters within, and in the vicinity of, the New England Wind Project Area year-round, and that this area is increasing in habitat importance for the species. A recent scientific study led by the New England Aquarium analyzed data collected during systematic aerial surveys conducted within the offshore wind energy development area off Southern New England, as well as from across the broader region. The resulting multi-year data set enabled a comparison between two different time periods (2013-2015 and 2017-2019) to assess trends in abundance of right whales in the region in the winter and spring. The study confirmed a growing understanding that the number of right whales using habitat off Southern New England—known to be a historic whaling ground—in the winter and spring significantly increased between 2013 and 2019. Right whales were also detected during every season surveyed from 2017 to 2019. Confirmed year-round detection is unique among major right whale habitats. During these surveys, right whales were also observed feeding and socializing in groups. The authors conclude that their results, when interpreted alongside previous studies, "suggest that [Southern New England] represents an increasingly important habitat for the declining right whale population." Scientific analysis comparing the NLPSC aerial survey campaigns conducted in 2011-2015 with those conducted in 2017-2019 also show that right whales have been sighted in nearly every month since 2017, with peak sighting rates between late winter and spring. Modeling suggests that 23 percent of the population is present from December through May each year, and that mean residence time has tripled to an average of 13 days during these months. A total of 327 unique right whales were identified during the combined survey effort off Southern New England between March 2011 and December 2019; by the end of 2019, 87 percent of the then living population had been sighted. All demographic classes of right whales have been documented in or near the Project Area and the age- ratio of the whales using the area is reflective of the species. Both reproductive females and conceptive females have been seen in the study area...Undisturbed access to foraging habitat is therefore necessary to adequately protect the species, as is the	The importance of Nantucket Shoals is described in Section 3.7.1.2 of the Final EIS and has been updated with the best available data regarding NARW presence and use of this region. Additionally and in addition to the time of year restrictions, all mitigation measures during construction and O&M will be implemented regardless of season. Therefore, there is no decrease in mitigation measures during periods of lower NARW abundances. The mitigation and monitoring measures that the applicant has committed to implement (including and in addition to those defined in the COP) are listed in Table H-1. Mitigation and monitoring measures that may result from reviews under the statutes listed above are shown in Table H 2. Some of these mitigation and monitoring measures are outside of BOEM's statutory and regulatory authority but could potentially be adopted and imposed by other governmental entities. Tables H-1 and H-2 provide descriptions of mitigation or monitoring measures, along with the resource or resources to which each measure applies. If the COP is approved or approved with conditions, it will include mitigation and monitoring measures developed under various consultations and permit reviews (e.g., ESA and Marine Mammal Protection Act) and adopted by the Final EIS Record of Decision (ROD). If BOEM decides to approve the COP, the ROD will state which of the additional mitigation and monitoring measures identified by BOEM in Tables H-1 and H-2 have been adopted; if measures are not adopted, the ROD will state why they were not. If the measures adopted differ substantially from those listed in Tables H-1 and H-2, BOEM will evaluate whether impacts analyses need to be modified to address those changes. The applicant will be required to implement the mitigation and monitoring measures applicable that are adopted in the ROD (Code of Federal Regulations, Title 40, Section 1505.3 [40 CFR § 1505.3]), and it will be required to certify compliance with certain terms and conditions as required under 30 CFR § 585.633(b).

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	minimization of disturbance during the species' energetically expensive migration.	
0083-79	Clearance and Exclusion Zones Are Under-Protective NMFS', and thus BOEM's, reliance on a 160 dB (re 1 ?Pa2s) threshold for behavioral harassment is not supported by the best available scientific information and such reliance grossly underestimates Level B take. As previously noted, behavioral disturbance of right whales must be minimized to the greatest extent possible if the species is to be adequately protected. Establishing Clearance and Exclusion Zones and monitoring those areas for the presence of marine mammals... is one of the primary means of reducing acoustic exposures of these species during impact pile driving. BOEM sets out several Clearance and Exclusion Zones for North Atlantic right whales to be implemented at different time periods in Appendix H of the Draft EIS (we encourage BOEM to also include this important information on monitoring and mitigation in the main text of the Final EIS). However, except for two short periods from November 1 through December 31 and from May 1 through May 14 where a 10 kilometer Exclusion Zone is required, the sizes of these zones are insufficient. For impact pile driving with a minimum noise reduction/attenuation level of 10-12 dB (re 1 ?Pa2s), as intended by the New England Wind Project, the following minimum Clearance and Exclusion Zone distances should be required for North Atlantic right whales... 1). A visual Clearance Zone and Exclusion Zone must extend at minimum 5,000 m in all directions from the location of the driven pile. 2. An acoustic Clearance Zone must extend at minimum 5,000 m in all directions from the location of the driven pile. 3. An acoustic Exclusion Zone must extend at minimum 2,000 m in all directions from the location of the driven pile. In addition, Clearance and Exclusion Zone distances for other marine mammal species are extremely small relative to the size of the zone of potential impact. ....mysticete whales other than the North Atlantic right whale are afforded a 500-meter exclusion zone, harbor porpoise only a 120- meter exclusion zone, and all other species only a 50-meter exclusion zone. It is unclear if pre-start Clearance Zones for these species will be required. BOEM should revise the required Clearance and Exclusion Zones, increasing their size in a manner that eliminates Level A take and minimizes behavioral harassment to the fullest extent possible for all marine mammal species...	Appendix H of the Final EIS has been updated to more clearly indicate the mitigation zones that will be implemented for this project based on the modeling and the Project's final LOA application. The proposed mitigation for this Project includes one seasonal exclusion period from January 1 to April 30, and the clearance and shutdown zones have been identified by species group and foundation type for pile driving activities as indicated in the updated Appendix H. Additionally, the proposed mitigation includes a PAM plan that will be developed in detail prior to the start of construction, but will aim to acoustically monitor a minimum radius of 5,500 m around each monopile foundation and 4,490 m around each jacket foundation to support the visual monitoring conducted by PSOs. For NARW specifically, the proposed mitigation includes a clearance zone at any distance at which NARW can be detected, and a shutdown zone around all pile types at any distance at which NARW can be detected.
0083-79	Clearance and Exclusion Zones Are Under-Protective NMFS', and thus BOEM's, reliance on a 160 dB (re 1 ?Pa2s) threshold for behavioral harassment is not supported by the best available scientific information and such reliance grossly underestimates Level B take. As previously noted, behavioral disturbance of right whales must be minimized to the	"Appendix H of the Final EIS has been updated to more clearly indicate the mitigation zones that will be implemented for this project based on the modeling and the Project's final LOA application. The proposed mitigation for this Project includes one seasonal exclusion period from January 1 to April 30, and the clearance and shutdown zones have been

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	greatest extent possible if the species is to be adequately protected. Establishing Clearance and Exclusion Zones and monitoring those areas for the presence of marine mammals... is one of the primary means of reducing acoustic exposures of these species during impact pile driving. BOEM sets out several Clearance and Exclusion Zones for North Atlantic right whales to be implemented at different time periods in Appendix H of the Draft EIS (we encourage BOEM to also include this important information on monitoring and mitigation in the main text of the Final EIS). However, except for two short periods from November 1 through December 31 and from May 1 through May 14 where a 10 kilometer Exclusion Zone is required, the sizes of these zones are insufficient. For impact pile driving with a minimum noise reduction/attenuation level of 10-12 dB (re 1 ?Pa2s), as intended by the New England Wind Project, the following minimum Clearance and Exclusion Zone distances should be required for North Atlantic right whales... 1). A visual Clearance Zone and Exclusion Zone must extend at minimum 5,000 m in all directions from the location of the driven pile. 2. An acoustic Clearance Zone must extend at minimum 5,000 m in all directions from the location of the driven pile. 3. An acoustic Exclusion Zone must extend at minimum 2,000 m in all directions from the location of the driven pile. In addition, Clearance and Exclusion Zone distances for other marine mammal species are extremely small relative to the size of the zone of potential impact. ....mysticete whales other than the North Atlantic right whale are afforded a 500-meter exclusion zone, harbor porpoise only a 120- meter exclusion zone, and all other species only a 50-meter exclusion zone. It is unclear if pre-start Clearance Zones for these species will be required. BOEM should revise the required Clearance and Exclusion Zones, increasing their size in a manner that eliminates Level A take and minimizes behavioral harassment to the fullest extent possible for all marine mammal species...	identified by species group and foundation type for pile driving activities as indicated in the updated Appendix H. Additionally, the proposed mitigation includes a PAM plan that will be developed in detail prior to the start of construction, but will aim to acoustically monitor a minimum radius of 5,500 m around each monopile foundation and 4,490 m around each jacket foundation to support the visual monitoring conducted by PSOs. For NARW specifically, the proposed mitigation includes a clearance zone at any distance at which NARW can be detected, and a shutdown zone around all pile types at any distance at which NARW can be detected.
0083-118	We recommend that BOEM... Revise the sound exposure analysis for marine mammals... and include all information necessary to inform BOEM's impact analysis in the Draft EIS... Extend the time period of the prohibition on impact pile driving to December 1 through April 30. Prohibit commencement of impact pile driving during periods of darkness or poor visibility. Strengthen noise reduction and attenuation requirements to reflect best available control technology. Include mitigation measures to reduce impacts from unexploded ordinance (UXO) removal.	The mitigation and monitoring measures that the applicant has committed to implement (including and in addition to those defined in the COP) are listed in Table H-1. Mitigation and monitoring measures that may result from reviews under the statutes listed above are shown in Table H 2. Some of these mitigation and monitoring measures are outside of BOEM’s statutory and regulatory authority but could potentially be adopted and imposed by other governmental entities. Tables H-1 and H-2 provide descriptions of mitigation or monitoring measures, along with the resource or resources to which each measure applies. If the COP is approved or approved with conditions, it will include mitigation and monitoring measures developed under various consultations and permit reviews (e.g., ESA and Marine Mammal Protection Act) and adopted by the Final EIS Record of Decision (ROD). If BOEM decides to approve the

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		COP, the ROD will state which of the additional mitigation and monitoring measures identified by BOEM in Tables H-1 and H-2 have been adopted; if measures are not adopted, the ROD will state why they were not. If the measures adopted differ substantially from those listed in Tables H-1 and H-2, BOEM will evaluate whether impacts analyses need to be modified to address those changes. The applicant will be required to implement the mitigation and monitoring measures applicable that are adopted in the ROD (Code of Federal Regulations, Title 40, Section 1505.3 [40 CFR § 1505.3]), and it will be required to certify compliance with certain terms and conditions as required under 30 CFR § 585.633(b).
0083-119	We recommend that BOEM... Require a mandatory, year-round 10-knot speed restriction on all Project-associated vessels at all times [to reduce impacts to marine mammals].	The mitigation and monitoring measures that the applicant has committed to implement (including and in addition to those defined in the COP) are listed in Table H-1. Mitigation and monitoring measures that may result from reviews under the statutes listed above are shown in Table H 2. Some of these mitigation and monitoring measures are outside of BOEM's statutory and regulatory authority but could potentially be adopted and imposed by other governmental entities. Tables H-1 and H-2 provide descriptions of mitigation or monitoring measures, along with the resource or resources to which each measure applies. If the COP is approved or approved with conditions, it will include mitigation and monitoring measures developed under various consultations and permit reviews (e.g., ESA and Marine Mammal Protection Act) and adopted by the Final EIS Record of Decision (ROD). If BOEM decides to approve the COP, the ROD will state which of the additional mitigation and monitoring measures identified by BOEM in Tables H-1 and H-2 have been adopted; if measures are not adopted, the ROD will state why they were not. If the measures adopted differ substantially from those listed in Tables H-1 and H-2, BOEM will evaluate whether impacts analyses need to be modified to address those changes. The applicant will be required to implement the mitigation and monitoring measures applicable that are adopted in the ROD (Code of Federal Regulations, Title 40, Section 1505.3 [40 CFR § 1505.3]), and it will be required to certify compliance with certain terms and conditions as required under 30 CFR § 585.633(b).
0083-131	BOEM misrepresents several estimates of seasonality and occurrence of marine mammals... in the Project Area, and these inaccuracies should be corrected in the Final EIS... Peak occurrence for right whales is designated for spring, but winter is also a peak time for this species based on survey data and derived habitat-based density models and acoustic data, and is identified as such in other parts of the Draft EIS. Similarly, peak occurrence for the humpback whale is listed as spring-summer, but higher abundances for this region have been modeled for fall and the densities listed in the Draft EIS are highest for this species during	BOEM acknowledges that there are seasonal fluctuations in marine mammal movements and the climate changes are likely to produce more fluctuation. While short-finned pilot whales have been documented off New England, their occurrence is still considered rare based on best available data (Section 3.7.1.2, Table 3.7-1 of the Final EIS). Based on the definitions for species occurrences provided in this Final EIS and the most recent survey data (e.g., as summarized in the NMFS SARs and additional reports), occurrences of both pilot whale species remain unchanged in Table 3.7-1. Peak occurrences for NARW and humpback whales have

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	September.... Both pilot whale species should be expected to occur in the Project Area based on the uncertainty of the exact ranges of these species, the potential for range shifts due to climate change, and the difficulty distinguishing between these species in the field. Tagged short-finned pilot whales have ranged along the shelf break as far north as Nantucket Shoals and Georges Bank.	been updated in Section 3.7.1.2, Table 3.7-1 of the Final EIS per the referenced density data.
0083-132	BOEM misrepresents several estimates of seasonality and occurrence of marine mammals... in the Project Area, and these inaccuracies should be corrected in the Final EIS... Sei whale occurrence should be listed as year-round based on known occurrence in nearby shelf regions (e.g., surveys of the New York Bight recorded sei whales during August, February/March, and April/May).	BOEM acknowledges that there are seasonal fluctuations in marine mammal movements and climate change is likely to cause more fluctuation. Sei whale occurrence has been reviewed, and Section 3.7.1.2, Table 3.7-1 of the Final EIS has been updated.
0086-09	Nantucket Sound is home to aquatic biodiversity. BOEM states that "38 marine mammal species• including the critically endangered North Atlantic right whale (NARW) "are known to occur year-round, seasonally, and/or incidentally on the Northwest Atlantic."...Knowingly choosing a cable landing at Dowses Beach - in spite of prior knowledge of the critically endangered NARW's Nantucket Sound habitat• would be in direct opposition to President Biden's EO to conserve aquatic biodiversity.	Thank you for your comment.
0086-17	Very loud noises come from pile driving, during OSW construction and are severely detrimental to marine life. Marine scientist Daniel Costa states that anthropogenic ·underwater noise can cause animals to behave inappropriately and end up stranding on a beach and dying as "has happened to beaked whales." We wonder if this noise pollution is disorienting the whales washing up on the New Jersey beaches, It is hard to reconcile BOEM's conclusion that there would only be "moderate impacts on marine mammals." II would stand to reason that a marine animal's death is "permanent" and would thus have a "major adverse impact."	The potential impacts associated with underwater noise such as shipping and pile driving on marine mammals is discussed Sections 3.7.2.1 and 3.7.2.3 of the Final EIS. The noise produced by offshore wind construction and operation and maintenance activities are not expected to significantly increase the overall shipping noise in the region.
0095-5-01	ere on the southern part of Long Island, just off the Shinnecock reservation, over the past 90 days we have had 90 large whales beach...In evaluating reasons why we have -- although I have not observed the whales myself, reports are suggesting that there is some abuse of the whale, but nothing that would suggest attacks from aquatic enemies. More a banging and bruising type of effect. There is only one thing that -- that's out there that indeed could cause this type of situation. And that's sonic -- the use of sonic waves. And we all know that sonic systems are currently being used to map the bottom.	Based on necropsy current reports, the recent whale stranding on NY and NJ beaches are predominately the result of vessel strikes; and many are from unknown causes. Noise sources resulting from offshore wind development is from high resolution geophysical surveys and geotechnical surveys. These noise sources do not produce enough acoustic energy within the frequency of marine mammal (particularly large whale) hearing to result in auditory injury or non-auditory injury. Additionally, all wind-based activities are required to have trained lookouts who must report all whale, dolphin, and sea turtle detections to NMFS, and to date there have been no vessel strikes of marine protected species resulting from any wind survey activities. The vessel strikes are not known to be correlated with any anthropogenic noise; but rather are attributed to large

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		numbers of vessels in areas that overlap with foraging and migrating whales.
0096-2-01	In the last few years, whales stranded on beaches of the East Coast have become common...NOAA declared an official, unusual mortality event for humpback whales in 2016 when the number of deaths on the East Coast, more than doubled from the average and previous years. Coincidently, that is the same year when offshore wind development began, which coincides with a huge jump in NOAA incidental harassment authorizations. They claim that this jump in mortality predates offshore wind preparation activities is patently false. This strong correlation is strong evidence of causation, especially since no other possible cause has appeared.	Based on necropsy current reports, the recent whale stranding on NY and NJ beaches are predominately the result of vessel strikes; and many are from unknown causes. Noise sources resulting from offshore wind development is from high resolution geophysical surveys and geotechnical surveys. These noise sources do not produce enough acoustic energy within the frequency of marine mammal (particularly large whale) hearing to result in auditory injury or non-auditory injury. Additionally, all wind-based activities are required to have trained lookouts who must report all whale, dolphin, and sea turtle detections to NMFS, and to date there have been no vessel strikes of marine protected species resulting from any wind survey activities. The vessel strikes are not known to be correlated with any anthropogenic noise; but rather are attributed to large numbers of vessels in areas that overlap with foraging and migrating whales.
0096-2-02	If what we're seeing is what happens during the surveying process for an offshore wind farm, we can only imagine what will happen when major construction begins. If vessel strikes are a leading cause of death, why on earth would we diminish habitat and increase vessel traffic with the construction of wind turbines?...We certainly should not be increasing vessel traffic at this time. We should be restricting it. Vessel strikes and ocean noise from these extra ships and their sonar mapping is killing whales.	Based on necropsy current reports, the recent whale stranding on NY and NJ beaches are predominately the result of vessel strikes; and many are from unknown causes. Noise sources resulting from offshore wind development is from high resolution geophysical surveys and geotechnical surveys. These noise sources do not produce enough acoustic energy within the frequency of marine mammal (particularly large whale) hearing to result in auditory injury or non-auditory injury. Additionally, all wind-based activities are required to have trained lookouts who must report all whale, dolphin, and sea turtle detections to NMFS, and to date there have been no vessel strikes of marine protected species resulting from any wind survey activities. The vessel strikes are not known to be correlated with any anthropogenic noise; but rather are attributed to large numbers of vessels in areas that overlap with foraging and migrating whales.
0096-2-03	More industrial development by the installation of thousands of offshore wind turbines will not solve the problem of climate change. There's one inescapable truth about the headlong rush to cover vast sloughs of our countryside and oceans with 600-foot wind turbines and that is that more turbines get built, the more wildlife will be harmed or killed, and no amount of greenwashing can change that fact.	Thank you for your comment.
0097-3-02	For the Right Whale, the potential of loss of one species is the difference between survival and extinction. So BOEM is basing its conclusions in the Draft EIS on false analysis that offshore wind turbines will reduce climate change. They will not. It makes no sense to increase whales when they are suffering through an unusual mortality event.	Thank you for your comment.

O.5.7 Sea Turtles

Table O.5-7: Responses to Comments on Sea Turtles

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0029-18	Light pollution is another adverse OSW impact on marine life especially to sea turtles. BOEM states that "Artificial light pollution, particularly near nesting beaches is detrimental to sea turtles because it alters critical nocturnal behaviors; namely their choice of nesting sites, their return path to the sea after nesting, and how hatchlings find the sea after emerging from their nests." Given that the sea turtles are already endangered, along with the critically endangered NARW, BOEM cannot justify approval of CW to be on Nantucket Sound. What is most important to note is that this light pollution is going to go on for as long as the OSW project is in the area. BOEM mentions construction, operations and decommissioning activities. But OSW maintenance activity would be a contributing light pollution factor, and must be considered by BOEM.	Section 3.8 of the Draft EIS addressed artificial lighting. Additionally, there are no sea turtle nesting areas in the vicinity of the proposed Project (as discussed in Section 3.8.1.3 of the Draft EIS). Therefore, lighting as a result of the Proposed project will have no impact on nesting sea turtles.
0083-15	There are critical omissions from BOEM's sound exposure analysis presented in the Draft EIS that must be addressed in the Final EIS... the noise analysis for sea turtles should include estimates for each of the sea turtle species likely to be affected. Distances over which effects on sea turtles are expected were calculated, and predicted exposures are included in the New England Wind COP, so it is unclear why BOEM chose not to include this information in the Draft EIS. Acoustic exposure estimates are critical to making an impact level determination and BOEM should include this analysis in the Final EIS.	The modeled acoustic exposure estimates from the Project's COP have been added to Appendix B of the Final EIS.
0083-16	There are critical omissions from BOEM's sound exposure analysis presented in the Draft EIS that must be addressed in the Final EIS... the Draft EIS's description of potential noise effects from operational WTGs is also cursory and does not provide any analysis of sound source levels compared to thresholds or ambient noise. Instead, it is merely compared to vessel noise, which is not an appropriate comparison because vessel noise consists of moving, ephemeral noise sources not laid out in a permanent grid like what is proposed for New England Wind. A wealth of research exists on the impacts of operational noise from offshore wind turbines on marine life and the importance of reducing this impact. Best available scientific information indicates that, during the operation phase, offshore wind turbines may generate noise audible and potentially impactful to large whales and other marine species [including sea turtles] over significant distances. Understanding levels and impacts of operational noise should be an immediate research and monitoring priority for BOEM as the first offshore wind projects are constructed in	Section 3.8.2.1 of the Final EIS includes a discussion on the WTG operational noise using available published research, and is further discussed as applicable to the Proposed Action in Section 3.8.2.3. While BOEM acknowledges that offshore wind operational noise monitoring is a key data collection goal, there is not a wealth of research and empirical data regarding the sound field produced by WTGs or its perception by and potential impacts to marine species. Data that have been published can lend some information but are not fully comparable to the operations, or species, that will be conducted in the US. Data are also often conflicting in the published science owing that site conditions and local acoustic environment likely have a significant role in understanding potential WTG noise impacts.

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	the United States. The Final EIS should include a proper, quantitative analysis that considers the operational noise generated by turbines.	
0083-17	There are critical omissions from BOEM's sound exposure analysis presented in the Draft EIS that must be addressed in the Final EIS... The acoustic impact analysis presented in Appendix III-M of the New England Wind COP states that a noise abatement system (NAS) performance of 10 dB broadband attenuation was chosen for the study of acoustic impacts, but also notes that New England Wind expects to implement noise attenuation mitigation technology to reduce sound levels by approximately 12 dB or greater. A 12 dB target reduction is echoed in the mitigation and monitoring measures listed in Appendix H of the Draft EIS, which states that the applicant will implement noise attenuation mitigation to reduce sound levels by a target of approximately 12 dB or greater. However, in the sea turtle section, the Draft EIS states that the applicant has committed to a minimum of 6 dB of noise reduction from abatement. BOEM's analysis of noise impacts in the Draft EIS should clearly state what level of noise attenuation will be required so potential impacts to marine mammals can be accurately evaluated.	Section 3.8.2.3 of the Final EIS has been updated to clarify that the assessment assumes a minimum of 10 dB noise attenuation and the applicant will aim for greater noise reduction. Additional information to support this discussion is also available in Appendix B of the Final EIS.
0083-19	[I]n considering the potential for dredge and cable emplacement under the No Action Alternative, BOEM should not equate lower densities of sea turtles in open ocean environments with low risk of impacts from these activities on sea turtles. This is particularly true when these activities are taking place in nearshore areas where sea turtles densities are higher.	Section 3.8.2.1of the Draft EIS included the impact analysis for dredging and the potential effects on sea turtles. Although dredging activities presents a higher risk of impact to sea turtles in constricted and nearshore environments, sea turtles are generally not in high densities close to shore in the northeast as they are mostly foraging and traveling away from beaches. Therefore, no changes have been made.
0083-50	BOEM needs to summarize the data and information that has been collected during studies that overlapped with the Project Area (e.g., sightings data from the Atlantic Marine Assessment Program for Protected Species (AMAPPS), sightings and acoustic data from the Northeast Large Pelagic Survey Collaborative studies, Protected Species Observer (PSO) data, etc.). We recommend that BOEM revise the description of the affected environment section to incorporate an independent analysis of all [sea turtle] species likely to occur in the Project Area, using relevant and up-to-date primary sources to support its analysis.	Species occurrence has been reviewed and revised; project-area specific occurrence discussion is provided in Section 3.8.1.2 using the best available data. Data sources for this assessment include: the Atlantic Marine Assessment Program for Protected Species (AMAPPS) surveys (Palka et al. 2017; 2021), Northeast Large Pelagic Survey Collaborative Aerial and Acoustic Surveys for Large Whales and Sea Turtles (Kraus et al. 2016a), Megafauna aerial surveys in the wind energy areas of Massachusetts and Rhode Island with emphasis on large whales: Summary Report Campaign 5, 2018-2019 (O'Brien et al. 2021a), and Megafauna aerial surveys in the wind energy areas of Massachusetts and Rhode Island with emphasis on large whales: Interim Report Campaign 6A, 2020 (O'Brien et al. 2021b). This is addressed in Section 3.8.1.2 of the Final EIS.
0083-53	BOEM misrepresents several estimates of seasonality and occurrence of... sea turtles... The description of relative occurrence should also include "Year-Round" for leatherback, loggerhead, green, and Kemp's Ridley sea turtles. While not as likely to occur during the winter, they may occur during the spring, summer, and fall with peak occurrence during summer	Species occurrence has been reviewed and revised (see Table 3.8-1 of the Final EIS); seasonal occurrence has been edited to reflect periods of heightened abundances, which does not preclude potential occurrences outside of those time periods. The terminology in this table has been modified to make this clearer.

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	and fall. Leatherback sea turtles become more numerous off the Mid-Atlantic and southern New England coasts in late spring and early summer, and by late summer and early fall, they may be found in the waters off eastern Canada. During Northeast Large Pelagic Survey Collaborative Aerial and Acoustic Surveys (NLPSC), loggerhead turtles were sighted within the Rhode Island/Massachusetts Wind Energy Areas (WEAs) during spring, summer, and fall, with the greatest number of observations in summer and fall. During recent surveys in the New York Bight, sightings of Kemp's ridley sea turtles were recorded during the spring, summer, and fall, and one green sea turtle was sighted during spring 2016. One confirmed sighting of a green sea turtle was also recorded in the Rhode Island/Massachusetts WEAs in 2005, and five green sea turtle sightings were recorded off the Long Island shoreline 10 to 30 miles (16 to 48 kilometers) southwest of the WEAs during AMAPPS aerial surveys conducted from 2010 to 2013.	
0083-54	Density Estimates for... Sea Turtles Require Clarification... For sea turtles, BOEM uses seasonal density estimates from the U.S. Navy Operating Area Density Estimate database (U.S. Navy 2007) and Kraus et al. (2016). But it is unclear in the Draft EIS how estimates from both sources were combined to provide one estimate per species per season. The public needs to instead consult Appendix III-M of the New England Wind COP for an explanation; the more recent data from Kraus et al. (2016) were used preferentially where possible, specifically for leatherback and loggerhead sea turtles in the summer and fall. There are limitations with each of these data sets, however. The Navy's density estimates are generated via modeling and are outdated as they are based on NMFS aerial survey data collected prior to 2005, and Kraus et al. (2016) provides sightings per unit effort (SPUE) estimates but not modeled density estimates and does not include sea turtle sightings from the more recent NLPSC surveys. The Navy is shortly expected to release updated sea turtle density models and is currently making this information available upon request to support agency decision- making. BOEM should request and use these updated models to derive density estimates for the Project Area.	Sea turtles densities specific to the Project area were obtained from the COP Modeling report which uses data from both the Navy NODE data (U.S. Navy 2012, 2017) and the northeast pelagic survey (Kraus et al. 2016a). The data from Kraus et al. (2016) was not available for all species/seasons in the same way that the Navy data were, but they were used preferentially where possible as they represent a more recent data set. The text in Section 3.8.1 of the Final EIS has been updated to clarify, and footnotes have been added to Table 3.8-2 to identify where densities are based on Navy data, Kraus data, or a combination of both.
0083-57	[In the Draft EIS] The overall impact for marine mammals and increased noise and vessel traffic is lowered based on timing restrictions and other mitigation measures specifically intended to avoid adverse effects on right whales. However, as discussed in Section II.C, our groups find the proposed mitigation measures inadequate. For those reasons and the reasons detailed below, the impact analysis for... sea turtles requires revision.	The mitigation and monitoring measures that the applicant has committed to implement (including and in addition to those defined in the COP) are listed in Table H-1. Mitigation and monitoring measures that may result from reviews under the statutes listed above are shown in Table H 2. Some of these mitigation and monitoring measures are outside of BOEM's statutory and regulatory authority but could potentially be adopted and imposed by other governmental entities. Tables H-1 and H-2 provide descriptions of mitigation or monitoring measures, along with the

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		resource or resources to which each measure applies. If the COP is approved or approved with conditions, it will include mitigation and monitoring measures developed under various consultations and permit reviews (e.g., ESA and Marine Mammal Protection Act) and adopted by the Final EIS Record of Decision (ROD). If BOEM decides to approve the COP, the ROD will state which of the additional mitigation and monitoring measures identified by BOEM in Tables H-1 and H-2 have been adopted; if measures are not adopted, the ROD will state why they were not. If the measures adopted differ substantially from those listed in Tables H-1 and H-2, BOEM will evaluate whether impacts analyses need to be modified to address those changes. The applicant will be required to implement the mitigation and monitoring measures applicable that are adopted in the ROD (Code of Federal Regulations, Title 40, Section 1505.3 [40 CFR § 1505.3]), and it will be required to certify compliance with certain terms and conditions as required under 30 CFR § 585.633(b).
0083-63	There are critical omissions from BOEM's sound exposure analysis presented in the Draft EIS that must be addressed in the Final EIS. While this information is included in the appendices to the New England Wind COP, BOEM should transpose all information critical to supporting its impact analysis into the Final EIS. ...in the model predicted exposure ranges for monopile and jacket foundations, the distances to the behavioral threshold vary between species within the same hearing group. This may be unexpected given how exposure ranges are often calculated solely by hearing group. BOEM should explain the reason behind this variation (i.e., that exposure ranges are computed using the simulated movements of individual animals within each species group considered in the animal movement and exposure modeling). In addition, BOEM should correct the source information for Table 3.7-8 and Table 3.7-9.	The predicted sound exposure modeling results from the COP are provided in Appendix B of the Final EIS. The calculation of sound exposure ranges takes into account the dosage of sound energy that modeled individuals accumulate during predicted swim and dive behaviors which are species-specific. Though the threshold is the same for all species, incorporation of individual species behavior in this exposure range method is more biologically accurate because it accounts for the received sound levels as animals move within the modeled sound field then computes the range at which each species meets the PTS threshold over thousands of model runs. The source references for Table 3.8-6 and 3.8-7 in Section 3.8.2.3 of the Final EIS have been corrected so they refer to the correct corresponding tables in the COP's modeling report.
0083-66	BOEM notes that up to 67 acres may be affected by dredging prior to cable installation but provides little analysis on the potential impacts to sea turtles. The type of dredging that will be required is not specified and so hopper dredging cannot be ruled out. Given the well-documented and severe impacts of hopper dredging on sea turtles, particularly during seasons with high sea turtle presence, any possibility of such activity could be a cause for concern. BOEM should therefore explicitly list possible dredging methods that New England Wind could use, analyze the risks and impacts of each, and, following the principles of using the maximum-case scenario of the project design envelope, use the maximum possible impact in their analyses and required mitigation measures.	The evaluation of dredging risks to sea turtles has been updated, and a discussion that includes the type and amount of expected dredging is now included within Section 3.8.2.3 of the Final EIS. The mitigation and monitoring measures that the applicant has committed to implement (including and in addition to those defined in the COP) are listed in Table H-1. Mitigation and monitoring measures that may result from reviews under the statutes listed above are shown in Table H 2. Some of these mitigation and monitoring measures are outside of BOEM’s statutory and regulatory authority but could potentially be adopted and imposed by other governmental entities. Tables H-1 and H-2 provide descriptions of mitigation or monitoring measures, along with the resource or resources to which each measure applies. If the COP is approved or approved with conditions, it will include mitigation and

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		monitoring measures developed under various consultations and permit reviews (e.g., ESA and Marine Mammal Protection Act) and adopted by the Final EIS Record of Decision (ROD). If BOEM decides to approve the COP, the ROD will state which of the additional mitigation and monitoring measures identified by BOEM in Tables H-1 and H-2 have been adopted; if measures are not adopted, the ROD will state why they were not. If the measures adopted differ substantially from those listed in Tables H-1 and H-2, BOEM will evaluate whether impacts analyses need to be modified to address those changes. The applicant will be required to implement the mitigation and monitoring measures applicable that are adopted in the ROD (Code of Federal Regulations, Title 40, Section 1505.3 [40 CFR § 1505.3]), and it will be required to certify compliance with certain terms and conditions as required under 30 CFR § 585.633(b).
0083-67	Given that ...sea turtles are at a relatively high risk of entanglement from both actively fished and displaced and abandoned fishing gear, as well as other marine debris, this IPF requires more detailed discussion in the Final EIS. The Northeast Monitoring and Assessment Program (NEAMAP) surveys, which the fishery surveys that will be implemented for New England Wind are modeled after, have a capture rate for sea turtles that is non-negligible. Based on the known impact rates for the NEAMAP surveys, BOEM should include estimates of the number of sea turtles that may be affected by the New England Wind surveys based on measures of survey effort, and provide an appropriate impact level determination.	Entanglement risks for sea turtles has been reevaluated and additional text incorporated into the evaluation of impacts for relevant IPFs (i.e., presence of structures and anchoring and gear utilization IPFs within Section 3.8.2.3). Further, the impact determinations have been re-assessed for the above referenced IPFs and updated to account for heightened entanglement risk to sea turtles.
0083-68	Given that ...marine mammals are at a relatively high risk of entanglement from both actively fished and displaced and abandoned fishing gear, as well as other marine debris, this IPF requires more detailed discussion in the Final EIS. The Northeast Monitoring and Assessment Program (NEAMAP) surveys, which the fishery surveys that will be implemented for New England Wind are modeled after, have a capture rate for sea turtles that is non-negligible. Based on the known impact rates for the NEAMAP surveys, BOEM should include estimates of the number of sea turtles that may be affected by the New England Wind surveys based on measures of survey effort, and provide an appropriate impact level determination.	Entanglement risks for sea turtles has been reevaluated and additional text incorporated into the evaluation of impacts for relevant IPFs (i.e., presence of structures and anchoring and gear utilization IPFs within Section 3.8.2.3). Further, the impact determinations have been re-assessed for the above referenced IPFs and updated to account for heightened entanglement risk to sea turtles.
0083-78	"Clearance and Exclusion Zones Are Under-Protective NMFS', and thus BOEM's, reliance on a 160 dB (re 1 ?Pa2s) threshold for behavioral harassment is not supported by the best available scientific information and such reliance grossly underestimates Level B take. Establishing Clearance and Exclusion Zones and monitoring those areas for the presence of ....sea turtles is one of the primary means of reducing acoustic exposures of these species during impact pile driving. ... However, except	Appendix H of the Final EIS has been updated to include the most up to date proposed mitigation from the Project's final LOA application. This includes a single seasonal restriction period on pile driving between January 1 and April 30 that will also indirectly benefit sea turtle species present during this period. The proposed clearance zones include a 1,200 m clearance zone for sea turtles around all foundation types, and a 500 meter shutdown zones for sea turtles around all foundation types. This

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	for two short periods from November 1 through December 31 and from May 1 through May 14 where a 10 kilometer Exclusion Zone is required, the sizes of these zones are insufficient. For impact pile driving with a minimum noise reduction/attenuation level of 10-12 dB (re 1 ?Pa2s), as intended by the New England Wind Project,... . .. Clearance and Exclusion Zone distances ..... are extremely small relative to the size of the zone of potential impact. Sea turtles ..... are afforded a 500-meter exclusion zone, ..., and all other species only a 50-meter exclusion zone. It is unclear if pre-start Clearance Zones for these species will be required. BOEM should revise the required Clearance and Exclusion Zones, increasing their size in a manner that eliminates Level A take and minimizes behavioral harassment to the fullest extent possible for all .... sea turtles.	was deemed appropriate by the results of the modeling as the maximum range to the PTS onset threshold during monopile installation for all sea turtle species with 10 dB noise attenuation was 170 m so a 500 m shutdown zone would sufficient cover this range. Pre-start clearance will be implemented for sea turtles. The proposed mitigation is expected to significantly reduce the risk of PTS such that no PTS for any species is likely to be realized during construction, and though it won't eliminate behavioral disturbances but it will minimize the risk and likely duration to avoid prolonged changes in behavior that could affect biologically relevant behaviors.
0083-120	We recommend that BOEM... Revise the sound exposure analysis for ... sea turtles and include all information necessary to inform BOEM's impact analysis in the Draft EIS... Extend the time period of the prohibition on impact pile driving to December 1 through April 30. Prohibit commencement of impact pile driving during periods of darkness or poor visibility. Strengthen noise reduction and attenuation requirements to reflect best available control technology. Include mitigation measures to reduce impacts from unexploded ordinance (UXO) removal.	The mitigation and monitoring measures that the applicant has committed to implement (including and in addition to those defined in the COP) are listed in Table H-1. Mitigation and monitoring measures that may result from reviews under the statutes listed above are shown in Table H 2. Some of these mitigation and monitoring measures are outside of BOEM's statutory and regulatory authority but could potentially be adopted and imposed by other governmental entities. Tables H-1 and H-2 provide descriptions of mitigation or monitoring measures, along with the resource or resources to which each measure applies. If the COP is approved or approved with conditions, it will include mitigation and monitoring measures developed under various consultations and permit reviews (e.g., ESA and Marine Mammal Protection Act) and adopted by the Final EIS Record of Decision (ROD). If BOEM decides to approve the COP, the ROD will state which of the additional mitigation and monitoring measures identified by BOEM in Tables H-1 and H-2 have been adopted; if measures are not adopted, the ROD will state why they were not. If the measures adopted differ substantially from those listed in Tables H-1 and H-2, BOEM will evaluate whether impacts analyses need to be modified to address those changes. The applicant will be required to implement the mitigation and monitoring measures applicable that are adopted in the ROD (Code of Federal Regulations, Title 40, Section 1505.3 [40 CFR § 1505.3]), and it will be required to certify compliance with certain terms and conditions as required under 30 CFR § 585.633(b).
0083-121	We recommend that BOEM... Include an analysis of dredging methods' impacts on sea turtles, including any higher-risk methods still under consideration such as hopper dredging. Require a mandatory, year-round 10-knot speed restriction on all Project-associated vessels at all times.	The mitigation and monitoring measures that the applicant has committed to implement (including and in addition to those defined in the COP) are listed in Table H-1. Mitigation and monitoring measures that may result from reviews under the statutes listed above are shown in Table H 2. Some of these mitigation and monitoring measures are outside of BOEM's statutory and regulatory authority but could potentially be

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		adopted and imposed by other governmental entities. Tables H-1 and H-2 provide descriptions of mitigation or monitoring measures, along with the resource or resources to which each measure applies. If the COP is approved or approved with conditions, it will include mitigation and monitoring measures developed under various consultations and permit reviews (e.g., ESA and Marine Mammal Protection Act) and adopted by the Final EIS Record of Decision (ROD). If BOEM decides to approve the COP, the ROD will state which of the additional mitigation and monitoring measures identified by BOEM in Tables H-1 and H-2 have been adopted; if measures are not adopted, the ROD will state why they were not. If the measures adopted differ substantially from those listed in Tables H-1 and H-2, BOEM will evaluate whether impacts analyses need to be modified to address those changes. The applicant will be required to implement the mitigation and monitoring measures applicable that are adopted in the ROD (Code of Federal Regulations, Title 40, Section 1505.3 [40 CFR § 1505.3]), and it will be required to certify compliance with certain terms and conditions as required under 30 CFR § 585.633(b).
0083-122	We recommend that BOEM... [to reduce impacts to sea turtles] Require a mandatory, year-round 10-knot speed restriction on all Project-associated vessels at all times.	The mitigation and monitoring measures that the applicant has committed to implement (including and in addition to those defined in the COP) are listed in Table H-1. Mitigation and monitoring measures that may result from reviews under the statutes listed above are shown in Table H 2. Some of these mitigation and monitoring measures are outside of BOEM's statutory and regulatory authority but could potentially be adopted and imposed by other governmental entities. Tables H-1 and H-2 provide descriptions of mitigation or monitoring measures, along with the resource or resources to which each measure applies. If the COP is approved or approved with conditions, it will include mitigation and monitoring measures developed under various consultations and permit reviews (e.g., ESA and Marine Mammal Protection Act) and adopted by the Final EIS Record of Decision (ROD). If BOEM decides to approve the COP, the ROD will state which of the additional mitigation and monitoring measures identified by BOEM in Tables H-1 and H-2 have been adopted; if measures are not adopted, the ROD will state why they were not. If the measures adopted differ substantially from those listed in Tables H-1 and H-2, BOEM will evaluate whether impacts analyses need to be modified to address those changes. The applicant will be required to implement the mitigation and monitoring measures applicable that are adopted in the ROD (Code of Federal Regulations, Title 40, Section 1505.3 [40 CFR § 1505.3]), and it will be required to certify compliance with certain terms and conditions as required under 30 CFR § 585.633(b).

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0083-130	Our groups have several general and specific concerns with BOEM's analysis of... sea turtle occurrence, abundance, and seasonality in the Project Area... the Draft EIS does not provide a comprehensive assessment of all... sea turtle species with common occurrence in the Project Area. BOEM provides minimal descriptions of general and Project Area-specific occurrence of individual species expected to occur in the Project Area... Information on species is scattered across pages and therefore difficult to find and assess. Descriptions of species-specific occurrence in the Project Area should be provided by BOEM as the agency responsible for assessing environmental impacts of the proposed activity, not by the developer or another agency. BOEM can certainly refer readers to these documents for more information, but still should provide a summary of such information to inform the public and its own analysis.	Section 3.8.1.2 of the Final EIS has been updated for the species occurrence numbers and the project-area occurrence. Given the page limit requirements for this EIS, only a brief overview of species can be provided in the Affected Environment section. More detailed information can also be referenced in the Project's Biological Assessment.

O.5.8 Commercial Fisheries and For-Hire Recreational Fishing

Table O.5-8: Responses to Comments on Commercial Fisheries and For-Hire Recreational Fishing

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0041-03	I also noticed that there are several instances where the effects offshore wind construction is compared to the effects of fishing. I think these assumptions are inappropriate within an offshore wind Draft EIS. As stated at the beginning of the Draft EIS, "This Draft Environmental Impact Statement (EIS) assesses the reasonably foreseeable impacts on physical, biological, socioeconomic, and cultural resources that could result from the construction and installation (construction), operations and maintenance (operations), and conceptual decommissioning (decommissioning) of a commercial-scale offshore wind energy facility and transmission cable to shore known as the New England Wind Project", NOT the fishing industry.	Commercial fisheries and the for-hire recreational fishing industries are considered socioeconomic resources for the purposes of the analysis in the Draft EIS and it is therefore appropriate to include them in the impact analysis.
0055-08	We are uncertain about which alternatives to recommend as least impactful to fisheries, fish species, and habitats. The South Coast Variant is not fully analyzed, making it difficult to compare the proposed action, C1, and C2.	Section 3.9.2.4 of the Draft EIS, noted that Alternatives C-1 and C-2 could have marginally lower impacts on commercial and for-hire recreational fishing than the Proposed Alternative. However, these differences in impacts would not result in meaningful different impacts that those of the Proposed Alternative. More information on the potential impacts associated with Project Alternatives C-1 and C-2 on commercial and for-hire recreational fisheries were addressed in Section 3.9.2.4.
0055-16	Table 3.9-3 of the main Draft EIS document includes average commercial fishing revenue data over many years. While this is helpful to gain a broad understanding of the level of revenue exposure in the lease area and cable routes, including data by year is most helpful, similar to what is provided in NOAA's Socioeconomic Impacts tool. This annual landings and revenue information is displayed in a poster in the virtual meeting room for 2008-2021, however, these same updated data do not appear in Appendix B or the main Draft EIS document. Fisheries revenues can fluctuate for a variety of reasons (changing fish distributions, change in fishing regulations, market factors, etc.); therefore, an average value and older data may not always accurately describe the recent economic value of the fishery.	The National Marine Fisheries Service data used to generate Table 3.9-3 was only provided as a total revenue by port over 12 years.
0055-33	The Draft EIS states that "The activity and value of fisheries in recent years are expected to be indicative of future conditions and trends" (page 3.9-5), which is presumed to inform Table 3.9-2, projected revenue exposure for all future Northeast leases by fishery management plan (page 3.9-21). We do not agree with this assumption. The Final EIS should more clearly indicate that this is an assumption made for the purposes of analysis; however, future fishery characteristics, including revenues, catches, and the spatial distribution of fishing effort, are uncertain. For example, climate change is impacting fish distributions, which in turn affects fisheries, including where	Section 3.9.1 of the Final EIS has been updated to provide clarifying language.

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	effort is most likely to occur (e.g., 7 Morley et al. 2018, Rogers et al. 2019, Tanaka et al. 2020) 3 . In addition, regulatory changes will likely be implemented to protect Atlantic Large Whales (especially the North Atlantic right whale) and Atlantic sturgeon. Furthermore, as indicated in the Draft EIS, offshore wind development will likely change where fishermen are able to fish and where NOAA Fisheries' surveys are able to be conducted.	
0055-34	Section 3.9 of the Draft EIS should be broadened to address all types of recreational fishing, not just for-hire fishing. The section purports to focus only on for-hire recreational fishing but also includes some information on private recreational fishing. There will be many similarities and some differences in terms of how party boat, charter, and private recreational fishing will be impacted by offshore wind energy development. Fully describing all types of recreational fishing in the same section of the document would make linkages between biological and fishery conditions easier to explain and understand.	Section 3.15 of the Draft EIS presented the potential impacts to private recreational fishing to avoid redundancy in Section 3.9.
0055-35	The Final EIS should more clearly describe the limitations of available recreational fishing data, especially the lack of precise data on fishing locations. For example, data on the locations of fishing effort are not collected for private recreational fisheries and have limited spatial precision for for-hire fisheries. These limitations pose challenges for determining which recreational fisheries will be impacted by this project and how. Rather than ignoring these data poor fisheries, the Final EIS should acknowledge the associated uncertainties.	Section 3.9 of the Final EIS has indicated an acknowledgement of the lack of spatially precise for-hire recreational fishing trips information. Section 3.15 of the Draft EIS presented the potential impacts to private recreational fishing to avoid redundancy in Section 3.9.
0055-36	The Final EIS should use the most recent data possible. Volume 1 and Appendix B of the Draft EIS includes several tables with data from 2008-2017 with Figure B.1-10 displaying data from 2001-2010 and vessel monitoring system density figures for squid, multispecies, scallop, surfclam/ocean quahog, pelagic, and herring from 2015-2016. VMS data through 2019 are available via the Northeast Ocean Data Portal. The Draft EIS includes multiple statements on fisheries based on different data sets and different years, without a clear explanation for this variation. In some cases, the data are quite outdated, especially considering that this document analyzes the impacts of a project that is unlikely to begin construction before 2024 at the earliest.	The most current and complete data sets possible were used for the analysis. There are limitations with many fisheries datasets resulting in different years/ranges being used for certain analyses.
0055-37	The Councils are concerned about the impacts of boulder removals required for cable installation, especially when done via "blunt plow used to push aside boulders" (page 3.5-18). The Draft EIS does not include detailed information on which boulders would be removed and how, and the expected impacts on fisheries and benthic resources. The Draft EIS states that "Large boulders along the route may need to be relocated, and some dredging may be required prior to cable laying …" but no further information is provided and the impact on fisheries is not discussed. We	At the current stage of the project, it is unknown which or how many boulders would need to be relocated. Once the cable route is chosen, the most reasonable and least-environmentally impactful boulder relocation method will be used.

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	recommend using grabs to relocate boulders as they have fewer impacts on benthic habitats than plows. The Final EIS should specify plow width and the size of the area that will be impacted. The nature of this impact is very different from dredging used to harvest seafood, and the scientific literature on fishing gear impacts is unlikely to provide a reasonable proxy for the impacts of boulder clearance plows. For example, fishermen attempt to avoid boulders to reduce the risk of costly damage to fishing gear, and the penetration depth of fishing gear is much less than a boulder clearance plow.	
0056-03	New England Wind will allocate up to $7.5 million in funds to support environmental initiatives, assist Connecticut fishermen, and further bolster local communities in Connecticut where offshore wind development activities are taking place. While this financial commitment is notable, it illustrates one of our biggest concerns related to the mitigation discussion, which is that the effects of offshore wind on the fishing industry are not geographic in nature. The up or downstream effects to shoreside businesses and the potential devaluation of these businesses are in the fishing ports themselves. This, coupled with ex-vessel landings, will be a major potential lost revenue that although complicated, must be defined appropriately. Financial support for initiatives to assist fishermen and local communities should be based on the locations of actual landings on a port-by-port, community-by-community basis regardless of state boundaries.	In addition to the $7.5 million to support Connecticut fishermen, the applicant has committed $26.5 million to support economic and community initiatives such as supply chain integration, workforce development, and offshore wind-related marine and fisheries research, as well as the local communities in Connecticut. More information on the applicant's funding for fisheries research and education and support for economic and community initiatives is addressed in Final EIS Appendix H, Table H-1.
0081-10	When analyzing potential impacts to commercial fishing under any of the alternatives proposed, the analysis necessarily needs to consider potential impacts to, and mitigation measures for, those shoreside businesses as well. BOEM's practice to date has been to incorporate mitigation measures under consideration as appendices or Record of Decision conditions rather than analyzing them fully as alternatives.	BOEM believes the economic exposure analysis presented is sufficient to properly analyze potential impacts to commercial and for-hire recreational fishing from the proposed project.
0081-14	From discussions with leaseholders in other project areas, it is RODA's understanding that technical constraints may be realized after Draft EIS completion that make the Proposed Actions unfeasible. Yet, it is still the project design that all other alternatives are compared against. BOEM does not provide a comparison of alternatives for commercial fisheries which would provide some information about the differences between the various alternatives. This should be informative and describe what fisheries would be more or less impacted.	Section 3.9 of the Draft EIS presented a detailed discussion and comparison of alternatives.
0081-23	Concern remains about the datasets utilized in the Draft EIS to reflect commercial fishing activity in and around the Project Areas. The Draft EIS utilizes VMS datasets from 2014 - 2019. We appreciate acknowledging changes that happened to the fishing industry resulting from Covid-19.We recommend extending the VMS dataset coverage for at least 10 years prior to 2014. This would allow a more informed analysis of those commercial fisheries that are required to utilize VMS.	It is acknowledged that additional VMS data would allow for a more informed analysis. However, VMS data prior to 2014 is difficult to obtain. VMS data from 2014 to 2018 provides an adequate snapshot of vessel movement in the SWDA for the purposes of impact analysis.

Comment Number	Comment	Response
0081-24	"In 2019, commercial fisheries harvested more than 1.1 billion pounds of fish and shellfish in the Middle Atlantic and New England regions, for a total landed value of over $1.9 billion." (Draft EIS p. 3.9-1) While this (ex-vessel revenues) shows the economic benefits to the fishing vessels, it does not account for any downstream economic activity. Failing to identify, quantify, and assess these downstream impacts is a flaw in the Draft EIS analysis.	BOEM believes the economic exposure analysis presented is sufficient to properly analyze potential impacts to commercial and for-hire recreational fishing from the proposed project.
0081-25	In addition to analyzing economic impacts, the Draft EIS fails to undertake an analysis of the impacts to jobs in the commercial fishing/seafood industry.	BOEM believes the economic exposure analysis presented is sufficient to properly analyze potential impacts to commercial and for-hire recreational fishing from the proposed project.
0081-26	The commercial fishing revenue information provided needs to be put in context. There are many small businesses reliant upon access to fishing grounds within the lease areas and have developed business plans and made investments over the years with the expectation of utilizing those grounds...The Draft EISs fail to fully address the impacts that the projects will have on small businesses, which will include the vast majoring of fishing companies and supporting businesses. Fishermen and the fishing industry have reiterated time and time again that it is not easy for adaptation to occur because serious economic investments and management restrictions can make it prohibitive. The impacts to fishing and processing jobs must not be diminished in the Draft EIS analysis.	BOEM believes the economic exposure analysis presented is sufficient to properly analyze potential impacts to commercial and for-hire recreational fishing from the proposed project.
0081-27	As recommended by the U.S. Small Business Administration for Fisheries Mitigation Guidance, BOEM must conduct a Regulatory Flexibility Act (RFA) analysis of its proposals, including this Draft EIS, to adequately understand the impacts of offshore wind development activities on small businesses. Improved data and analyses of impacts to commercial fishing businesses, port infrastructure serving the fishing industry, port operators, marine equipment retailers, onshore processors, fish markets, and other fishing industry representatives, should inform mitigation strategies.	BOEM believes the economic exposure analysis presented is sufficient to properly analyze potential impacts to commercial and for-hire recreational fishing from the proposed project.
0083-129	In lieu of its own analysis, [in the Draft EIS] BOEM largely refers the public to secondary sources, including Section 6.7 (Vol. III) of the New England Wind COP and Appendix B of the Draft EIS. Not only is this information difficult to access, but it also contains outdated or incomplete information. For example, Section 6.7 of the COP relies on the National Marine Fisheries Service (NMFS) 2021 draft stock assessment reports (SARs) however, NMFS has published two SARs since then: the final 2021 SAR and the draft 2022 SAR, both of which BOEM should include in the Final EIS.	The occurrence of marine mammals in the Project area is addressed in Final EIS Section 3.7.1.2, Table 3.7-1, page 3.7-6 footnote 'c', which is based on best available data from the most recent NMFS stock assessment reports (SARs) and published literature.
0085-05	also request that BOEM analyze the New England Wind lease areas with the NCCOS "Suitability Model," that Mr. James Morris, a marine ecologist at NOAA/National Centers for Coastal Ocean Science (NCCOS) to deconflict areas of the Gulf for leasing. We request a full analyzation of the lease area	Section 3.13 of the Draft EIS addressed navigation and vessel traffic impacts, including cargo vessels, military vessels, fishing vessels, and recreational vessels and impact analyses for fisheries, natural resources,

Comment Number	Comment	Response
	and how using the Suitability Model would have the ability to deconflict the New England Wind lease area in a way that could better protect fishermen, USCG Search and Rescue and Scientific Research Surveys. Including but not limited to analyzing the lowest potential for use conflict and environmental impacts based upon a series of preordained criteria. Examples of data layers that should be included as suitability sub-models should include national security considerations, industry and operation activities, natural resources, fisheries use, and marine mammal protection.	and marine mammals were addressed in Sections 3.9, 3.4, and 3.7, respectively, of the Draft EIS.
0085-06	the economic consequences and comparative risks to New York's commercial fishermen if no transit lanes are available to reach fishing grounds directly or travel safely back to ports in New York instead of being forced to travel around wind lease areas due to faulty radar that is because of the wind turbines themselves. This must be re-analyzed and released as a supplemental Draft EIS.	Section 3.9 of the Draft EIS addressed navigation risks for commercial fishing vessels.
0095-6-01	what is "up to major impact" as it was stated on fishing? I'm not sure if there is major impact. And what part of it -- if not, what part of it is only moderate. All indications I've heard from listening to people on the East Coast is that it will be a major impact.	Section 3.9 of the Draft EIS presented a detailed impact analyses and discussion of the potential effects on commercial and for-hire recreational fisheries.
0097-1-01	I, like a lot of the fisheries people, are real worried about what it's going to look like with turbines out there and fishing boats trying to get out there also. I see a potential for a large amount of displacement.	Section 3.9 of the Draft EIS presented a detailed discussion of potential Project impacts on commercial and for-hire recreational fisheries traffic and their potential transit routes through and around the SWDA.
0097-5-01	Four years ago myself and another commercial fisherman attended numerous offshore wind meetings to see how this new offshore wind industry would impact us. After many hearings we went to Northern Ireland, Kilkea, to talk firsthand with some European fisherman how offshore wind affected their fishing and opportunities afforded to them. They have had success on both sides. Fishing is stable. Their boats work year round.	Thank you for your comment.
0097-5-02	For the past three years Sea Service North America has provided commercial fishing scout and safety vessels for offshore wind. We have completed thousands of miles of scouting with no issues of gear knockdowns and interactions between research boats profiling the bottom and commercial fishermen, lobstermen, crab fishermen, and it's been this success that these scout vessels have provided that have provided further opportunities to commercial fisherman as safety guard vessels. These contracts will supplement fishermen's revenue that have been offset by regulations and quotas.	Thank you for your comment.

O.5.9 Cultural Resources

Table O.5-9: Responses to Comments on Cultural Resources

Comment Number	Comment	Response
0083-47	The development of offshore wind and associated structures has the potential to directly affect archaeological resources, architectural resources, or traditional cultural properties, and the protection of these cultural resources is managed under the National Historic Preservation Act (NHPA)... While the NHPA does not require it, consultation with all state-recognized tribes who may have resources that could be potentially affected by the Project would help ensure that the environmental justice goals of the Administration are advanced.	Section 106 of the NHPA, 54 U.S.C. 306108 and 36 CFR part 800 (Section 106) requires that federal agencies consult with any Native American tribe that may be affected by the agency's undertakings. The United States acknowledges federally recognized tribes as sovereign nations; thus, federal government interaction with federally recognized tribes takes place on a "government-to-government" basis. Legally, there is a distinction between tribes that are federally recognized and those that are not. Public comments are also gathered as a part of the scoping process and there are several chances and forums in which the public can provide input on a project.

O.5.10 Demographics, Employment, and Economics

Table O.5-10: Responses to Comments on Demographics, Employment, and Economics

Comment Number	Comment	Response
0008-01	New England Wind will generate renewable power for the region, provide jobs, and help jumpstart an entire industry, enormously benefitting the South Coast of Massachusetts and the entire area.	Thank you for your comment.
0009-03	Massachusetts has the opportunity to become one of the centers of the offshore wind industry, making this industry a mainstay of the state's economy. New England Wind alone is expected to bring over 15,000 jobs to the region. Through partnerships with other companies, New England Wind plans: to invest $200 million to develop a full-scale cable manufacturing facility in Somerset; and to work with the City of Salem to transform Salem Harbor into an offshore wind marshaling port	Thank you for your comment.
0010-01	In a recent paper in the Proceedings of the National Academy of Sciences, scientists picked climate education as one of six (6) key societal transformations needed to address the climate crisis. While education in the K-12 science classroom is particularly important, so is job training and workforce development in the blue and green economy. This impact statement includes the expansion and enhancement of the blue and green economy workforce through job training, workforce development, and recruitment. Though this project is focused in Connecticut and Massachusetts, the state of Rhode Island only stands to benefit from development in the New England region as it paves a path for future projects in the Ocean State.	Thank you for your comment.
0019-04	The only real downsides I see to the Dowses cable landing site are the temporary traffic disruptions caused by the burying of cables between Dowses and the substation. That is a very small price to pay for all the benefits the project will bring, one of which is saving the town of Barnstable money on a planned sewer expansion by burying sewer pipes in the same trenches the cables will be in.	Section 3.11.2.3 of the Final EIS has been revised to address this comment.
0021-02	Please weigh the facts using science as well as economic data which also shows the offshore wind will bring sustainable jobs of the future to New England.	Thank you for your comment.
0022-02	Through host community agreements with the Town of Barnstable, AVANGRID could potentially put millions of dollars into community investment and local projects.	Thank you for your comment.
0023-12	The developer wants to exit a duct bank from the Dowses area onto narrow public roadways, advance it through settled neighborhoods and, if they are allowed to use their “preferred route,” directly through the village of Osterville’s vibrant business and professional center. The potential	Section 2 of the Draft EIS stated that the Phase 2 offshore export cables would make landfall within paved parking areas at either the Dowses Beach Landfall Site or the Wianno Avenue Landfall Site in the Town of Barnstable (Figure 2.1-8). The ocean-to-land transition at the Dowses

Comment Number	Comment	Response
	negative impact on the local economy and way of life is immeasurable. The village is one of Cape Cod's most sought after summer destinations, featuring many high-end residences, mid-level vacation rental properties, exceptional dining and shopping, and a significant year-round population of retired persons. At the heart of the village's appeal to residents and visitors is Dowses beach. Its temporary loss during construction and its permanent transformation into utility infrastructure would, without exaggeration, damage the appeal of this seaside community. The economic health of Osterville has ramifications well beyond the village center, as a significant professional, para-professional, and skilled-labor workforce depends on this seaside community for seasonal and year-round employment. Essentially, the village and surrounding population centers would bear the brunt of a multi-year, industrial scale construction project and the permanent transformation of its core asset. We ask BOEM to consider the socioeconomic fallout of a corporate decision made solely on the basis of ease and profit when far more appropriate options to deliver electricity to shore are available.	Beach Landfall Site would employ the HDD technique, which would avoid or minimize impacts on the beach, intertidal zone, and nearshore areas. The applicant's onshore construction schedule minimizes impacts to land uses to the greatest extent practicable limiting onshore construction activities during peak summer months and other times when demands on these resources are elevated. All disturbed areas at the landfall sites or other areas disturbed during installation of the onshore export cables and grid interconnection cables will be restored upon completion of construction. Onshore cable installation and substation construction would result in localized, short-term, and minor impacts on demographics, employment, and economics. Land disturbance during operations would be limited to infrequent unplanned repairs of underground cables.
0024-02	[New England Wind] will greatly boost our efforts to achieve a fossil fuel free economy, enhance the reliability and diversity of the regional energy supply, and is committed to helping our island of Martha's Vineyard reach our 100% renewable energy and fossil fuel reduction targets by 2040. New England Wind will bring critical power to the grid to help the region meet its collective, ambitious clean energy and climate goals, and at the same time create thousands of jobs and accelerate the nation's transition to a better, brighter clean energy future..... .....The New England Wind Project will generate up to 2,600 Mega Watts of renewable energy and will power over one million homes. The New England Wind Project is the equivalent of taking more than 800,000 gas powered cars off the road, reducing emissions by nearly 4 million tons of carbon dioxide annually, and provide power for more than one million homes. New England Wind will bring over 15,000 jobs to the region.	Section 1.2 of the Draft EIS provided the proposed Project's contribution to state renewable energy goals.
0027-01	Park City's proposition to construct and operate up to 129 wind turbines and up to five offshore electrical service platforms with a total of five offshore export cables will significantly enhance supply chain and workforce development. Additionally, the location of the project will maximize economic benefits to Massachusetts and surrounding areas...I am in full support of this project that will create career opportunities in this sector, benefit the offshore wind industry, and provide economic development to the region.	Thank you for your comment.
0028-04	Avangrid has indicated its willingness to work with the town of Barnstable to coordinate laying the onshore cable in conjunction with the town's installation of sewer lines along the proposed routes. Enabling the	Section 3.11.2.3 of the Final EIS has been revised to address this comment.

Comment Number	Comment	Response
	town to take advantage of the wind project's onshore cable construction work on roadways would save the town millions of dollars in municipal sewer construction costs. APCC enthusiastically supports efforts by Avangrid and the town of Barnstable to take advantage of the opportunity to install sewer lines along the proposed route, which would help accelerate the timeline for sewering sections of town that are in great need of municipal wastewater infrastructure to address the area's serious water quality issues.	
0029-02	Osterville where Dowses Beach is located, is a coastal community and a popular Cape Cod vacation getaway/destination. Many local businesses on Main Street thrive, with many visitors and locals enjoying the arts, dining, shopping and cultural offerings.	Section 3.11.2.3 of the Draft EIS addressed the impacts to the local economy and Section 3.15.2.3 discussed the impacts to tourism and recreation.
0032-04	the College supports this project and recognizes AVANGRID's commitment to workforce development and investment in host communities...The proposal mitigation measure (#37) addresses direct support for economic and community initiatives within Phase 1. This supports workforce development, supply chain integration, and offshore wind-related research. The Draft EIS recognizes the additional community and environmental initiatives to develop in connection with efforts to secure long-term contracts/power purchase agreements for the electricity generated by Phase 2. AVANGRID is clearly positioned well to become a responsible, sustainable economic driver for Southeastern Massachusetts and New England. With the availability of these direct support resources for related research, we strongly encourage AVANGRID to initiate a long-term planning strategy for the major maintenance, decommissioning, and replacement of the offshore wind infrastructure.	Section 1.2 of the Draft EIS provided the proposed Project's contribution to state renewable energy goals.
0034-08	Contrary to BOEM [a spill] does not have a negligible impact. That would mean the almost certain death of Osterville as a Cape Cod community as we now know it. It would render our real estate values, our homes nearly valueless. This means a loss of human habitat. That is a major adverse impact.	Sections 2.0 and 3.11 of the Draft EIS addressed the potential for spills.
0040-02	Financially...published analysis shows Avangrid Renewables' optimal contribution represents a .02 to .09 annual offset over 25 years. The Bureau of Labor Statistics currently shows the average new car costs $49,388.00. Would anyone consider a $445.00 new car discount "significant?"	Section 3.11 of the Draft EIS addressed the proposed Project's overall economic effects.

Comment Number	Comment	Response
0046-06	The impact to our small village roads and movement about town and the impact to the economy of our small businesses will be staggering. It will also be felt for years. The convenient landfall for Avangrid project is not going to be tolerated by the residents of Osterville Village and the interruption of essential services of fire, police and ambulances.	Section 3.11.2.3 of the Draft EIS addressed the impacts to the local economy and Section 3.15.2.3 discussed the impacts to tourism and recreation.
0067-04	The proposed Phase 1 and 2 of the New England Wind project are already directly contributing to the formation of a U.S. supply chain, and major investments are dependent on its advancement. Advancement of the New England Wind project would have direct impacts on the region's economy. Approximately 11,000 direct full-time equivalent (FTE) job-years are anticipated to be created during the life of the project for New England Wind Phase 1, with an additional 4,700 direct jobs and 210 indirect job-years for New England Wind Phase 2. In total, approximately 15,910 direct, indirect, and induced jobs are anticipated to be created during the life of both projects. The projects are expected to lead to the creation of jobs during operations. According to Avangrid's construction and operations plan, the estimated direct, indirect, and induced impacts of Phase 1 would result in $16.4 million in annual labor income and $17 million in annual expenditures during operations (COP Appendix III-L, Section III; Epsilon 2022a).	Thank you for your comment.
0067-08	The Network urges BOEM to focus on avoiding delay in project implementation that could threaten already challenged supply lines and postpone needed employment.	Thank you for your comment.
0067-11	The City of Salem MA and Crowley have received $75 million in state investments and $36.2 million in federal investments to upgrade the port of Salem to become a staging and marshalling port for offshore wind, an investment that would not have happened absent the Commonwealth Wind project agreement for use of the port. In addition, The Somerset/Brayton Point location in Massachusetts has received $25 million from the state to upgrade the facility for use in cable manufacturing by Prysmian. Similarly, the Bridgeport CT has seen a $10.5 million investment from the Federal government to prepare the port for use in the offshore wind industry. Also in Connecticut, the Department of Economic and Community Development awarded a grant of $4.5 4 million to the Southeastern Connecticut Enterprise Regional Corporation to focus on helping businesses in the offshore wind supply chain.	Thank you for your comment.
0068-05	Then a disruption of Wianno Avenue and small businesses that will lose money or have to close (as will mine) due to the destruction of one of New England's most beautiful little villages.*Will Avangrid pay for our beach permits??? Dowses Beach is used and visited year round! WE PAY THE TAXES....	Section 3.11.2.3 of the Draft EIS addressed the impacts to the local economy and Section 3.15.2.3 discussed the impacts to tourism and recreation.

Comment Number	Comment	Response
0070-02	Robust socioeconomic analysis is critical to achieve the maximum economic benefits from offshore wind projects. The Final EIS should detail, to the greatest extent possible, all anticipated job creation involving port utilization and development, supply chain and manufacturing of offshore wind components, construction, operations and maintenance, and decommissioning. In addition to salary, information should include health and safety, certifications, training pathways, recruitment and retention plans, project labor agreements and union neutrality commitments, and commitments and requirements for targeted hire of disadvantaged and underrepresented communities.	Section 3.11.1.7 has been revised to include information from the 2022 NREL offshore wind workforce study.
0072-02	Another reason we support the project is that AVANGRID is deeply committed to supporting local communities in our region. Through its current and proposed host community agreements and good neighbor agreements, AVANGRID is projected to pump tens of millions of dollars into community investment and local projects. Further, they will create thousands of jobs we need in Massachusetts in the coming years.	Thank you for your comment.
0079-02	This project represents investment in the Commonwealth through a partnership with Prysmian Group to invest $200 million to develop full-scale cable manufacturing facility at Brayton Point in Somerset. Locally, a partnership with Crowley Maritime and the City of Salem to transform Salem Harbor into an offshore wind marshaling port will bring economic opportunity to the area while redeveloping the site of a decommissioned coal plant.	Section 3.11.2.3 of the Draft EIS addressed the impacts to the local economy.
0082-03	In the Draft EIS under Section 2 Alternates, subsection 2.1.2.2, Onshore Activities and Facilities, (pp. 2-7 to 2-8) and in Figure 2.1-2 (p.2-9), Avangrid briefly references two variants for the onshore portion of the electric cables for Park City Wind. Avangrid has announced that it intends to use what it refers to as Variant 1, or its Preferred Route, instead of Variant 2. Variant 1 happens to be the shortest and cheapest option for Avangrid, but it also runs through the heart of the historic Main Street in the center of the Village of Centerville and has been opposed by both our village's civic association (the Centerville Civic Association) and the Town of Barnstable's Historical Commission. See the attached letters expressing opposition to Avangrid's selection of Variant 1 previously sent to Avangrid and BOEM, respectively. (See Attachments 2 and 3.)We ask that the BOEM require Avangrid to use Variant 2 for the onshore portion of the Park City Wind electric cable to connect to the proposed Shootflying Hill Road substation.	Section 2.1.2.3 of the Draft EIS and COP Volume I, Section 4.2.2.1 (Epsilon 2022a) describe the technical considerations underlying the Phase 2 OECR options. Section 3.11.2.3 of the Draft EIS describes the impacts of Phase 2 OECR construction and operation.

Comment Number	Comment	Response
0095-1-03	Massachusetts has the opportunity to become one of the centers of the offshore wind industry, making this industry a mainstay of the State's economy. New England Wind alone is expected to bring over 15,000 jobs to the region. Through partnerships with other companies, New England Wind plans to invest $200 million to develop a full scale cable manufacturing facility at Somerset. And to work with the City of Salem to transform Salem Harbor into an offshore wind marshaling port.	Section 1.2 of the Draft EIS described the purpose of and need for the proposed Project, which includes federal and state renewable energy goals.
0095-2-01	Investment in sound energy policy is a critical component to the region's health and prosperity. We hope that you do approve the New England Wind project and the policies and procedures that they need to put into place. We have heard, on more than one occasion, from economists throughout the State, that offshore wind is the number one way, and the number one economic drive, that will be coming to southeastern Massachusetts, going on for this -- the rest of our decade and for the rest of this century...we are also looking at how local businesses can benefit from the offshore wind industry and also that there could be great careers made in our region because of the industry.	Thank you for your comment.
0095-4-02	The expansion of this industry over the next decade could also create tens of thousands of high quality jobs through the establishment of the domestic work force and its supply chain. And of course with the right policy and planning, this also has the potential to drive equitable access to economic opportunity with those jobs, and building wealth in communities that have been historically underserved in our region.	Thank you for your comment.
0097-2-01	We believe you must take the environmental and socioeconomic impacts of cable landings as discussed in the project proposal before you as seriously as you take construction plans on the OCS.	Section 3.11.2.3 of the Draft EIS addressed the socioeconomic impacts of Phase 2 cable landing and OECR construction. Other Draft EIS sections address environmental impacts of these activities.

O.5.11 Environmental Justice

Table O.5-11: Responses to Comments on Environmental Justice

Comment Number	Comment	Response
0023-13	Of special note are the social impacts the proposed construction at Dowses would have on the handicapped members of the Barnstable community. Many individuals who are mobility-impaired rely on the handicap-accessible fishing pier built adjacent to the boat channel for access to the waterfront for fishing or simply for relaxation. This is of great importance to many Barnstable residents throughout the year. The developer's plan to reserve a narrow corridor for public egress in the Dowses parking lot during some phases of the project is quite cynical given the noise, dust, and construction traffic visitors would have to endure. If the developer opts to trench the causeway, egress will be non-existent for an unspecified period of time.	Section 3.12.2.3 of the Final EIS has been updated to address this comment.
0029-17	[Air quality impacts] would impact the citizens' well-being, threatening public health, contrary to President Biden's EO14008.	Section 3.12.2.3 of the Draft EIS presented a discussions of the air emissions IPF and addressed the environmental justice impacts of the Project's air emissions.
0031-02	In President Biden's Executive Order 14008 (EO 14008), disadvantaged communities - "historically marginalized and overburdened" would be given economic opportunities to help them thrive. The South Coast has welcomed the OSW developers and sees benefits for its people including well-paying, long term jobs. Mayor Jon Mitchell wants New Bedford "to be known as a national hub" for supporting OSW. He sees "engineering, electrical, marine" jobs for his constituents. Bristol Community College has invested in a training facility (National Offshore Wind Institute) along the water that "will hire locals to become trainers, providing... skills and safety training." Locating CW in the South Coast would fulfill President Biden's executive order to economically uplift "hard hit communities" with the important benefit of giving the locals a sense of pride that they are helping tackle "the climate crisis at home."	Thank you for your comment.
0034-05	[Proposed alternative cable landing at New Bedford] also promotes environmental justice. In President Biden's Executive Order 14008 (EO 14008), disadvantaged communities - "historically marginalized and overburdened" would be given economic opportunities to help them thrive. The South Coast has welcomed the OSW developers and sees benefits for its people including well-paying, long term jobs. Mayor Jon Mitchell wants New Bedford "to be known as a national hub" for supporting OSW. He sees "engineering, electrical, marine" jobs for his constituents. Bristol Community College has invested in a training facility (National Offshore Wind Institute) along the water that "will hire locals to become trainers, providing... skills and safety training." Locating CW in the South Coast would fulfill President Biden's executive order to economically uplift "hard hit communities" with the	Section 2.1.2 describes the basis for selection of the proposed Project's route.

Comment Number	Comment	Response
	important benefit of giving the locals a sense of pride that they are helping tackle "the climate crisis at home."	
0034-06	Landing OSW cables on estuarine Dowses Beach and using the parking lot as a convenient staging area for Avangrid's multiyear industrial heavy machinery project would destroy the fragile natural beauty of Dowses Beach and would .. opposition to President Biden's EO [14008].	Figure 3.12-2 of the Draft EIS showed that Dowses Beach is not within an environmental justice community identified by the Commonwealth of Massachusetts.
0070-07	Offshore wind power could play a significant role in reducing pollution in our region. From 2013-2022, ISO-New England approved more than 5,200 MW of oil, coal, and nuclear plan retirements, and the organization says another 5,000 MW of coal- and oil-fired generation is "at risk" of retirement. It is imperative that we fill any gap in energy supply with clean energy...The co-benefit potential of reduced emissions is especially high for our most vulnerable communities, which are systematically overburdened by fossil energy pollution...It is crucial that states ensure a just transition of these power plants and that offshore wind projects foster the creation of high-quality, family-sustaining jobs.	Section 1.2 of the Draft EIS described the purpose of and need for the proposed Project, which includes federal and state renewable energy goals.
0074-06	President Joseph Biden, in his Executive Order 14008, calls for the protection of America’s coastal communities and its natural treasures. Protection of Nantucket Sound as a natural treasure and protection of Dowses Beach as a coastal community dovetail with President Biden’s executive order. There is nothing in EO 14008 that calls for the destruction of a pristine fragile coastal community to create renewable energy, or to sacrifice the biodiversity in natural treasure Nantucket Sound to OSW.	Figure 3.12-2 of the Draft EIS showed that Dowses Beach is not within an environmental justice community identified by the Commonwealth of Massachusetts.
0083-43	We also urge BOEM to pursue measures to ensure that any negative impacts to environmental justice communities are mitigated and that the many environmental and economic benefits offshore wind can provide communities are maximized. One way to do this is to ensure that project construction occurs in a manner that does not create a level of pollution at any one port that could have deleterious impacts to that community.	Section 3.12 of the Draft EIS addressed the potential effects on environmental justice.
0086-03	in President Biden's Executive Order 14008 (EO 14008), disadvantaged communities • historically marginalized and overburdened" would be given economic opportunities to help them thrive. The South Coast has welcomed the OSW developers and sees benefits for its people including well-paying, long term jobs. Mayor Jon Mitchell wants New Bedford "lo be known as a national hub" for supporting OSW. He sees "engineering, electrical, marine• jobs for his constituents. Bristol Community College has invested in a training facility (National Offshore Wind Institute) along the water that "will hire locals to become trainers, providing ... skills and safety training." Locating CW in the South Coast would fulfill President Biden's executive order to economically uplift "hard hit communities• with the important benefit of giving the locals a sense of pride that they are helping tackle "the climate crisis at home."	Section 2.1.2 of the Draft EIS described the basis for selection of the proposed Project's route.

O.5.12 Navigation and Vessel Traffic

Table O.5-12: Responses to Comments on Navigation and Vessel Traffic

Comment Number	Comment	Response
0029-20	How will the presence of large OSW structures affect the response time of the Coast Guard during a distress call on Nantucket Sound? How much difficulty will recreational boaters and commercial fishermen have navigating around such large OSW structures on Nantucket Sound? Could the presence of these OSW structures add to more distress calls?	Section 3.13.2 of the Draft EIS addressed this comment.
0076-06	BOEM claims that the 1x1 nm spacing is wide enough for safe transit. We disagree, particularly as regards the impacts of radar interference. However, BOEM continues to ignore the fact, even if 1x1nm spacing were safe, that the majority of transit through the lease areas is in a Northwest-Southeast direction and the turbine spacing in that direction is NOT 1x1 nm. In that direction, turbine spacing is less than 1x1 nm. Therefore, BOEM cannot argue that there is 1x1 nm spacing in the direction of transit. A transit lane is necessary.	Section 3.13.1 of the Draft EIS noted that the USCG's Final MARIPARS identified 1x1 nautical mile spacing as safe for vessel transit.
0085-04	With major effects/losses to commercial fishing, USCG Search and Rescue, and scientific research surveys, the cumulative economic losses and effects of all of three components must be evaluated and analyzed for New York's commercial fishermen in a way that does not rely upon AIS to determine who fishes in a lease area, since the majority of NY's commercial fishermen do not employ AIS and if they do have it, they turn it off when outside of 12 miles. AIS cannot be made a proxy for effort for New York's fishermen.	Section 3.13.1 of the Draft EIS discussed the USCG's Final MARIPARS and the EIS noted the finding that non-AIS vessel transit tracks did not vary significantly from AIS equipped vessels.

O.5.13 Other Uses (National Security and Military Use, Aviation and Air Traffic, Offshore Cables and Pipelines, Radar Systems, Scientific Research and Surveys, and Marine Minerals)

Table O.5-13: Responses to Comments on Other Uses

Comment Number	Comment	Response
0055-10	We appreciate that the Draft EIS mentions impacts to NMFS scientific surveys and the potential for increased uncertainty which "would increase uncertainty in stock assessments and quota setting processes" (page 3.9-22) and could result in "survey indices (that) could be biased and unsuitable for monitoring stock status" (Appendix B, page B-53). We also appreciate including information on demographics, employment, and references to onshore seafood sectors in Appendix B (page B-29).	Thank you for your comment.
0081-32	A finding of major impacts to scientific research and surveys (p. ES-17) cannot be downplayed and the proposed mitigation measures do not provide reassurance that our future understanding of the biological resources will not be gravely hindered. Any reduction of, or impact to, fisheries surveys will likely result in increased uncertainty for stock assessments, leading to changes to fisheries management and reduction in allowable catch. BOEM and NMFS must immediately work to implement strategic plans as soon as possible to minimize any 'lost time' between existing surveys and future adapted surveys.	BOEM has committed to working with NOAA to implement the Federal Survey Mitigation Strategy program (https://repository.library.noaa.gov/view/noaa/47925). As of February 2023, implementation is pending. As discussions between BOEM and NOAA on implementation of the program continue, specific details on appropriate mitigation measures will be added to the environmental analysis.

O.5.14 Recreation and Tourism

Table O.5-14: Responses to Comments on Recreation and Tourism

Comment Number	Comment	Response
0029-09	Let's also remember the people who live in and visit coastal Osterville. Wouldn't the [Dowses Beach landing site] installation impact their quality of life, depriving them of their daily health walks on the beach parking lot, limiting the disabled from enjoying the waterfront views from the ADA fishing pier?	Section 3.15.2.3 of the Final EIS has been revised to address this comment.
0031-03	[Dowses Beach is the] site of an uncommon accessible fishing pier providing the disabled a closeup waterfront view of beautiful Nantucket Sound.	Section 3.15.2.3 of the Final EIS has been revised to address this comment.
0031-05	Many locals and visitors include recreational and commercial fishermen, boaters, beach goers and swimmers [Dowses Beach].	Thank you for your comment.
0034-02	This area has year-round recreational uses: handicap access for the disabled and elderly, family days at the beach, local summer youth programs, swimming lessons for youngsters, fishing, walking/running and people .. fresh air and beautiful scenery. In the winter months the parking lot and beach are used by many people to exercise... enjoy the peaceful views...	Section 3.15.2.3 of the Final EIS has been revised to address this comment.
0038-01	As a resident of Osterville and beach lover nothing brings me greater joy by witnessing people young and old using the handicap accessible fishing pier to fish or walk out on to the rocks.	Thank you for your comment.
0039-03	I am strongly opposed to the "Phase 2" onshore electrical cable landings at Dowses Beach...the handicap accessible fishing pier...for physically disabled community members to also enjoy our beautiful outdoors.	Section 3.15.2.3 of the Final EIS has been revised to address this comment.
0046-13	Dowes Beach is the only beach in Osterville that is reserved for the residents of Barnstable. It is also the only beach that has a boardwalk for the handicap to get to the water for a swim and it's the only beach that has a handicap fishing pier.	Section 3.15.2.3 of the Final EIS has been revised to address this comment.
0048-06	landing these cables in an environmentally fragile estuarine environment including a year-round handicapped accessible fishing pier, bathing beach, causeway (which frequently floods), two bays and parking lot where children swim, fish and play is not suitable. It will become a year-round industrial zone for life, given the necessary servicing of these high voltage lines via large manhole covers. The "Greater Dowses Beach" area that the Dowses family intended to be used as a "bathing beach" for the enjoyment of the residents will no longer be that. It will become an industrial site where the elderly, handicapped and children no longer feel safe.	Section 3.15.2.3 of the Final EIS has been revised to address this comment.

Comment Number	Comment	Response
0048-12	These locations have been proposed only in the economic interest of the developer, who is rushing to pad its own bottom line, and meet "deadlines" instead of doing things right...This will also be an economic disaster for our community, which relies on thousands of year-round tourists and visitors who have come to expect many days spent at Dowses Beach and in our downtown shops (where the developer has proposed bringing the cables underground), will have "construction zone" versus "welcome" signs for years. Tourists and seasonal visitors will go elsewhere, off Cape Cod, creating irreversible economic fallout.	Section 3.15.2.3 and Section G.2.7.2 of the Final EIS have been revised to address this comment.
0050-01	MV has had considerable unmanaged large estate building, which has resulted in overuse of energy for untold, typically vacant, multimillion dollar estates, wasting natural resources. Dowse's Beach area is a small inlet that was donated to the town after the mid-century hurricane. It cannot sustain this kind of upheaval and was never donated for this use.	Section 3.15.2.3 of the Final EIS has been revised to address this comment.
0057-02	The [Dowses Beach] parking lot is used all winter for its handicap accessibility to the pier and beach. There is no off season here. Access to the beach is down a narrow causeway that floods frequently.	Section 3.15.2.3 of the Final EIS has been revised to address this comment.
0060-01	Covell's Beach is a prime example of what will happened to Dowses if this project continues. The heavy trucks, construction crews, digging, fencing and total disregard for the future of Covell's is a ghastly window into what will happen to Dowses.	Section 3.15.2.3 of the Final EIS has been revised to address this comment.
0061-01	A number of folks against permitting the cable landing at Dowses Beach speak about the existing conditions there as if it were currently close to its natural state. It definitely is not.	Thank you for your comment.
0073-04	This beach is one of only 2 Open Spaces where the population of Osterville can recreate-not simply “in season” but year round. Many people prefer the Cape Fall thru Spring. There is a reason people live/relocate to the Cape and it is primarily to be in this area where nature & the sea is a prime source of enrichment, appreciation, and enjoyment of these natural “jewels”. This Public Dowses Beach is a resource that informs our sense of serenity-it is truly an exhilarating & calming source	Thank you for your comment.
0084-03	This location would be a major component feeding into the power grid. Keeping Commonwealth Wind serviced, operational, updated, etc., would likely take priority over any local public and recreational use, and perhaps even environmental protection considerations.	Section 3.15.2.3 of the Final EIS and Appendix G, Section G.2.7.1 have been revised to address this comment.
0086-05	[Dowses Beach is the] site of an uncommon accessible fishing pier providing the disabled a closeup waterfront view of beautiful Nantucket Sound. Many locals and visitors include recreational and commercial fishermen, boaters, beach goers and swimmers.	Section 3.15.2.3 of the Final EIS on has been revised to address this comment.

O.5.15 Scenic and Visual Resources

Table O.5-15: Responses to Comments on Scenic and Visual Resources

Comment Number	Comment	Response
0029-03	There are fewer and fewer beaches on Cape Cod that have retained their pristine and fragile natural beauty, but Dowses Beach is one of them. Dowses Beach is a natural treasure.	Section 3.16 of the Draft EIS addressed the visual impacts of the proposed Project.
0029-05	Seeing the large OSW ships on Nantucket Sound is not only an eyesore but a heartache for an ocean lover like myself. It is like someone decided to deface a beautiful painting.	Section 3.16 of the Draft EIS addressed the visual impacts of the proposed Project.
0034-07	There are so few pristine beautiful beaches left on Cape Cod. Dowses Beach is one of them...Avangrid, .. destroy this Cape Cod natural treasure simply to further its business interests	Section 3.16 of the Draft EIS addressed the visual impacts of the proposed Project.
0059-01	In reading the draft impact statement, we are concerned that the dark skies are not adequately addressed.	Section 3.16 of the Draft EIS addressed the nighttime visual conditions and potential impacts.
0086-06	Landing OSW cables on estuarine Dowses Beach and using the parking lot as a convenient staging area for Avangrid's multiyear industrial heavy machinery project would destroy the fragile natural beauty or Dowses Beach...There are so few pristine beautiful beaches left on Cape Cod.	Section 3.16 of the Draft EIS addressed the visual impacts of the proposed Project.

O.5.16 Air Quality

Table O.5-16: Responses to Comments on Air Quality

Comment Number	Comment	Response
0019-01	I believe strongly in efforts to tap into offshore wind resources in order to reduce air pollution. Reducing air pollution is not only key to reducing the effects of climate change, but is also key to reducing the very significant negative health impacts caused by people (and animals) inhaling pollutants from fossil fuels.	Thank you for your comment.
0025-03	Once completed the project will result in an annual reduction of more than four million tons of carbon dioxide equivalent (CO2e) emissions across New England, the equivalent of removing over 800,000 cars from the road each year.	Thank you for your comment.
0029-16	The air quality would be severely impacted. The ocean's winds would scatter the dug up dirt, worksite debris, exhaust fumes from fossil-fuel-powered vehicles. Instead of healthy walks and beach combing on Dowses Beach or paddle boarding, sailing, swimming, kayaking on East Bay and Nantucket Sound, the polluted air and worksite noises would drive away the citizens.	Section G.2.1.2 of the Draft EIS presented a detailed discussion on potential air quality impacts for the Project.
0029-21	Will the maintenance boats (running on fossil fuels) servicing the OSW turbines and structures be allowed to add to more carbon emissions or will there be battery operated vehicles mandated to service the OSW turbines and structures?	Section 2 of the Draft EIS provided a detailed discussion of the anticipated vessels and boats to be used for the Project. In addition, Section G.2.1 of the Draft EIS provided a discussion analysis of potential impacts from construction, operation and maintenance of the Project.
0049-04	Reports are coming in daily of serious health issues affecting humans as well esp those within a 2.5 mile radius—-neurological disorders. Seizures, anxiety, depression, heart issues etc. his process putting all we know n love at risk n taking g years to complete.	Section G.2.1, Table G.2.1-3 of the Draft EIS provided a summary of health benefits of offshore wind development.
0049-08	Also when the ocean floor is blown up —approx. 130 ft deep—it releases co2 stored in the sediment—-thus tipping the scale of out poor oceans having to reabsorb it when they're already absorbing the co2 from above. This leads to acidification n shellfish can no longer make their shells.	Thank you for your comment.
0067-02	The Network encourages BOEM to continue moving both phases of the New England Wind project forward with the recognition of the enormous environmental and economic benefits the project offers, especially compared to a "No Action" alternative. Net reductions in air pollutant emissions resulting from the Proposed Action are expected to contribute to long term benefits for communities by displacing emissions from fossil fuel generated power plants. Phase 1 and Phase 2 projects as proposed by Avangrid would result in annual avoided greenhouse gas emissions of 3.94 million US tons per year.	Thank you for your comment.

Comment Number	Comment	Response
0067-09	The air quality and other environmental benefits resulting from expanding renewable energy resources cannot wait.	Thank you for your comment.
0083-32	We urge BOEM to expand its analysis of offshore wind's beneficial climate impacts. The Draft EIS details many of the pressing impacts that climate change presents to communities, people, wildlife, and natural resources, as well as the benefits offshore wind brings from carbon and other pollutant emissions reductions. However, the Draft EIS does not account for the climate benefits of displacing full life-cycle emissions of gas generation, which includes the release of methane (which has a global warming potential 84 times that of CO2 on a 20-year time frame) emitted during the extraction and in the transmission and compression of gas. The Draft EIS also does not monetize these climate benefits using the social cost of carbon to illustrate differences between the social benefits of the Projects and the relative social cost of the alternatives. We recommend integrating the social and environmental costs of greenhouse gas emissions into the evaluation of project impacts and impacts of alternatives... The Interagency Working Group on Social Cost of Carbon has produced estimates for the social cost of carbon in order to "allow agencies to understand the social benefits of reducing [greenhouse gas] emissions, or the social costs of increasing such emissions, in the policy making process."... The social cost of carbon dioxide ranges from $14 to $260 (in 2020 dollars per metric ton of CO2) and could be used to monetize the costs imposed by the net greenhouse gas emissions associated with failing to achieve the offshore wind goals set by the Administration.	BOEM has added discussion on the development and results of the social cost of greenhouse gas emissions performed to quantitatively demonstrate the climate benefit of the project.
0086-14	The machinery used to conduct the 2/14/23 geotechnical borings on the fragile Dowses Causeway caused air pollution, noise pollution and water pollution. BOEM needs to fully address the real problems of pollution that would harm Dowses Beach and the people in the community. The ocean wind on Nantucket Sound can be a source of renewable energy but it can also kick up the dust from all the drilling and digging, etc. and pollute the environment.	Section G.2.1.2 of the Draft EIS presented a detailed discussion on potential air quality impacts for the Project.
0095-1-01	Without offshore wind projects such as New England Wind, we simply can't hope to significantly reduce our carbon emissions and mitigate our contribution to climate change. New England Wind alone will reduce carbon emissions by nearly 4 million tons, equivalent to taking more than 800,000 cars off the road annually...Offshore wind is the most important thing we can do in New England to reduce carbon emissions.	Thank you for your comment.

O.5.17 Water Quality

Table O.5-17: Responses to Comments on Water Quality

Comment Number	Comment	Response
0023-07	Cape Cod's sole source aquifer, specifically the so-named Sagamore Lens, underlies the immediate Dowses area. Hydrology studies of the mid-Cape confirm the shallowness of the aquifer in the immediate offshore area of Dowses beach. (Olcott, 1995) The aquifer occupies the Barnstable outwash plain on land and the subsurface glacial lake geologic zone beneath Nantucket Sound. As a result, there is little deviation in the depth of the water table in this part of Barnstable and the nearshore; it is estimated and generally recognized to be 50-80 feet below the surface. (Leblanc, 1986) The aquifer's critical freshwater and saltwater transition zone is located offshore, where the proponent is planning to dredge and penetrate the seabed. As the Town of Barnstable noted in its response to the ENF, the proposed HDD technology, both offshore and onshore, is therefore extremely risky to the aquifer and presents the risk of saltwater contamination to the region's drinking water.	Section 2 of the Draft EIS stated that the Phase 2 offshore export cables would make landfall within paved parking areas at either the Dowses Beach Landfall Site or the Wianno Avenue Landfall Site in the Town of Barnstable (Figure 2.1-8). The ocean-to-land transition at the Dowses Beach Landfall Site would employ the HDD technique, which would avoid or minimize impacts on the beach, intertidal zone, and nearshore areas. As noted in the New England Wind COP Vol I Section 3.3.1.8, the engineering trajectory of the HDD shows the cable passing at a depth of approximately 9 m (30 ft) below the ground surface at Mean High Water. With the expected use of HDD at the landfall sites and the target burial depth of the offshore export cables, New England Wind is not expected to permanently alter nearshore hydrodynamics so as to affect shoreline erosion or accretion. Impacts on coastal habitats and fauna at the landfall site(s) would be avoided by locating the sea-to-shore transition vault in a paved area and, at the Dowses Beach Landfall Site, by using HDD to install the cable beneath the beach.
0023-09	Should the proponent decide instead to pursue a plan to micro-tunnel under East Bay, as described in the COP, the issue of chemical pollution is considerable. The Centerville River estuary watershed has drained many decades of pollutants from indiscriminate human land use into the bay.	Section 2 of the Draft EIS stated that the Phase 2 offshore export cables would make landfall within paved parking areas at either the Dowses Beach Landfall Site or the Wianno Avenue Landfall Site in the Town of Barnstable (Figure 2.1-8). The ocean-to-land transition at the Dowses Beach Landfall Site would employ the HDD technique, which would avoid or minimize impacts on the beach, intertidal zone, and nearshore areas. As noted in the New England Wind COP Vol I Section 3.3.1.8, the engineering trajectory of the HDD shows the cable passing at a depth of approximately 9 m (30 ft) below the ground surface at Mean High Water. With the expected use of HDD at the landfall sites and the target burial depth of the offshore export cables, New England Wind is not expected to permanently alter nearshore hydrodynamics so as to affect shoreline erosion or accretion. Impacts on coastal habitats and fauna at the landfall site(s) would be avoided by locating the sea-to-shore transition vault in a paved area and, at the Dowses Beach Landfall Site, by using HDD to install the cable beneath the beach. Section 3.5 of the Draft EIS stated that impacts on coastal habitats and fauna at the landfall site(s) would be avoided by locating the sea-to-shore transition vault in a paved area and, at the Dowses Beach Landfall Site, by using HDD to install the cable beneath the beach. The onshore export cable crossing of East Bay, if used, would use microtunneling, HDD, or other trenchless installation methods to pass beneath the bay and avoid impacts on coastal habitats.

Comment Number	Comment	Response
0029-04	Having seen the OSW industrialization of nearby Covell's Beach (its parking lot is filled with heavy noisy machinery spewing unknown fluids down the sandy beach) is to see how devastating the...project would be for a coastal community like Osterville,	Thank you for your comment.
0029-10	Most concerning of all is the proximity of the aquifer to the proposed cable landing site. Contamination of the aquifer, a true concern shared by the Barnstable town officials who are responsible for this unpopular OSW project, would devastate this coastal community. Contaminated drinking water would negatively impact the public health of the citizens, devalue home and real estate properties and seriously harm the economy of coastal Osterville. BOEM must consider these realities and major adverse impacts.	Section 2 of the Draft EIS stated that the Phase 2 offshore export cables would make landfall within paved parking areas at either the Dowses Beach Landfall Site or the Wianno Avenue Landfall Site in the Town of Barnstable (Figure 2.1-8). The ocean-to-land transition at the Dowses Beach Landfall Site would employ the HDD technique, which would avoid or minimize impacts on the beach, intertidal zone, and nearshore areas. As noted in the New England Wind COP Vol I Section 3.3.1.8, the engineering trajectory of the HDD shows the cable passing at a depth of approximately 9 m (30 ft) below the ground surface at Mean High Water. With the expected use of HDD at the landfall sites and the target burial depth of the offshore export cables, New England Wind is not expected to permanently alter nearshore hydrodynamics so as to affect shoreline erosion or accretion. Impacts on coastal habitats and fauna at the landfall site(s) would be avoided by locating the sea-to-shore transition vault in a paved area and, at the Dowses Beach Landfall Site, by using HDD to install the cable beneath the beach.
0031-07	The location for the Avangrid cable landing at Dowses Beach is too close to the aquifer, the source of our precious drinking water. Will our drinking water get contaminated by accidental releases of hazardous materials and become undrinkable? What will this mean for the public health of the residents?... BOEM cannot minimize the potential harm from hazardous materials that can spill on the shores of Dowses Beach and fatally contaminate our aquifer.	Section 2 of the Draft EIS stated that the Phase 2 offshore export cables would make landfall within paved parking areas at either the Dowses Beach Landfall Site or the Wianno Avenue Landfall Site in the Town of Barnstable (Figure 2.1-8). The ocean-to-land transition at the Dowses Beach Landfall Site would employ the HDD technique, which would avoid or minimize impacts on the beach, intertidal zone, and nearshore areas. As noted in the New England Wind COP Vol I Section 3.3.1.8, the engineering trajectory of the HDD shows the cable passing at a depth of approximately 9 m (30 ft) below the ground surface at Mean High Water. With the expected use of HDD at the landfall sites and the target burial depth of the offshore export cables, New England Wind is not expected to permanently alter nearshore hydrodynamics so as to affect shoreline erosion or accretion. Impacts on coastal habitats and fauna at the landfall site(s) would be avoided by locating the sea-to-shore transition vault in a paved area and, at the Dowses Beach Landfall Site, by using HDD to install the cable beneath the beach.
0034-03	As noted above, the location for the Avangrid cable landing at Dowses Beach is too close to the aquifer, the source of our precious drinking water. Will our drinking water get contaminated by accidental releases of hazardous materials and become undrinkable? What will this mean for the public health of the residents?... BOEM cannot minimize the potential	Section 2 of the Draft EIS stated that the Phase 2 offshore export cables would make landfall within paved parking areas at either the Dowses Beach Landfall Site or the Wianno Avenue Landfall Site in the Town of Barnstable (Figure 2.1-8). The ocean-to-land transition at the Dowses Beach Landfall Site would employ the HDD technique, which would avoid or minimize impacts on the beach, intertidal zone, and nearshore

Comment Number	Comment	Response
	harm from hazardous materials that can spill on the shores of Dowses Beach and fatally contaminate our aquifer.	areas. As noted in the New England Wind COP Vol I Section 3.3.1.8, the engineering trajectory of the HDD shows the cable passing at a depth of approximately 9 m (30 ft) below the ground surface at Mean High Water. With the expected use of HDD at the landfall sites and the target burial depth of the offshore export cables, New England Wind is not expected to permanently alter nearshore hydrodynamics so as to affect shoreline erosion or accretion. Impacts on coastal habitats and fauna at the landfall site(s) would be avoided by locating the sea-to-shore transition vault in a paved area and, at the Dowses Beach Landfall Site, by using HDD to install the cable beneath the beach.
0037-01	[Dowses Beach landing site] Damaging our aquifer can never be corrected.	Section 2 of the Draft EIS stated that the Phase 2 offshore export cables would make landfall within paved parking areas at either the Dowses Beach Landfall Site or the Wianno Avenue Landfall Site in the Town of Barnstable (Figure 2.1-8). The ocean-to-land transition at the Dowses Beach Landfall Site would employ the HDD technique, which would avoid or minimize impacts on the beach, intertidal zone, and nearshore areas. As noted in the New England Wind COP Vol I Section 3.3.1.8, the engineering trajectory of the HDD shows the cable passing at a depth of approximately 9 m (30 ft) below the ground surface at Mean High Water. With the expected use of HDD at the landfall sites and the target burial depth of the offshore export cables, New England Wind is not expected to permanently alter nearshore hydrodynamics so as to affect shoreline erosion or accretion. Impacts on coastal habitats and fauna at the landfall site(s) would be avoided by locating the sea-to-shore transition vault in a paved area and, at the Dowses Beach Landfall Site, by using HDD to install the cable beneath the beach.
0043-02	These cables proposed have never been produced in the USA and therefore have no testing of their safety. These cables have a high risk of piercing our Cape aquifer that extends out beneath Dowes Beach. The cable routes will pass through our wells and end up sitting upon our underground aquifer. Avangrid will not disclose the temperature these cables will produce...irreparable harm to Cape Cod.	Section 2 of the Draft EIS stated that the Phase 2 offshore export cables would make landfall within paved parking areas at either the Dowses Beach Landfall Site or the Wianno Avenue Landfall Site in the Town of Barnstable (Figure 2.1-8). The ocean-to-land transition at the Dowses Beach Landfall Site would employ the HDD technique, which would avoid or minimize impacts on the beach, intertidal zone, and nearshore areas. As noted in the New England Wind COP Vol I Section 3.3.1.8, the engineering trajectory of the HDD shows the cable passing at a depth of approximately 9 m (30 ft) below the ground surface at Mean High Water. With the expected use of HDD at the landfall sites and the target burial depth of the offshore export cables, New England Wind is not expected to permanently alter nearshore hydrodynamics so as to affect shoreline erosion or accretion. Impacts on coastal habitats and fauna at the landfall site(s) would be avoided by locating the sea-to-shore transition vault in a paved area and, at the Dowses Beach Landfall Site, by using HDD to install the cable beneath the beach.

Comment Number	Comment	Response
0047-03	5. Danger to the aquifer	Thank you for your comment.
0048-10	Our sole aquifer is at stake with this potential project at Dowses Beach, both in the Dowses Beach area, and at the new substation locations.	Section 2 of the Draft EIS stated that the Phase 2 offshore export cables would make landfall within paved parking areas at either the Dowses Beach Landfall Site or the Wianno Avenue Landfall Site in the Town of Barnstable (Figure 2.1-8). The ocean-to-land transition at the Dowses Beach Landfall Site would employ the HDD technique, which would avoid or minimize impacts on the beach, intertidal zone, and nearshore areas. As noted in the New England Wind COP Vol I Section 3.3.1.8, the engineering trajectory of the HDD shows the cable passing at a depth of approximately 9 m (30 ft) below the ground surface at Mean High Water. With the expected use of HDD at the landfall sites and the target burial depth of the offshore export cables, New England Wind is not expected to permanently alter nearshore hydrodynamics so as to affect shoreline erosion or accretion. Impacts on coastal habitats and fauna at the landfall site(s) would be avoided by locating the sea-to-shore transition vault in a paved area and, at the Dowses Beach Landfall Site, by using HDD to install the cable beneath the beach.
0054-02	THE TOWN OF BARNSTABLE'S ATTORNEYS ARE ALSO CONCERNED ABOUT THE HUGE YET-TO-BE-BUILT SUBSTATIONS NEEDED TO RECEIVE THE HIGHEST AMOUNTS OF ELECTRIC POWER EVER TO COME TO OUR SHORES, NEVERMIND OUR TINY BEACH, DANGEROUSLY IMPACTING OUR SOLEAQUIFER FOR DRINKING WATER WTIH THEIR TOXIC CHEMICALS. THE AQUIFER ALSO EXTENDS DOWN TO EAST BAY, DOWSES BEACH, WHERE THE CENTERVILLE RIVER EMPTIES INTO THE BAYS.	Multiple cable landfall locations have been considered for each Phase of the Project to minimize disruption to residents and minimize impacts on the onshore environment. The Phase 2 offshore export cables will come ashore at the Dowses Beach Landfall Site in Barnstable, unless technical, logistical, grid interconnection, or other unforeseen issues arise that preclude the applicant from installing one or more Phase 2 offshore export cables within the OECC and a second grid interconnection point is needed (see Section 4.1.3.3 of COP Volume I in Appendix C). The ocean to land transition at the Dowses Beach Landfall Site will be made using horizontal directional drilling (HDD), which will avoid or minimize impacts to the beach, intertidal zone, and nearshore areas and achieve a burial significantly deeper than any expected erosion.
0068-03	*What about Osterville's very delicate waterway?*The potential of drilling through to the aquifer and destroying water sources for all of Cape Cod?	Section 2 of the Draft EIS stated that the Phase 2 offshore export cables would make landfall within paved parking areas at either the Dowses Beach Landfall Site or the Wianno Avenue Landfall Site in the Town of Barnstable (Figure 2.1-8). The ocean-to-land transition at the Dowses Beach Landfall Site would employ the HDD technique, which would avoid or minimize impacts on the beach, intertidal zone, and nearshore areas. As noted in the New England Wind COP Vol I Section 3.3.1.8, the engineering trajectory of the HDD shows the cable passing at a depth of approximately 9 m (30 ft) below the ground surface at Mean High Water. With the expected use of HDD at the landfall sites and the target burial depth of the offshore export cables, New England Wind is not expected to permanently alter nearshore hydrodynamics so as to affect shoreline

Comment Number	Comment	Response
		erosion or accretion. Impacts on coastal habitats and fauna at the landfall site(s) would be avoided by locating the sea-to-shore transition vault in a paved area and, at the Dowses Beach Landfall Site, by using HDD to install the cable beneath the beach.
0086-10	The location for the Avangrid cable landing at Dowses Beach is too close to the aquifer, the source of our precious drinking water. Will our drinking water get contaminated by accidental releases of hazardous materials and become undrinkable? What will this mean for the public health of the residents? BOEM states that ·construction of future offshore wind activities would contribute to an increased risk for hazardous materials spills, the release of trash, and marine debris. BOEM also states that "Accidental releases may increase as a result of future• OSW activities, "primarily during construction." OSW construction certainly includes the cable landing planned for Dowses Beach and BOEM cannot Ignore this major life and death concern. Humans cannot live without drinking water. BOEM cannot minimize the potential harm from hazardous materials that can spill on the shores of Dowses Beach and fatally contaminate our aquifer. Contrary to BOEM it does not have a negligible impact.	Section 2 of the Draft EIS stated that the Phase 2 offshore export cables would make landfall within paved parking areas at either the Dowses Beach Landfall Site or the Wianno Avenue Landfall Site in the Town of Barnstable (Figure 2.1-8). The ocean-to-land transition at the Dowses Beach Landfall Site would employ the HDD technique, which would avoid or minimize impacts on the beach, intertidal zone, and nearshore areas. As noted in the New England Wind COP Vol I Section 3.3.1.8, the engineering trajectory of the HDD shows the cable passing at a depth of approximately 9 m (30 ft) below the ground surface at Mean High Water. With the expected use of HDD at the landfall sites and the target burial depth of the offshore export cables, New England Wind is not expected to permanently alter nearshore hydrodynamics so as to affect shoreline erosion or accretion. Impacts on coastal habitats and fauna at the landfall site(s) would be avoided by locating the sea-to-shore transition vault in a paved area and, at the Dowses Beach Landfall Site, by using HDD to install the cable beneath the beach.
0086-11	[A spill] would mean the almost certain death of Osterville as a Cape Cod community as we now know it. It would render our real estate values, our homes nearly valueless. This means a loss of human habitat. That is a major adverse impact.	Section G.2.2 of the Draft EIS discusses the likelihood, volumes, and impacts of spills.

O.5.18 Bats

Table O.5-18: Responses to Comments on Bats

Comment Number	Comment	Response
0083-05	We recommend that BOEM... Require improved monitoring of... bat presence and collision rates by including radar, visual and thermal camera systems, and Motus and GPS tracking of both listed and non-listed species; commit to deploying collision detection technology, once commercially available.	The mitigation and monitoring measures that the applicant has committed to implement (including and in addition to those defined in the COP) are listed in Table H-1. Mitigation and monitoring measures that may result from reviews under the statutes listed above are shown in Table H 2. Some of these mitigation and monitoring measures are outside of BOEM's statutory and regulatory authority but could potentially be adopted and imposed by other governmental entities. Tables H-1 and H-2 provide descriptions of mitigation or monitoring measures, along with the resource or resources to which each measure applies. If the COP is approved or approved with conditions, it will include mitigation and monitoring measures developed under various consultations and permit reviews (e.g., ESA and Marine Mammal Protection Act) and adopted by the Final EIS Record of Decision (ROD). If BOEM decides to approve the COP, the ROD will state which of the additional mitigation and monitoring measures identified by BOEM in Tables H-1 and H-2 have been adopted; if measures are not adopted, the ROD will state why they were not. If the measures adopted differ substantially from those listed in Tables H-1 and H-2, BOEM will evaluate whether impacts analyses need to be modified to address those changes. The applicant will be required to implement the mitigation and monitoring measures applicable that are adopted in the ROD (Code of Federal Regulations, Title 40, Section 1505.3 [40 CFR § 1505.3]), and it will be required to certify compliance with certain terms and conditions as required under 30 CFR § 585.633(b).
0083-29	New England Wind's proposal to deploy acoustic monitors post-construction on a subset of structures is an excellent first step. We recommend that New England Wind install bat detector stations at nacelle height (rather than on convertor stations, turbine platforms, and/or buoys) so as to detect activity when bats are in the rotor swept zone and more likely at risk for collision. New England Wind and BOEM should confer with bat researchers to determine how many acoustic detectors should be deployed and how many years of post-construction data collected in order to best inform impact analyses. BOEM should require that all acoustic data be reported and submitted to NABat and/or the Bat Acoustic Monitoring Portal, BatAMP.	The mitigation and monitoring measures that the applicant has committed to implement (including and in addition to those defined in the COP) are listed in Table H-1. Mitigation and monitoring measures that may result from reviews under the statutes listed above are shown in Table H 2. Some of these mitigation and monitoring measures are outside of BOEM's statutory and regulatory authority but could potentially be adopted and imposed by other governmental entities. Tables H-1 and H-2 provide descriptions of mitigation or monitoring measures, along with the resource or resources to which each measure applies. If the COP is approved or approved with conditions, it will include mitigation and monitoring measures developed under various consultations and permit reviews (e.g., ESA and Marine Mammal Protection Act) and adopted by the Final EIS Record of Decision (ROD). If BOEM decides to approve the COP, the ROD will state which of the additional mitigation and monitoring measures identified by BOEM in Tables H-1 and H-2 have been adopted; if measures are not adopted, the

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		ROD will state why they were not. If the measures adopted differ substantially from those listed in Tables H-1 and H-2, BOEM will evaluate whether impacts analyses need to be modified to address those changes. The applicant will be required to implement the mitigation and monitoring measures applicable that are adopted in the ROD (Code of Federal Regulations, Title 40, Section 1505.3 [40 CFR § 1505.3]), and it will be required to certify compliance with certain terms and conditions as required under 30 CFR § 585.633(b).
0083-30	We are excited to see New England Wind proposing to install and potentially upgrade Motus towers and support radio-tagging of ESA-listed birds. We recommend that New England Wind also support the tagging of bats, which are underrepresented in Motus, to support understanding of bat activity offshore. Additionally, we suggest that BOEM require deployment of Motus towers pre-construction in coordination with the U.S. Fish and Wildlife Service's offshore Motus network, as BOEM is requiring new lessees in the New York Bight, Carolina Long Bay, and California. We also urge New England Wind to keep Motus towers deployed, active, and maintained for as much of the lifetime of the Project as possible. Data from these towers will not only inform New England Wind's adaptive management but also, as multiple offshore wind projects are developed, provide a long-term network of Motus towers in the offshore environment that can shed much needed light on species' movements offshore.	Annual monitoring reports will be used to assess the need for reasonable revisions (based on subject matter expert analysis) to the monitoring plan and may include new technologies as they become available for use in offshore environments.
0083-31	New England Wind plans to report dead or injured bats found on vessels and project structures. We note that assessing bat fatalities based on carcasses found on vessels and structures is unlikely to provide a meaningful estimate of bat fatalities, as carcasses can fall far from the wind turbine, based on carcass size, wind speed, turbine height, and other factors. BOEM should consult with experts to determine what, if any, inferences about total fatalities can be made from carcasses detected on vessels and project structures. As new technologies become available for monitoring fatalities at offshore wind facilities, such as strike detection technology, BOEM should require New England Wind to commit to deploying these and, if monitoring reveals that impacts to bats are non-negligible, BOEM should require New England Wind to employ minimization strategies and deterrent technologies.	Annual monitoring reports will be used to assess the need for reasonable revisions (based on subject matter expert analysis) to the monitoring plan and may include new technologies as they become available for use in offshore environments.
0083-33	Once again, we underscore the need for adaptive monitoring. Because the proposed monitoring methods are unlikely to provide estimates of bat collisions from New England Wind’s offshore operations but no collision detection technologies are validated and commercially available for use offshore, BOEM should require New England Wind to commit to deploying collision detection technology, once available. Strike detection	Annual monitoring reports will be used to assess the need for reasonable revisions (based on subject matter expert analysis) to the monitoring plan and may include new technologies as they become available for use in offshore environments.

Comment Number	Comment	Response
	technology is in development, with one technology to be tested on an offshore wind turbine in 2023. New England Wind should work with agency staff and researchers to determine the appropriate duration of post-construction fatality monitoring using their current proposed methods and for after collision detection systems are installed. The above recommendations should be included in the to-be-developed Avian and Bat Post- Construction Monitoring Plan and this plan should be made publicly available.	
0083-99	Little data exist on bats' use of the offshore environment and their interactions with offshore WTGs, although research at land-based wind facilities reveals that bat fatalities are common, with the potential for cumulative impacts to cause population-level declines. Because all bat species in Massachusetts have the potential to use the Project Area, have documented collisions with land-based wind energy facilities, and significant uncertainties exist around bats' use of the offshore environment, BOEM should not interpret a lack of data as a lack of impacts and instead work with New England Wind, the RWSC, and other developers to implement monitoring regimes to enable better understanding of bat impacts from offshore wind development.	The mitigation and monitoring measures that the applicant has committed to implement (including and in addition to those defined in the COP) are listed in Table H-1. Mitigation and monitoring measures that may result from reviews under the statutes listed above are shown in Table H 2. Some of these mitigation and monitoring measures are outside of BOEM's statutory and regulatory authority but could potentially be adopted and imposed by other governmental entities. Tables H-1 and H-2 provide descriptions of mitigation or monitoring measures, along with the resource or resources to which each measure applies. If the COP is approved or approved with conditions, it will include mitigation and monitoring measures developed under various consultations and permit reviews (e.g., ESA and Marine Mammal Protection Act) and adopted by the Final EIS Record of Decision (ROD). If BOEM decides to approve the COP, the ROD will state which of the additional mitigation and monitoring measures identified by BOEM in Tables H-1 and H-2 have been adopted; if measures are not adopted, the ROD will state why they were not. If the measures adopted differ substantially from those listed in Tables H-1 and H-2, BOEM will evaluate whether impacts analyses need to be modified to address those changes. The applicant will be required to implement the mitigation and monitoring measures applicable that are adopted in the ROD (Code of Federal Regulations, Title 40, Section 1505.3 [40 CFR § 1505.3]), and it will be required to certify compliance with certain terms and conditions as required under 30 CFR § 585.633(b).
0083-100	Assessing cumulative effects is essential to understanding impacts and this is particularly important for bats, where the best available scientific information indicates that cumulative impacts from land-based wind energy have the potential to cause significant population-level declines. Based on a cursory and incomplete review of offshore bat data which omits recent data, New England Wind's Draft EIS states that the Proposed Action and other reasonably foreseeable projects will result in negligible cumulative impacts to bats... insufficient research is provided to support this claim. Of particular concern for the accuracy of BOEM's cumulative impact analysis for bats is the geographic analysis area. BOEM defines	Appendix E of the Draft EIS stated that the impacts resultant from the planned activities scenario are the incremental impacts of the Proposed Action on the environment added to other reasonably foreseeable planned activities in the area (Code of Federal Regulations, Title 40, Section 1502.15 [40 CFR § 1502.15]). This appendix discussed resource-specific planned activities that could occur if the Proposed Action's impacts occur in the same location and timeframe as impacts from other reasonably foreseeable planned activities. Specifically, the Proposed Action here is the construction and installation (construction), operations and maintenance (operations), and conceptual decommissioning

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	the geographic analysis area as 100 mi offshore and 5 mi inland. This is at odds with the geographic analysis area used for bats for Vineyard Wind 1, where the area extended 100 mi inland. BOEM presents no research in the Draft EIS to support the assumption that bats found offshore exclusively use very near-coast habitat on land (i.e., five miles or less from the coasts) to support this limited geographic scope. A survey of available research on bat migration does not support BOEM's rationale for their limited inland geographic analysis area in New England Wind's Draft EIS. Although the migratory movements of bats, especially migratory tree bats, are poorly understood, many species of bats—both long-distance migrants like migratory tree bats but also cave bats—are capable of flights in excess of 100 km (62 mi), indicating that bats found offshore in wind development areas could also be found significant distances inland. Research from Canada found that 20 percent of little brown bat movements exceeded 500 km (311 mi), which is further supported by data from tracked little brown bats, which shows individuals using both coastal areas and making long-distance flights to locations significantly further inland than 0.5 mi. Hoary bats, which are capable of long distance flights over water, have been recorded traveling over 1,000 km (621 mi) and are thought capable of migrations in excess of 2,000 km (1243 mi). Furthermore, in addition to little brown bats, data in Motus tracks movements of individual silver-haired bats, eastern red bats, hoary bats, eastern small-footed bats, and Indiana bats between coastal areas on the east coast and areas in excess of 100 mi inland. These movements do not support a geographic analysis area that extends only five miles inland but rather suggest that bats exposed to offshore wind energy projects could be found far inland (and therefore exposed to land-based wind energy facilities) and that a geographic analysis area that extends 100 mi inland would be more appropriate. BOEM should conduct a thorough review of the literature on bat migration and radio- and GPS-tagged bats and select a boundary that better reflects the potential habitat use of exposed bats. This revised boundary will likely require an updated analysis to reflect that bats exposed to offshore wind projects could not only be exposed to multiple offshore wind facilities but also be exposed to land-based wind energy projects.	(decommissioning) of the New England Wind Project (proposed Project), a wind energy project that would occupy all of the Bureau of Ocean Energy Management's (BOEM) Renewable Energy Lease Area OCS-A 0534 and potentially a portion of Lease Area OCS-A 0501, hereafter referenced as the Southern Wind Development Area (SWDA).
0083-101	"The Draft EIS and COP point to low bat detections (despite low survey effort) in the offshore environment to support a finding of negligible impacts on bats. The limited data analyzed were collected in the offshore environment in the absence of offshore wind turbine structures. These data are unlikely to reflect bats' use of the SWDA once turbines are constructed due to bats' attraction to wind turbines. Although the Draft EIS and COP note that structures attract bats and could increase the presence of bats in the SWDA, the analyses do not seem to account for	Bats may be attracted to the WTG's as potential roosts, potentially increased prey base, visual attraction, etc. Despite intensive efforts and research, there is no definitive answer as to why bats may be attracted to WTG's. It is possible bats may encounter these WTG's, however bats' echolocation abilities and agility make it unlikely that these stationary objects or moving vessels would pose a collision risk to migrating individuals; this assumption is supported by the evidence that bat

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	the potential increased collision risk associated with attraction. Instead, the Draft EIS states that ""relatively little bat activity has been documented in open water habitat similar to the conditions in the SWDA[,]"" without acknowledging that the Proposed Action would significantly change the habitat by adding up to 135 new structures (130 WTGs and five electrical service platforms). Given the addition of structures post-construction and bats' known attraction to structures, including wind turbines, basing post-construction impact analyses on pre-construction data or other data collected in the absence of turbines is inappropriate. At land-based wind facilities, pre-construction bat activity does not correlate with post-construction fatalities, likely due to bats' attraction to turbine structures. Furthermore, recent research at buoys, vessels, and the two CVOW pilot project wind turbines off the Virginia coast found considerable differences in bat activity in the presence of turbines as compared to open water. This once again underscores that BOEM should not draw conclusions about New England Wind's impacts on bats based on sparse offshore acoustic data collected over open water.	carcasses are rarely found at the base of onshore turbine towers (Choi et al. 2020).
0083-102	Although the COP and Draft EIS acknowledge bats' attractions to wind turbines, this attraction is not clearly factored into the impact analyses as to how it could increase collision risk. In fact, the COP and Draft EIS explicitly state that the wide spacing of the turbines in the offshore environment would allow bats "to avoid operating WTGs" and thereby minimize risk of potential collisions. This assertion is starkly at odds with the best available scientific information on bats and wind turbines which indicates that bats will change course not to avoid, but to approach wind turbines. BOEM must consider the potential that bats could be attracted to offshore wind turbines—which would dramatically increase collision risk—and update the impact assessment accordingly.	Bats may be attracted to the WTG's as potential roosts, potentially increased prey base, visual attraction, etc. Despite intensive efforts and research, there is no definitive answer as to why bats may be attracted to WTG's. It is possible bats may encounter these WTG's, however bats' echolocation abilities and agility make it unlikely that these stationary objects or moving vessels would pose a collision risk to migrating individuals; this assumption is supported by the evidence that bat carcasses are rarely found at the base of onshore turbine towers (Choi et al. 2020).
0083-103	A lack of data on offshore movements of cave-hibernating bats, such as Myotis bats, including the newly endangered northern long-eared bat, does not imply a lack of impacts. Despite acknowledging that there is uncertainty around movements and behaviors of bats offshore, the COP and Draft EIS nevertheless conclude that impacts to cave-hibernating bats, including the now-endangered northern long-eared bat, are "expected to be insignificant to unlikely " as "no measurable impacts are expected due to the expected absence of bats within the SWDA." However, cave-hibernating bats may be found offshore more frequently and at greater distance than the assessments in the COP and Draft EIS indicate. Although the Draft EIS cites a study finding "very little offshore activity of Myotis species in the mid- Atlantic[,]" that same study actually identified Myotis calls at 63 percent of sites surveyed in the Mid-	The likelihood of detecting a cave bat is substantially less than tree bats in offshore areas (Pelletier et al. 2013). Regionally, both resident and migrant tree and cave bat species occur on islands within Nantucket Sound, indicating that over water crossings occur (MMS 2008). Dowling et al. (2017) documented little brown bats (Myotis lucifugus) and eastern red bats (Lasiurus borealis) leaving Nantucket Island and crossing open water in August and September, which is consistent with the migratory chronology of these species. In all cases, these movements were toward shore and away from the SWDA

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	Atlantic, and Myotis species were present at 89 percent of sites surveyed across the Gulf of Maine, Mid- Atlantic, and Great Lakes.	
0083-104	BOEM Should Include Indiana Bats in Impact Analyses. Although the Draft EIS and COP both state that the federally endangered Indiana bat is not known to occur in eastern Massachusetts, a tagged Indiana bat was detected just north of the SWDA, as discussed in Section III.H.3 of our scoping comments. We refer BOEM back to those scoping comments.	Appendix A of the Final EIS includes a discussion of the consultations for the proposed Project which includes consulting with the USFWS to determine those species with the potential to be effected by the proposed project and included in the Project-specific Biological Assessment for listed species. Section G.2.3 of the EIS includes a summary of the Biological Assessment and consultation results with USFWS will be included in the ROD.
0083-105	Although endangered northern long-eared bats could be present near onshore components of New England Wind, on Block Island, on Long Island, and on Martha's Vineyard, collision impacts are wholly dismissed, with the COP stating that "exposure of northern long-eared bats [to the SWDA] is expected to be insignificant and will not be discussed further." This conclusion relies on a lack of acoustic detections offshore coupled with a small study in which five tracked northern long-eared bats did not make offshore movements. While limited offshore movement data exist for bats, the presence of northern long-eared bats on both Martha's Vineyard and Nantucket indicates that this species can cross open water and the species has been tracked making long distance flights over water in the Gulf of Maine. Even though the COP and Draft EIS repeatedly express that northern long-eared bats would not be found offshore, the Biological Assessment notes that northern long-eared bats have been detected offshore, although this data is not included in the COP or Draft EIS. In fact, a northern long-eared bat was acoustically detected northeast of the SWDA, 34 km offshore within the South Fork Wind Farm Project Area. Furthermore, the lack of confirmed acoustic calls from northern long-eared bats in some offshore wind surveys does not necessarily support the conclusion that northern long-eared bats would not be found in the SWDA, as acoustic surveys often detect high frequency calls that could not be identified to species but could have been produced by northern long-eared bats. Given the potential for the species to use the offshore environment, the detection of a northern long- eared bat during South Fork Wind Farm surveys, and the lack of survey efforts to provide evidence of absence, BOEM should not consider exposure and risk to northern long-eared bats and other cave bats to be negligible. Instead, BOEM should consult with the U.S. Fish and Wildlife Service on potential collision impacts in the SWDA and require New England Wind to conduct or support monitoring to better understand the potential presence of and collision risk to northern long-eared bats in the SWDA.	The likelihood of detecting a cave bat is substantially less than tree bats in offshore areas (Pelletier et al. 2013). Regionally, both resident and migrant tree and cave bat species occur on islands within Nantucket Sound, indicating that over water crossings occur (MMS 2008). Dowling et al. (2017) documented little brown bats (*Myotis lucifugus*) and eastern red bats (*Lasiurus borealis*) leaving Nantucket Island and crossing open water in August and September, which is consistent with the migratory chronology of these species. In all cases, these movements were toward shore and away from the SWDA.

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0083-106	Because of the significant data gaps that preclude meaningful impact analyses for bats and offshore wind development, robust monitoring, especially post-construction monitoring, will be critical to better understanding potential impacts to bats from New England Wind's operations. We applaud BOEM for noting the need for adaptive monitoring and management for bats and are encouraged to see that New England Wind would allow "for the flexibility to include new technology... We recommend that BOEM strengthen this to a requirement that, as new technologies become available for monitoring impacts at offshore wind facilities (e.g., offshore turbine strike detection technology), New England Wind must commit to deploying these technologies. We strongly support BOEM's note that, if monitoring reveals that impacts to bats are non-negligible, New England Wind must develop new mitigation measures.	Section G.2.3.2 of the Final EIS has been revised to address this comment.
0083-107	To inform the forthcoming Avian and Bat Monitoring Plan, we provide the following monitoring and adaptive management recommendations. 1. Post-construction Monitoring. Because... pre-construction acoustic activity may not accurately predict post-construction fatalities for bats, a commitment to post-construction monitoring is critical to yielding a better understanding about how bats interact with offshore wind turbines. We appreciate that BOEM will require the data from bat surveys to be made accessible to agencies and that New England Wind must work with BOEM to ensure data are publicly available, and we encourage such data sharing to be promptly required... for all post-construction monitoring data.	Section G.2.3.2 of the Final EIS has been revised to address this comment.
0083-108	We strongly support BOEM's proposed measure that New England Wind recommend new mitigation measures or monitoring measures "[i]f the reported monitoring results deviate substantially from the impact analysis included in the Final EIS[.]" However, there is a lack of clarity as to what would trigger this adaptive management. The post-construction monitoring for bats that New England Wind has proposed - acoustic monitoring, carcass reports from vessels and structures, and post-construction boat surveys - are unlikely to provide comprehensive information on bat collisions, which are the greatest source of impacts to bats from the offshore components of offshore wind development. No research or methods are presented to translate monitoring data from these sources into bat impacts nor are we aware of any methods accepted by subject matter experts to do so.	The mitigation and monitoring measures that the applicant has committed to implement (including and in addition to those defined in the COP) are listed in Table H-1. Mitigation and monitoring measures that may result from reviews under the statutes listed above are shown in Table H 2. Some of these mitigation and monitoring measures are outside of BOEM's statutory and regulatory authority but could potentially be adopted and imposed by other governmental entities. Tables H-1 and H-2 provide descriptions of mitigation or monitoring measures, along with the resource or resources to which each measure applies. If the COP is approved or approved with conditions, it will include mitigation and monitoring measures developed under various consultations and permit reviews (e.g., ESA and Marine Mammal Protection Act) and adopted by the Final EIS Record of Decision (ROD). If BOEM decides to approve the COP, the ROD will state which of the additional mitigation and monitoring measures identified by BOEM in Tables H-1 and H-2 have been adopted; if measures are not adopted, the ROD will state why they were not. If the measures adopted differ

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		substantially from those listed in Tables H-1 and H-2, BOEM will evaluate whether impacts analyses need to be modified to address those changes. The applicant will be required to implement the mitigation and monitoring measures applicable that are adopted in the ROD (Code of Federal Regulations, Title 40, Section 1505.3 [40 CFR § 1505.3]), and it will be required to certify compliance with certain terms and conditions as required under 30 CFR § 585.633(b).
0083-124	We recommend that BOEM... Specify how impacts to bat.... species will be determined from monitoring data, as well as what will trigger adaptive management.	Annual monitoring reports will be used to assess the need for reasonable revisions (based on subject matter expert analysis) to the monitoring plan and may include new technologies as they become available for use in offshore environments.
0083-125	We recommend that BOEM... Consult with the U.S. Fish and Wildlife Service about potential offshore collision impacts to the northern long-eared bat, which was recently reclassified as endangered.	The mitigation and monitoring measures that the applicant has committed to implement (including and in addition to those defined in the COP) are listed in Table H-1. Mitigation and monitoring measures that may result from reviews under the statutes listed above are shown in Table H 2. Some of these mitigation and monitoring measures are outside of BOEM's statutory and regulatory authority but could potentially be adopted and imposed by other governmental entities. Tables H-1 and H-2 provide descriptions of mitigation or monitoring measures, along with the resource or resources to which each measure applies. If the COP is approved or approved with conditions, it will include mitigation and monitoring measures developed under various consultations and permit reviews (e.g., ESA and Marine Mammal Protection Act) and adopted by the Final EIS Record of Decision (ROD). If BOEM decides to approve the COP, the ROD will state which of the additional mitigation and monitoring measures identified by BOEM in Tables H-1 and H-2 have been adopted; if measures are not adopted, the ROD will state why they were not. If the measures adopted differ substantially from those listed in Tables H-1 and H-2, BOEM will evaluate whether impacts analyses need to be modified to address those changes. The applicant will be required to implement the mitigation and monitoring measures applicable that are adopted in the ROD (Code of Federal Regulations, Title 40, Section 1505.3 [40 CFR § 1505.3]), and it will be required to certify compliance with certain terms and conditions as required under 30 CFR § 585.633(b).

O.5.19 Birds

Table O.5-19: Responses to Comments on Birds

Comment Number	Comment	Response
0023-06	The installation of three conduits for the onshore export cables will occur under the beach from one end to the other, causing vibration, displacement, and noise, all of which are anathema to shorebirds.	Section G.2.4 of the Final EIS has been updated to address this comment.
0038-02	Where will the Piping plovers have their nests if this happens?	Section G.2.4 of the Draft EIS addressed piping plovers.
0046-04	What of the multiple nests in the whole area of the endangered piping plover and the magnificent Ospreys. They and other species will be harmed not only by the wind turbines themselves but for certain by the years of heavy equipment and construction.	Section G.2.4 of the Draft EIS addressed piping plovers.
0048-09	The federally protected least terns, piping plovers, osprey and other migratory birds and wildlife make Dowses Beach their home year-round.	Section G.2.4 of the Draft EIS addressed the potential impacts to birds.
0083-03	Support from the offshore wind industry for... [bird] conservation measures could help mitigate impacts from the development of offshore wind. Mitigation restoration actions that are taken should prioritize species of greatest conservation need. Such prio	The mitigation and monitoring measures that the applicant has committed to implement (including and in addition to those defined in the COP) are listed in Table H-1. Mitigation and monitoring measures that may result from reviews under the statutes listed above are shown in Table H 2. Some of these mitigation and monitoring measures are outside of BOEM's statutory and regulatory authority but could potentially be adopted and imposed by other governmental entities. Tables H-1 and H-2 provide descriptions of mitigation or monitoring measures, along with the resource or resources to which each measure applies. If the COP is approved or approved with conditions, it will include mitigation and monitoring measures developed under various consultations and permit reviews (e.g., ESA and Marine Mammal Protection Act) and adopted by the Final EIS Record of Decision (ROD). If BOEM decides to approve the COP, the ROD will state which of the additional mitigation and monitoring measures identified by BOEM in Tables H-1 and H-2 have been adopted; if measures are not adopted, the ROD will state why they were not. If the measures adopted differ substantially from those listed in Tables H-1 and H-2, BOEM will evaluate whether impacts analyses need to be modified to address those changes. The applicant will be required to implement the mitigation and monitoring measures applicable that are adopted in the ROD (Code of Federal Regulations, Title 40, Section 1505.3 [40 CFR § 1505.3]), and it will be required to certify compliance with certain terms and conditions as required under 30 CFR § 585.633(b).

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0083-04	We recommend that BOEM... Require improved monitoring of bird.... presence and collision rates by including radar, visual and thermal camera systems, and Motus and GPS tracking of both listed and non-listed species; commit to deploying collision detection technology, once commercially available.	The mitigation and monitoring measures that the applicant has committed to implement (including and in addition to those defined in the COP) are listed in Table H-1. Mitigation and monitoring measures that may result from reviews under the statutes listed above are shown in Table H 2. Some of these mitigation and monitoring measures are outside of BOEM's statutory and regulatory authority but could potentially be adopted and imposed by other governmental entities. Tables H-1 and H-2 provide descriptions of mitigation or monitoring measures, along with the resource or resources to which each measure applies. If the COP is approved or approved with conditions, it will include mitigation and monitoring measures developed under various consultations and permit reviews (e.g., ESA and Marine Mammal Protection Act) and adopted by the Final EIS Record of Decision (ROD). If BOEM decides to approve the COP, the ROD will state which of the additional mitigation and monitoring measures identified by BOEM in Tables H-1 and H-2 have been adopted; if measures are not adopted, the ROD will state why they were not. If the measures adopted differ substantially from those listed in Tables H-1 and H-2, BOEM will evaluate whether impacts analyses need to be modified to address those changes. The applicant will be required to implement the mitigation and monitoring measures applicable that are adopted in the ROD (Code of Federal Regulations, Title 40, Section 1505.3 [40 CFR § 1505.3]), and it will be required to certify compliance with certain terms and conditions as required under 30 CFR § 585.633(b).
0083-20	While there is uncertainty regarding the impacts of these offshore wind facilities on the shore-nesting Roseate Tern, Piping Plover and other coastal waterbirds, habitat management and stewardship measures to enhance breeding success are well understood but still underfunded. We recommend that the project consider supporting conservation projects to maintain and improve productivity of these birds.	BOEM and the USFWS established a Memorandum of Understanding (MOU) on June 4, 2009 to strengthen migratory bird conservation through enhanced collaboration between the agencies. This MOU identifies specific areas in which cooperation between the agencies would substantially contribute to the conservation and management of migratory birds including the Piping Plover, Roseate Tern, and their habitats.
0083-22	Noise monitoring and abatement during impulsive pile driving operations for monopile installation has been an established practice in other Atlantic wind energy project areas. Distances to the injury-causing sound levels measured in one study varied from 0.7 to 3.1 km for the marine mammals during the installation activities. Consequently, adequate spatial buffers or suitable observation distances may be necessary for any study designs that are used to monitor avian reactions to subsurface acoustic disturbance.	Section G.2.4 of the Draft EIS addressed the potential impacts to birds.
0083-23	We recommend the following changes to the New England Wind monitoring framework for birds:... Prioritize GPS tracking rather than Motus tracking wherever possible. Currently, satellite- uploading GPS transmitters weighing 4 g are commercially available, meaning that any individual bird or bat weighing ?133 g could be tracked using GPS	BOEM requires the applicant to coordinate with BOEM and the USFWS to finalize a bird monitoring plan prior to the start of construction. Acoustic monitoring devices will be utilized to estimate the exposure of ESA species and other migratory birds to the wind facility. Periodic monitoring progress reports as well as annual reports will be submitted and reviewed by BOEM

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	without exceeding the accepted 3 percent body mass threshold for ideal transmitter weight. This number will likely decrease over time, as transmitters weighing 1 g (suitable for a 33 g animal) are currently in development.	and the USFWS. The review would include the potential need for revisions to the monitoring plan.
0083-24	We recommend the following changes to the New England Wind monitoring framework for birds:... Consider adding focal, non-ESA listed bird species for a tracking study across multiple wind area projects to detect whether and how avoidance, attraction, collision risk, and/or displacement may occur around New England Wind and adjoining lease areas. Selection of such a species can rely on the results of either project site surveys in aggregate or the MDAT data, preferably both, that identify those species that are most widespread across multiple offshore wind farms. A cross-project tracking study could also build on previous studies that have identified the most susceptible species of marine birds.	BOEM has reviewed collision risks with established offshore wind farms off the coast of Denmark and England. Without the collision detection technology to provide location specific data, similar outcomes are expected for the NE Wind project.
0083-25	We recommend the following changes to the New England Wind monitoring framework for birds:... Minimize acoustic disturbance from construction and operations on diving marine birds. One means to accomplish this objective is to co-place seabird observers with marine mammal observers (PSOs) during acoustic disturbance activities and monitoring periods. However, underwater acoustic disturbance to diving marine birds would be obviated if pile-driving and other noisy activities are scheduled largely outside the winter and early spring months (November-April) when few or no such diving species would be present in the wind farm area.	The mitigation and monitoring measures that the applicant has committed to implement (including and in addition to those defined in the COP) are listed in Table H-1. Mitigation and monitoring measures that may result from reviews under the statutes listed above are shown in Table H 2. Some of these mitigation and monitoring measures are outside of BOEM's statutory and regulatory authority but could potentially be adopted and imposed by other governmental entities. Tables H-1 and H-2 provide descriptions of mitigation or monitoring measures, along with the resource or resources to which each measure applies. If the COP is approved or approved with conditions, it will include mitigation and monitoring measures developed under various consultations and permit reviews (e.g., ESA and Marine Mammal Protection Act) and adopted by the Final EIS Record of Decision (ROD). If BOEM decides to approve the COP, the ROD will state which of the additional mitigation and monitoring measures identified by BOEM in Tables H-1 and H-2 have been adopted; if measures are not adopted, the ROD will state why they were not. If the measures adopted differ substantially from those listed in Tables H-1 and H-2, BOEM will evaluate whether impacts analyses need to be modified to address those changes. The applicant will be required to implement the mitigation and monitoring measures applicable that are adopted in the ROD (Code of Federal Regulations, Title 40, Section 1505.3 [40 CFR § 1505.3]), and it will be required to certify compliance with certain terms and conditions as required under 30 CFR § 585.633(b).
0083-26	We recommend the following changes to the New England Wind monitoring framework for birds:... Expand monitoring of avian displacement to include detecting avoidance at individual wind turbines across relevant spatial scales. Meso- and macro-scale displacement can	The mitigation and monitoring measures that the applicant has committed to implement (including and in addition to those defined in the COP) are listed in Table H-1. Mitigation and monitoring measures that may result from reviews under the statutes listed above are shown in Table H 2. Some of

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	be studied with high-definition digital aerial surveys using established protocols and accepted survey designs. Micro-scale displacement should be studied with automated, remote instrumentation that quantifies continuous bird flux at risk height, but also, where feasible, detect and record the approach distances, directional changes, and collision impacts of individual birds and bats.	these mitigation and monitoring measures are outside of BOEM's statutory and regulatory authority but could potentially be adopted and imposed by other governmental entities. Tables H-1 and H-2 provide descriptions of mitigation or monitoring measures, along with the resource or resources to which each measure applies. If the COP is approved or approved with conditions, it will include mitigation and monitoring measures developed under various consultations and permit reviews (e.g., ESA and Marine Mammal Protection Act) and adopted by the Final EIS Record of Decision (ROD). If BOEM decides to approve the COP, the ROD will state which of the additional mitigation and monitoring measures identified by BOEM in Tables H-1 and H-2 have been adopted; if measures are not adopted, the ROD will state why they were not. If the measures adopted differ substantially from those listed in Tables H-1 and H-2, BOEM will evaluate whether impacts analyses need to be modified to address those changes. The applicant will be required to implement the mitigation and monitoring measures applicable that are adopted in the ROD (Code of Federal Regulations, Title 40, Section 1505.3 [40 CFR § 1505.3]), and it will be required to certify compliance with certain terms and conditions as required under 30 CFR § 585.633(b).
0083-27	We recommend the following changes to the New England Wind monitoring framework for birds:... Include a reasonable requirement for timely reporting of all data (e.g., all data collected during monitoring efforts must be made available within a year after collection, much as bird and bat mortality must be reported). Although New England Wind states it will work with BOEM to ensure data is publicly available, no time limit is given for this availability. Rapid dissemination of monitoring data will ensure that it reaches the public domain and can be accessed by researchers working on affected species throughout their ranges, thereby enabling rapid integration of findings across multiple offshore wind energy projects to gauge cumulative effects more fully.	The mitigation and monitoring measures that the applicant has committed to implement (including and in addition to those defined in the COP) are listed in Table H-1. Mitigation and monitoring measures that may result from reviews under the statutes listed above are shown in Table H 2. Some of these mitigation and monitoring measures are outside of BOEM's statutory and regulatory authority but could potentially be adopted and imposed by other governmental entities. Tables H-1 and H-2 provide descriptions of mitigation or monitoring measures, along with the resource or resources to which each measure applies. If the COP is approved or approved with conditions, it will include mitigation and monitoring measures developed under various consultations and permit reviews (e.g., ESA and Marine Mammal Protection Act) and adopted by the Final EIS Record of Decision (ROD). If BOEM decides to approve the COP, the ROD will state which of the additional mitigation and monitoring measures identified by BOEM in Tables H-1 and H-2 have been adopted; if measures are not adopted, the ROD will state why they were not. If the measures adopted differ substantially from those listed in Tables H-1 and H-2, BOEM will evaluate whether impacts analyses need to be modified to address those changes. The applicant will be required to implement the mitigation and monitoring measures applicable that are adopted in the ROD (Code of Federal Regulations, Title 40, Section 1505.3 [40 CFR § 1505.3]), and it will be required to certify compliance with certain terms and conditions as required under 30 CFR § 585.633(b).

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0083-28	We recommend the following changes to the New England Wind monitoring framework for birds:... Describe acceptable levels of impact and specify mitigation to be taken. The Mitigation and Monitoring plan anticipates merely documenting any dead or injured birds that happen to be found on vessels and structures during construction, operations, and decommissioning. Effective monitoring and mitigation activity should also include describing justifying: (a) how carcass observations or other collision and displacement monitoring results can be extrapolated to achieve realistic estimates of the mortality within a population-level context, (b) what thresholds (demographic, mortality, etc.) are to be used to initiate the mitigation activities, (c) what mitigation activities for restoration will be considered to offset the observed impacts, including why those restoration actions are appropriate for the particular taxa involved, and (d) what measures of success are to be used to confirm that restoration management strategies have been successful.	The mitigation and monitoring measures that the applicant has committed to implement (including and in addition to those defined in the COP) are listed in Table H-1. Mitigation and monitoring measures that may result from reviews under the statutes listed above are shown in Table H 2. Some of these mitigation and monitoring measures are outside of BOEM's statutory and regulatory authority but could potentially be adopted and imposed by other governmental entities. Tables H-1 and H-2 provide descriptions of mitigation or monitoring measures, along with the resource or resources to which each measure applies. If the COP is approved or approved with conditions, it will include mitigation and monitoring measures developed under various consultations and permit reviews (e.g., ESA and Marine Mammal Protection Act) and adopted by the Final EIS Record of Decision (ROD). If BOEM decides to approve the COP, the ROD will state which of the additional mitigation and monitoring measures identified by BOEM in Tables H-1 and H-2 have been adopted; if measures are not adopted, the ROD will state why they were not. If the measures adopted differ substantially from those listed in Tables H-1 and H-2, BOEM will evaluate whether impacts analyses need to be modified to address those changes. The applicant will be required to implement the mitigation and monitoring measures applicable that are adopted in the ROD (Code of Federal Regulations, Title 40, Section 1505.3 [40 CFR § 1505.3]), and it will be required to certify compliance with certain terms and conditions as required under 30 CFR § 585.633(b).
0083-82	Avian risks from offshore wind energy development can be curtailed first and foremost by avoiding the greatest concentrations of marine birds occurring on the OCS. Optimal siting relies on some measure of severity in spatial conflict between bird protection and social goals such as efficient generation of offshore wind power. New England Wind lies outside the primary use areas of most coastally breeding bird species, yet also far enough away from elevated marine bird concentrations at and beyond the continental shelf edge. The offshore distances for the project (>30 km) thereby allows the Project to avoid offshore habitats with the highest aggregate abundance of marine birds, appropriately following the mitigation hierarchy. At the outset, New England Wind implements a strategy of avoidance within the mitigation hierarchy to reduce the avian risks within a larger regional context. By dodging those offshore habitats with the highest aggregate abundance of marine birds, the Project is instead located in less productive marine habitats over the middle continental shelf where bird abundance is generally lower.	Section G.2.4 of the Draft EIS addressed the potential impacts to birds.
0083-83	The New England Wind Draft EIS and COP for offshore marine birds rely on three primary data sources: (1) the New England Wind boat-	Section G.2.4 of the Draft EIS addressed the potential impacts to birds.

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	based surveys, (2) Mascen aerial surveys, which cover the Massachusetts WEA, and (3) the Marine-life Data and Analysis Team (MDAT) marine bird relative density and distribution model. In combination these reveal that the SWDA hosts a diverse assemblage of diving marine birds that are present seasonally, including cormorants, sea ducks, acids, and loons, some or all of which occur primarily during fall, winter, or spring... We agree that the Black-capped Petrel is not likely to occur in or near New England Wind, however, as this species typically inhabits deep pelagic waters beyond the continental shelf edge.	
0083-84	Red Knot, Piping Plover, and Roseate Tern all migrate broadly through offshore waters of the Mid- Atlantic Bight at or very near New England Wind as well as adjacent wind energy project sites in this region. Past tracking studies clearly indicate that at least some individuals of these species can pass through Rhode Island and Massachusetts WEAs. Consequently, the post-construction monitoring programs for all three of these listed species should remain effectually robust to detect any impacts from offshore wind projects. We are pleased to see that up to 150 Motus tags per year for up to 3 years would be deployed to track Roseate Terns, Common Terns, and/or nocturnal passerine migrants. Although the post-construction monitoring program also anticipates installing Motus receivers on turbines in the SWDA, including upgrades or maintenance of two onshore Motus receivers, the total number and location(s) of the offshore receiver stations is not specified. We recommend optimizing the number and/or the dispersion of stations ultimately selected using a design tool being developed under a New York State Energy Research and Development Authority (NYSERDA) project.	The mitigation and monitoring measures that the applicant has committed to implement (including and in addition to those defined in the COP) are listed in Table H-1. Mitigation and monitoring measures that may result from reviews under the statutes listed above are shown in Table H 2. Some of these mitigation and monitoring measures are outside of BOEM's statutory and regulatory authority but could potentially be adopted and imposed by other governmental entities. Tables H-1 and H-2 provide descriptions of mitigation or monitoring measures, along with the resource or resources to which each measure applies. If the COP is approved or approved with conditions, it will include mitigation and monitoring measures developed under various consultations and permit reviews (e.g., ESA and Marine Mammal Protection Act) and adopted by the Final EIS Record of Decision (ROD). If BOEM decides to approve the COP, the ROD will state which of the additional mitigation and monitoring measures identified by BOEM in Tables H-1 and H-2 have been adopted; if measures are not adopted, the ROD will state why they were not. If the measures adopted differ substantially from those listed in Tables H-1 and H-2, BOEM will evaluate whether impacts analyses need to be modified to address those changes. The applicant will be required to implement the mitigation and monitoring measures applicable that are adopted in the ROD (Code of Federal Regulations, Title 40, Section 1505.3 [40 CFR § 1505.3]), and it will be required to certify compliance with certain terms and conditions as required under 30 CFR § 585.633(b).
0083-85	Most of the New England population of Piping Plovers nests in Massachusetts. After consultation with the Massachusetts Division of Fisheries and Wildlife, Natural Heritage and Endangered Species Program (NHESP), a draft Piping Plover Protection Plan (PPPP) was prepared specifically to avoid noise-related impacts to nesting Piping Plovers from horizontal directional drilling (HDD) activities associated with the New England Wind 1 Connector at the Covell's Beach Landfall Site in Barnstable, Massachusetts. Certain measures are to be taken to protect this state-listed species and its habitats during the	The mitigation and monitoring measures that the applicant has committed to implement (including and in addition to those defined in the COP) are listed in Table H-1. Mitigation and monitoring measures that may result from reviews under the statutes listed above are shown in Table H 2. Some of these mitigation and monitoring measures are outside of BOEM's statutory and regulatory authority but could potentially be adopted and imposed by other governmental entities. Tables H-1 and H-2 provide descriptions of mitigation or monitoring measures, along with the resource or resources to which each measure applies.

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	nesting season (April 1 - August 31), including but not limited to work stoppages, and a contingency plan implemented should any problems arise during HDD cable installation. We strongly endorse plan monitoring by qualified biologists from an accredited organization or an individual who has at least one year of previous experience at an accredited organization conducting shorebird monitoring for Piping Plovers.	If the COP is approved or approved with conditions, it will include mitigation and monitoring measures developed under various consultations and permit reviews (e.g., ESA and Marine Mammal Protection Act) and adopted by the Final EIS Record of Decision (ROD). If BOEM decides to approve the COP, the ROD will state which of the additional mitigation and monitoring measures identified by BOEM in Tables H-1 and H-2 have been adopted; if measures are not adopted, the ROD will state why they were not. If the measures adopted differ substantially from those listed in Tables H-1 and H-2, BOEM will evaluate whether impacts analyses need to be modified to address those changes. The applicant will be required to implement the mitigation and monitoring measures applicable that are adopted in the ROD (Code of Federal Regulations, Title 40, Section 1505.3 [40 CFR § 1505.3]), and it will be required to certify compliance with certain terms and conditions as required under 30 CFR § 585.633(b).
0083-86	Birds other than imperiled species are also potentially vulnerable to offshore wind or have equally uncertain population trends in relation to expanding footprints of wind energy infrastructure in the region around New England Wind. Moreover, larger-bodied species of birds can make better study subjects for understanding migratory connectivity and for determining optimal locations to monitor and mitigate populations subject to offshore wind farms. We note that no other birds, including any pelagic marine species, are the explicit subject in the SWDA monitoring framework. This oversight in monitoring coverage for non-ESA listed (but still vulnerable) focal bird species around wind energy infrastructure needs better justification. For example, recent tracking studies of White-winged Scoters in southern New England have revealed frequent commuting flights between Nantucket Sound and Long Island Sound, and medium-high relative use of offshore habitats in the SWDA.	Section G.2.4 of the Draft EIS addressed the potential impacts to birds.
0083-87	When studied, underwater hearing abilities for diving bird taxa are discovered as more sensitive than expected, with hearing thresholds in the frequency band 1–4 kHz comparable to those measured in seals and toothed whales. Diving marine birds foraging The monitoring framework for New England Wind does not address how acoustic disturbances from construction and related operations might cause harm to diving marine birds. We refer specifically to lethal or sublethal injury from sound pressure waves caused by high intensity acoustic pulses, not to avoidance or temporary displacements that can arise solely from avian changes in behavior. Because seabird taxa sensitive to this impact are more prevalent during winter, minimization activities like curtailment may be justified to abate harm. Capable of diving to 180 m depths, Razorbills are already known to flush readily	The mitigation and monitoring measures that the applicant has committed to implement (including and in addition to those defined in the COP) are listed in Table H-1. Mitigation and monitoring measures that may result from reviews under the statutes listed above are shown in Table H 2. Some of these mitigation and monitoring measures are outside of BOEM's statutory and regulatory authority but could potentially be adopted and imposed by other governmental entities. Tables H-1 and H-2 provide descriptions of mitigation or monitoring measures, along with the resource or resources to which each measure applies. If the COP is approved or approved with conditions, it will include mitigation and monitoring measures developed under various consultations and permit reviews (e.g., ESA and Marine Mammal Protection Act) and adopted by the Final EIS Record of Decision (ROD). If BOEM decides to

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	from loud noises, they are prevalent during winter in waters of the New England Wind, and like other acids they are vulnerable to displacement and macro-avoidance. Densities of diving birds are typically highest in winter months on inner and middle shelf habitats, at least in this portion of the Atlantic OCS. Therefore, shifting the construction season for pile-driving and other noisy operations may eliminate altogether any underwater acoustic disturbance to diving birds. If time/area closures are not practical, other methods for sound abatement may include: (1) establishing safety zones monitored by visual observers or passive acoustics, and that trigger shut-down or low- power operations if large diving bird flocks enter these zones, (2) using noise reduction gear like bubble curtains around pile driving when diving birds are present, and (3) deploying other noise-source modifications, such as soft starts (currently included in the Draft EIS).	approve the COP, the ROD will state which of the additional mitigation and monitoring measures identified by BOEM in Tables H-1 and H-2 have been adopted; if measures are not adopted, the ROD will state why they were not. If the measures adopted differ substantially from those listed in Tables H-1 and H-2, BOEM will evaluate whether impacts analyses need to be modified to address those changes. The applicant will be required to implement the mitigation and monitoring measures applicable that are adopted in the ROD (Code of Federal Regulations, Title 40, Section 1505.3 [40 CFR § 1505.3]), and it will be required to certify compliance with certain terms and conditions as required under 30 CFR § 585.633(b)."
0083-88	We also suggest more transparent discussion of areas where minimal risk is assumed based on limited information or high uncertainty. This includes effects of low frequency sound (infrasound) during turbine operations, potentially interfering with avian navigation. While there is limited information available to test or contextualize infrasound impacts on birds, more monitoring is needed. Similarly, the indirect effects to marine birds from redistribution of forage fish populations after construction are also not discussed. Installation of turbines at New England Wind will likely affect forage fish populations by removing existing hard and soft bottom substrates and replacing them with vertical structures that act as artificial reefs. Given high uncertainty in the synergistic effects of these alterations on fish and secondary consequences for avian habitat use and energetics, the potential for such effects should be acknowledged and incorporated into adaptive monitoring frameworks.	The mitigation and monitoring measures that the applicant has committed to implement (including and in addition to those defined in the COP) are listed in Table H-1. Mitigation and monitoring measures that may result from reviews under the statutes listed above are shown in Table H 2. Some of these mitigation and monitoring measures are outside of BOEM's statutory and regulatory authority but could potentially be adopted and imposed by other governmental entities. Tables H-1 and H-2 provide descriptions of mitigation or monitoring measures, along with the resource or resources to which each measure applies. If the COP is approved or approved with conditions, it will include mitigation and monitoring measures developed under various consultations and permit reviews (e.g., ESA and Marine Mammal Protection Act) and adopted by the Final EIS Record of Decision (ROD). If BOEM decides to approve the COP, the ROD will state which of the additional mitigation and monitoring measures identified by BOEM in Tables H-1 and H-2 have been adopted; if measures are not adopted, the ROD will state why they were not. If the measures adopted differ substantially from those listed in Tables H-1 and H-2, BOEM will evaluate whether impacts analyses need to be modified to address those changes. The applicant will be required to implement the mitigation and monitoring measures applicable that are adopted in the ROD (Code of Federal Regulations, Title 40, Section 1505.3 [40 CFR § 1505.3]), and it will be required to certify compliance with certain terms and conditions as required under 30 CFR § 585.633(b).
0083-89	New England Wind intends to reduce illumination to lessen the potential impacts of nighttime light on migratory birds. To reduce long-term phototactic attraction, New England Wind proposes to use minimal lighting intensity on vessels, wind turbine generators, and	The mitigation and monitoring measures that the applicant has committed to implement (including and in addition to those defined in the COP) are listed in Table H-1. Mitigation and monitoring measures that may result from reviews under the statutes listed above are shown in Table H 2. Some of

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	electric service platforms to permit safe construction, operations, and decommissioning activities while still reducing potential attraction of birds. In addition, and conditional on USCG approval, the top of each light will be shielded to prevent upward illumination to minimize potential of attracting migratory birds. An Aircraft Detection Lighting System (ADLS) efficacy analysis indicates that an ADLS-controlled obstruction lighting system could result in over a 99% reduction in system activated duration as compared to a traditional always-on obstruction lighting system. Although reduced lighting practices might reduce potential impacts to avian species, no provisions for studying avian response(s) to lights has been made in the monitoring framework.	these mitigation and monitoring measures are outside of BOEM's statutory and regulatory authority but could potentially be adopted and imposed by other governmental entities. Tables H-1 and H-2 provide descriptions of mitigation or monitoring measures, along with the resource or resources to which each measure applies. If the COP is approved or approved with conditions, it will include mitigation and monitoring measures developed under various consultations and permit reviews (e.g., ESA and Marine Mammal Protection Act) and adopted by the Final EIS Record of Decision (ROD). If BOEM decides to approve the COP, the ROD will state which of the additional mitigation and monitoring measures identified by BOEM in Tables H-1 and H-2 have been adopted; if measures are not adopted, the ROD will state why they were not. If the measures adopted differ substantially from those listed in Tables H-1 and H-2, BOEM will evaluate whether impacts analyses need to be modified to address those changes. The applicant will be required to implement the mitigation and monitoring measures applicable that are adopted in the ROD (Code of Federal Regulations, Title 40, Section 1505.3 [40 CFR § 1505.3]), and it will be required to certify compliance with certain terms and conditions as required under 30 CFR § 585.633(b).
0083-90	We stress that phototaxis (i.e., the disoriented attraction of birds drawn from some distance to lights on turbine towers), creates conditions in which the bird numbers attracted will scale as the square of the range from which they are drawn, thereby greatly increasing potential for adverse impacts (i.e., higher collision risk). More research and monitoring is needed to measure distances at which phototaxis operates in seabirds (especially the susceptible procellariiforms). In the context of collision with turbine blades, the probability of collision is inflated by flux density as the disoriented birds pass repeatedly through rotor swept areas. Neither the avian risk assessment nor avian monitoring framework proposed suitably address the potential of high flux density caused by turbine-associated phototaxis.	The mitigation and monitoring measures that the applicant has committed to implement (including and in addition to those defined in the COP) are listed in Table H-1. Mitigation and monitoring measures that may result from reviews under the statutes listed above are shown in Table H 2. Some of these mitigation and monitoring measures are outside of BOEM's statutory and regulatory authority but could potentially be adopted and imposed by other governmental entities. Tables H-1 and H-2 provide descriptions of mitigation or monitoring measures, along with the resource or resources to which each measure applies. If the COP is approved or approved with conditions, it will include mitigation and monitoring measures developed under various consultations and permit reviews (e.g., ESA and Marine Mammal Protection Act) and adopted by the Final EIS Record of Decision (ROD). If BOEM decides to approve the COP, the ROD will state which of the additional mitigation and monitoring measures identified by BOEM in Tables H-1 and H-2 have been adopted; if measures are not adopted, the ROD will state why they were not. If the measures adopted differ substantially from those listed in Tables H-1 and H-2, BOEM will evaluate whether impacts analyses need to be modified to address those changes. The applicant will be required to implement the mitigation and monitoring measures applicable that are adopted in the ROD (Code of Federal Regulations, Title 40, Section 1505.3 [40 CFR § 1505.3]), and it will be required to certify compliance with certain terms and conditions as required under 30 CFR § 585.633(b).

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0083-91	Neither the avian risk assessment nor avian monitoring framework proposed suitably address the potential of high flux density caused by turbine-associated phototaxis. Previous research indicates that spatial responses of marine birds to offshore wind infrastructure can consist of (1) displacement around, (2) attraction to, (3) or neutral association with the overall project footprint. One large literature review of North American and European bird reactions to wind farms indicates that displacement in offshore habitats is 2-3 times more prevalent than attraction. Across 71 peer-reviewed studies, avian displacement distances from turbines (mean ± standard deviation) ranged from 116 ± 64 m in Anseriformes (ducks), 2,517 ± 5,560 m in Charadriiformes (gulls, terns, shorebirds), and 12,062 ± 6911 m in Gaviiformes (loons).	Section G.2.4 of the Draft EIS addressed the potential impacts to birds.
0083-92	For post-construction monitoring, New England Wind apparently intends to rely solely on pre- and post- construction boat surveys, supplemented by avian behavior point count surveys at individual WTGs. Although this methodology might furnish some information about bird displacement and collision vulnerability, no descriptions or citations are given for the study design(s) that would be applied to evaluate how avian displacement is manifest at New England Wind and neighboring wind farms. To detect differences in avian distribution pre- and post-construction, surveys must be designed and implemented to account for detection bias, to adequately cover the lease area and its surroundings, and to collect data at the necessary resolution. The Mitigation and Monitoring plan makes no mention of how to detect or estimate micro-avoidance, i.e., the behavioral ability of birds and bats to make last minute adjustments at small scales to avoid collision with rotors and other turbine structures.	Section G.2.4 of the Draft EIS addressed the potential impacts to birds.
0083-97	We recommend the following changes to the New England Wind monitoring framework for birds: 1. Add visual camera and thermal/infrared camera systems at substations and selected turbines. This will improve detection and identification of nocturnal migrants and help better estimate collision rates and avoidance behaviors. Incorporating multiple sensor types, or using available integrated monitoring systems that combine acoustic detection with visual camera technologies, thermographic imaging, and very high frequency (VHF) detection, would be a much more appropriate system to collect the information being sought.	The mitigation and monitoring measures that the applicant has committed to implement (including and in addition to those defined in the COP) are listed in Table H-1. Mitigation and monitoring measures that may result from reviews under the statutes listed above are shown in Table H 2. Some of these mitigation and monitoring measures are outside of BOEM's statutory and regulatory authority but could potentially be adopted and imposed by other governmental entities. Tables H-1 and H-2 provide descriptions of mitigation or monitoring measures, along with the resource or resources to which each measure applies. If the COP is approved or approved with conditions, it will include mitigation and monitoring measures developed under various consultations and permit reviews (e.g., ESA and Marine Mammal Protection Act) and adopted by the Final EIS Record of Decision (ROD). If BOEM decides to approve the COP, the ROD will state which of the additional mitigation and monitoring measures identified by BOEM in Tables H-1 and H-2 have been

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		adopted; if measures are not adopted, the ROD will state why they were not. If the measures adopted differ substantially from those listed in Tables H-1 and H-2, BOEM will evaluate whether impacts analyses need to be modified to address those changes. The applicant will be required to implement the mitigation and monitoring measures applicable that are adopted in the ROD (Code of Federal Regulations, Title 40, Section 1505.3 [40 CFR § 1505.3]), and it will be required to certify compliance with certain terms and conditions as required under 30 CFR § 585.633(b).
0083-98	Support from the offshore wind industry for... [bird] conservation measures could help mitigate impacts from the development of offshore wind. Mitigation restoration actions that are taken should prioritize species of greatest conservation need. Such priorities may include ESA-listed species like Roseate Tern, or species predicted to have the highest likelihood of cumulative impacts due to the extensive footprint of offshore wind development that is projected in the future along the U.S. East Coast. To better address the little-studied IPFs, such as underwater acoustic disturbance, widespread occurrence of the deep-diving Razorbill both within New England Wind and across SWDA, the species' joint vulnerabilities to displacement, macro-avoidance, and noise disturbance, plus a body mass suitable for satellite tagging, all make this acid a convenient and informative species for monitoring purposes. Similarly, avian species identified as having high exposure scores across the entire year, high displacement or population vulnerability, and/or greater collision vulnerability via their behaviors all would make prime candidates for New England Wind's monitoring and/or mitigation activities. Other programs that may provide example frameworks for an offshore wind wildlife mitigation program may include in-lieu fee wetlands mitigation programs under the federal Clean Water Act, the Natural Resource Damage Assessment and Restoration Program, the Renewable Wind Energy Research Fund, state endangered species mitigation programs such as the Massachusetts Endangered Species Act (MESA) Conservation and Management Plan permitting process, or the Vermont Act 250 Section 248 Certificate of Public Good process.	The mitigation and monitoring measures that the applicant has committed to implement (including and in addition to those defined in the COP) are listed in Table H-1. Mitigation and monitoring measures that may result from reviews under the statutes listed above are shown in Table H 2. Some of these mitigation and monitoring measures are outside of BOEM's statutory and regulatory authority but could potentially be adopted and imposed by other governmental entities. Tables H-1 and H-2 provide descriptions of mitigation or monitoring measures, along with the resource or resources to which each measure applies. If the COP is approved or approved with conditions, it will include mitigation and monitoring measures developed under various consultations and permit reviews (e.g., ESA and Marine Mammal Protection Act) and adopted by the Final EIS Record of Decision (ROD). If BOEM decides to approve the COP, the ROD will state which of the additional mitigation and monitoring measures identified by BOEM in Tables H-1 and H-2 have been adopted; if measures are not adopted, the ROD will state why they were not. If the measures adopted differ substantially from those listed in Tables H-1 and H-2, BOEM will evaluate whether impacts analyses need to be modified to address those changes. The applicant will be required to implement the mitigation and monitoring measures applicable that are adopted in the ROD (Code of Federal Regulations, Title 40, Section 1505.3 [40 CFR § 1505.3]), and it will be required to certify compliance with certain terms and conditions as required under 30 CFR § 585.633(b).
0083-123	We recommend that BOEM... Specify how impacts to.... bird species will be determined from monitoring data, as well as what will trigger adaptive management.	BOEM requires the applicant to coordinate with BOEM and the USFWS to finalize a bird monitoring plan prior to the start of construction. Acoustic monitoring devices will be utilized to estimate the exposure of ESA species and other migratory birds to the wind facility. Periodic monitoring progress reports as well as annual reports will be submitted and reviewed by BOEM and the USFWS. The review would include the potential need for revisions to the monitoring plan.

O.5.20 Wetlands and Waters of the United States

Table O.5-20: Responses to Comments on Wetlands and Waters of the United States

Comment Number	Comment	Response
0028-03	According to the Draft EIS, both the preferred and alternative onshore transmission cable routes for both phases on Cape Cod are located entirely within public roadway layouts or within the beach parking lots. However, APCC noted in our written comments on the project's Environmental Notification Form submitted to the Massachusetts Environmental Policy Act (MEPA) Office that it appears that the Phase 2 Commonwealth Wind project's cables cross several wetland areas along the onshore transmission route. Additional information should be provided to ensure that none of these wetland resource areas will be adversely impacted.	Section 2.6.2 of the Final EIS has been revised to address this comment.

O.5.21 Land Use and Coastal Infrastructure

Table O.5-21: Responses to Comments on Land Use and Coastal Infrastructure

Comment Number	Comment	Response
0023-08	Should the proponent decide to proceed with the trenching of the causeway (as proposed in the ENF and less prominently in the COP), the fragile nature of this structure is a major consideration. The Town of Barnstable has indicated the possible failure of the causeway's box culvert given the proponent's plans, outlined in the ENF, to "hang" a portion of the heavy conduit duct bank from the structure in a 1x12 configuration. The culvert, never intended to support utility infrastructure, allows the exchange of water between the bays, thus ensuring a healthy embayment and habitat. Should the culvert fail, the causeway itself, as well as the two bays, would suffer catastrophic structural and environmental damage.	The COP in Section 4.2.2.1 notes that the onshore export cable route from the Dowses Beach Landfall site could be either along the road right-of-way (which would require it to cross the causeway connecting the Dowses Beach access road to East Bay Road) or via a trenchless crossing of East Bay. Section G.2.7.2 of the Final EIS has been updated to note the concerns expressed in the Town of Barnstable's letter to the Massachusetts Office or Energy and Environmental Affairs regarding the use of the causeway for the onshore cable route.
0029-19	Light pollution impacting citizens will also be a factor threatening public health. Especially those near the Dowses Beach construction site and the 8 Shootflying Hill road substation site. Sleep deprivation is unhealthy and is a public health issue.	Section G.2.7.2 and Appendix H of the Final EIS have been revised to address this comment. The mitigation and monitoring measures that the applicant has committed to implement (including and in addition to those defined in the COP) are listed in Table H-1. Mitigation and monitoring measures that may result from reviews under the statutes listed above are shown in Table H 2. Some of these mitigation and monitoring measures are outside of BOEM's statutory and regulatory authority but could potentially be adopted and imposed by other governmental entities. Tables H-1 and H-2 provide descriptions of mitigation or monitoring measures, along with the resource or resources to which each measure applies.
0031-08	There is a Causeway separating East Bay and Phinney's Bay. BOEM vaguely describes a "paved area" but is this actually the Causeway? There are so few pristine beautiful beaches left on Cape Cod. Dowses Beach is one of them.	If the COP is approved or approved with conditions, it will include mitigation and monitoring measures developed under various consultations and permit reviews (e.g., ESA and Marine Mammal Protection Act) and adopted by the Final EIS Record of Decision (ROD). If BOEM decides to approve the COP, the ROD will state which of the additional mitigation and monitoring measures identified by BOEM in Tables H-1 and H-2 have been adopted; if measures are not adopted, the ROD will state why they were not. If the measures adopted differ substantially from those listed in Tables H-1 and H-2, BOEM will evaluate whether impacts analyses need to be modified to address those changes. The applicant will be required to implement the mitigation and monitoring measures applicable that are adopted in the ROD (Code of Federal Regulations, Title 40, Section 1505.3 [40 CFR § 1505.3]), and it will be required to certify compliance with certain terms and conditions as required under 30 CFR § 585.633(b)."

Comment Number	Comment	Response
0031-09	Contrary to BOEM [a spill] does not have a negligible impact. That would mean the almost certain death of Osterville as a Cape Cod community as we now know it. It would render our real estate values, our homes nearly valueless. This means a loss of human habitat. That is a major adverse impact.	Section G.2.7.2 of the Final EIS has been revised to clarify that the Dowses Beach parking area would potentially be used for the landfall site.
0046-07	Osterville is the last needed location of the sewer project as home lots are large here and many homes are used in the summer only. Waste water is handled with ease.	Thank you for your comment.
0073-05	As our experience with any utility company has shown us over time, this will be the area where the maintenance trucks/cranes/offshore barges will be coming to excavate, tweak, and repair at will. Will Avangrid want to add more cables to Dowses?? Once a utility is given license to public land, they "own it".	Section 3.15.2.3 and Section G.2.7.1 of the Final EIS have been revised to address this comment.
0086-01	One of the most important reasons that I purchased my house in Otterville was it's proximity to Dawes Beach.	Thank you for your comment.

O.5.22 Appendix A, Required Environmental Permits and Consultations

Table O.5-22: Responses to Comments on Appendix A, Required Environmental Permits and Consultations

Comment Number	Comment	Response
0029-22	Block Island Wind Farm in Rhode Island demonstrates the high upfront costs of OSW ($320 million) and its unreliability (only 1 turbine is reportedly working out of a total of 5 turbines.) This was an OSW project by Orsted. Will Avangrid, an inexperienced newbie in the OSW industry, be able to succeed where more experienced Orsted has failed? CW is a much bigger project than Block Island. Yet it is Avangrid's project. N.B. Avangrid's parent Iberdrola is now looking to leave the OSW business in the USA. Avangrid has publicly reported that it cannot afford CW as the original contract was negotiated.	Thank you for your comment.
0033-02	We also understand that Avangrid bears little risk should anything go wrong and that is we, the residents of Barnstable, who bear the risk.	Thank you for your comment.
0037-02	[Dowses Beach landing site] The risk if underground fires...who will put them out?...This is a limited liability corporation that is only protecting ITSELF from any future responsibility.	Thank you for your comment.
0046-08	The disruption to the Covell beach and the entire Hyannis area by the Vineyard Wind Project is a living example of the disruption and destruction these projects create. They never stay on schedule and never restore the sites areas to their original habitat.	Thank you for your comment.
0046-09	Avangrid claims they can only tap into the power grid on the Cape. This seems ridiculous. I also question how this may impact the ability to use the power lines on the Cape for future electrical needs for down Cape homes and business. Has this been answered?	Thank you for your comment.
0051-02	Avangrid Renewables has structured this project as a separately owned subsidiary, markedly limiting its liability should any unanticipated ill effects occur. In addition, revenues from the project supporting the Town of Barnstable are calculated to be minimal in comparison to the town's budget over the lifetime of the project.	Thank you for your comment.
0074-05	There was an early effort in 1980 to nominate "all of Nantucket Sound as a national marine sanctuary" with a joint federal-state management plan. Massachusetts state agencies "documented the region's ecological significance and its importance to such economic uses as fishing and tourism."...This nomination historically underscores what a natural treasure Nantucket Sound is and how it needs to be protected by BOEM rather than be industrialized by OSW.	Thank you for your comment.

Comment Number	Comment	Response
0076-09	BOEM cannot make its review dependent on speculative power purchase agreements signed prior to COP review with state utilities and state renewable energy goals as a limiting factor affecting its NEPA and OSCLA review requirements. BOEM habitually excludes Alternatives from review because it would not allow developers to meet these "contractual" agreements, which only serves to make BOEM a party to a speculative contract. BOEM is even now restricting its analysis based on ongoing contractual negotiations between developers and states, essentially making BOEM an active party to ongoing contracts and agreements. This must be disallowed and any previous approvals based on such reasoning overturned.	Thank you for your comment.
0076-10	Rather than comply with its OSCLA duties which state that the Secretary "shall ensure", among other things, "prevention of interference with reasonable uses" such as commercial fishing when conducting all manner of offshore wind leasing, BOEM has instead substituted "promoting ocean co-use" as its own requirement. "Promoting ocean co-use" is not the same as "shall ensure prevention of interference with reasonable uses." BOEM attributes the "goals of the federal agencies to deploy 30 gigawatts [GW] of offshore wind energy capacity in the United States by 2030 while...promoting ocean co use" in place of the actual legal OSCLA requirements to a White House Executive Order. An Executive Order cannot overrule Congressional legislation. As such, BOEM's assumptions in the Purpose and Need section of the Draft EIS is faulty at its core, and therefore all resulting analysis is faulty.	Thank you for your comment.
0076-11	BOEM states that it will make its determination on the proposed Project "after weighing the factors in subsection 8(p)(4) of OSCLA that are applicable to plan decisions and in consideration of the above goals". OSCLA says nothing about weighing. It says "shall ensure" the factors listed, not in consideration of the developers or state's goals or contractual "obligations", but in the absolute. BOEM has the authority to lease for offshore wind, subject to constraints. These legal constraints override Executive Order policy statements, developer contract "obligations" and full buildout goals, and state energy goals.	This purpose reflects BOEM’s authority under the Outer Continental Shelf Lands Act (OCSLA) to authorize renewable energy activities on the OCS, as well as EO 14008; the shared goals of the Departments of Interior (DOI), Energy (DOE), and Commerce (DOC) to deploy 30 gigawatts (GW) of offshore wind energy capacity in the United States by 2030 while protecting biodiversity and promoting ocean co-use (White House 2021); and consideration of the goals of the applicant. BOEM will make this determination after weighing the factors in Subsection 8(p)(4) of the OCSLA that are applicable to plan decisions and considering the above goals.

Comment Number	Comment	Response
0083-77	Appendix H of the Draft EIS mentions that the Applicant will employ noise attenuation mitigation during all pile driving activities. However, the use of noise attenuation is not anticipated for other noise producing activities. It is important for BOEM to acknowledge that noise generated by these activities (i.e., vibratory pile driving, cofferdam installation, etc.) may disturb marine life, and for the agency to i) monitor noise generated by all construction activities and ii) require noise reduction and attenuation measures if noise levels exceed that which could potentially harm or disturb marine mammals. We have stressed the most effective way to reduce noise during construction is to install quieter foundation types. If pile driving cannot be avoided, we encourage BOEM to work closely with the National Oceanic and Atmospheric Administration (NOAA) Fisheries on activities that could lead to greater levels of noise reduction during impact pile driving for future projects, as noise minimizing approaches during discrete phases of development have been identified by experts as the most promising solution to overcoming noise challenges associated with offshore wind development. Such activities may include the development of a noise reduction standard (akin to the German standard for harbor porpoise) that is tailored to protect species of concern in U.S. waters and designed to account for the larger diameter monopiles planned to be installed, as well as other project- and site-specific conditions in the United States. Given that underwater noise pollution negatively affects species across frequency hearing groups, in the pursuance of this standard we encourage BOEM and NOAA Fisheries to consider a hybrid approach, where risk is reduced for low-, mid-, and high frequencies, rather than solely at the low frequencies at which right whales are most vulnerable. A hybrid approach would help support overall marine ecosystem health rather than prioritize a single species or species group (i.e., low-frequency hearing cetaceans). To reduce impacts from noise produced by impact pile driving, BOEM indicates that the applicant will implement noise attenuation mitigation to reduce sound levels by a target of approximately 12 dB (re: 1 ?Pa2s) Sound Exposure Level (SEL) or greater.	The mitigation and monitoring measures that the applicant has committed to implement (including and in addition to those defined in the COP) are listed in Table H-1. Mitigation and monitoring measures that may result from reviews under the statutes listed above are shown in Table H 2. Some of these mitigation and monitoring measures are outside of BOEM's statutory and regulatory authority but could potentially be adopted and imposed by other governmental entities. Tables H-1 and H-2 provide descriptions of mitigation or monitoring measures, along with the resource or resources to which each measure applies. If the COP is approved or approved with conditions, it will include mitigation and monitoring measures developed under various consultations and permit reviews (e.g., ESA and Marine Mammal Protection Act) and adopted by the Final EIS Record of Decision (ROD). If BOEM decides to approve the COP, the ROD will state which of the additional mitigation and monitoring measures identified by BOEM in Tables H-1 and H-2 have been adopted; if measures are not adopted, the ROD will state why they were not. If the measures adopted differ substantially from those listed in Tables H-1 and H-2, BOEM will evaluate whether impacts analyses need to be modified to address those changes. The applicant will be required to implement the mitigation and monitoring measures applicable that are adopted in the ROD (Code of Federal Regulations, Title 40, Section 1505.3 [40 CFR § 1505.3]), and it will be required to certify compliance with certain terms and conditions as required under 30 CFR § 585.633(b)."

Comment Number	Comment	Response
0095-3-02	why is the COP, submitted to BOEM in June 2022, substantially and significantly different from the proposed details related to Phase 2 presented to the Massachusetts Environment Protection Act, or MEPA, in September of 2022. These differences include descriptions of alternate sites considered, the means of transitioning cables to municipal roadways, the length of the construction period on proposed, and even variations on the number of cable landings on Dowses Beach from Commonwealth Winds' leased area in the OCS.	The applicant submitted a phased COP to BOEM on July 2, 2020, proposing the construction, operations, and decommissioning of offshore wind energy facilities for the proposed Project. A comprehensive update of the COP was submitted in December 2021, and subsequent updates were submitted in April, May, June, August, September, and November 2022. This Final EIS will inform BOEM's decision in the COP approval process. If its COP is approved, the applicant plans to begin construction in 2024. The purpose of BOEM's action is to determine whether to approve, approve with modifications, or disapprove the COP for the proposed Project. This purpose reflects BOEM's authority under the Outer Continental Shelf Lands Act (OCSLA) to authorize renewable energy activities on the OCS, as well as EO 14008; the shared goals of the Departments of Interior (DOI), Energy (DOE), and Commerce (DOC) to deploy 30 gigawatts (GW) of offshore wind energy capacity in the United States by 2030 while protecting biodiversity and promoting ocean co-use (White House 2021); and consideration of the goals of the applicant. BOEM will make this determination after weighing the factors in Subsection 8(p)(4) of the OCSLA that are applicable to plan decisions and considering the above goals.
0095-3-03	given the Department of the Interior's announcement on January 17th of the reorganization of regulatory oversight as it relates to a renewable energy, will the proposal be subjected to review by the Bureau of Safety and Environmental Enforcement?	To minimize the possibility of component failure, New England Wind will undergo an extensive and well-vetted structural design process based on site-specific conditions. As described in Sections 3.2.3.1 and 4.2.3.1 of COP Volume I, New England Wind's components are designed to international and US standards, which are identified in New England Wind's Hierarchy of Standards (see Appendix I-E). The Proponent will develop a Facility Design Report (FDR) containing the specific details of New England Wind's design and a Fabrication and Installation Report that describes how New England Wind's components will be manufactured and installed in accordance with the design criteria in the FDR. Both the FDR and Fabrication and Installation Report will be reviewed by a CVA, the Bureau of Ocean Energy Management, and the Bureau of Safety and Environmental Enforcement. Cop Vol II page 8-3
0095-6-03	one of the developers we talked to on the West Coast...is talking about buying the lease and selling it later, before construction starts. And we just had concerns, I guess, that if there were requirements attached to the lease, if a new buyer would have to live up to those requirements, because the contracts could be something outside of the lease that would not be part of that. So that transaction would guarantee something. First thing that comes to mind would be compensation.	The applicant and co-applicant is the permittee and the owner and/or co-owner of the entire project and would be responsible for the entire project. The applicant can transfer ownership, then the new owner will be the permittee responsible for the project.

O.5.23 Appendix B, Supplemental Information and Additional Figures and Tables

Table O.5-23: Responses to Comments on Appendix B, Supplemental Information and Additional Figures and Tables

Comment Number	Comment	Response
0095-5-05	I'm concerned about vibrations as far as the continental shelf is concerned. We're close to that continental shelf. We're only a blip on the screen. And those constant vibrations, I'm sure, have been evaluated	Impact producing factors on the Outer Continental Shelf (OCS) are mentioned throughout Appendix G. In addition, it is not anticipated that vibrations of construction or noise will affect the continental shelf due to depth limit of the piling driving and distance from the continental shelf.

O.5.24 Appendix C, Project Design Envelope and Maximum-Case Scenario

Table O.5-24: Responses to Comments on Appendix C, Project Design Envelope and Maximum-Case Scenario

Comment Number	Comment	Response
0055-02	It is unclear how the number and location of turbine placements and electrical service platform positions will be determined across the two project phases. Phase 1 includes multiple options for electrical service platforms while Phase 2 does not include any selected/preferred locations. We recommend analyzing multiple platform positions for each project phase. Also, it appears based on Figure ES-6 that approximately three turbine locations from lease area 501 not used for development of the Vineyard Wind 1 project may be assigned to Phase 1 of New England Wind. The Final EIS should explain the extent to which lease area 501 will be used for the proposed action. We also recommend that all figures use different colors for the Vineyard Wind 1 WTG positions in lease 501 to distinguish those from positions being used for New England Wind.	Up to 132 total foundations for 125 to 129 WTGs and 1 to 5 ESPs would be installed in 130 positions, generating at least 2,036 MW and up to 2,600 MW of electricity to meet existing and potential future offtake demands for New England states. This equates to an approximate minimum nameplate capacity of 16 MW per WTG. The applicant has not yet identified the nameplate capacity of the WTG, and the COP has identified the maximum capacity for the proposed Project to be approximately 2,600 MW using up to the maximum 130 positions within the lease area. If two ESPs are used for Phase 1, the applicant states that each ESP could occupy one of the 130 positions in the SWDA, or the two ESPs could be co-located at a single position, with each ESP's monopile foundation located within 250 feet of that position (i.e., the monopiles would be separated by up to 500 feet). Similarly, if two or three ESPs are used for Phase 2, each ESP could occupy one of the 130 positions in the SWDA, or two of the ESPs could be co-located at a single position (COP Volume I, Sections 3.2.1.3 and 4.2.1.3; Epsilon 2022a). As a result, Phase 1 could include 63 foundations at 62 positions, and Phase 2 could include 89 foundations at 88 positions—a total of 132 foundations at 130 positions.
0055-05	We recommend foundation types that minimize the total construction footprint to reduce the amount of scour protection needed. We recommend the Final EIS include information on the amount of scour protection needed and the type of impact anticipated for each type of foundation for each of the phases to evaluate these tradeoffs. For example, comparing pile-driven (jacket or bottom-frame) versus suction bucket bases, the latter will have fewer acoustic impacts given the information provided in Volume 1, page S-11. We also recommend explaining why Phase 2 includes additional foundation types that are not considered in Phase 1. We assume this is depth-related, but the Draft EIS is unclear.	Section 2 of the Draft EIS indicated that scour protection for all foundations would be up to 9.8 feet high, would extend away from the foundation as far as 118 feet, and would consist of rock and stone at least 2.5 inches in diameter. To maximize precision when placing scour protection, the applicant would use the fall pipe method whenever feasible, as discussed in COP Section 3.2.1.5.4 (Volume I; Epsilon 2022a). The Draft EIS included the amount of acres of scour protection for the two Phases. As discussed in COP Vol I Section 4.2.1.2 and 4.2.3.3.3, jackets with suction buckets and bottom-frame foundations (with piles or suction buckets) are relatively immature technologies and have been used in offshore wind for only two small projects. While these technologies are not suitable for Phase 1 of this project from a risk and economic stand point, an initial screening analysis has indicated that they may be feasible for Phase 2.

Comment Number	Comment	Response
0055-11	The Draft EIS and Final EIS documents for this and other projects should evaluate a range of turbine MW sizes that are realistic for development. There are tradeoffs inherent in the selection of larger or smaller turbines. For example, larger turbines with pile-driven foundations will require larger impact hammers during installation, but the use of larger turbines will allow for fewer locations overall. As previously stated, it is unclear whether 16 MW and 13 MW turbines are being considered. Limiting the design envelope and associated analyses in the Final EIS to only one turbine size will limit evaluation of tradeoffs.	The size of the turbine is expected to change based on the technology at the time of the construction. The range of the turbine sizes is currently, 13-16 MW. The COP and EIS currently addresses available information in these ranges.
0055-30	The Draft EIS also mentions 13 MW turbines on page 3.7-37. It is unclear whether 13 MW or 16 MW will be used for both project phases and the Final EIS should clarify what is under consideration. This affects the minimum number of turbine positions that will be needed to meet the purpose and need of the project. We support consideration of higher MW turbines as this can reduce the footprint of the project, while still generating the same amount of power.	The size of the turbine is expected to change based on the technology at the time of the construction. The range of the turbine sizes is currently, 13-16 MW. The COP and EIS currently addresses available information in these ranges.
0081-21	The Draft EIS fails to provide simple information on the project envelope; turbine size or size range in megawatts is not anywhere in the Volume I or Appendix C: Project Design Envelope and Maximum-Case Scenario of the Draft EIS. In some places, 13 MW turbines are referenced, in others 16 MW name-plate capacity is proposed (Draft EIS p. 2-2). This information needs to be made clear to the public as turbine size is fundamental to the number of turbines that will be used in a project area...The turbine size should be easily available in the Executive Summary of the Draft EIS. Should the developer anticipate using the largest turbines available at the time of construction, this should be clearly stated and a range of anticipated turbine size should still be provided.	The size of the turbine is expected to change based on the technology at the time of the construction. The range of the turbine sizes is currently, 13-16 MW. The COP and EIS currently addresses available information in these ranges.
0083-71	Best available scientific information indicates that, during the operation phase, offshore wind turbines may generate noise audible and potentially impactful to large whales and other marine species over significant distances. Understanding levels and impacts of operational noise is an immediate research and monitoring priority as the first offshore wind projects are constructed in the United States. Pending further study, we recommend the use of direct drive turbines as opposed to turbines with a gear box. Direct drive turbines may emit lower noise levels and reduce risk of behavioral disturbance or habitat displacement of North Atlantic right whales and other marine mammal species, and also reduce impacts to key marine mammal prey species, during the operation phase of development.	Thank you for your comment.

O.5.25 Appendix E, Planned Activities Scenario

Table O.5-25: Responses to Appendix E, Planned Activities Scenario

Comment Number	Comment	Response
0055-09	Cumulative effects across projects are essential to evaluate when determining the impacts of placing cables in the western vs. eastern portion of Muskeget Channel. The impacts of Vineyard Wind 1, which is already under construction, and other future projects, such as Mayflower (SouthCoast) Wind's project, for which the COP is not yet available, will influence the overall impacts to benthic habitats in the channel. The size and number of turbines associated with the proposed action will influence the spatial extent of the project overall, and therefore will affect the magnitude of impacts. We recommend working with NOAA Fisheries habitat staff to optimize the final turbine, cable, and offshore substation locations to minimize impacts to habitat and fisheries.	BOEM has prepared the Final EIS under the National Environmental Policy Act (NEPA) (U.S. Code, Title 42, Sections 4321–4370f [42 USC §§ 4321–4370f). This Final EIS will inform BOEM's decision on whether to approve, approve with modifications, or disapprove the proposed Project's COP. Cooperating agencies may rely on this Final EIS to support their decision-making. In conjunction with submitting its COP, Park City Wind applied to the National Marine Fisheries Service (NMFS) for an Incidental Take Authorization (ITA) under the Marine Mammal Protection Act (MMPA) of 1972, as amended (16 USC § 1361 et seq.), for incidental take of marine mammals during proposed Project construction. NMFS needs to render a decision regarding the request for authorization due to NMFS' responsibilities under the MMPA (16 USC 1371 (a)(5)(A) and its implementing regulations. NMFS intends to adopt the Final EIS if, after independent review and analysis, NMFS determines the Final EIS to be sufficient to support the authorization, if appropriate. The U.S. Army Corps of Engineers (USACE) similarly intends to adopt the Final EIS to meet its responsibilities under Section 404 of the Clean Water Act (CWA) and Section 10 of the Rivers and Harbors Act of 1899 (RHA).
0055-19	We also recommend the cumulative effects section include a more rigorous analysis of the impacts of noise generation from multiple wind farms during construction and operation with greater specificity on expected noise levels based on the size of turbines likely to be used. The conclusion that "the impacts could be measurable on a site-level scale but not within the entire proposed Project area" is not clear (page 3.6-33). Is this based upon only pile-driving noise and if so, what are the cumulative effects from operational noise from multiple wind farms? The study on page 3.6-28 mentions that "operational noise from several wind energy facilities with turbines up to 6.15 MW in nameplate capacity showed that operational noise generally attenuates rapidly with distance from the turbines" however the Proposed Action is considering 13-16 MW turbines. We do not think an impact determination should be based on a significantly smaller turbine size than what is being proposed for the project.	Thank you for your comment.

Comment Number	Comment	Response
0056-06	In identifying potential port facilities Table 2.1-4: Possible Ports Used during Phase 1 Construction, Operations, and Decommissioning, New England Wind failed to recognize New Bedford's second terminal dedicated to offshore wind. The New Bedford Foss Marine Terminal is a private venture that will add another base of operations and terminal logistics facility to support offshore wind projects off Massachusetts and the northeastern coast seaboard. The 30- acre site will undergo redevelopment this year and will provide storage and laydown yards for equipment and materials, berth facilities for tug and barge operations, and host crew transfer vessel (CTV) and service operation vessel (SOV) support services. It will create new office space for project teams and a marine coordination center for technicians involved in offshore wind projects. We encourage BOEM and New England Wind to extensively review both this site, as well as the New Bedford Marine Commerce Terminal and other current and future facilities within the Port of New Bedford, for a location for construction, assembly and fabrication, as well as future O&M activities. Both sites are well positioned geographically and provide extensive shoreside support.	Appendix E has been updated to identify the Foss Marine Terminal (which was one of the sites identified for potential use by the Massachusetts Clean Energy Center. The applicant has not committed to using the Foss Marine Terminal; therefore, it would be inappropriate to add this facility to Table 2.1-4.
0058-01	This impact of this and the other wind projects will change the coast of Massachusetts and Rhode Island forever. It is a threat to the North American Right Whales, the fisheries as we know them, and the dark skies. It is 1600 windmills and 30 years of construction for a technology will change before the first one is even built. The are better solutions for green energy.	Thank you for your comment.

Comment Number	Comment	Response
0083-09	[I]n addition to a thorough examination of direct and indirect impacts, assessing cumulative effects is essential to understanding the impact of offshore wind on species and ecosystems along the coast... It is important that the reasonably foreseeable impacts BOEM has chosen to assess be examined on the proper temporal and spatial area scope to ensure that cumulative effects are fully evaluated... We are concerned about the inconsistencies in the cumulative impacts analyses across Atlantic offshore wind projects. While these cumulative impact analyses generally include the same list of anticipated offshore wind projects (as seen in Table E-2), we find significant variability in the cumulative impacts by resource, even for the no action alternatives... We note that inconsistencies are also found for the geographic analysis areas for cumulative impacts. For example, the geographic analysis areas for birds and bats vary from 0.5 mi inland (Sunrise Wind for birds and bats, New England Wind for birds), 5 mi inland (New England Wind for bats and several other Draft EISs for both birds and bats), to 100 mi inland (Vineyard Wind 1 for both birds and bats). BOEM should improve their analyses to ensure a high standard and consistency for their cumulative impact analyses for offshore wind projects.	Appendix E of the Draft EIS stated that the impacts resultant from the planned activities scenario are the incremental impacts of the Proposed Action on the environment added to other reasonably foreseeable planned activities in the area (Code of Federal Regulations, Title 40, Section 1502.15 [40 CFR § 1502.15]). This appendix discussed resource-specific planned activities that could occur if the Proposed Action's impacts occur in the same location and timeframe as impacts from other reasonably foreseeable planned activities. Specifically, the Proposed Action here is the construction and installation (construction), operations and maintenance (operations), and conceptual decommissioning (decommissioning) of the New England Wind Project (proposed Project), a wind energy project that would occupy all of the Bureau of Ocean Energy Management's (BOEM) Renewable Energy Lease Area OCS-A 0534 and potentially a portion of Lease Area OCS-A 0501, hereafter referenced as the Southern Wind Development Area (SWDA).
0083-128	We also urge BOEM to also ensure that in evaluating [cumulative] impacts to species, the agency considers potential changes in range and seasonal use due to various anticipated levels of warming and climate change.	Appendix E of the Draft EIS stated that the impacts resultant from the planned activities scenario are the incremental impacts of the Proposed Action on the environment added to other reasonably foreseeable planned activities in the area (Code of Federal Regulations, Title 40, Section 1502.15 [40 CFR § 1502.15]). This appendix discussed resource-specific planned activities that could occur if the Proposed Action's impacts occur in the same location and timeframe as impacts from other reasonably foreseeable planned activities. Specifically, the Proposed Action here is the construction and installation (construction), operations and maintenance (operations), and conceptual decommissioning (decommissioning) of the New England Wind Project (proposed Project), a wind energy project that would occupy all of the Bureau of Ocean Energy Management's (BOEM) Renewable Energy Lease Area OCS-A 0534 and potentially a portion of Lease Area OCS-A 0501, hereafter referenced as the Southern Wind Development Area (SWDA).
0084-01	we already have two landings in the Town of Barnstable. Our Town is currently making a considerable contribution to renewal energy goals and doing more than any other community on the Cape. Asking the residents to hand over a THIRD publicly owned recreational area to a for-profit international company is unreasonable	Thank you for your comment.

O.5.26 Appendix H, Mitigation and Monitoring

Table O.5-26: Responses to Comments on Appendix H, Mitigation and Monitoring

Comment Number	Comment	Response
0028-05	APCC calls on Avangrid, government agencies and key stakeholder groups to continue to collaborate on developing and improving protocols for avoiding impacts to bird, marine mammals and turtles and to further adopt effective mitigation programs to address any impacts that may occur. BOEM should impose requirements that utilize the most advance science to ensure protection of these species. This is particularly important in the effort to protect the critically endangered North Atlantic right whale from potential project impacts.	Thank you for your comment.
0032-02	With the availability of these direct support resources for related research, we strongly encourage AVANGRID to initiate a long-term planning strategy for the major maintenance, decommissioning, and replacement of the offshore wind infrastructure. Given the evolution of new technologies and resources, and the time horizon before this occurs, a proactive approach to removing turbines, turbine blades, concrete, cables, and other accoutrements of the industry and determining how this material is repurposed, recycled, or disposed of, will require collaboration among other industry partners, educational institutions, the community, and policymakers as we continue to support the Blue Economy and reduce our planet's carbon footprint.	Decommissioning plans and timelines were discussed in Section 2 of the Draft EIS. The decommissioning approach is unchanged from the Draft EIS; therefore, no changes to the Final EIS were necessary. Further, additional NEPA analysis will be conducted prior to making a determination on the decommissioning application that needs to be submitted for purposes of authorizing decommissioning activities, including the methods to be used.
0032-03	we recognize the COP's Mitigation Measure (#24) in establishing the Offshore Wind Protected Marine Species Mitigation Fund. As presently defined, this fund should also include specific acknowledgement of the shellfish habitat and related aquaculture industry in the region...While the study indicates the potential impact "is less significant in sandy areas that are strongly influenced by tidal currents and waves," (Draft EIS, 3.4-5) consideration for including a portion of the mitigation fund for research and support for understanding the implications on the shellfish industry and aquaculture should be given.	The mitigation and monitoring measures that the applicant has committed to implement (including and in addition to those defined in the COP) are listed in Table H-1. Mitigation and monitoring measures that may result from reviews under the statutes listed above are shown in Table H 2. Some of these mitigation and monitoring measures are outside of BOEM's statutory and regulatory authority but could potentially be adopted and imposed by other governmental entities. Tables H-1 and H-2 provide descriptions of mitigation or monitoring measures, along with the resource or resources to which each measure applies. If the COP is approved or approved with conditions, it will include mitigation and monitoring measures developed under various consultations and permit reviews (e.g., ESA and Marine Mammal Protection Act) and adopted by the Final EIS Record of Decision (ROD). If BOEM decides to approve the COP, the ROD will state which of the additional mitigation and monitoring measures identified by BOEM in Tables H-1 and H-2 have been adopted; if measures are not adopted, the ROD will state why they were not. If the measures adopted

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0055-21	The Councils are concerned with the scour protection measures included within the Draft EIS (e.g., rock placement, concrete mattress protection, half-shell) and that "BOEM assumes that up to 10 percent of the cables may not achieve the proper burial depth and would require cable protection in the form of rock placement, concrete mattresses, and/or half-shell" (page 3.9-11). Appendix H (Table H-1) states that "cable protection measures within complex hard-bottom habitat...will consist of natural or engineered stone that does not inhibit epibenthic growth and provides three-dimensional complexity." Per the Council's offshore wind energy policy, we recommend that if scour protection or cable armoring is needed, the materials should be selected based on value to commercial and recreational fish species. Natural materials, or materials that mimic natural habitats, should be used whenever possible. These materials should not be obtained from existing marine habitats and must not be toxic.	The mitigation and monitoring measures that the applicant has committed to implement (including and in addition to those defined in the COP) are listed in Table H-1. Mitigation and monitoring measures that may result from reviews under the statutes listed above are shown in Table H 2. Some of these mitigation and monitoring measures are outside of BOEM's statutory and regulatory authority but could potentially be adopted and imposed by other governmental entities. Tables H-1 and H-2 provide descriptions of mitigation or monitoring measures, along with the resource or resources to which each measure applies. If the COP is approved or approved with conditions, it will include mitigation and monitoring measures developed under various consultations and permit reviews (e.g., ESA and Marine Mammal Protection Act) and adopted by the Final EIS Record of Decision (ROD). If BOEM decides to approve the COP, the ROD will state which of the additional mitigation and monitoring measures identified by BOEM in Tables H-1 and H-2 have been adopted; if measures are not adopted, the ROD will state why they were not. If the measures adopted differ substantially from those listed in Tables H-1 and H-2, BOEM will evaluate whether impacts analyses need to be modified to address those changes. The applicant will be required to implement the mitigation and monitoring measures applicable that are adopted in the ROD (Code of Federal Regulations, Title 40, Section 1505.3 [40 CFR § 1505.3]), and it will be required to certify compliance with certain terms and conditions as required under 30 CFR § 585.633(b).
0055-22	We recommend clarifying whether different materials are being considered as a mitigation measure as compared to what is planned as part of the proposed action. We appreciate that scour protection performance will be evaluated but we are not clear whether performance monitoring is in relation to protecting the cable from exposure or performance in terms of rates of benthic recovery. If the former, then we recommend this be done on a more frequent basis and at more locations than the proposed 20% of locations every 3 years (Appendix H). If the latter, then three-year intervals may be reasonable.	The mitigation and monitoring measures that the applicant has committed to implement (including and in addition to those defined in the COP) are listed in Table H-1. Mitigation and monitoring measures that may result from reviews under the statutes listed above are shown in Table H 2. Some of these mitigation and monitoring measures are outside of BOEM's statutory and regulatory authority but could potentially be adopted and imposed by other governmental entities. Tables H-1 and H-2 provide descriptions of mitigation or monitoring measures, along with the resource or resources to which each measure applies.

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0055-24	Exposed UXO presents a significant risk to mariners, especially those towing mobile gear that could bring UXO to the surface. Offshore wind project construction activities can uncover UXO devices. We recommend that the terms and conditions specify that developers are responsible for the safe disposal of UXO exposed due to construction activities. Our understanding is that some UXOs might be detected via surveys but are not exposed; in such cases, only mariner notification may be sufficient given disposal may present greater risks. Clear, timely, and repeated communication about UXO locations and any changes in the location or status of UXOs is essential and should not rely only on email notifications.	The mitigation and monitoring measures that the applicant has committed to implement (including and in addition to those defined in the COP) are listed in Table H-1. Mitigation and monitoring measures that may result from reviews under the statutes listed above are shown in Table H 2. Some of these mitigation and monitoring measures are outside of BOEM's statutory and regulatory authority but could potentially be adopted and imposed by other governmental entities. Tables H-1 and H-2 provide descriptions of mitigation or monitoring measures, along with the resource or resources to which each measure applies. If the COP is approved or approved with conditions, it will include mitigation and monitoring measures developed under various consultations and permit reviews (e.g., ESA and Marine Mammal Protection Act) and adopted by the Final EIS Record of Decision (ROD). If BOEM decides to approve the COP, the ROD will state which of the additional mitigation and monitoring measures identified by BOEM in Tables H-1 and H-2 have been adopted; if measures are not adopted, the ROD will state why they were not. If the measures adopted differ substantially from those listed in Tables H-1 and H-2, BOEM will evaluate whether impacts analyses need to be modified to address those changes. The applicant will be required to implement the mitigation and monitoring measures applicable that are adopted in the ROD (Code of Federal Regulations, Title 40, Section 1505.3 [40 CFR § 1505.3]), and it will be required to certify compliance with certain terms and conditions as required under 30 CFR § 585.633(b).

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0055-25	Appendix H includes several compensation-related mitigation measures for Phase 1, as negotiated with CT during project procurement, including: establishment of an offshore wind protected marine species mitigation fund, providing up to $2.5 million to support fisheries research and education; up to $7.5 million to support environmental initiatives, assist Connecticut fishermen, and support local communities in Connecticut; and $26.5 million to support the economic and community initiatives (workforce development, supply chain integration, etc.) (Table H-1). We support these types of compensation measures but note that fishermen from multiple states fish in the project area and compensation for these individuals may also be needed. The vast majority of commercially harvested fish (pounds and revenue) for the project area is landed in RI and MA8 . The table in Appendix H also mentions that additional economic and community initiatives will be developed for Phase 2. Compensation to be provided for Phase 2 should be fully described in the Final EIS. We recommend including how these compensation measures will affect the impact determinations and overall conclusions in the Final EIS.	The mitigation and monitoring measures that the applicant has committed to implement (including and in addition to those defined in the COP) are listed in Table H-1. Mitigation and monitoring measures that may result from reviews under the statutes listed above are shown in Table H 2. Some of these mitigation and monitoring measures are outside of BOEM's statutory and regulatory authority but could potentially be adopted and imposed by other governmental entities. Tables H-1 and H-2 provide descriptions of mitigation or monitoring measures, along with the resource or resources to which each measure applies. If the COP is approved or approved with conditions, it will include mitigation and monitoring measures developed under various consultations and permit reviews (e.g., ESA and Marine Mammal Protection Act) and adopted by the Final EIS Record of Decision (ROD). If BOEM decides to approve the COP, the ROD will state which of the additional mitigation and monitoring measures identified by BOEM in Tables H-1 and H-2 have been adopted; if measures are not adopted, the ROD will state why they were not. If the measures adopted differ substantially from those listed in Tables H-1 and H-2, BOEM will evaluate whether impacts analyses need to be modified to address those changes. The applicant will be required to implement the mitigation and monitoring measures applicable that are adopted in the ROD (Code of Federal Regulations, Title 40, Section 1505.3 [40 CFR § 1505.3]), and it will be required to certify compliance with certain terms and conditions as required under 30 CFR § 585.633(b).
0055-26	The Final EIS should also establish a compensation fund and process for all wind projects to address all relevant impacts to commercial, for-hire, and private recreational fishing, as well as shoreside commercial and recreational fishery support businesses. Relevant impacts include, but are not limited to, adverse impacts on revenues, costs, travel times, and the value of permits and vessels. It is also important to consider that many individuals other than captains, permit holders, and business owners will be impacted (e.g., crew members, processing plant employees); however, not all individuals will have the documentation necessary to demonstrate the degree of income impacted by specific wind projects.	The mitigation and monitoring measures that the applicant has committed to implement (including and in addition to those defined in the COP) are listed in Table H-1. Mitigation and monitoring measures that may result from reviews under the statutes listed above are shown in Table H 2. Some of these mitigation and monitoring measures are outside of BOEM's statutory and regulatory authority but could potentially be adopted and imposed by other governmental entities. Tables H-1 and H-2 provide descriptions of mitigation or monitoring measures, along with the resource or resources to which each measure applies. If the COP is approved or approved with conditions, it will include mitigation and monitoring measures developed under various consultations and permit reviews (e.g., ESA and Marine Mammal Protection Act) and adopted by the Final EIS Record of Decision (ROD). If BOEM decides to approve the COP, the ROD will state which of the additional mitigation and monitoring measures identified by BOEM in Tables H-1 and H-2 have been adopted; if measures are not adopted, the ROD will state why they were not. If the measures adopted

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0055-27	Appendix H states that "all survey and monitoring work will be publicly available" and that "the applicant will work with the Responsible Offshore Science Alliance and the Regional Wildlife Science Entity to help streamline and standardize available data across all offshore efforts" (page H-4). We strongly urge that the survey data are also made publicly available. We are supportive of the scientific survey mitigation measures for recurring surveys; however, more detail should be provided on these measures, how these measures will be funded and executed, and the overall impact the measures will have on existing surveys and use of the survey data to inform fisheries management.	Thank you for your comment.
0055-39	Mitigation measures are necessary to reduce the potential negative environmental and socioeconomic impacts of the New England Wind project. The recommendations outlined in our offshore wind energy policies, referenced above, should be reflected as terms and conditions for approval of the project. We provided a separate comment letter on the draft Guidelines for Mitigating Impacts to Commercial and Recreational Fisheries. These comments supported many of the mitigation measures recommended in that draft guidance. We recommend that all final mitigation guidelines be reflected in terms and conditions for BOEM's approval of this project.	Thank you for your comment.
0055-40	the Draft EIS states that "the applicant would bury the proposed offshore export cables within the OECC to a target depth of up to 5 to 8 feet below the seafloor" (page 3.5-18). BOEM's draft fisheries mitigation guidelines recommend a minimum cable burial depth of 6 feet. The Councils have not endorsed a specific burial depth, but rather have recommended depths that are adequate "to reduce conflicts with other ocean uses, including fishing operations and fishery surveys, and to minimize effects of heat and electromagnetic field emissions" (from the BOEM Draft Fisheries Mitigation Guidance). Assuming a depth of 6 feet is sufficient to address these objectives, we recommend the Final EIS include this target burial depth as the minimum end of the range.	The project design envelope as presented in the applicant's COP is for the offshore export cables to be installed at a target burial depth of 5 to 8 feet below the seafloor.
0056-02	we support New England Wind's proposal to collect pre-construction fisheries data...We recommend that this collaboration take place during the construction and post-construction phase of the project as well. New England Wind will be committing up to $2.5 million to support fisheries	Thank you for your comment.

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	research and education as part of a new initiative launched by the University of Connecticut to improve the understanding of potential environmental impacts from offshore wind. We advocate that a similar investment be made to the University of Massachusetts Dartmouth School of Marine Science and Technology, which has been on the front lines of offshore wind research and has decades of experience researching and analyzing fisheries in the Northeast. To have a cooperative research model be successful, many federal, state and local entities must be involved, as well as our fishermen who have complete knowledge of our waters and resources and have been committed and responsible stewards of a sustainable fishery for decades.	
0056-04	The current lack of fisheries mitigation and compensation measures on the industry as whole is somewhat troubling, but we will expect New England Wind to fully comply with any new guidelines and guidance that BOEM is currently finalizing as noted in Appendix H to the Draft EIS. While we appreciate the inclusion of the reference to BOEM's draft mitigation Guidance, as we have noted in the past, a five (5) year period for lost fishing income during operation is not sufficient to address the losses that will be suffered by fishermen and the associated shoreside businesses. We strongly encourage BOEM to require mitigation for lost revenue much longer into the 30-year lifespan of the project.	The mitigation and monitoring measures that the applicant has committed to implement (including and in addition to those defined in the COP) are listed in Table H-1. Mitigation and monitoring measures that may result from reviews under the statutes listed above are shown in Table H 2. Some of these mitigation and monitoring measures are outside of BOEM's statutory and regulatory authority but could potentially be adopted and imposed by other governmental entities. Tables H-1 and H-2 provide descriptions of mitigation or monitoring measures, along with the resource or resources to which each measure applies. If the COP is approved or approved with conditions, it will include mitigation and monitoring measures developed under various consultations and permit reviews (e.g., ESA and Marine Mammal Protection Act) and adopted by the Final EIS Record of Decision (ROD). If BOEM decides to approve the COP, the ROD will state which of the additional mitigation and monitoring measures identified by BOEM in Tables H-1 and H-2 have been adopted; if measures are not adopted, the ROD will state why they were not. If the measures adopted differ substantially from those listed in Tables H-1 and H-2, BOEM will evaluate whether impacts analyses need to be modified to address those changes. The applicant will be required to implement the mitigation and monitoring measures applicable that are adopted in the ROD (Code of Federal Regulations, Title 40, Section 1505.3 [40 CFR § 1505.3]), and it will be required to certify compliance with certain terms and conditions as required under 30 CFR § 585.633(b)."
0056-05	we appreciate the applicant's plans to employ a Marine Operations Liaison Officer, who will be responsible for safe marine operations in coordination with maritime partners and stakeholders (e.g., the USCG, U.S. Navy, port authorities, state and local law enforcement, marine patrol, commercial operators, etc.). We encourage other developers to follow suit and we will expect multi-project coordination in these efforts.	Thank you for your comment.

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	Likewise, it is encouraging that the applicant will implement a local hiring plan to maximize its direct hiring of residents of southeastern Massachusetts and Connecticut in coordination with unions, training facilities, and schools.	
0080-03	We look forward to negotiating a Community Benefits Agreement with New England Wind that addresses impediments to work access in our community: childcare, transportation, and training programs.	Thank you for your comment.
0081-17	The Draft EIS provides specific information on boulder removal/relocation. More clarity should be provided on when a boulder will be removed or relocated. Areas proposed for relocation should be vetted by the fishing industry to avoid placing obstructions in fishing grounds. When a boulder is relocated, the exact original location and the location where it is being moved need to be communicated to the fishing industry... Failure to communicate the exact locations of relocated boulders will impact safety-at-sea and increase the likelihood of gear loss and lost fishing time while making necessary repairs.	Thank you for your comment.
0081-19	Collaborative layout planning, while critical to reducing some impacts, cannot fully mitigate all avoidable conflicts. Full-scale mitigation must be required as part of this process. This would include environmental mitigation, particularly full decommissioning (not conceptual, as BOEM refers to decommissioning) where the environment is restored to its original state at the end of the lease period including removal of all cables, gravity bases, turbine components, and protection methods.	Decommissioning plans and timelines were discussed in Section 2 of the Draft EIS. The decommissioning approach is unchanged from the Draft EIS; therefore, no changes to the Final EIS were necessary. Further, additional NEPA analysis will be conducted prior to making a determination on the decommissioning application that needs to be submitted for purposes of authorizing decommissioning activities, including the methods to be used.
0081-28	Compensation for gear loss or damage as a result of interactions with the Project should be assured. Language should be added which allows fishery participants to be compensated for all gear loss and damage resulting from interactions with infrastructure supporting an OSW facility. Exceptions would exist for interactions which are intentional or the result of gross negligence on the part of the vessel operator. There are a number of things outside of the operator's control which could result in interactions with infrastructure and facilities supporting OSW... Mechanical failures, abrupt and unforeseeable changes in wind or current, etc. could all result in interactions with facilities supporting an offshore wind array. Interactions which would not have occurred but for the presence of the array should be fully compensable to such fishermen.	Thank you for your comment.
0081-30	In developing Mobile Gear-Friendly Cable Protection Measures, developers must engage with fishery participants in an effort to understand their needs. In particular, bottom tending gear such as surfclam and scallop dredges, bottom-trawl and others should be consulted to mitigate impacts to fleets utilizing that gear type. This may	Thank you for your comment.

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	result in preferred orientation of subsea cables and cable protection or other recommendations from operators in the region should they choose to continue fishing in a project area.	
0081-31	The Fisheries Communication Plan (FCP) for New England Wind focuses primarily on informational meetings and information dissemination. While this is an important component of any FCP, we again reiterate the importance of having a two way communication flow to ensure that fishermen are authentically included. The first step must be the development of written commitments that the developer and their representatives respect the input, inclusion and limited available time to participate in meetings.	Thank you for your comment.
0081-35	RODA is encouraged that a bond is to be held by the U.S. government to cover the costs of decommissioning. BOEM should disclose the bond amount to the public along with the estimated costs of decommissioning, to allow the public to consider the sufficiency of the bond and ease or raise any concerns over responsibility for uncovered expenses. Additional information on how the turbines will be disposed of after decommissioning should be provided and analyzed in future documents including the EIS.	Decommissioning plans and timelines were discussed in Section 2 of the Draft EIS. The decommissioning approach is unchanged from the Draft EIS; therefore, no changes to the Final EIS were necessary. Further, additional NEPA analysis will be conducted prior to making a determination on the decommissioning application that needs to be submitted for purposes of authorizing decommissioning activities, including the methods to be used.
0083-116	New England Wind proposes several mitigation and monitoring measures for benthic resources, invertebrates, finfish, and EFH. These include: (1) a benthic monitoring framework; (2) sensitive habitat avoidance; (3) sensitive habitat map distribution; and (4) pre-construction, construction and post- construction fisheries surveys. BOEM also lists the following potential mitigation and monitoring measures: (1) plankton surveys; (2) post-construction monitoring to document habitat disturbance and recovery at offshore WTG foundations; (3) anchoring plans; (4) optical surveys of benthic invertebrates and habitat; (5) consideration of any new data on benthic habitats and consultation with relevant agencies when refining the benthic monitoring plan, including an evaluation of whether cable protection is mitigating impacts to juvenile cod HAPC; and (6) evaluation of additional benthic habitat data prior to cable laying. We support these measures... to reduce impacts to benthic habitats, finfish, and EFH.	Thank you for your comment.
0083-21	We note that many of the proposed monitoring and mitigation plans found in this Draft EIS are general at this point, relying on yet-to-be-developed plans. We urge BOEM to use the recommendations herein to require protective measures and to allow practices to evolve as monitoring informs impact assessments.... Responsible development of offshore wind includes applying a framework of avoiding, minimizing, mitigating, and monitoring impacts to wildlife and wildlife habitat. Even	Thank you for your comment.

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	with best efforts to gather and consider all relevant information, considerable uncertainty exists about how offshore wind will affect habitats and wildlife and we therefore urge New England Wind to support conservation efforts for potentially impacted species and habitats.	
0083-44	With respect to the pre-construction, construction and installation, and post-construction fisheries surveys, the Draft EIS provides few details but notes that New England Wind, in cooperation with University of Massachusetts Dartmouth School of Marine Science and Technology, will conduct trawl and drop camera surveys within the SWDA and OECC and will develop a framework for the studies in coordination with other developers. The Draft EIS also provides few details on the benthic monitoring framework. At a minimum, for these monitoring measures, BOEM should require New England Wind to conduct the necessary pre-construction, construction, and post-construction monitoring of benthic habitats and associated flora and fauna to detect any physical changes and impacts to habitats and species that occur because of construction activities, the presence of WTG structures in the water columns, hydrodynamic effects, and other impacts. The monitoring plan should also evaluate impacts to juvenile cod HAPC and, as suggested in the Draft EIS, whether cable protection is mitigating impacts to these habitats. As described in the Draft EIS, New England Wind should further consider any new data on benthic habitats when refining the benthic monitoring plan and be required to consult with NMFS and the Massachusetts Department of Environmental Protection, and address any agency comments, before finalizing the benthic monitoring plan. BOEM should also require New England Wind to undertake the proposed optical surveys of benthic invertebrates and habitat, plankton surveys, and post construction benthic habitat disturbance monitoring, as these measures will increase our understanding of the general impacts of offshore wind on benthic resources, finfish, EFH, and invertebrates, including the hydrodynamic effects and potential long-term effects of offshore wind development.	Thank you for your comment.
0083-45	New England Wind plans to provide contractors with a map of sensitive habitats to allow them to plan mooring positions to avoid such habitats, and require that vessel anchors and legs avoid eelgrass beds and hard/complex bottom, as long as such avoidance does not compromise the vessel's safety or the cable's installation. Moreover, under the potential anchoring plan, New England Wind would develop a plan to avoid construction impacts on sensitive habitats, including hard-bottom and structurally complex habitats. The plan would include the planned location of anchoring activities, sensitive habitats and location, etc. The	Thank you for your comment.

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	Draft EIS also explains that New England Wind may conduct additional evaluation of benthic habitat data prior to cable laying, including 75 benthic grabs over the entire length of the OECC (with approximately 42 in the eastern Muskeget Channel region) and 60 underwater video transects over the entire length of the OECC (with 28 transects in the eastern Muskeget Channel region). New England Wind would use this information to avoid siting the OECC route in sensitive habitats to the maximum extent practicable. Because these three measures would help further avoid, minimize, and mitigate impacts to sensitive benthic habitats, BOEM should require them.	
0083-46	Due to the predominance of complex habitat in Muskeget Channel, the area may be an Atlantic cod spawning ground. Therefore, BOEM should consider conducting Atlantic cod spawning surveys and deploying passive acoustic monitoring capable of detecting the vocalizations of spawning cod in the area of Muskeget Channel to further our understanding of the impacts of offshore wind on cod spawning. Monitoring measures to detect the presence of spawning cod in Muskeget Channel and any impacts from offshore wind development is especially important because of cod spawning site fidelity. Cod spawning monitoring could inform the development of adaptive management mitigation measures to reduce impacts, if needed. For example, if based on monitoring, BOEM determined that time-of-year restrictions on cable emplacement activities in Muskeget Channel would reduce impacts to cod spawning, BOEM should require New England Wind to implement such adaptive restrictions on construction activities in Muskeget Channel.	Thank you for your comment.
0083-69	As an initial matter, our groups are concerned with the lack of detail about the mitigation measures mentioned in the Draft EIS. Several of the mitigation measures described in Appendix H of the Draft EIS lack specificity or are yet to be finalized. For example, rather than require specific monitoring and mitigation measures as part of the Draft EIS, BOEM states that it will require the applicant (1) to develop mitigation and monitoring measures similar to those in the Vineyard Wind COP; (2) to submit a pile-driving monitoring plan to BOEM and NMFS for review and approval a minimum of 90 days prior to the commencement of activities; and (3) to prepare and submit a passive acoustic monitoring (PAM) plan describing all equipment, procedures, and protocols to BOEM and NMFS at least 90 days prior to initiation of pile-driving activities. These "plans" will not be made available for public comment. BOEM cannot expect the public to refer to Vineyard Wind's COP to find specifics about potential mitigation measures or wait until mitigation	Thank you for your comment.

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	plans are finalized to understand the impact of proposed activities on marine mammals and sea turtles.	
0083-70	"As stated in Section 3.B.2, it is not clear from the Draft EIS what BOEM is conditioning its permit for New England Wind on a specific level of noise reduction. Even at the 12 dB target level, noise reduction and attenuation falls below what can now be achieved with best available noise control technology and we recommend BOEM strengthen its requirements to maximize the level of noise reduction during construction. As described in Bellman et al. (2020) and Bellman et al. (2022), noise reduction levels achieved in Europe through the combined use of NAS (one positioned in the near-field and one in the far-field) have reached a 20 dB (re: 1 ?Pa2s) reduction in SEL, or greater. A combination of the IHC Noise Mitigation Screen (IHC-NMS) and an optimized big bubble curtain (BBC) has proven among the most effective to date, with a minimum, average, and maximum reduction in sound exposure level (?SEL) of 17, 19, and 23 dB, respectively. The deployment of a combination NAS (i.e., two different systems) is considered by those authors to be ""state of the art"" in terms of SEL reduction and is also important for attenuating sound across a range of frequencies and maximizing transmission loss.	The mitigation and monitoring measures that the applicant has committed to implement (including and in addition to those defined in the COP) are listed in Table H-1. Mitigation and monitoring measures that may result from reviews under the statutes listed above are shown in Table H 2. Some of these mitigation and monitoring measures are outside of BOEM's statutory and regulatory authority but could potentially be adopted and imposed by other governmental entities. Tables H-1 and H-2 provide descriptions of mitigation or monitoring measures, along with the resource or resources to which each measure applies. If the COP is approved or approved with conditions, it will include mitigation and monitoring measures developed under various consultations and permit reviews (e.g., ESA and Marine Mammal Protection Act) and adopted by the Final EIS Record of Decision (ROD). If BOEM decides to approve the COP, the ROD will state which of the additional mitigation and monitoring measures identified by BOEM in Tables H-1 and H-2 have been adopted; if measures are not adopted, the ROD will state why they were not. If the measures adopted differ substantially from those listed in Tables H-1 and H-2, BOEM will evaluate whether impacts analyses need to be modified to address those changes. The applicant will be required to implement the mitigation and monitoring measures applicable that are adopted in the ROD (Code of Federal Regulations, Title 40, Section 1505.3 [40 CFR § 1505.3]), and it will be required to certify compliance with certain terms and conditions as required under 30 CFR § 585.633(b).
0083-72	vessel strikes are a leading cause of large whale injury and mortality...Vessel strikes also pose a significant risk to other large whale species currently experiencing UMEs, such as humpback and minke whales, as well as endangered fin whales and sei whales, and sea turtles. Short of entirely eliminating vessels from an area, reducing speeds to 10 knots or less for all vessels is currently the only known way to reduce the risk of injury and mortality to marine mammals and sea turtles from vessel strikes. We therefore urge BOEM to implement a mandatory, year-round 10 knot speed restriction on all Project vessels associated with New England Wind at all times (except in Nantucket Sound unless a Dynamic Management Area (DMA) is designated)...[Existing] measures still leave right whales vulnerable to vessel strike outside of the November 1-May 14 period and are reliant on a consistently high probability of real-time detection of right whales in order to trigger the designation of DMAs, which likely cannot be attained at a level that	The mitigation and monitoring measures that the applicant has committed to implement (including and in addition to those defined in the COP) are listed in Table H-1. Mitigation and monitoring measures that may result from reviews under the statutes listed above are shown in Table H 2. Some of these mitigation and monitoring measures are outside of BOEM's statutory and regulatory authority but could potentially be adopted and imposed by other governmental entities. Tables H-1 and H-2 provide descriptions of mitigation or monitoring measures, along with the resource or resources to which each measure applies. If the COP is approved or approved with conditions, it will include mitigation and monitoring measures developed under various consultations and permit reviews (e.g., ESA and Marine Mammal Protection Act) and adopted by the Final EIS Record of Decision (ROD). If BOEM decides to approve the COP, the ROD will state which

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	would detect every single animal based on currently available technology. We note that NMFS has proposed a new, larger "Atlantic Seasonal Speed Zone (SSZ)" that would completely cover New England Wind's project Area from November 1 through May 30, as part of a Proposed Rule to amend the Vessel Speed Rule. Several of our groups spoke in strong support of the proposed amendments to the Vessel Speed Rule–with certain improvements, as detailed in our letters–because they would significantly reduce the risk of mortality and injury of right whales from vessel strike. However, the Proposed Rule is not yet in effect, and there is no guarantee it will be finalized as written. Moreover, even if the Atlantic SSZ is implemented as proposed, current evidence demonstrates that right whales may be at risk of vessel strike year-round, including outside of the November 1-May 30 season.	of the additional mitigation and monitoring measures identified by BOEM in Tables H-1 and H-2 have been adopted; if measures are not adopted, the ROD will state why they were not. If the measures adopted differ substantially from those listed in Tables H-1 and H-2, BOEM will evaluate whether impacts analyses need to be modified to address those changes. The applicant will be required to implement the mitigation and monitoring measures applicable that are adopted in the ROD (Code of Federal Regulations, Title 40, Section 1505.3 [40 CFR § 1505.3]), and it will be required to certify compliance with certain terms and conditions as required under 30 CFR § 585.633(b).
0083-73	Feeding behaviors have been observed in and close to the New England Wind Project Area by virtually all whale species and small cetaceans regularly occurring in this area. Oceanographic studies in the area, which were part of the NLPSC campaigns, confirmed the presence of a zooplankton community composition similar to that of Cape Cod Bay, which is a known hotspot for right whale feeding. A feeding BIA for fin whales is designated March to October east of Montauk Point and feeding humpback whales are regularly observed, particularly during March and April. Courtship behaviors in the area have also been observed by humpback whales. Based on these above-described findings of right whale habitat use, and the importance of the area for multiple age classes, socializing animals, and most importantly as core foraging habitat, we recommend BOEM extend the time period of the proposed seasonal restriction to December 1 through April 30 to reflect the period of highest detections of vocal activity, sightings, and abundance estimates of North Atlantic right whales. We also underscore that the species should be expected to be found throughout the year in and close to the Project Area, and the most stringent impact avoidance, minimization, and mitigation are required to protect this species at all times during potentially harmful construction activities."	Thank you for your comment.
0083-74	We therefore appreciate BOEM prohibiting New England Wind from initiating impact pile driving within 1.5 hours of civil sunset and this requirement should be carried forth to the Final EIS...We are supportive of this approach only if initiation of impact pile driving at night is prohibited unless the alternative monitoring plan is approved, and only if the technologies and methodologies proposed are independently and scientifically proven (i.e., via peer-reviewed scientific study) to have detection rates that are equally or more effective than can be achieved by monitoring during daylight hours with good visibility conditions. BOEM	Thank you for your comment.

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	should clearly lay out in the Final EIS what information is required to be provided by the developer, and what criteria BOEM and NMFS will use to evaluate its reliability. BOEM should also consider that vessels operating at night may be more likely to strike a right whale or other large whale species due to a lack of detectability.	
0083-76	Following the mitigation hierarchy, we believe BOEM should prioritize impact avoidance and consider alternatives that use quiet foundation technologies that avoid pile driving noise entirely and significantly reduce noise impacts to marine mammals and other marine life overall. As we noted previously in these comments and in our past comments on other projects, BOEM and the developer should provide more detailed analysis to support the elimination of these technologies from consideration. Quiet foundation types can afford developers significant flexibility in the construction schedule, including potentially year-round and 24-hour construction in some areas. In our view, these incentives should be fully explored by BOEM and industry.	Thank you for your comment.
0083-80	Unexploded ordnance may be encountered on the seabed in the process of developing the Project in the lease area and/or along the export cable routes. UXOs may require removal through explosive detonation, which could cause disturbance and injury to marine mammals and sea turtles. BOEM states that no auditory injury or mortality is expected for any species "[d]ue to the proposed mitigation and monitoring measures (Appendix H) and the relatively small size of the peak pressure and acoustic impulse threshold ranges compared to PTS and TTS ranges for potential UXO detonations." However monitoring and mitigation measures specific to UXO detonations are not included in the Appendix H, and BOEM's lack of analysis for UXO detonations for New England Wind does not comport with how this activity has been analyzed in recent and concurrent Draft EIS's for other offshore wind projects. BOEM must provide a complete analysis of potential impacts from UXOs and a full description of monitoring and mitigation measures required for this activity in the Final EIS.	The mitigation and monitoring measures that the applicant has committed to implement (including and in addition to those defined in the COP) are listed in Table H-1. Mitigation and monitoring measures that may result from reviews under the statutes listed above are shown in Table H 2. Some of these mitigation and monitoring measures are outside of BOEM's statutory and regulatory authority but could potentially be adopted and imposed by other governmental entities. Tables H-1 and H-2 provide descriptions of mitigation or monitoring measures, along with the resource or resources to which each measure applies. If the COP is approved or approved with conditions, it will include mitigation and monitoring measures developed under various consultations and permit reviews (e.g., ESA and Marine Mammal Protection Act) and adopted by the Final EIS Record of Decision (ROD). If BOEM decides to approve the COP, the ROD will state which of the additional mitigation and monitoring measures identified by BOEM in Tables H-1 and H-2 have been adopted; if measures are not adopted, the ROD will state why they were not. If the measures adopted differ substantially from those listed in Tables H-1 and H-2, BOEM will evaluate whether impacts analyses need to be modified to address those changes. The applicant will be required to implement the mitigation and monitoring measures applicable that are adopted in the ROD (Code of Federal Regulations, Title 40, Section 1505.3 [40 CFR § 1505.3]), and it will be required to certify compliance with certain terms and conditions as required under 30 CFR § 585.633(b).

Comment Number	Comment	Response
0083-81	Entanglement in abandoned fishing gear contributes significantly to mortality and serious injury of marine mammals and sea turtles, particularly the North Atlantic right whale. In fact, mortality due to fishing gear entanglement may actually be higher than estimated due to cryptic mortality. We encourage BOEM and the developer to create a marine debris mitigation plan in addition to the existing requirement that vessel operators, employees, and contractors complete marine debris awareness training. In addition, BOEM should fully describe the mitigation and monitoring measures that the agency intends to require in the Final EIS to reduce entanglement risk posed to sea turtles from fishing gear and marine debris.	The mitigation and monitoring measures that the applicant has committed to implement (including and in addition to those defined in the COP) are listed in Table H-1. Mitigation and monitoring measures that may result from reviews under the statutes listed above are shown in Table H 2. Some of these mitigation and monitoring measures are outside of BOEM's statutory and regulatory authority but could potentially be adopted and imposed by other governmental entities. Tables H-1 and H-2 provide descriptions of mitigation or monitoring measures, along with the resource or resources to which each measure applies. If the COP is approved or approved with conditions, it will include mitigation and monitoring measures developed under various consultations and permit reviews (e.g., ESA and Marine Mammal Protection Act) and adopted by the Final EIS Record of Decision (ROD). If BOEM decides to approve the COP, the ROD will state which of the additional mitigation and monitoring measures identified by BOEM in Tables H-1 and H-2 have been adopted; if measures are not adopted, the ROD will state why they were not. If the measures adopted differ substantially from those listed in Tables H-1 and H-2, BOEM will evaluate whether impacts analyses need to be modified to address those changes. The applicant will be required to implement the mitigation and monitoring measures applicable that are adopted in the ROD (Code of Federal Regulations, Title 40, Section 1505.3 [40 CFR § 1505.3]), and it will be required to certify compliance with certain terms and conditions as required under 30 CFR § 585.633(b).
0083-93	The Mitigation and Monitoring plan does not fully measure nocturnal bird or bat traffic. Acoustic sensors can identify species passing through the turbine area but cannot reliably count large flocks, identify migrating birds that do not call in-flight, or separate species with similar calls. Integrating acoustic data with camera technologies and/or radar systems is required to fully measure migrant traffic and identify all species, as well as providing valuable supplementary data on number of individuals, flight speed, and flight height.	The mitigation and monitoring measures that the applicant has committed to implement (including and in addition to those defined in the COP) are listed in Table H-1. Mitigation and monitoring measures that may result from reviews under the statutes listed above are shown in Table H 2. Some of these mitigation and monitoring measures are outside of BOEM's statutory and regulatory authority but could potentially be adopted and imposed by other governmental entities. Tables H-1 and H-2 provide descriptions of mitigation or monitoring measures, along with the resource or resources to which each measure applies. If the COP is approved or approved with conditions, it will include mitigation and monitoring measures developed under various consultations and permit reviews (e.g., ESA and Marine Mammal Protection Act) and adopted by the Final EIS Record of Decision (ROD). If BOEM decides to approve the COP, the ROD will state which of the additional mitigation and monitoring measures identified by BOEM in Tables H-1 and H-2 have been adopted; if measures are not adopted, the ROD will state why they were not. If the measures adopted

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		differ substantially from those listed in Tables H-1 and H-2, BOEM will evaluate whether impacts analyses need to be modified to address those changes. The applicant will be required to implement the mitigation and monitoring measures applicable that are adopted in the ROD (Code of Federal Regulations, Title 40, Section 1505.3 [40 CFR § 1505.3]), and it will be required to certify compliance with certain terms and conditions as required under 30 CFR § 585.633(b).
0083-94	The Mitigation and Monitoring plan does not address comprehensively micro-scale collision or avoidance. New England Wind states it will consider installing anti-perching devices on offshore wind structures to reduce bird perching locations. Comprehensive collision monitoring is key to assessing effects of wind turbines, but here collision detection of birds is limited to opportunistic carcass surveys on platforms and vessels. Such surveys would fail to record any (and very likely most) bird strikes in which carcasses do not land on a fixed or floating structure. Provision for an automated, multi-sensory monitoring system will better enhance understanding of avian and bat activity by tracking micro-avoidance or -attraction behaviors, gauging species composition at the New England Wind site (both diurnally and nocturnally), and detecting movement flux rates. for individual aerial wildlife through at least some portion of the project site.	The mitigation and monitoring measures that the applicant has committed to implement (including and in addition to those defined in the COP) are listed in Table H-1. Mitigation and monitoring measures that may result from reviews under the statutes listed above are shown in Table H 2. Some of these mitigation and monitoring measures are outside of BOEM's statutory and regulatory authority but could potentially be adopted and imposed by other governmental entities. Tables H-1 and H-2 provide descriptions of mitigation or monitoring measures, along with the resource or resources to which each measure applies. If the COP is approved or approved with conditions, it will include mitigation and monitoring measures developed under various consultations and permit reviews (e.g., ESA and Marine Mammal Protection Act) and adopted by the Final EIS Record of Decision (ROD). If BOEM decides to approve the COP, the ROD will state which of the additional mitigation and monitoring measures identified by BOEM in Tables H-1 and H-2 have been adopted; if measures are not adopted, the ROD will state why they were not. If the measures adopted differ substantially from those listed in Tables H-1 and H-2, BOEM will evaluate whether impacts analyses need to be modified to address those changes. The applicant will be required to implement the mitigation and monitoring measures applicable that are adopted in the ROD (Code of Federal Regulations, Title 40, Section 1505.3 [40 CFR § 1505.3]), and it will be required to certify compliance with certain terms and conditions as required under 30 CFR § 585.633(b).
0083-95	The Mitigation and Monitoring plan limits individual tracking to ESA-listed species. There are important reasons to track non-listed avian species. In cases where welfare concerns or rarity preclude the tracking of listed species, non-listed substitutes can substitute (e.g., Common Terns for Roseate Terns). Some marine bird species that are globally threatened or endangered under the International Union for the Conservation of Nature Red List are not listed under the ESA because of listing delays or because they breed elsewhere. Regardless of listing status, species with high vulnerability to offshore wind or with uncertain population trends should be included in Motus studies to better measure	The mitigation and monitoring measures that the applicant has committed to implement (including and in addition to those defined in the COP) are listed in Table H-1. Mitigation and monitoring measures that may result from reviews under the statutes listed above are shown in Table H 2. Some of these mitigation and monitoring measures are outside of BOEM's statutory and regulatory authority but could potentially be adopted and imposed by other governmental entities. Tables H-1 and H-2 provide descriptions of mitigation or monitoring measures, along with the resource or resources to which each measure applies.

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	migratory connectivity and determine appropriate locations for population monitoring.	If the COP is approved or approved with conditions, it will include mitigation and monitoring measures developed under various consultations and permit reviews (e.g., ESA and Marine Mammal Protection Act) and adopted by the Final EIS Record of Decision (ROD). If BOEM decides to approve the COP, the ROD will state which of the additional mitigation and monitoring measures identified by BOEM in Tables H-1 and H-2 have been adopted; if measures are not adopted, the ROD will state why they were not. If the measures adopted differ substantially from those listed in Tables H-1 and H-2, BOEM will evaluate whether impacts analyses need to be modified to address those changes. The applicant will be required to implement the mitigation and monitoring measures applicable that are adopted in the ROD (Code of Federal Regulations, Title 40, Section 1505.3 [40 CFR § 1505.3]), and it will be required to certify compliance with certain terms and conditions as required under 30 CFR § 585.633(b).
0083-96	The Mitigation and Monitoring plan does not identify acceptable levels of mortality, or displacement, or describe potential mitigation activities that could offset such impacts when and where they were to occur to the most susceptible species. The monitoring framework for offshore birds does not directly address the mitigation actions that might be needed for any observed collision or displacement effects, what level of observed impact would trigger such measures, or the kind of habitat and/or resource equivalency analysis that would be implemented for computing the offsets used for any restoration actions.	The mitigation and monitoring measures that the applicant has committed to implement (including and in addition to those defined in the COP) are listed in Table H-1. Mitigation and monitoring measures that may result from reviews under the statutes listed above are shown in Table H 2. Some of these mitigation and monitoring measures are outside of BOEM's statutory and regulatory authority but could potentially be adopted and imposed by other governmental entities. Tables H-1 and H-2 provide descriptions of mitigation or monitoring measures, along with the resource or resources to which each measure applies. If the COP is approved or approved with conditions, it will include mitigation and monitoring measures developed under various consultations and permit reviews (e.g., ESA and Marine Mammal Protection Act) and adopted by the Final EIS Record of Decision (ROD). If BOEM decides to approve the COP, the ROD will state which of the additional mitigation and monitoring measures identified by BOEM in Tables H-1 and H-2 have been adopted; if measures are not adopted, the ROD will state why they were not. If the measures adopted differ substantially from those listed in Tables H-1 and H-2, BOEM will evaluate whether impacts analyses need to be modified to address those changes. The applicant will be required to implement the mitigation and monitoring measures applicable that are adopted in the ROD (Code of Federal Regulations, Title 40, Section 1505.3 [40 CFR § 1505.3]), and it will be required to certify compliance with certain terms and conditions as required under 30 CFR § 585.633(b).

O.5.27 Appendix K, References Cited

Table O.5-27: Responses to Comments on Appendix K, References Cited

Comment Number	Comment	Response
0006-02	https://www.nature.org/content/dam/tnc/nature/en/documents/TurbineReefs_Nature-BasedDesignsforOffshoreWind_FinalReport_Nov2021.pdfhttps://tethys.pnnl.gov/wind-energy-monitoring-mitigation-technologies-tool?wind_hierarchy=All&wind_industry=All&wind_phase=All&wind_stressor=All&wind_receptor=All&field_development_status_target_id=All&wind_status=All&search=econcrete	Thank you for your comment.
0023-14	LeBlanc, D., J. Guswa, M. Frimpter and C. Londquist (1986) Ground water resources of Cape Cod, Massachusetts. U.S. Geological Survey Hydrologic Investigations Atlas HA-692, U.S. Geological Survey, Reston, VA. Masterson, J. P. and Portnoy, J. W. (2005) Potential Changes in Ground-Water Flow and their Effects on the Ecology and Water Resources. Olcot, P. G. (1995) Ground Water Atlas of the United States, "Connecticut,Maine,Massachusetts, New Hampshire, New York,Rhode Island,Vermont, HA730-M, Regional Summary". Available at URL: HTTP://capp.water.usgs.org	Thank you for your comment.
0034-10	"New Bedford Foss Terminal Opening to Support Offshore Wind," press release, 23 March 2022. South Coast Today, Gallerani, Kathryn, "New Bedford Ocean Cluster: Marine industries can work together to help each other 'thrive'", 27 September 2022. BOEM, p. E-29 New Bedford MCT North Terminal The White House, Executive Order 14008, "Tackling the Climate Crisis at Home and Abroad," President Joseph Biden, 27 January 2021. WPRI, Walsh, Kait and DaSilva, Melanie, "New Bedford offshore wind industry to bring thousands of jobs," 26 April 2022. BOEM, p. 3.5-24 paved area BOEM, p. 3.7-1, p. 3.7-4 Marine Mammal Characteristics NOAA Fisheries, North Atlantic Right Whale Nantucket Current, Graziadel, Jason, "Ferries, Fishermen, Alarmed by Proposed Right whale Speed Restrictions," 19 September 2022. BOEM, pp. 3.4-7, 3.4-1 Benthic resources Columbia Climate School, State of the Planet, Cho, Renee, "Five Things the Energy Transition Can't Do Without," 7 December 2022. Columbia Climate School, State of the Planet, Toh, Lucas, "Let's Come Clean: The Renewable Energy Transition Will Be Expensive," 26 October 2021. The Guardian, Poonia, Gitanjali, "How the rise of copper reveals clean energy's dark side," 9 November 2021. The Brown Daily Herald, Sender, Gabriel, "Sender '25: Block Island Wind Farm shows that Rhode Island still needs nuclear," 11 April 2022. National Wind Watch, Collins, David, "The Block Island wind farm has largely shut down," 7 August 2021. American Association for the Advancement of Science (AAAS), Bates, Mary, Ph.D., "Noise pollution also threatens fish," 1 October 2012. PhysdotOrg, "Fish exposed to noise pollution likely to die early: study," 16 September 2020. Hakai Magazine Coastal Science and Societies,	Thank you for your comment.

Comment Number	Comment	Response
	Kemeny, Richard, "Marine Noise is Mentally and Physically Disturbing Fish" 6 April 2018. Journal of Fish Biology, Popper Arthur N. and Hawkins, Anthony D., "An overview of fish bioacoustics and the impacts of anthropogenic sounds on fishes," 12 March 2019. Mongabay, Alberts, Elizabeth Claire, "For marine life, human noise pollution brings 'death by a thousand cuts'," 9 February 2021. Discover Magazine, Hellweg, Max Aguilera and McCarthy, Susan, "Killing Whales with Sound," 1 April 2002. BOEM, pp. 3.7-35, 3.7-36 moderate impacts on marine mammals Brattle Group, Pfeifenberger, Johannes, Newell, Sam, Graf, Walter and Spokas, Kasparov, "Offshore Wind Transmission: an analysis of planning in New England and New York," 23 October 2020. BOEM, p. E-30 Offshore transmission cables construction and maintenance Integral Consulting, Preziosi, Damian, "EMF Risks from Offshore Wind: A Complete Understanding," 6 September 2022	
0053-02	HTTPS://www.utilitydive.com/news/5-new-England-states-propose-modular-transmission-plan-to incorporate-84/631199/	Thank you for your comment.
0074-07	CZM, Terrell, Megan, “Strategic Plan for Mapping Massachusetts’ Benthic Marine Habitats,” May 2004. Cape Cod Times, Bruemmel, Marty, “YOUR TURN: Time to close the circle on Nantucket Sound,” 16 January 2022. Center for Coastal Studies, “Threats to the Bay and Sound.” Chesapeake Bay Program, “Life at the Bottom.” Fugro, English, Paul, “ Benthic Ecological Impacts of Offshore Wind.” JSTOR, Box, Olivia, “How Wind Energy Could Affect Marine Ecosystems,” 13 September 2021. Marine Environmental Research, Mavraki, Ninon, Degraer, Steven, Moens, Tom and Vanaverbeke, Jan, “Functional differences in tropic structure of offshore wind farm communities: A stable isotope study,” 26 December 2019. NOAA Fisheries, “Offshore Wind Energy: Protecting Marine Life.” NOAA Fisheries, “The Importance of Eelgrass,” 7 November 2014. Provincetown Center for Coastal Studies, Coastal Solutions Initiative, “Toward an Ocean Vision for the Nantucket Shelf Region,” January 2005. Seaside Sustainability, Klavinger, Sabrina, “Benthic Habitat Mapping to Understand Ecosystems,” 2 May 2022. SEER, “Benthic Disturbance from Offshore Wind Foundations, Anchors, and Cables,” 28 February 2022. The CaPE Lab, The Coastal Processes and Ecosystems Laboratory, “Dr. Agnes Mittermayr,” January 2018. The University of Rhode Island, Offshore Renewable Energy, Vanaverbeke, Jan, “How do Offshore Wind Structures Affect Marine Ecology in Benthic Zones,” 31 August 2020. The University of Rhode Island, Offshore Renewable Energy, “How do offshore wind turbines change the seafloor? In what ways does this affect the associated marine communities?” The White House, Biden, Joseph R., Executive Order 14008, “Tackling the Climate Crisis at Home and Abroad,” 27 January 2021. ThoughtCo, Kennedy, Jennifer, “Understanding How to Classify a Sessile Organism,” 6 September 2017. Wikipedia, Benthos.	Thank you for your comment.

Comment Number	Comment	Response
0082-05	Review attachments provided by sender: Grid Innovation Program Concept Paper – Joint State Innovation Partnership for Offshore Wind, dated January 13, 2023	Thank you for your comment.
0085-02	https://nap.nationalacademies.org/catalog/26430/wind-turbine-generator-impacts-to-marine-vessel-radar	Thank you for your comment.
0086-19	"New Bedford Foss Terminal Opening to Support Offshore Wind," press release, 23 March 2022. South Coast Today, Gallerani, Kathryn, "New Bedford Ocean Cluster: Marine industries can work together to help each other 'thrive'", 27 September 2022. BOEM, p. E-29 New Bedford MCT North Terminal The White House, Executive Order 14008, "Tackling the Climate Crisis at Home and Abroad," President Joseph Biden, 27 January 2021. WPRI, Walsh, Kait and DaSilva, Melanie, "New Bedford offshore wind industry to bring thousands of jobs," 26 April 2022. BOEM, p. 3.5-24 paved area BOEM, p. 3.7-1, p. 3.7-4 Marine Mammal Characteristics NOAA Fisheries, North Atlantic Right Whale Nantucket Current, Graziadel, Jason, "Ferries, Fishermen, Alarmed by Proposed Right whale Speed Restrictions," 19 September 2022. BOEM, pp. 3.4-7, 3.4-1 Benthic resources Columbia Climate School, State of the Planet, Cho, Renee, "Five Things the Energy Transition Can't Do Without," 7 December 2022. Columbia Climate School, State of the Planet, Toh, Lucas, "Let's Come Clean: The Renewable Energy Transition Will Be Expensive," 26 October 2021. The Guardian, Poonia, Gitanjali, "How the rise of copper reveals clean energy's dark side," 9 November 2021. The Brown Daily Herald, Sender, Gabriel, "Sender '25: Block Island Wind Farm shows that Rhode Island still needs nuclear," 11 April 2022. National Wind Watch, Collins, David, "The Block Island wind farm has largely shut down," 7 August 2021. American Association for the Advancement of Science (AAAS), Bates, Mary, Ph.D., "Noise pollution also threatens fish," 1 October 2012. PhysdotOrg, "Fish exposed to noise pollution likely to die early: study," 16 September 2020. Hakai Magazine Coastal Science and Societies, Kemeny, Richard, "Marine Noise is Mentally and Physically Disturbing Fish" 6 April 2018. Journal of Fish Biology, Popper Arthur N. and Hawkins, Anthony D., "An overview of fish bioacoustics and the impacts of anthropogenic sounds on fishes," 12 March 2019. Mongabay, Alberts, Elizabeth Claire, "For marine life, human noise pollution brings 'death by a thousand cuts'," 9 February 2021. Discover Magazine, Hellweg, Max Aguilera and McCarthy, Susan, "Killing Whales with Sound," 1 April 2002. BOEM, pp. 3.7-35, 3.7-36 moderate impacts on marine mammals Brattle Group, Pfeifenberger, Johannes, Newell, Sam, Graf, Walter and Spokas, Kasparov, "Offshore Wind Transmission: an analysis of planning in New England and New York," 23 October 2020. BOEM, p. E-30 Offshore transmission cables construction and maintenance Integral Consulting, Preziosi, Damian, "EMF Risks from Offshore Wind: A Complete Understanding," 6 September 2022	Thank you for your comment.

O.5.28 NEPA / Public Involvement Process

Table O.5-28: Responses to Comments on NEPA / Public Involvement Process

Comment Number	Comment	Response
0023-02	The project description included in the COP differs substantially from the plan described in the Environmental Notification Form (ENF) the developer submitted to the Massachusetts Environmental Protection Act (MEPA). We believe permitting documents, especially of such large and impactful projects, should be scrupulously consistent across all levels of government and unassailably accurate in their representations...The COP describes variants to the preferred landing sites in six scenarios, including the "South Coast Variant" (SCV), while the ENF describes eight (8) alternative landing sites, all of which are located in and under the jurisdiction of the Town of Barnstable. The COP describes a detailed plan to advance cables from the landward splicing vaults via a tunnel under East Bay, while the ENF focuses primarily on a preferred plan to advance cables by trenching the narrow .2 mile long causeway used to access the beach. The COP provides detailed information on the use of Wianno area for one of more cable landings, while the ENF discounts this possibility as impractical. We ask BOEM how the Draft EIS can evaluate the environmental impact of a years-long coastal zone construction project that presents such inconsistent information to federal and state permitting authorities	The applicant submitted a phased COP to BOEM on July 2, 2020, proposing the construction, operations, and decommissioning of offshore wind energy facilities for the proposed Project. A comprehensive update of the COP was submitted in December 2021, and subsequent updates were submitted in April, May, June, August, September, and November 2022. This Final EIS will inform BOEM's decision in the COP approval process. If its COP is approved, the applicant plans to begin construction in 2024. The purpose of BOEM's action is to determine whether to approve, approve with modifications, or disapprove the COP for the proposed Project. This purpose reflects BOEM's authority under the Outer Continental Shelf Lands Act (OCSLA) to authorize renewable energy activities on the OCS, as well as EO 14008; the shared goals of the Departments of Interior (DOI), Energy (DOE), and Commerce (DOC) to deploy 30 gigawatts (GW) of offshore wind energy capacity in the United States by 2030 while protecting biodiversity and promoting ocean co-use (White House 2021); and consideration of the goals of the applicant. BOEM will make this determination after weighing the factors in Subsection 8(p)(4) of the OCSLA that are applicable to plan decisions and considering the above goals.
0023-03	BOEM allowed a heavily redacted COP to form the basis for the Draft EIS, thereby precluding the opportunity for a full understanding of the project's environmental impact. This shielding of corporate information in this case is not in the public interest and results in a distinct disadvantage to those who oppose projects on the bases of environmental, conservation, and societal concerns...The fact that even the Executive Summary is completely hidden begs the question as to what information the developer has asked to keep from public scrutiny. Why should the public be prevented from knowing the developer's "Protected Species Mitigation Protocol" (section 1.2.8)? We are likewise prevented from reading the proponent's "Shallow Hazards Assessment" (section 3.1) and ask how this information can possibly be deemed proprietary, considering the purpose of the Draft EIS to respond, publicly, to the possible and probable environmental impacts of the proposed project to the OCS, Nantucket Sound, and the coastal zone environment.	"Portions of the COP have been redacted due to confidentiality and proprietary information. The Final EIS full addresses and analyzes all potential social and environmental impacts that may result from the proposed Project.

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0025-04	New England Wind was sited after a lengthy stakeholder and community engagement processes with the federal government which included representation from across Martha's Vineyard. AVANGRID has been an accessible, transparent, and responsive community partner throughout its ongoing development and permitting.	Thank you for your comment.
0029-06	Protecting Dowses Beach aligns with President Biden's call that "(t)he Federal Government must protect America's natural treasures." He continues: "Coastal communities have an essential role to play in mitigating climate change and strengthening resilience by protecting and restoring coastal ecosystems, such as wetlands, seagrasses...oyster reefs...to protect vulnerable coastlines, sequester carbon, and support biodiversity and fisheries."	Thank you for your comment.
0031-02	BOEM needs to seriously consider this environment-friendly, more cost effective, and intelligent planned/open access approach. This will take cooperation among OSW developers but BOEM's federal mandate is Ocean Energy Management. This means that BOEM has a leadership responsibility role and not simply accept whatever OSW developers place in front of it. BOEM must encourage and compel various separate OSW entities with their separate business interests to come together for the common good of the ocean and the environment. Destroying the ocean and industrializing it to depletion and death is wrong. BOEM must lead and not simply take the easiest way to getting an OSW project off the ground, especially when it has foreknowledge that the planned approach is the better way. As President Biden states: "we must combat the climate crisis with bold, progressive action that combines the full capacity of the Federal Government with efforts from every corner of our Nation, every level of government, and every sector of our economy." BOEM must be the leader in using the planned approach for the good of the United States.	Section 2.2 of the Draft EIS described those alternatives considered by not analyzed in detail. Developing a shared export cable corridor would not be technically or economically practicable because each other offshore wind project has distinct interconnection points to the electric power grid.
0040-04	Please consider a significant pause in this project to reevaluate local input, analysis, and sentiment....	Thank you for your comment.
0041-01	I have submitted many written comments over the years, attended many public hearings and provided public testimony. During all of which I, and many others, have stressed the need for proper baseline studies to be carried out prior to construction. This has not happened. We have also advocated for cumulative impacts to be analyzed; this has not happened. There is such a push for offshore wind construction to begin that we have forgone these extremely important steps that are necessary in helping us in determining the impacts construction and operation will have on the different species, the ecosystem, oceanographic processes, and the fishing industry.	This Final Environmental Impact Statement (EIS) assesses the potential environmental, social, economic, historic, and cultural impacts that could result from the construction and installation (construction), operations and maintenance (operations), and conceptual decommissioning of the New England Wind Project (Project). The applicant submitted a phased COP to BOEM on July 2, 2020, proposing the construction, operations, and decommissioning of offshore wind energy facilities for the proposed Project. A comprehensive update of the COP was submitted in December 2021, and subsequent updates were submitted in April, May, June, August, September, and November 2022. BOEM's role is to evaluate the potential effects of the proposed Project

Comment Number	Comment	Response
		as outlined in the COP as well as the impacts of a range of reasonable alternatives as required by NEPA. This Final EIS will inform BOEM's decision in the COP approval process. If its COP is approved, the applicant plans to begin construction in 2024. The purpose of BOEM's action is to determine whether to approve, approve with modifications, or disapprove the COP for the proposed Project.
0048-01	The redactions in these reports are concerning. They could very well relate to and shed light on the real environmental issues and potential harm this project could bring to Dowses Beach and the community of Barnstable. This information needs to be disclosed to the public before moving forward.	Portions of the COP have been redacted due to confidentiality and proprietary information. The Final EIS full addresses and analyzes all potential social and environmental impacts that may result from the proposed Project.
0048-02	The June 2022 COP submitted by Avangrid to BOEM differs significantly from their ENF. I ask that BOEM and other parties require an independent analysis and note the differences and inconsistencies between these documents. If BOEM is relying on a flawed COP, it should pause their process.	The applicant submitted a phased COP to BOEM on July 2, 2020, proposing the construction, operations, and decommissioning of offshore wind energy facilities for the proposed Project. A comprehensive update of the COP was submitted in December 2021, and subsequent updates were submitted in April, May, June, August, September, and November 2022. This Final EIS will inform BOEM's decision in the COP approval process. If its COP is approved, the applicant plans to begin construction in 2024. The purpose of BOEM's action is to determine whether to approve, approve with modifications, or disapprove the COP for the proposed Project. This purpose reflects BOEM's authority under the Outer Continental Shelf Lands Act (OCSLA) to authorize renewable energy activities on the OCS, as well as EO 14008; the shared goals of the Departments of Interior (DOI), Energy (DOE), and Commerce (DOC) to deploy 30 gigawatts (GW) of offshore wind energy capacity in the United States by 2030 while protecting biodiversity and promoting ocean co-use (White House 2021); and consideration of the goals of the applicant. BOEM will make this determination after weighing the factors in Subsection 8(p)(4) of the OCSLA that are applicable to plan decisions and considering the above goals.
0055-07	The Draft EIS provides far more detail about No Action and Phase 1 as compared to Phase 2. If BOEM intends to use the Final EIS for its stated purpose (project evaluation), Phase 2 must receive full treatment of the alternatives description and impacts analysis.	Phase 1 and Phase 2 of the Project are discussed in each resource section of Chapter 3. Where they exist, the differences between the Phases are called out and differing impacts are discussed. Overall, activities associated with Phase 1 and Phase 2 are similar in nature and addressed accordingly in the Final EIS.
0055-13	This Final EIS, and all future NEPA documents for other wind projects, should clearly specify if an impact is adverse or beneficial. The Draft EIS indicates that impacts are adverse unless specified as beneficial. However, some impact producing factors (e.g., presence of structures) are expected to have both adverse and beneficial impacts (e.g., adverse for soft bottom species and beneficial for structure oriented species). The clarity of these descriptions would be improved if "adverse" or	If an impact is deemed beneficial, it is noted in the Final EIS. Section 3.3 of the EIS provides the definition of impact levels used throughout the EIS.

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	"beneficial" were specified for each impact, or, at a minimum, at the beginning of each section. This should be done consistently throughout all sections of the document.	
0055-20	In terms of cumulative effects, the Draft EIS considers future offshore wind energy activities in other lease areas as part of future baseline conditions against which the impacts of this project are compared (Appendix 3, Table E3-1). As we understand it, the Draft EIS has two baseline conditions, one with other wind projects and one without. Under the No Action alternative, the language indicates that the baseline condition assumes "the continuation of all other existing and reasonably foreseeable future activities...without the Proposed Action" (page ES-11). The alternatives should be compared against both sets of conditions in a consistent way.	The No Action Alternative consists of the current baseline conditions as influenced by past and ongoing activities and trends and serves as the baseline against which all action alternatives are evaluated. The Draft EIS presented a complete description and analysis of impacts from ongoing activities and trends (i.e., No Action Alternative) and impacts from the Proposed Action and action alternatives. The No Action Alternative provides a current baseline for analysis of impacts from the action alternatives. A separate analysis of the No Action Alternative when combined with future planned activities (i.e., cumulative actions) provides the future baseline as a basis for comparison of the cumulative impacts of the action alternatives.
0055-29	Given the current pace of offshore wind energy development in this region and workload constraints, we are unable to provide a detailed review of this project and the Draft EIS. For example, this comment period overlaps with comment periods on Draft EIS documents for three other wind projects in our region, BOEM's Renewable Energy Modernization Rule, and the Coast Guard's Port Access Route Study for Approaches to Maine, New Hampshire, and Massachusetts.	Thank you for your comment.
0055-32	We recommend including more detailed table captions and column headers for tables and recommend including cross references to tables in the corresponding text.	Thank you for your comment.
0056-01	The aggressive timeline for offshore wind development in the Atlantic poses challenges for multiple industries and multiple jurisdictions. It is imperative that BOEM takes a holistic approach to the combined development of projects.	BOEM, in its role as NEPA lead agency, circulated the Draft EIS consistent with the CEQ's NEPA Implementing Regulations, which state that "agencies shall allow at least 45 days for comments on draft statements" (40 CFR 1506.11). The Draft EIS was originally made available for review and comment for 45 days. The efficiency of the NEPA process is dependent on completing the analysis and making the document available to the public in a timely manner. As described in the NEPA regulations, an agency should commence preparation of an EIS as close as practicable to the time the agency received a proposal so that the Final EIS can contribute to the decision-making process (40 CFR 1502.5).
0056-08	We continually stress that it is imperative to have a process where all voices are heard so that we shall have the most responsible development of this new industry and minimizing adverse impacts to commercial fishing.	Thank you for your comment.

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0070-06	The Final EIS should include information about stakeholder engagement and consultation with environmental justice populations and Native American Tribes. Several of the ports under development and planned as 4 critical staging areas for offshore wind projects are considered environmental justice communities. The Final EIS should include steps that are being taken to ensure these and other environmental justice communities are seeing economic benefits. In addition, long-term planning is necessary to ensure that the economic gains in these communities during offshore wind development are long-lasting. For this to happen effectively, developers and federal, state, and local entities must consult these communities at every step of the planning process. BOEM should ensure that all stakeholder engagement processes are conducted with appropriate language access.	Appendix J of the Final EIS includes Section 106 consultations and stakeholder engagement activities.
0073-06	Another concern has been the lack of transparency between Avangrid and the Town of Barnstable. Although talks between these two parties began 2 years ago, the information regarding Dowses did not “hit the street", literally, until September/October 2022 when a few yard signs randomly dispersed informed whoever drove by. A November meeting at the Library was the first time that SOME of the taxpayers were introduced to the plan…with a hint that the project was “A DONE DEAL” The Town, who can certainly mail out Tax Bills 4X’s a year could have tucked this important info into one of these mailings prior to the Fall 2022 “word of mouth” campaign.	Multiple cable landfall locations have been considered for each Phase of the Project to minimize disruption to residents and minimize impacts on the onshore environment. The Phase 2 offshore export cables will come ashore at the Dowses Beach Landfall Site in Barnstable, unless technical, logistical, grid interconnection, or other unforeseen issues arise that preclude the applicant from installing one or more Phase 2 offshore export cables within the OECC and a second grid interconnection point is needed (see Section 4.1.3.3 of COP Volume I in Appendix C). The ocean to land transition at the Dowses Beach Landfall Site will be made using horizontal directional drilling (HDD), which will avoid or minimize impacts to the beach, intertidal zone, and nearshore areas and achieve a burial significantly deeper than any expected erosion.
0076-01	BOEM is fully aware of the dates of the Fishery Management Council meetings, as it attends many of them, including those which occurred during the New England Wind comment period. Meeting fatigue, combined with the fact that there are only so many hours in a day to attempt to read through the thousands of pages of BOEM Draft EISs and associated documents makes full comments on each Draft EIS impossible. As the public stakeholders with the most to lose from offshore wind, we request that BOEM extend the public comment period for New England Wind and well as all the other proposed Project Draft EISs to allow for true public participation in the BOEM process.	BOEM, in its role as NEPA lead agency, circulated the Draft EIS consistent with the CEQ’s NEPA Implementing Regulations, which state that “agencies shall allow at least 45 days for comments on draft statements” (40 CFR 1506.11). The Draft EIS was originally made available for review and comment for 45 days. The time provided was a total of 45 days and was sufficient for the public to review and provide comments on the Draft EIS. The efficiency of the NEPA process is dependent on completing the analysis and making the document available to the public in a timely manner. As described in the NEPA regulations, an agency should commence preparation of an EIS as close as practicable to the time the agency received a proposal so that the Final EIS can contribute to the decision-making process (40 CFR 1502.5).
0076-02	BOEM continues to conflate the No Action Alternative with a Cumulative Impacts Analysis...The No Action Alternative defines "other reasonably foreseeable future impact-producing offshore wind and non-offshore wind activities" as No Action. This is not a No Action	The No Action Alternative consists of the current baseline conditions as influenced by past and ongoing activities and trends and serves as the baseline against which all action alternatives are evaluated. The Draft EIS presented a complete description and analysis of impacts from

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	Alternative. This is a Cumulative Impacts Alternative. This makes comparison of No Action with the Cumulative Impacts Analysis impossible as a practical matter, and the document does not contain any charts, tables, or methodology by which a standalone Cumulative Impacts Analysis was conducted... A true No Action Alternative would contain only existing permitted projects- Vineyard Wind 1 and South Fork Wind Farm- in its analysis. A Cumulative Impacts Alternative would detail all the planned and future foreseeable BOEM actions such as those potential future projects detailed in Appendix E. By equating the two, BOEM serves to downgrade the impacts produced by the proposed Project of New England Wind. This is corruption of NEPA and must be rewritten and all alternatives re-analyzed, with standalone No Action and Cumulative Impacts Alternatives.	ongoing activities and trends (i.e., No Action Alternative) and impacts from the Proposed Action and action alternatives. The No Action Alternative provides a current baseline for analysis of impacts from the action alternatives. A separate analysis of the No Action Alternative when combined with future planned activities (i.e., cumulative actions) provides the future baseline as a basis for comparison of the cumulative impacts of the action alternatives.
0076-02	Much of the Draft EIS documents seem to be taken from the COP and only utilize developer generated analysis, rather than incorporating analysis conducted by independent entities. We therefore request that BOEM describe in detail how it conducts Draft EIS analysis, who conducts the Draft EIS drafting whether BOEM or a third party contractor, if engaging a third party contractor how and with whom that engagement is conducted, what expertise in each field of particularly navigation/maritime safety/fisheries science/fisheries economic analysis/radar/marine mammal science is possessed by the entities and individuals conducting the review by the entity preparing the Draft EIS, what documents are primarily utilized in Draft EIS development/analysis, and how BOEM arrives at its impact conclusions.	Consistent with BOEM's guidance on preparing third-party NEPA documents, information from the COP is included pursuant to independent verification. All conclusions of the Final EIS are based on independent analysis.
0076-03	We have noticed that not all Draft EIS documents are uniform in layout. Newer Draft EIS documents in fact seem to be shorter and less detailed than previous Draft EIS documents that we have reviewed. This is concerning given the scope and pace by which BOEM is moving offshore wind development in our region.	BOEM has worked diligently to provide as much information as is possible, under current regulatory guidance, for all offshore wind EIS documents. Where applicable, additional information has been provided in the appendices. One such example is Appendix G, IPF Tables Assessment of Resource with Minor (or Lower) Impacts; to focus on the impacts of most concern in the main body of the EIS, BOEM included the analysis of resources within an appendix.
0076-04	As financial troubles with the New England Wind project have resulted in the developer claiming that current power purchase agreements are infeasible, as recently as a month ago and after the Draft EIS was released, BOEM can no longer rely on economic "feasibility" as a measure for approving or disapproving Alternatives or for rejecting Alternatives for analysis, unless by that same reasoning it is prepared to disapprove the entire project. We request that BOEM remove all "feasibility" rationale from the Draft EIS review, as well as conduct a supplemental EIS to analyze the Alternatives Considered but Not Analyzed in Detail which were previously rejected for not meeting	The Department of the Interior’s NEPA regulations, at 43 CFR 46.420(b), state that the term “reasonable alternatives” includes alternatives that "are technically and economically practical or feasible and meet the purpose and need of the proposed action.” It is therefore appropriate to consider “feasibility” when developing alternatives. BOEM’s NEPA analysis is based on the proposal currently submitted for its consideration. That proposal is based on a PPA currently in effect and BOEM considers economic feasibility based on those facts, regardless of whether the economic terms of the PPA are eventually revised.

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	BOEM "feasibility" or developer power purchase contractual obligations. Or, in the converse, we request that BOEM use its own "feasibility" standard to reject the proposed Project entirely.	
0076-05	The [BOEM NEPA] documents lack a standalone and/or detailed cumulative impacts analysis. Impacts are generalized, very rarely quantified, and those that are quantified are quantified in a general and not specific manner. This makes detailed and specific comment, or weighing of alternatives, impossible.	Appendix E of the Draft EIS stated that the impacts resultant from the planned activities scenario are the incremental impacts of the Proposed Action on the environment added to other reasonably foreseeable planned activities in the area (Code of Federal Regulations, Title 40, Section 1502.15 [40 CFR § 1502.15]). This appendix discussed resource-specific planned activities that could occur if the Proposed Action's impacts occur in the same location and timeframe as impacts from other reasonably foreseeable planned activities. Specifically, the Proposed Action here is the construction and installation (construction), operations and maintenance (operations), and conceptual decommissioning (decommissioning) of the New England Wind Project (proposed Project), a wind energy project that would occupy all of the Bureau of Ocean Energy Management's (BOEM) Renewable Energy Lease Area OCS-A 0534 and potentially a portion of Lease Area OCS-A 0501, hereafter referenced as the Southern Wind Development Area (SWDA).
0076-07	The various changes that this lease has undergone have not been clearly articulated by BOEM, and also in general make the projects hard to follow. BOEM needs to do a better job of terminology, clear cut project delineation, and chart depiction of leases and projects, as the developers continue to change names/lease assignments/ownership at a rapid pace and this makes public participation even more difficult when delineations are muddied. Please clarify the lease assignments, ownership, and projects, analyzing each project individually and by name on all BOEM documents and websites.	Thank you for your comment.
0079-01	AVANGRID has worked extensively , both on the South Coast of Massachusetts as well as the North Shore to ensure local involvement in the planning and development process through federal, state, regional, and local permitting and public events. Avingrid has conducted significant and sustained outreach, seeking input and active participation from local residents, elected and appointed officials, local tribes, fishing and marine interests, environmental advocacy groups, and other relevant stakeholder groups.	Thank you for your comment.
0081-01	The EPA's National Environmental Policy Act (NEPA) describes public participation, including subsection (a)(5) which highlights the need to "ensure meaningful public participation throughout the NEPA process." We question how meaningful input is possible given that BOEM currently has three Draft EISs in the Atlantic which have public comment deadlines between February 14th and February 21st...As	BOEM, in its role as NEPA lead agency, circulated the Draft EIS consistent with the CEQ's NEPA Implementing Regulations, which state that "agencies shall allow at least 45 days for comments on draft statements" (40 CFR 1506.11). The Draft EIS was originally made available for review and comment for 45 days. The time provided was a total of 45 days and was sufficient for the public to review and provide

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	RODA and our members have stated numerous times before, the fishing industry is not constrained to one region and often operates coastwide. Thus activities throughout the Atlantic will have impacts to fisheries, marine protected species, and coastal communities in geographically distinct regions.	comments on the Draft EIS. The efficiency of the NEPA process is dependent on completing the analysis and making the document available to the public in a timely manner. As described in the NEPA regulations, an agency should commence preparation of an EIS as close as practicable to the time the agency received a proposal so that the Final EIS can contribute to the decision-making process (40 CFR 1502.5).
0081-02	For some identifiable impacts, there remains serious concerns about the scale and severity of those impacts. RODA and others have long called for a Programmatic Environmental Impact Statement (PEIS) with an adaptive management approach. RODA is reiterating that recommendation with the additional reason of ensuring the required meaningful public participation.	BOEM's renewable energy program occurs in four distinct phases: (1) planning and analysis, (2) lease issuance, (3) site assessment, and (4) construction and operations with defined decision points that require a NEPA review. BOEM's regulations require BOEM to review New England Wind's submitted COP and prepare an appropriate NEPA analysis. BOEM evaluates considerations such as the number of lease sales expected in each area, as well as where BOEM is in the overall leasing process, for determining whether a programmatic EIS is appropriate for a regional area.
0081-04	Politics must not interfere with scientific integrity or transparency and we request BOEM clarify what document the public should review to understand the cumulative impacts of potentially 3,000 turbines whose installation it is "streamlining" into the seabed between MA and VA alone. We further request BOEM to provide explicit information as to how it will approach cumulative impacts reviews for this and future projects.	The No Action Alternative consists of the current baseline conditions as influenced by past and ongoing activities and trends and serves as the baseline against which all action alternatives are evaluated. The EIS also separately analyzes the continuation of all other existing and reasonably foreseeable future activities. The Cumulative impacts analysis includes these past and ongoing activities, plus the proposed Project and environmental trends.
0081-05	There appears to be no standard protocol for when BOEM will conduct a project's EIS, and inconsistency is increased when analyses are conducted piecemeal for each phase versus across an entire lease area or geographic region. As the PPAs have, in the past, determined BOEM's range of alternatives and what fisheries mitigation measures can be considered within the project parameters, this leads to significant uncertainty regarding how BOEM will conduct the upcoming NEPA reviews. Moreover, the current approach makes it nearly impossible to conduct any cumulative analysis as there is no appropriate time in the federal process to do so.	"BOEM, in its role as NEPA lead agency, circulated the Draft EIS consistent with the CEQ's NEPA Implementing Regulations, which state that "agencies shall allow at least 45 days for comments on draft statements" (40 CFR 1506.11). The Draft EIS was originally made available for review and comment for 45 days. The time provided was a total of 45 days and was sufficient for the public to review and provide comments on the Draft EIS. The efficiency of the NEPA process is dependent on completing the analysis and making the document available to the public in a timely manner. As described in the NEPA regulations, an agency should commence preparation of an EIS as close as practicable to the time the agency received a proposal so that the Final EIS can contribute to the decision-making process (40 CFR 1502.5)."
0081-06	Since the Notice of Intents to prepare the Draft EIS, BOEM has taken action on many other relevant activities in the region. There have been multiple Draft EISs, a regional USCG Port Access Route Study, an auction for six additional leases in the New York Bight, publication of several more Draft WEAs (Central Atlantic WEAs), and identification of Draft Call Areas in the Gulf of Maine... Yet, BOEM has not sufficiently evaluated the cumulative impacts of prospective activity in the region.	The No Action Alternative consists of the current baseline conditions as influenced by past and ongoing activities and trends and serves as the baseline against which all action alternatives are evaluated. The EIS also separately analyzes the continuation of all other existing and reasonably foreseeable future activities. The Cumulative impacts analysis includes these past and ongoing activities, plus the proposed Project and environmental trends.

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	This must be remedied immediately and should be incorporated into all future analyses conducted by BOEM.	
0081-07	RODA strongly urges BOEM to reconsider the sequencing of the site assessment, COP approval, and NEPA initiation for OSW projects, as the current rushed timeline has resulted in Proposed Alternatives that may not be possible given technical constraints. If the site assessment is fully complete prior to the COP approval and initiation of the NEPA analyses, the Proposed Action would be better informed. A compression of these different analyses and permitting actions means the public is not adequately informed of the expected project design and again demonstrates why alternatives should be fully analyzed and compared against each other - not solely to the Proposed Action. We strongly urge BOEM to require geological information, which may drastically change a project design in light of fisheries impacts, be more readily available early on in the process.	BOEM's current renewable energy program occurs in four distinct phases: (1) planning and analysis, (2) lease issuance, (3) site assessment, and (4) construction and operations with defined decision points that require a NEPA review.
0081-11	Since the scoping period for the Draft EIS BOEM issued a new policy that has the effect of excluding alternatives from environmental review that would in fact reduce or mitigate fisheries impacts. The "Process for Identifying Alternatives for Environmental Reviews of Offshore Wind Construction and Operations Plans pursuant to the NEPA" released in June 2022 standardizes the alternatives BOEM will consider during the NEPA process and clarifies BOEM's policy of considering only a narrow range of alternatives consistent with a developer's preferred project plans. RODA urges BOEM to reconsider this policy. Specifically, for these projects and all other proposed OSW projects, the agency should include alternatives for analysis in each of its environmental review documents describing specific fisheries mitigation solutions and afford these full, neutral consideration.	Thank you for your comment.
0081-18	The alternatives listed in the Draft EIS are not mutually exclusive. BOEM may "mix and match" multiple listed Draft EIS alternatives to result in a preferred alternative that will be identified in the Final EIS provided that: (1) the design parameters are compatible; and (2) and the preferred alternative still meets the purpose and need." This is concerning in the sense that the public cannot effectively understand what is the preferred alternative. It is setting up an opportunity for a bait-and-switch when the preferred alternative will not be revealed until the publication of the Final EIS. Principles of transparency and informed decision-making should never be undermined and the public should be fully informed throughout the process.	Section 2 of the Draft EIS noted that the alternatives listed in Table 2.1-1 are not mutually exclusive. BOEM may select elements of multiple listed Draft EIS alternatives resulting in a preferred alternative identified in the Final EIS provided that the design parameters are compatible and the preferred alternative still meets the purpose and need. The Final EIS has been updated to identify the preferred alternative.
0081-29	BOEM's draft guidance for Mitigating Impacts to Commercial and Recreational Fisheries on the Outer Continental Shelf was woefully inadequate in its approach to fisheries compensation.	Thank you for your comment.

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0081-33	BOEM has yet to include a clear decommissioning plan in any of their Draft EISs to date. While it is BOEM's mandate to remove all foundations from 15 feet below the mudline, there is no clear designation of how harm will be quantified and what analyses will be conducted. We strongly encourage BOEM to not be over reliant on "conceptual" decommissioning and require developers to include a full decommissioning plan.	Decommissioning plans and timelines were discussed in Section 2 of the Draft EIS. The decommissioning approach is unchanged from the Draft EIS; therefore, no changes to the Final EIS were necessary. Further, additional NEPA analysis will be conducted prior to making a determination on the decommissioning application that needs to be submitted for purposes of authorizing decommissioning activities, including the methods to be used.
0081-34	Impact analyses for O&M are based upon a 35-year operational term. Yet, it is anticipated that some projects may last longer. If it is anticipated that installation will remain longer, or even permanent, analyses in the EIS must reflect these longer time periods. This is noteworthy for other ocean users, such as the fishing industry, who may be anticipating the re-opening of certain areas to fishing for future generations.	Decommissioning plans and timelines were discussed in Section 2 of the Draft EIS. The decommissioning approach is unchanged from the Draft EIS; therefore, no changes to the Final EIS were necessary. Further, additional NEPA analysis will be conducted prior to making a determination on the decommissioning application that needs to be submitted for purposes of authorizing decommissioning activities, including the methods to be used.
0082-02	Avangrid has publicly stated to both its investors and to the public that the New England Wind Project is no longer economically viable under the Power Purchase Agreements it negotiated with electric distribution companies (EDCs) in CT for Park City Wind and in MA for Commonwealth Wind. It has been well covered in the media, that on December 30, 2022 the MA EDCs and the MA DPU rejected Avangrid's request to renegotiate the PPAs for Commonwealth Wind. Avangrid is now pursuing legal action to overturn that ruling by the DPU. Additionally, we were recently in touch directly with the CT DEEP officials and were told that the CT EDCs do not have any plans or processes underway to review the PPAs for Park City Wind. If the BOEM does not reject the Project for the reason cited in Comment 1 or for any other reason(s), then, given the fact that: 1) Avangrid has stated the New England Wind Project is not economically viable without renegotiation of the PPAs for both Park City Wind (Phase 1) and Commonwealth Wind (Phase 2), and 2) neither the MA nor the CT EDCs have any plans to renegotiate the PPAs, we request the BOEM suspend any further action (and use of its taxpayer funded resources) on its review of the Draft EIS until such time Avangrid can demonstrate with reasonable certainty the economic viability of this project.	The Department of the Interior's NEPA regulations, at 43 CFR 46.420(b), state that the term "reasonable alternatives" includes alternatives that ""are technically and economically practical or feasible and meet the purpose and need of the proposed action." It is therefore appropriate to consider "feasibility" when developing alternatives. BOEM's NEPA analysis is based on the proposal currently submitted for its consideration. That proposal is based on a PPA currently in effect and BOEM considers economic feasibility based on those facts, regardless of whether the economic terms of the PPA are eventually revised.
0083-10	The Regional Wildlife Science Collaborative for Offshore Wind (RWSC) is a multi-sector collective created and defined by federal agencies, states, conservation organizations, and offshore wind developers to "collaboratively and effectively conduct and coordinate relevant, credible, and efficient regional monitoring and research of wildlife and marine ecosystems that supports the advancement of environmentally responsible and cost-efficient offshore wind power development activities in U.S. Atlantic waters." We urge BOEM to	Thank you for your comment.

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	continue to participate in and fund RWSC to support its science plan development and to implement the monitoring and research activities identified in the science plan. BOEM, through RWSC and individually, must also continue to collaborate with state efforts... scientists, NGOs, the wind industry, and other stakeholders to use information from monitoring and other research, and evolving practices and technology, to inform cumulative impact analyses moving forward.	
0085-01	We do not believe that comment periods offered by BOEM for any of the various offshore wind lease areas has given the commercial fishing industry adequate time to keep up with BOEM's new "fast and furious" approach to mainline the offshore leasing and approval process and prepare and comment effectively.	BOEM, in its role as NEPA lead agency, circulated the Draft EIS consistent with the CEQ's NEPA Implementing Regulations, which state that "agencies shall allow at least 45 days for comments on draft statements" (40 CFR 1506.11). The Draft EIS was originally made available for review and comment for 45 days. The time provided was a total of 45 days and was sufficient for the public to review and provide comments on the Draft EIS. The efficiency of the NEPA process is dependent on completing the analysis and making the document available to the public in a timely manner. As described in the NEPA regulations, an agency should commence preparation of an EIS as close as practicable to the time the agency received a proposal so that the Final EIS can contribute to the decision-making process (40 CFR 1502.5). "
0086-08	Avangrid has publicly stated that it cannot afford to build the CW project and its parent Iberdrola plans to divest its OSW stake in the USA.	The Department of the Interior's NEPA regulations, at 43 CFR 46.420(b), state that the term "reasonable alternatives" includes alternatives that ""are technically and economically practical or feasible and meet the purpose and need of the proposed action." It is therefore appropriate to consider "feasibility" when developing alternatives. BOEM's NEPA analysis is based on the proposal currently submitted for its consideration. That proposal is based on a PPA currently in effect and BOEM considers economic feasibility based on those facts, regardless of whether the economic terms of the PPA are eventually revised.
0095-3-01	The table of contents for [Construction and Operations Plan] Volume 2 indicates that all the information not shared includes matters of interest to the public regarding environmental impact, I think. Question, first, why the heavy redaction? And second, when will the full scope of Volume 2 be available to the public? Our group is primarily interested, solely interested in preventing the use of Dowses Beach to land these electrical export cables. Why does the inset in figure 5.2-7 show the near shore proposed cable route and show the area directly in front of Dowses as complex habitat, while the inset eliminates Dowses from the map, showing beaches further to the east instead? Second, does the complex habitat indicated in figure 5 dot 2 dash 7 include the area recognized as a possible eel grass bed at Dowses Beach?	Portions of the COP have been redacted due to confidentiality and proprietary information. The Final EIS full addresses and analyzes all potential social and environmental impacts that may result from the proposed Project.

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0096-1-02	we ask BOEM to consider a 15-day extension of the public comment time period on this matter given the complexities of both the COP and the Draft EIS, as well as ongoing uncertainties related to Commonwealth Wind or Phase 2's financial viability. Such an extension would provide clarity as well as improved public input	On December 23, 2022, BOEM issued a Notice of Availability (NOA) for the Draft EIS. The Draft EIS was made available in electronic format for public viewing at https://www.boem.gov/renewable-energy/state-activities/new-england-wind-formerly-vineyard-wind-south. The NOA commenced the 60-day public review and comment period of the Draft EIS. BOEM held three virtual public hearings to solicit feedback and identify issues for consideration in preparing this Final EIS. Throughout the public review and comment period, government agencies, members of the public, and interested stakeholders had the opportunity to provide comments on the Draft EIS in various ways.
0097-2-02	The developer should never have been allowed to keep results of their environmental studies hidden from the public by declaring what they learned proprietary, resulting in an unacceptable level of redaction in Volume 2 of the COP.	Portions of the COP have been redacted due to confidentiality and proprietary information. The Final EIS full addresses and analyzes all potential social and environmental impacts that may result from the proposed Project.
0097-2-03	we feel this proposal should never have been allowed inclusion on the so called Fast 41 Regulatory Approval Tract, despite the current administration's objectives	Thank you for your comment.

O.5.29 Health and Safety

Table O.5-29: Responses to Comments on Health and Safety

Comment Number	Comment	Response
0023-10	The developer proposes to insert an unprecedented amount of electrical ocean wind farm power, 1,200 megawatts, into the waters and under the sand where many people, including small children, swim, relax, and play from May through September. This very fact has led to significant concern in the 5 community regarding the possible health and safety impacts on humans. The literature on EMF's may be inconclusive, but inconclusive it is, with no guarantee that deleterious effects do not exist. The developer has dismissed such community worries by saying cables from the mainland in nearby Hyannis already carry electrical power to the island of Nantucket. We note for BOEM that the two cables to Nantucket carry a total of 71 Megawatts. In addition to EMFs, heat from the cables is an issue of great concern. The planned vaults under the parking lot would not be protected from very high heat build-up during the summer months, or coastal flooding at any time of year, raising fire safety and emergency response concerns.	The best available science was used to evaluate potential impacts from EMF and adequate cable burial depths. BOEM, the U.S. Department of Energy, and the U.S. Department of the Interior have performed several studies which have contributed to the impact determination in the EIS. These studies suggest that a 6 ft burial depth would have the least impact and reduce magnetic field signatures at the seafloor approximately four-fold. More information on potential impacts from EMF can be found in Sections 3.4.2.1 and 3.4.2.3 of the Final EIS.
0023-11	We ask BOEM to imagine a scenario requiring such response in a full parking lot during a summer day, with hundreds of beachgoers, including small children, present. The parking lot of a bathing beach with one narrow means of egress is simply not appropriate for such a large installation of electrical infrastructure, no matter how laudable and renewable the means of energy generation.	Section 2 of the Draft EIS stated that the Phase 2 offshore export cables would make landfall within paved parking areas at either the Dowses Beach Landfall Site or the Wianno Avenue Landfall Site in the Town of Barnstable (Figure 2.1-8). The ocean-to-land transition at the Dowses Beach Landfall Site would employ the HDD technique, which would avoid or minimize impacts on the beach, intertidal zone, and nearshore areas. The applicant's onshore construction schedule minimizes impacts to land uses to the greatest extent practicable limiting onshore construction activities during peak summer months and other times when demands on these resources are elevated. All disturbed areas at the landfall sites or other areas disturbed during installation of the onshore export cables and grid interconnection cables will be restored upon completion of construction.
0035-03	[opposition to Dowses Beach landing site due to] the potential danger to swimmers due to electrical transmission in water if the lines are damaged or degraded over time	Multiple cable landfall locations have been considered for each Phase of the Project to minimize disruption to residents and minimize impacts on the onshore environment. The Phase 2 offshore export cables will come ashore at the Dowses Beach Landfall Site in Barnstable, unless technical, logistical, grid interconnection, or other unforeseen issues arise that preclude the applicant from installing one or more Phase 2 offshore export cables within the OECC and a second grid interconnection point is needed (see Section 4.1.3.3 of COP Volume I in Appendix C). The ocean to land transition at the Dowses Beach Landfall Site will be made using

Comment Number	Comment	Response
		horizontal directional drilling (HDD), which will avoid or minimize impacts to the beach, intertidal zone, and nearshore areas and achieve a burial significantly deeper than any expected erosion.
0038-03	My kids have had numerous field trips to Dowses for years. I certainly wouldn't want ones dear to my heart playing and enjoying the beach with 1200 megawatts of energy under them. Sorry to say but it is a recipe for disaster if this happens.	Multiple cable landfall locations have been considered for each Phase of the Project to minimize disruption to residents and minimize impacts on the onshore environment. The Phase 2 offshore export cables will come ashore at the Dowses Beach Landfall Site in Barnstable, unless technical, logistical, grid interconnection, or other unforeseen issues arise that preclude the applicant from installing one or more Phase 2 offshore export cables within the OECC and a second grid interconnection point is needed (see Section 4.1.3.3 of COP Volume I in Appendix C). The ocean to land transition at the Dowses Beach Landfall Site will be made using horizontal directional drilling (HDD), which will avoid or minimize impacts to the beach, intertidal zone, and nearshore areas and achieve a burial significantly deeper than any expected erosion.
0039-01	I am strongly opposed to the "Phase 2" onshore electrical cable landings at Dowses Beach. The excessive 1,200 megawatts of electricity...will be a danger to our wildlife and our children!...risking the health of my family	Multiple cable landfall locations have been considered for each Phase of the Project to minimize disruption to residents and minimize impacts on the onshore environment. The Phase 2 offshore export cables will come ashore at the Dowses Beach Landfall Site in Barnstable, unless technical, logistical, grid interconnection, or other unforeseen issues arise that preclude the applicant from installing one or more Phase 2 offshore export cables within the OECC and a second grid interconnection point is needed (see Section 4.1.3.3 of COP Volume I in Appendix C). The ocean to land transition at the Dowses Beach Landfall Site will be made using horizontal directional drilling (HDD), which will avoid or minimize impacts to the beach, intertidal zone, and nearshore areas and achieve a burial significantly deeper than any expected erosion.
0042-01	addition to the fragile nature of an estuary environment and the wildlife habitat which Dowses Beach provides, the most important issue for me is the large-scale 1200 MW of electrical energy that will be landed on a beach where my 6 grandchildren play!	Multiple cable landfall locations have been considered for each Phase of the Project to minimize disruption to residents and minimize impacts on the onshore environment. The Phase 2 offshore export cables will come ashore at the Dowses Beach Landfall Site in Barnstable, unless technical, logistical, grid interconnection, or other unforeseen issues arise that preclude the applicant from installing one or more Phase 2 offshore export cables within the OECC and a second grid interconnection point is needed (see Section 4.1.3.3 of COP Volume I in Appendix C). The ocean to land transition at the Dowses Beach Landfall Site will be made using horizontal directional drilling (HDD), which will avoid or minimize impacts to the beach, intertidal zone, and nearshore areas and achieve a burial significantly deeper than any expected erosion.

Comment Number	Comment	Response
0043-01	We are extremely concerned that there is no proven presented Data on the health and safety risk of these high voltage cables to people, wildlife, and our aquifer.	Thank you for your comment.
0045-01	I am deeply upset over the lack of concern for our fragile community beach and the safety of our children. Electromagnetic fields from the transmission cables have proven to disrupt marine life as well as cause adverse health effects to those in close proximity.	The best available science was used to evaluate potential impacts from EMF and adequate cable burial depths. BOEM, the U.S. Department of Energy, and the U.S. Department of the Interior have performed several studies which have contributed to the impact determination in the EIS. These studies suggest that a 6 ft burial depth would have the least impact and reduce magnetic field signatures at the seafloor approximately four-fold. More information on potential impacts from EMF can be found in Sections 3.4.2.1 and 3.4.2.3 of the Final EIS.
0046-01	My wife and I are deeply concerned of the unproven safety of these Commercial high voltage cables and the electronic magnetic field to the health of our children, grandchildren and neighbors...There is proof that the electronical magnetic fields produced by these cables have been linked to childhood leukemia and brain cancer.	The best available science was used to evaluate potential impacts from EMF and adequate cable burial depths. BOEM, the U.S. Department of Energy, and the U.S. Department of the Interior have performed several studies which have contributed to the impact determination in the EIS. These studies suggest that a 6 ft burial depth would have the least impact and reduce magnetic field signatures at the seafloor approximately four-fold. More information on potential impacts from EMF can be found in Sections 3.4.2.1 and 3.4.2.3 of the Final EIS.
0046-12	Where is the evidence based testing and data on the commercial electrical cables proving that there is no health and safety risks especially when placed in the middle of a small residential village. None has been presented.	Thank you for your comment.
0047-04	the thought of running 1,200 megawatts of energy under the beach and causeway is disturbing -the heat, magnetic field, and health issues!!...hazardous effects have not been properly studied - why should we be part of the experiment.	Thank you for your comment.
0048-11	The Town of Barnstable already has an 800 MW submarine cable landing at Covell's beach (Vineyard Wind). This project is underway. It is not just or fair that this one town take on three landing sites at three residential beaches (totaling approximately 2800 MW of high voltage power at beaches in close proximity to one another, and three new huge substations in residential areas. Having this unprecedented amount of high amount of voltage running under our beaches, estuarian environments, residential roads, and causeway from which young children fish, and two fragile bays, needs further review. There have not been adequate studies of this much power running under areas where our children swim, walk and play.	As noted in COP Vol. I Section 4.3.1.8, the HDD trajectory (cable route nearshore) is estimated to be approximately 30 feet below ground surface at Mean High Water mark. At this depth, the EMF signature from the cable would be at very low to undetectable. No cables would be exposed to open water where recreational beaches exist and all electrical current would be confined to the offshore export cable. Analysis on impacts are addressed in Final EIS Sections 3.5.2.3 and 3.4.2.3
0049-02	the cables erode prompting block island to post signs on the beaches " beware of electrocution.	Thank you for your comment.

Comment Number	Comment	Response
0054-04	THERE HAVE BEEN NO STUDIES THAT WILL DETERMINE THE HARM THIS AMOUNT OF 1200 MEGAWATTS WILL DO TO PEOPLE AND WILDLIFE AND THIS COMPANY HAVE NEVER ATTEMPTEDSUCH A HUGE AND COMPLICATED PROJECT EVER BEFORE. THEREFORE, WE ARE THE COLLATERAL DAMAGE.GREATER DOWSES BEACH IS A GENERATIONALLY ICONIC PLACE FOR WILDLIFE AND PEOPLE AND IT IS NO PLACE TO BE USED FOR EXPERIMENTAL INDUSTRIAL PURPOSES.	Multiple cable landfall locations have been considered for each Phase of the Project to minimize disruption to residents and minimize impacts on the onshore environment. The Phase 2 offshore export cables will come ashore at the Dowses Beach Landfall Site in Barnstable, unless technical, logistical, grid interconnection, or other unforeseen issues arise that preclude the applicant from installing one or more Phase 2 offshore export cables within the OECC and a second grid interconnection point is needed (see Section 4.1.3.3 of COP Volume I in Appendix C). The ocean to land transition at the Dowses Beach Landfall Site will be made using horizontal directional drilling (HDD), which will avoid or minimize impacts to the beach, intertidal zone, and nearshore areas and achieve a burial significantly deeper than any expected erosion.
0055-12	Table ES-3 is very confusing. There are multiple impact determination rows for each resource and alternative. It appears that one row represents expected adverse impacts while the second row indicates expected beneficial impacts. This is not stated in the text, however. If this is true, we do not necessarily agree that every resource will experience both adverse and beneficial impacts from offshore wind development. Furthermore, the a and b alternative superscripts indicate planned activities without New England Wind project impacts and cumulative impacts with New England Wind project impacts, respectively. It is unclear if these superscripts correspond to the impact determination rows. Given Alternative C has two sub-alternatives, we recommend separating out these sub-alternatives in this summary table so stakeholders can compare impacts across alternatives. Also, the table text only specifies a beneficial impact; we recommend denoting adverse impacts as well.	Table ES-3 summarizes the impacts of each alternative and the cumulative impacts of each alternative. Chapter 3 of the Draft EIS resource sections included detailed analysis supporting these impact determinations.
0060-02	Avangrid plans to land cables of 1200mw energy into this parking lot. There has been ZERO research of the effects of such excessive energy upon this ecosystem	The best available science was used to evaluate potential impacts from EMF and adequate cable burial depths. BOEM, the U.S. Department of Energy, and the U.S. Department of the Interior have performed several studies which have contributed to the impact determination in the EIS. These studies suggest that a 6 ft burial depth would have the least impact and reduce magnetic field signatures at the seafloor approximately four-fold. More information on potential impacts from EMF can be found in Sections 3.4.2.1 and 3.4.2.3 of the Final EIS. More information on the heat produced by powered transmission cables can be found in Section 3.4.2.1 of the Final EIS.
0068-01	I am so so opposed to Avangrid's attempt to drill on Dowses Beach:*1,200,000 KW of electricity in OUR sand???? Are you kidding me? Our children and grand babies are currently enjoying that beach (as	Multiple cable landfall locations have been considered for each Phase of the Project to minimize disruption to residents and minimize impacts on the onshore environment.

Comment Number	Comment	Response
	have I since the early '60's) without FEAR.... *Avangrid's plan will be a constant worry of electricity in the sand plus EMFs	The Phase 2 offshore export cables will come ashore at the Dowses Beach Landfall Site in Barnstable, unless technical, logistical, grid interconnection, or other unforeseen issues arise that preclude the applicant from installing one or more Phase 2 offshore export cables within the OECC and a second grid interconnection point is needed (see Section 4.1.3.3 of COP Volume I in Appendix C). The ocean to land transition at the Dowses Beach Landfall Site will be made using horizontal directional drilling (HDD), which will avoid or minimize impacts to the beach, intertidal zone, and nearshore areas and achieve a burial significantly deeper than any expected erosion.
0068-04	The parking lot and beach which frequently floods..... what about the electricity coming through that?	Multiple cable landfall locations have been considered for each Phase of the Project to minimize disruption to residents and minimize impacts on the onshore environment. The Phase 2 offshore export cables will come ashore at the Dowses Beach Landfall Site in Barnstable, unless technical, logistical, grid interconnection, or other unforeseen issues arise that preclude the applicant from installing one or more Phase 2 offshore export cables within the OECC and a second grid interconnection point is needed (see Section 4.1.3.3 of COP Volume I in Appendix C). The ocean to land transition at the Dowses Beach Landfall Site will be made using horizontal directional drilling (HDD), which will avoid or minimize impacts to the beach, intertidal zone, and nearshore areas and achieve a burial significantly deeper than any expected erosion.
0081-13	The Summary and Comparison of Impacts Among Alternatives (Table ES-3) is unclear and confusing; each Impact rating for Alternatives B and C have multiple cells within a row, with no clear indication of what this means. Further, the grouping of C-1 and C-2, gives the public no ability to understand if one sub-alternative has less impact.	Table ES-3 summarizes the impacts of each alternative and the cumulative impacts of each alternative. Chapter 3 of the Draft EIS resource sections included detailed analysis supporting these impact determinations.
0083-41	The Draft EIS... does not analyze whether collocating the two cables [in either Alternative C1 or C-2] increases impacts from electromagnetic fields (EMF). While the Draft EIS states that developers typically allow at least 330 feet between cables, the Final EIS should explain whether the Vineyard Wind 1 OECC and New England Wind OECC will maintain this distance and analyze whether collocating the two cables in a single corridor would result in any increased EMF impacts.	The best available science was used to evaluate potential impacts from EMF and adequate cable burial depths. BOEM, the U.S. Department of Energy, and the U.S. Department of the Interior have performed several studies which have contributed to the impact determination in the EIS. These studies suggest that a 6 ft burial depth would have the least impact and reduce magnetic field signatures and all cables would be separated by a distance of 164 to 328 feet (COP Volume I, Section 2.3.1). More information on potential impacts from EMF can be found in Section 3.4.2.1 and 3.4.2.3 of the Final EIS.
0095-5-02	I'm also concerned about the impact of high energy cables underwater, as well as on land, and the impact of the natural environment, as well as the human environment.	Thank you for your comment.

Comment Number	Comment	Response
0095-5-06	I'm concerned about...the failure of the windmill production supply system. It's apparently now beginning to break down as a result of overload. I'm concerned that if we have inferior products going in on land, the effects on salt water is going to have even a more devastating impact on that. And I'm concerned about that and hopefully we have information that would suggest that that is not the case. But right now studies are showing, current studies, today studies are showing that these windmills are totally collapsing.	Thank you for your comment.

O.5.30 Other Comments

Table O.5-30: Responses to Other Comments

Comment Number	Comment	Response
0055-12	Table ES-3 is very confusing. There are multiple impact determination rows for each resource and alternative. It appears that one row represents expected adverse impacts while the second row indicates expected beneficial impacts. This is not stated in the text, however. If this is true, we do not necessarily agree that every resource will experience both adverse and beneficial impacts from offshore wind development. Furthermore, the a and b alternative superscripts indicate planned activities without New England Wind project impacts and cumulative impacts with New England Wind project impacts, respectively. It is unclear if these superscripts correspond to the impact determination rows. Given Alternative C has two sub-alternatives, we recommend separating out these sub-alternatives in this summary table so stakeholders can compare impacts across alternatives. Also, the table text only specifies a beneficial impact; we recommend denoting adverse impacts as well.	Table ES-3 summarizes the impacts of each alternative and the cumulative impacts of each alternative. Chapter 3 of the Draft EIS resource sections included detailed analysis supporting these impact determinations.
0081-13	The Summary and Comparison of Impacts Among Alternatives (Table ES-3) is unclear and confusing; each Impact rating for Alternatives B and C have multiple cells within a row, with no clear indication of what this means. Further, the grouping of C-1 and C-2, gives the public no ability to understand if one sub-alternative has less impact.	Table ES-3 summarizes the impacts of each alternative and the cumulative impacts of each alternative. Chapter 3 of the Draft EIS resource sections included detailed analysis supporting these impact determinations.

O.6 Form Letters

No form letters were received during the Draft EIS public comment period.

O.7 List of Commenters by Commenter Type and Submission Number

Table O.7-1: Federal Agencies

Letter Number	Commenter	Agency
0011	John W. Mauger, RADM	U.S. Coast Guard
0012	Michael Pentony	National Marine Fisheries Service
0013	Timothy Timmerman	U.S. Environmental Protection Agency

Table O.7-2: State Government

Letter Number	Commenter	Government Organization
0052	Lisa Berry Engler	Massachusetts Office of Coastal Zone Management

Table O.7-3: Local Government

Letter Number	Commenter	Government Organization
0056	Gordon M. Carr	New Bedford Port Authority

Table O.7-4: Businesses and Organizations

Letter Number	Commenter	Organization
0004	N/A	Island Wind, Inc.
0006	N/A	ECOncrete
0010	N/A	Rhode Island Environmental Education Association
0023	Susanne H. Conely	Save Greater Dowses Beach
0025	Erik Peckar	Vineyard Power
0027	Jennifer Menard	Bristol Community College
0028	Andrew Gottlieb	Association to Preserve Cape Cod
0032	John L. Cox	Cape Cod Community College
0041	Katie Almeida	The Town Dock
0055	Thomas A Nies; Dr. Christopher M. Moore	New England and Mid-Atlantic Fisheries Management Councils
0059	N/A	Maria Mitchell Association
0064	Robbin Orbion	Cape Cod Technology Council

Table O.7-5: Individuals

Letter Number	Commenter	Form Letter or Other Applicable Information
0003	Meghan Gombos	N/A
0005	James Paterson	N/A
0007	Michael Jacobs	N/A
0008	Ann Berwick	N/A
009	William Lake	N/A
0015	Michelle Jones	N/A
0016	Dr. Steve Waller	N/A
0018	Ken Lambert	N/A
0019	Scott Mclane	N/A
0020	Ron Dagostino	N/A
0021	Anonymous	N/A
0022	Carol Zais	N/A
0024	Jeffrey Kominers	N/A
0029	Maria Gerdy	N/A
0031	Greg Gerdy	N/A
0033	John Hauser	N/A
0034	Denise Toomey	N/A
0035	Anonymous	N/A
0036	Joseph Toomey	N/A
0037	Anonymous	N/A
0038	Beth Melchiono	N/A
0039	Hailey MacDonald	N/A
0040	Brian Koelbel	N/A
0042	Brian Morrison	N/A
0043	Dr. and Mrs. Joseph Conway	N/A
0044	Jane E Hattemer-Stringer	N/A
0045	Anonymous	N/A
0046	Dr. and Mrs. Joseph Conway	N/A
0047	Peter Hansen	N/A
0048	Anastasia Guenther	N/A
0049	Anonymous	N/A
0050	Joanne Carota	N/A
0051	Lynn Wilson	N/A
0053	Christopher Mutti	N/A
0054	Susan McLean	N/A
0057	Mary MacMillan	N/A
0058	Anonymous	N/A
0060	Jack & Wendy Cohen	N/A
0061	Susan Truitt	N/A
0062	Maureen Murphy	N/A
0063	Mary Linn	N/A
0065	Claire O'Connor	N/A
0068	Cynthia Harris	N/A
0073	Kerry E. Sullivan	N/A

Letter Number	Commenter	Form Letter or Other Applicable Information
0074	Maria Gerdy	N/A
0082	Bob Schulte	N/A
0084	Christine Meade	N/A
0086	Thomas Humick	N/A
0095-1	William Lake	N/A
0095-2	Noelle Pina	N/A
0095-3	Susanne Conley	N/A
0095-4	Susannah Hatch	N/A
0095-5	Peter Silva	N/A
0095-6	Mike Okoniewski	N/A
0096-1	Susanne Conley	N/A
0096-2	Carl Van Warmerdam	N/A
0097-1	Mike Okoniewski	N/A
0097-2	Susanne Conley	N/A
0097-3	Van Warmerdam	N/A
0097-4	Erik Peckar	N/A
0097-5	Gary Yerman	N/A