Appendix O. Responses to Comments on the Draft Environmental Impact Statement

Contents

List of Tables

Abbreviations and Acronyms

ACP	American Clean Power
ADLS	aircraft detection lighting system
AFL-CIO	The Maritime Trades Department, AFL-CIO
AHJ	authority having jurisdiction
AIS	automatic identification system
AMMM	avoidance, minimization, and mitigation measures
ANPRM	advance notice of proposed rulemaking
ANSI	American National Standards Institute (previously ASA)
AOC	area of concern
AOCS	Atlantic outer continental shelf
APE	area of potential effect
ASMFC	Atlantic States Marine Fisheries Council
AWEA	American Wind Energy Association
BA	Biological Assessment
BACT	Best available control technology
BIA	Biologically Important Area
BIWF	Block Island Wind Farm
BOEM	Bureau of Ocean Energy Management
BRI	Biodiversity Research Institute
BSEE	Bureau of Safety and Environmental Enforcement
CAA	Clean Air Act
CAR	Coastal Association of Realtors
CBBT	Chesapeake Bay bridge tunnel
CEQ	Council on environmental quality
CFR	Code of Federal Regulations
CHIRP	Compressed High Intensity Radar Pulse
CIP	Copenhagen Infrastructure Partners
CMA	Center for Marine Acoustics
CMP	compensatory mitigation plan
COBRA	Co-benefits Risk Assessment
COMAR	Code of Maryland Regulations
COMDTINST	Commandant Instructions
COP	Construction and Operations Plan
COPD	Chronic Obstructive Pulmonary Disease
CPAPARS	Consolidated Port Approaches Port Access Route Studies
CPT	cone penetration tests

CRF	code of federal regulations
CRMSDC	Capital Region Minority Supplier Development Council
CVOW	Coastal Virginia Offshore Wind
DEBCC	Delaware Black Chamber of Commerce
DEIS	Draft Environmental Impact Statement
DMV	District of Columbia, Maryland, Virginia
DNREC	Delaware Department of Natural Resources and Environmental Control
DOD	Department of Defense
DOI	Department of Interior
DON	Department of the Navy
DPL	Delmarva Power and Light
DSSP	Delaware Seashore State Park
DTH	down-the-hole
EEE	Education of Energy on the Environment Committee in Maryland
EERE	Office of Energy Efficiency and Renewable Energy
EFH	essential fish habitat
EIS	environmental impact statement
EMF	electromagnetic field
EPA	Environmental Protection Agency
ERDC	The U.S. Army Engineer Research and Development Center
ERES	exceptional recreational or ecological significance
ESA	Endangered Species Act
ESWC	electrically safe working condition
FAA	Federal Aviation Administration
FDR	Facility Design Report
FEIS	Final Environmental Impact Statement
FIR	Fabrication and Installation Report
FMP	fishery management plan
FOIA	Freedom of Information Act
FWCA	Fish and Wildlife Coordination Act
FWS	Fish and Wildlife Service
GAA	geographic analysis area
GARFO	Greater Atlantic Regional Fisheries Office
GDP	gross domestic product
GHG	greenhouse gas
GIS	geographic information system
GPS	global positioning system
HAPC	Historic and Architectural Preservation Commission
HDD	horizontal directional drilling

HFC	High-frequency cetacean
HMS	highly-migratory species
HRG	high resolution geophysical
HRVEA	Historic Resources Visual Effects Analysis
HVAC	high voltage alternating current
HVDC	high voltage direct current
HWR	Hodge Water Resources
ICNIRP	International Commission on Non-Ionizing Radiation Protection
IOOS	Integrated Ocean Observing System
IPCC	Intergovernmental Panel on Climate Change
IPF	impact-producing factor
IRB	Indian River Bay
ITA	Incidental Take Authorization
ITR	Incidental Take Regulation
IUCN	International Union for Conservation of Nature
IWG	Interagency Working Group
KOP	key observation point
LAER	Lowest Achievable Emission Rate
LBI	Long Beach Island
LEDPA	least environmentally damaging practicable alternative
LME	Large Marine Ecosystem
LNG	liquid natural gas
LOA	letter of authorization
LSZ	Landscape Similarity Zone
LWCF	Land and Water Conservation Fund
MAB	Mid-Atlantic Bight
MABP	Mid-Atlantic Baseline Studies Project
MABS	Mid-Atlantic Baseline Studies
MAFMC	Mid-Atlantic Fishery Management Council
MAREC	Mid-Atlantic Renewable Energy Coalition
MBE	Minority Business Enterprise
MBES	multibeam echosounder
MDAT	Mid-Atlantic Renewable Energy Coalition
MDE	Maryland Department of the Environment
MDOT	Maryland Department of Transportation
MD DNR	Maryland Department of Natural Resources
MD MEA	Maryland Energy Administration
MEC	munitions and explosives of concern
MHT	Maryland Historic Trust

MLWL	mean low water line
MMPA	Marine Mammal Protection Act
MMS	Minerals Management Service
MPA	marine protected area
MRFSS	Marine Recreational Fisheries Statistics Survey
MTS	Marine Transportation System
MVR	marine vessel radar
NAAQS	National Ambient Air Quality Standards
NABCI	North American Bird Conservation Initiative
NARW	North Atlantic right whale
NASA	National Aeronautics and Space Administration
NEPA	National Environmental Policy Act
NFPA	National Fire Protection Agency
NHPA	National Historic Preservation Act
NID	nature inclusive design
NIMBY	non in my back yard
NMFS	National Marine Fisheries Service
NNE	north northeast
NOAA	National Oceanic and Atmospheric Administration
NOI	Notice of Intent
NPDES	National Pollutant Discharge Elimination System
NPS	National Park Service
NRHP	National Register of Historical Places
NSR	new source review
NSRA	Navigation Safety Risk Assessment
NUWC	Naval Undersea Warfare Center
NVH	noise, vibration and harshness
NVIC	Navigation and Vessel Inspection Circular
NYS	New York State
OCS	Outer Continental Shelf
OCSLA	Outer Continental Shelf Lands Act
OEM	original equipment manufacturer
OPR	Office of Protected Resources
OREC	offshore renewable energy credit
OREI	Offshore Renewable Energy Installations
OREP	Office of Renewable Energy Program
ORJIP	Offshore Renewables Joint Industry Programme
OSHA	Occupational Safety and Health Administration
OSRP	Oil Spill Response Plan

OSS	offshore substation
OSW	offshore wind
OTR	Ozone Transport Region
OWF	offshore wind farm
PAM	passive acoustic monitoring
PAPE	preliminary area of potential effects
PBR	potential biological removal
PCB	polychlorinated biphenyls
PDE	Project Design Envelope
PDEIS	preliminary Draft Environmental Impact Statement
PEIS	Programmatic Environmental Impact Statement
POC	point of contract
POI	point of interconnection
PPA	power purchase agreement
PSC	public service commission
PSD	prevention of significant deterioration
PSO	protected species observer
PTS	permanent threshold shift
PVA	population viability analysis
RFA	Regulatory Flexibility Act
RFI	request for information
ROD	Record of Decision
RODA	Responsible Offshore Development Alliance.
ROI	Return on investment
ROW	right-of-way
RSGCN	regional species of greatest conservation need
RSZ	rotor-swept zone
RTWB	real-time whale buoy
RUE	right-of-use and easement
RWSC	Regional Wildlife Science Collaborative for Offshore Wind
SAB	sponge associated biota
SAR	search and rescue
SAV	submerged aquatic vegetation
SBA	small business analysis
SCRAM	Stochastic Collision Risk Assessment for Movement
SEER	U.S. Offshore Wind Synthesis of Environmental Effects Research
SEL	sound exposure level
SGCN	species of greatest conservation need
SIOW	Special Initiative on Offshore Wind

SLVIA	Seascape, Landscape, and Visual Impact Assessment
SME	subject matter expert
SMM	Society of marine mammalogy
SPCC	Spill Prevention, Control, and Countermeasure (Plan)
SRWC	Save Right Whales Coalition
SSRN	Social Science Research Network
STAC	Chesapeake Bay Scientific and Technical Advisory Committee
SWPPP	Stormwater Pollution Prevention Plan
TNC	The Nature Conservancy
TSBA	Tower Shores Beach Association
TSS	traffic separation scheme
TTS	temporary threshold shift
UDEL	University of Delaware
UMCES	University of Maryland Center for Environmental Sciences
UME	unusual mortality event
USACE	United States Army Corps of Engineers
USC	united states code
USCG	United States Coast Guard
USCP	United States Power Squadron
USEPA	United States Environmental Protection Agency
USFWS	United States Fish and Wildlife Service
USGS	United States Geological Survey
UXO	unexploded ordinance
VFR	visual flight rules
VHF	very high frequency
VIA	visual impact assessment
VMS	vessel monitoring systems
WDA	wind development area
WEA	Wind Energy Area
WOTUS	waters of the United States
WSR	weather surveillance radar
WTG	wind turbine generator

O.1 Introduction

On October 6, 2023, BOEM issued a Notice of Availability of the Draft EIS for the Maryland Offshore Wind project, initiating a 45-day public comment period from October 6 to November 20 (88 Federal Register 69658). The NEPA review process requires agencies to allow the public the opportunity to comment on a Draft EIS. The Draft EIS was made available in electronic form for public viewing at Draft Environmental Impact Statement (EIS) for Commercial Wind Lease OCS-A 0490. This appendix describes the Draft EIS public comment processing methodology and definitions, includes responses to comments received on the Draft EIS, and describes where specific updates to the Final 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 Federal regulations by typing "BOEM-2023-0050" 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 one 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 Government regulations on docket number BOEM-2023-0050;
- Hard-copy comment letters submitted to BOEM via traditional mail; and
- Written comments submitted at in-person meetings;
- Verbal comments captured by a stenographer during the in-person meeting; and
- Verbal comments recorded during the virtual public meetings.

BOEM held two in-person public meetings on October 24, and 26, 2023 and two virtual public meetings via Zoom on October 19 and 30, 2023 to solicit verbal comments to inform preparation of the Final EIS. The public meetings 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
October 24, 2023	5:00 p.m. Eastern Time	Ocean City Elementary School, 12828 Center Drive, Ocean City, MD 21842
October 26, 2023	5:00 p.m. Eastern Time	Indian River High School, 29772 Armory Road, Dagsboro, DE 19939
October 19, 2023	1:00 p.m. Eastern Time	Zoom webinar
October 30, 2023	5:00 p.m. Eastern Time	Zoom webinar

All submissions initially provided by methods other than Government regulations including the transcripts of comments recorded at each public meetings listed in Table O.3-1, were uploaded to the docket. Each submission, including verbal comments offered by individuals at the in-person and virtual meetings public meetings were 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.4 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 Government regulations submission were typically provided in PDF or Microsoft Word format. Text from all formats was parsed, coded, and exported into a single Microsoft Excel file that served as the primary submission database. The submission database also included information about each submission, including the submitter's name, submission date, and the submitter's affiliation if provided.

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-2023-0050-0001-0004.

Substantive comments from cooperating agencies and the Lessee were organized by agency or organization and are presented verbatim in Sections O.5 and O.6. 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.7 and general comments are presented verbatim in Section O.8. The list of commenter names and their associated Submission ID Number are provided in Section O.9.

O.5 Responses to Cooperating Agency Comments on the Draft EIS

O.5.1 Cooperating Federal Agencies

O.5.1.1. U. S. Environmental Protection Agency

Responses to comments from U. S. Environmental Protection Agency

Table O.5-1. USEPA – Air Quality

Comment	Response
d. Section 3.4.1.5.2.2 discusses the expected use of emergency generators in terms of hours of operation to support BOEMs statement that emission from O&M will be small and transient. We recommend including the emission estimates associated with the hours of operation to quantify the impact.	Thank you for your comment. Emergency Generator Emissions are conservatively calculated using the worst-case scenario operating parameters (500 hours per year), and are included in a Table in Section 3.4.1. As stated in Section 3.4.1.5 of the Final EIS, expected use includes testing (limited to 100 hours) but also emergencies (which cannot be accurately predicted). Therefore, estimated actual emissions are not able to accurately be depicted in impacts.
13. For the purposes of NEPA, an EIS should fully evaluate the impacts of the Project, including air quality impacts that would be expected from construction and operation of the Proposed Action or alternatives. We appreciate that "long-range transport modeling conducted in conjunction with the OCS air permitting process" will be included in the Final EIS (p 3-20). However, it would be preferable to include such information as part of robust analysis of impacts that would allow for the public to review and comment. EPA notes that many Project activities that emit pollutants will not be evaluated in OCS permitting. Future permitting should not be relied upon to assess impacts or minimization measures. The EIS should include sufficient information to describe impacts.	Thank you for the comment. If the Project cannot meet compliance during the permitting process with a cooperating agency, a permit would not be issued, and the project would not proceed. Further, air permitting processes allow for public review and comment. On May 23, 2024, US Wind provided a Class I AQRV air quality modeling protocol to address CALPUFF (a multi-layer, multi-species nonsteady-state puff dispersion model) long range transport modeling for assessing Class I area Air Quality Related Values (AQRVs). The nearest Class I areas to the Project are the Edwin B. Forsythe National Wildlife Refuge (the Brigantine Wilderness Area) in New Jersey (126 km), and the Shenandoah National Park in Virginia (290 km). The Class I AQRV protocol was approved by USFWS and NPS on May 29 and June 4, 2024 respectively. The modeling is expected to be submitted in July 2024, and results will not be available for this Final EIS. MDE anticipates issuance of the OCS air permits on or before January 4, 2025.
13a. Section 3.4.1 indicates that air quality is characterized by comparing the ambient air concentrations of criteria pollutants to the National Ambient Air Quality Standards (NAAQS) and Table 3.4.1-2. defines a single impact level of "minor to moderate" impacts. The definition of "minor to moderate" adverse effects is "increases in ambient pollutant concentrations due to Project emissions would be detectable but would not lead to exceedance of the NAAQS." Beneficial "minor to moderate" impacts would be "detectable." This does not allow for an effective assessment of adverse or beneficial impacts to air quality or provide a meaningful basis to compare the alternatives. We recommend splitting this into separate "minor" and "moderate" impact levels.	BOEM uses a four-level classification scheme to characterize the potential impacts of the alternatives. Resource-specific impact level definitions are presented in each resource section, and the impacts of each alternative align with the appropriate impact level, as supported by the analysis. Definitions within the EIS are consistent with other recently published EISs for offshore wind projects.
13b. EPA recommends the air quality analysis include information comparing the modelled concentrations of criteria pollutants and Hazardous Air Pollutants (HAPs) to the NAAQS, state air quality standards, and other relevant reference measures, which would allow for a more quantitative assessment to determine impacts and their significance. This should be supported by information indicating how Project emissions were determined, including sources such as vessel procurement contracts, design, etc.	Thank you for your comment. Section 3.4.1 outlines the air quality analysis and comparison to the NAAQS. An assessment against Maryland air toxic regulations will be included as part of the air permitting process. US Wind submitted the Notice of Intent required for 40 CFR § 55.4 on August 5, 2022, to commence the air permitting process with EPA and MDE. The Air Quality Permit to Construct will require air dispersion modeling to comply with Code of Maryland Regulation (COMAR) 26.11.15.06, Ambient Impact Requirement. If required, US Wind will follow MDE Guidance Document "Demonstrating Compliance with the Ambient Impact Requirement under the Toxic Air Pollutant (TAP) Regulations (COMAR 26.11.15.06)" (MDE 2016a) or other acceptable air dispersion modeling procedures for the analysis. US Wind submitted an Air Dispersion Modeling Protocol to MDE on September 16, 2022. Additional mitigation measures may be identified during the modeling processes. Since the modeling process is still ongoing, all current information on how the project emissions were calculated are referenced on pages 3-18 and 3-19. Emissions were estimated using the BOEM Tool which uses EPA emissions factors from the Ports Emissions Inventory Guidance/Methodologies for Estimating Port-Related and Goods Movement Mobile Source Emissions Report (EPA 420-B-20-046, September 2020).

Comment	Response
14. The air quality geographic analysis area includes the airshed within 25 miles of the Lease Area and the airshed within 15.5 mile of onshore construction areas and ports that may be used for the Project. Modeling and/or other data should support the appropriate air quality geographic analysis area and should demonstrate that the 15.5-mile distance of onshore construction areas and ports is suitable to ensure that the locations of maximum potential air quality impact are evaluated. Localized and regional impacts should also be fully assessed to support statements such as "Operational emissions would result in negligible air quality impacts because emissions would be intermittent, localized, and dispersed." (p 3-15) and "Air quality impacts would be short term and limited to the local area around the accidental release location" (p 3-19).	Thank you for the comment. Please refer to Section 3.4.1 of the Final EIS for the air quality analysis and description of impacted areas. Modeling will be incorporated as part of the air permitting process. US Wind submitted the Notice of Intent required for 40 CFR § 55.4 on August 5, 2022, to commence the air permitting process with EPA and MDE. The Air Quality Permit to Construct will require air dispersion modeling to comply with Code of Maryland Regulation (COMAR) 26.11.15.06, Ambient Impact Requirement. If required, US Wind will follow MDE Guidance Document "Demonstrating Compliance with the Ambient Impact Requirement under the Toxic Air Pollutant (TAP) Regulations (COMAR 26.11.15.06)" (MDE 2016a) or other acceptable air dispersion modeling procedures for the analysis. US Wind submitted an Air Dispersion Modeling Protocol to MDE on September 16, 2022. Additional mitigation measures may be identified during the modeling processes.
14a. EPA appreciates that the geographic analysis area considers potential air quality impacts associated with the onshore construction areas and around potential ports. However, transit to and from ports, including Sparrow's Point, is not included in the Air Quality geographic analysis area shown in Figure -3.4.1-1. The NEPA analysis should evaluate reasonably foreseeable emissions and effects from all sources regardless of CAA permits under NEPA to the extent possible.	Thank you for your comment. As stated in Section 3.4.1 of the Final EIS, the dispersion characteristics of emissions from marine vessels, equipment, and similar emission sources that would be used during proposed construction and O&M activities would likely have maximum potential air quality impacts occurring within a few miles of the source, as would decommissioning activities if emissions are similar to those during construction. The geographic analysis area provides a reasonable buffer to ensure that the locations of maximum potential air quality impact would be considered.
14b. Page 3-9 discusses the NAAQS, but it is unclear which NAAQS attainment areas are being impacted by this Project. This is important as the attainment status of the area will affect the applicability of certain Clean Air Act Requirements, such as New Source Review (NSR). We recommend clearly identifying which attainment areas will be impacted.	Thank you for your comment. Final EIS Sections 3.4.1 and 3.4.1.2 discuss the impacted areas as well as their attainment or non-attainment status.
15. NSR may be required for facilities associated with the Project. The Review may require air modeling, implementation of Best Available Control Technology (BACT) and/or Lowest Achievable Emission Rate (LAER), and the acquisition of Emission Reduction Credits (ERCs). The attainment status of the area affected and the fact that Maryland is in the Ozone Transport Region (OTR), will affect the NSR analysis. We recommend adding a discussion of NSR, including the implications of the OTR for emissions reduction and minimization measures.	Thank you for your comment. US Wind submitted the Notice of Intent required for 40 CFR § 55.4 on August 5, 2022, to commence the air permitting process with EPA and MDE. The Air Quality Permit to Construct will address the implementation of Best Available Control Technology (BACT) for Project emissions sources and will require air dispersion modeling to comply with Code of Maryland Regulation (COMAR) 26.11.15.06, Ambient Impact Requirement. If required, US Wind will follow MDE Guidance Document "Demonstrating Compliance with the Ambient Impact Requirement under the Toxic Air Pollutant (TAP) Regulations (COMAR 26.11.15.06)" (MDE 2016a) or other acceptable air dispersion modeling procedures for the analysis. US Wind submitted an Air Dispersion Modeling Protocol to MDE on September 16, 2022. Additional mitigation measures may be identified during the BACT and/or modeling processes (e. g. LAER, ERCs.
17. EPA recognizes the long-term potential benefits of the proposed large-scale offshore wind energy Project with respect to greenhouse gas (GHG) reductions and climate change consistent with the goals outlined in Executive Order (EO) 14008, Tackling the Climate Crisis at Home and Abroad. To clearly explain how the net GHG reductions would help meet relevant national and local climate action goals and evaluate these benefits, we recommend separating the GHG and climate change from the Air Quality section. This would aid in making relevant information regarding avoided and offset GHG emissions more readily accessible, as GHG emissions are discussed throughout the Air Quality Section, but the impact level definitions do not incorporate parameters to evaluate the significance of GHG reductions. We recommend evaluating GHG separately from NAAQs pollutants and developing impact level definitions specific to GHGs.	Thank you for your comment, this note has been received by BOEM. Economic benefits of the Project are described on p 3-24.
19a. Manufacture of components and transit of vessels from other locations may contribute to emissions, including global GHG emissions; these emissions are not currently included in the assessment. Where emissions cannot be reasonably estimated, information such as lifecycle information may be useful (e. g. https://www.nrel.gov/analysis/life-cycle-assessment.html.)	BOEM acknowledges that upstream processes such as component manufacturing and transit of vessels create emissions part of the life cycle of an offshore wind project. Recent studies on Life Cyle Assessment and Harmonization demonstrate that off shore wind is among the most carbon efficient generating technologies. Life Cycle Assessment Harmonization.
20. We appreciate the inclusion of Table 3.4.1-10; however, it is assumed that all action alternatives have the same GHG emissions. EPA recommends estimating GHG from construction and operation for each alternative to compare alternatives. The CEQ guidance indicates "when considering GHG emissions and their significance, agencies should use appropriate tools and methodologies to quantify GHG emissions, compare GHG emission quantities across alternative scenarios (including the no action alternative), and place emissions in relevant context."	Thank you for your comment. This has been updated in the text in Section 3.4.1.4.

Comment	Response
21. EPA agrees that offshore wind projects may be significant and beneficial as a component of increasing energy production from renewable sources that reduce GHG emissions and address climate change. However, we recommend supporting statements that indicate planned non-offshore wind activities may include the construction of new fossil-fueled energy generation facilities that would increase emissions, as Section 3.4.1.3.2 states that no such power-generating facilities are planned. From the information provided, it is unclear if this is reasonably foreseeable activity.	Thank you for your comment. This has been updated in the text in Section 3.4.1.3.
22b. Section 2.1.2.1.1 indicates that US Wind is evaluating gas- and air-insulated substations for the Project, which have different maximum footprints. The potential impacts and tradeoffs of gas- and air-insulated substations to resources should be fully addressed in the EIS.	Thank you for your comment. At the time of the EIS, US Wind has not determined the design for these substations. US Wind will submit the Facility Design Report (FDR) and Fabrication and Installation Report (FIR) that will need to identify the specifics of these substations.
13b. Page 3-16 states that BOEM anticipates that the air quality impacts associated with offshore wind activities other than the Proposed Action would result in minor to moderate adverse impacts due to emissions released during construction and decommissioning. However, based on the information presented in the DEIS, it is currently unclear whether a NAAQS violation may occur. Specifically, Table 3.4.1-3. includes an estimate of criteria pollutant emissions from the construction and operation of the other projects, but it appears that construction emissions are not annualized, but total. Overall, the analysis should ensure that the Project will not cause or contribute to a violation of any applicable NAAQS, Prevention of Significant Deterioration (PSD) increment, state air quality standards, or other relevant standard during construction as well as determine if emissions would adversely impact air quality.	Thank you for your comment. The anticipated total construction emissions over the lifetime of the project provides a comprehensive evaluation that is more appropriate for NEPA/mitigation/cumulative impact decisions. Annualized impacts would most likely be short term and intense and vary depending on where the applicant is in the construction phase.
22. The DEIS includes the assumption that carbon dioxide (CO2) would be the primary GHG; for instance, Section 3.4.1.3.1 and Table 3.4.1-9 indicate that it is assumed the emissions are predominantly from CO2. However, the EIS should address the impacts from sulfur hexafluoride (SF6), commonly used for switchgears, gas-insulated substations, and other components in electric power generation and transmission. SF6 is the most potent greenhouse gas known. Over a 100-year period, SF6 is 23,500 times more effective at trapping infrared radiation than an equivalent amount of CO2; even a small amount has substantial GHG impacts. Therefore, EPA strongly recommends that the EIS specifically address the use of SF6 for onshore and offshore facilities. This discussion should clearly specify where SF6-free technology will be implemented, estimate potential emissions from leakage, and indicate measures taken to reduce use or leakage. a. We also support maximizing the benefits of renewable sources by reducing the generation of GHG where possible. Therefore, EPA strongly recommends that US Wind commit to the use of SF6-free switchgears on the WTGs and that BOEM evaluate and require measures such as monitoring and leak detection on the OSSs to limit emissions to reduce potential emissions.	Thank you for the comment. Text has been added to section 3.4.1.5 of the Final EIS discussing US Wind's approach related to SF6 use. At the time of the EIS, US Wind has not determined the design for these substations. US Wind will submit the Facility Design Report (FDR) and Fabrication and Installation Report (FIR) that will need to identify the specifics of these substations.
16. Section 3.4.1.5.1 indicates construction equipment would use "appropriate fuel-efficient engines" and comply with all applicable air emission standards to keep associated air quality impacts to a minimum. Page 3-27 states "Measures to reduce or avoid emissions include using low-sulfur fuels and specific engines designed to reduce air pollution to the extent practicable, limiting engine idling times in compliance with international air emission standards for marine vessels, and using engines with add-on emission controls where practicable…" EPA agrees that taking these measures would be beneficial. However, we encourage efforts beyond compliance with applicable air emission standards during construction and operation and maintenance, such as using Tier IV engines and adopting Best Management Practices (BMPs) to reduce emissions. Please see EPA's Reducing Diesel Emissions from Construction and Agriculture webpage for more information.	Thank you for the comment. Section 3.4.1.5 of the Final EIS has been updated to reflect additional air quality measures to reduce air quality impacts that are listed in the EPA's Clean Construction guidance.
19. We recommend removing the statement "Construction and operation of offshore wind projects would produce GHG emissions (mostly CO2) that contribute to climate change; however, these contributions would be minuscule compared to aggregate global emissions" in Section 3.4.1.3.1. As stated in CEQ's interim National Environmental Policy Act Guidance on Consideration of Greenhouse Gas Emissions and Climate Change, "NEPA requires more than a statement that emissions from a proposed Federal action or its alternatives represent only a small fraction of global or domestic emissions. Such a statement merely notes the nature of the climate change challenge and is not a useful basis for deciding whether or to what extent to consider climate change effects under NEPA. This approach does not reveal anything beyond the nature of the climate change challenge itself—the fact that diverse individual sources of emissions each make a relatively small addition to global atmospheric GHG concentrations that collectively have a large effect."	Thank you for your comment. This has been updated in the text in Section 3.4.1.3 of the Final EIS.

Table O.5-2. USEPA – Alternatives – General

Comment	Response
5. Likewise, Alternative E, the Habitat Impact Minimization Alternative should be considered to reduce impacts in the offshore environment. This alternative would avoid several features such as high-relief sand ridge and trough complexes and deep holes/drop-offs, which produce high habitat heterogeneity and complexity and loss may result in adverse impacts. Overall, we recommend BOEM select a combination of alternatives that reduce and avoid impacts to resources, such as Alternatives C, D, and E as the preferred alternative and incorporate avoidance into the proposal where possible.	BOEM considered all of the Final EIS alternatives and comments received on the Draft EIS and has identified the preferred alternative in the Final EIS, per CEQ NEPA regulations. No final agency action is being taken by the identification of the Preferred Alternative and BOEM is not obligated to select the Preferred Alternative.
6. Much of the relevant information regarding resource impacts is presented under the No Action Alternative and Proposed Action, with a minimal discussion of Alternatives C, D, and E. It would be helpful to evaluate and compare the impacts from each alternative in a more straightforward way. A consolidated discussion of impact producing factors and relevant variations in each alternative, including a quantitative comparison of impacts associated with onshore and offshore project components for each alternative (e.g., areas of scour protection, cable length, construction emissions, and width of right of ways, etc.) would better support findings, and facilitate comparing and contrasting the alternatives.	Alternatives C, D, and E are modifications of the Proposed Action that were developed to minimize resource impacts. Impact analysis for the action alternatives focuses on difference among the various alternatives. Quantitative comparisons are provided where possible in additional to the qualitative comparison of impacts among alternatives.
7. To fully evaluate the proposed alternatives, EPA recommends the EIS contain comparative resource impact tables and map(s) showing potential permanent and temporary impact areas, types, and resource classifications. While impacts may be approximate at this time, it is critical to identify potential high quality or sensitive resources and prioritize their avoidance as early as possible. The maps should include impacts associated with the proposed substations and their potential configurations. For planning purposes, additional use of GIS resources and data such as landcover, aerial photos, natural heritage databases, and other data would be helpful to inform this assessment, such as approximate area of tree removal or wetland type. This information would also aid in identification of the environmentally preferable alternative.	Resource-specific impact level definitions are presented in each resource section, and the impacts of each alternative align with the appropriate impact level, as supported by the analysis in the Final EIS. Quantitative comparisons are provided where possible in additional to the qualitative comparison of impacts among alternatives. The environmentally preferable alternative will be identified by BOEM in the ROD.
40 CFR 1502.16(a)(1) requires a discussion of environmental impacts of the proposed action and reasonable alternatives and the significance of those impacts. However, the DEIS generally characterizes all alternatives, including minimization or reduced design alternatives, as having similar impacts as the Proposed Action (Alternative B). The provided analysis is not sufficient to capture the avoidance of impacts to Indian River Bay by use of Alternative C, and the DEIS generally concludes that the overall impact would not change from the Proposed Action with any of the avoidance alternatives (C, D, and E). It is unclear what amount of change would create any meaningful difference in this assessment. This appears to be at least partially a result of overly broad and generalized metrics based on the Impact Level categories defined in the DEIS. We recommend revisions to these categories that would allow the Study to capture differences in alternatives and allow for a meaningful comparison of impacts and avoidance measures.	BOEM uses a four-level classification scheme to characterize the potential impacts of the alternatives. Resource-specific impact level definitions are presented in each resource section, and the impacts of each alternative align with the appropriate impact level, as supported by the analysis. Using the impact level definitions provided in Section 3.3, the alternatives often do not have enough reduction in impacts to change the impact level. The minimization of impacts is identified and quantified where possible in the Final EIS.
Similarly, the incorporation of cumulative impacts into the assessment of alternatives, including the No Action Alternative, obscures both positive and negative direct impacts and makes it difficult to meaningfully compare impacts from the proposed project and alternatives. By assuming build out of all other proposed offshore wind projects to the maximum extent as the baseline condition, the contribution of any individual project appears to be minimal (The DEIS indicates that offshore wind development along the Atlantic coast is expected to result in approximately 3,081 offshore structures (WTGs, OSSs, and Met Towers) over the next 7-10 years without the Proposed Action.) This generally leads to the conclusion that any alternative "would contribute a small increment of the combined impacts of ongoing and planned activities" for resource areas. While it is appropriate to evaluate reasonably foreseeable projects in the context of cumulative effects analysis, the way the analysis is incorporated obscures the impacts from the proposed Project and its alternatives. We recommend evaluating all alternatives, including the No Action Alternative, separately from cumulative impacts to clearly capture the range of positive and negative effects that may occur under differing scenarios. This is also critical considering that the majority of projects are only in the planning stage, and it is not clear that projects will proceed as currently proposed. For example, Ørsted's recent announcement that is no longer proceeding with Ocean Wind I and II could impact evaluations for the resources where it was expected these projects will be built. The timeline and viability of other projects such as the Skipjack Wind Farm may also be impacted.	The No Action Alternative assesses the impact of ongoing activities (excluding the Proposed Action). The cumulative impacts of the No Action Alternative consider the impact of ongoing activities and other reasonably foreseeable planned activities (excluding the Proposed Action). The Proposed Action considers the impact of the Maryland Offshore Wind Project within the context of existing conditions and ongoing activities. The cumulative impacts of the Proposed Action considers the Maryland Offshore Wind Project in combination with other reasonably foreseeable planned activities within the geographic analysis area for each Section 3 resource topic.

Comment	Response
1. As previously stated, the Impact Level categories used in the DEIS are too broad to allow for a meaningful comparison of impacts, alternatives, and avoidance measures, resulting in the DEIS characterizing alternatives, including minimization or reduced design alternatives, as having similar impacts. We recommend that the impact level definitions be revised so that differences can be captured.	BOEM uses a four-level classification scheme to characterize the potential impacts of the alternatives. Resource-specific impact level definitions are presented in each resource section, and the impacts of each alternative align with the appropriate impact level, as supported by the analysis. Where possible and appropriate, a quantitative comparison of impacts is provided.
2. The avoidance potentially achieved by alternatives is not well-captured by the DEIS, as the scale of the impact assessment obscures the differences among alternatives. For example, Alternative D, the Viewshed Alternative, which would remove up to 33 structures within 14 miles from shoreline for the purpose of reducing visual impacts, would result "in marginally lower impacts" but the DEIS concludes "the overall impact would not change" from the Proposed Action for visual resources. Alternative E, developed to minimize impacts to benthic habitat, also does not appreciably change the impacts to benthic resources from the Proposed Action. We recommend the EIS be refined to better capture the differences in alternatives and impacts.	Using the impact level definitions provided in Section 3.3, the alternatives often do not have enough reduction in impacts to change the impact level. Where possible and appropriate, a quantitative comparison of impacts is provided.
43. Table ES-1 suggests the action alternatives would improve the baseline by indicating that the No Action would have negligible to moderate impacts and the action alternatives would have negligible to minor impacts. BOEM should clarify how the impacts are expected to improve with the completion of the action alternatives as opposed to the no action alternative or revise the assessment. We recommend that this discussion be summarized in the EIS and not only in Appendix F.	Tables and analyses have been revised.
68. While it is challenging to capture the relevant information in a concise manner, the EIS would benefit from improved organization and clarity. A few examples follow; we would be happy to discuss clarifying the document for both public and agency review. a. The project parameters and construction are described in detail under the Proposed Alternative B in the Alternatives (Chapter 2). Instead, it would be helpful to initially discuss basic project parameters (e.g., foundation designs, hub height, installation, etc.) and focus on identifying and quantifying differences in impacts among the alternatives in Chapter 2. b. Moving discussion of topics such as Water Quality and Coastal Habitat and Fauna to Appendix F detracts from the clarity of the EIS as information relevant to other resource areas is in multiple locations. It would be helpful to include a discussion of resource impacts in the EIS and provide the supporting information in Appendices. c. Reducing redundancy would also improve readability. For example, Appendix G could be revised to combine project stages instead of repeating Mitigation and Monitoring measures for construction and operation. Grouping similar topics, such as Benthic Resources and Finfish, Invertebrates, and Essential Fish Habitat could also reduce redundancy and improve clarity in the narrative.	Thank you for your comment. The Final EIS follows a consistent outline and template and is commensurate with other project EISs.

Table O.5-3. USEPA – Alternative A – No Action

Comment	Response
40 CFR 1502.14 requires consideration of the No Action Alternative. As indicated in the EIS, the No Action Alternative serves as the baseline to consider environmental impacts. BOEM includes "all other existing ongoing or other reasonably foreseeable future activities" (ES.4.1 and other sections), indicating that the No Action Alternative presented by BOEM incorporates impacts from other planned future activities as part of the baseline, including proposed offshore wind energy projects. The inclusion of all other potential projects continues throughout the action alternatives. However, if the No Action Alternative assumes the baseline is the approval and construction of all other proposed wind projects in the vicinity, it becomes unclear how any one project contributes to positive or negative effects. For clarity, we recommend evaluating the impacts of the project separately from the cumulative effects of expected wind energy development overall, so that the incorporation of other planned future offshore wind activities does not obscure the analysis of the action and its alternatives. This assessment should consider effects that may occur under differing scenarios as it is not clear that projects will proceed as currently proposed, given that the majority of offshore wind projects on the Atlantic OCS are only in planning stages.	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. A detailed description of BOEM's methodology for assessing impacts is provided in Section 1.6 of the Final EIS.
Further, where the level of impact described characterized in the No Action is greater than the level of impact projected for the same resource from the action alternatives, the EIS should clearly indicate how the alternative mitigates the impacts from the No Action Alternative. For example, the EIS should clearly explain how a "moderate" impact expected under the No Action Alternative is reduced to a "minor" impact expected from the Project's action alternatives.	Tables and analyses have been revised.

Table O.5-4. USEPA – Alternative C – Landfall and Onshore Export Cable Routes

Comment	Response
Given the value and sensitivity of the Delaware Inland Bays, EPA strongly recommends that BOEM avoid impacts to Indian River Bay. To that end, we recommend that BOEM select a terrestrial route as outlined in Alternative C as the preferred alternative, along with incorporating or combining other alternatives that reduce impacts to other resources. Alternative C would include the same output (up to 2.2 GW) as the Proposed Action but would avoid impacts to the Indian River Bay.	Thank you for your comment.
3. Based on the information presented, Alternative C, the Landfall and Onshore Export Cable Route Alternative, would avoid a number of impacts associated with dredging, installing and maintaining cables across Indian River Bay without reducing the energy output of the Project. EPA supports avoiding impacts to aquatic resources, including Indian River Bay and reducing potential impacts to a range of resources such as potential impacts to water quality and fauna dependent on Inland Bays. Therefore, EPA supports the selection of one of the terrestrial options under Alternative C for cable routing as the preferred alternative.	Thank you for your comment.
4. Alternative C includes several cable routing options; Alternative C-1 would be contingent on selection of Offshore Cable Route 2 (northern route) while Alternative C-2 includes Onshore Export Cable Routes 1a, 1b, and 1c, and would require selection of Offshore Cable Route 1 (southern route). Based on the National Wetland Inventory estimates in Table 3.5.8-3, Route 1c appears to have the most potential impacts to wetlands (up to 7.4 acres total), including up to 2.5 acres of potential scrub shrub or forested wetlands. Alternatives 2, 1a, and 1b each appear to have less than 3.71 acres of potential wetland impacts estimated. However, each of these is substantially less than the >288 acres of impact proposed for the crossing of Indian River Bay, and the environmental impacts from any of these terrestrial routes may be minimal based on utilizing existing, disturbed right of ways. However, differences in impacts among the routes for Alternative C-1 and C-2 are currently unclear. We recommend evaluating and comparing these routing options fully in the EIS. a. The EIS indicates that the extent of any habitat conversion, if any, is unknown. Additional imagery or field truthing these numbers could inform potential impacts to wetlands, vegetation, habitat, and other resources. b. The impacts of the Towers Beach landfall for C-1 instead of the proposed landfall at 3R's Beach are not compared. We recommend showing these routes in more detail and estimating potential impacts based on aerial imagery.	As noted in Section 1.5 of the Final EIS, this Final EIS assesses the impacts of the PDE described in the COP (US Wind 2024) and presented in Appendix C, *Project Design Envelope and Maximum-Case Scenario*, by using the "maximum-case scenario" process. The maximum-case scenario is composed of each design parameter or combination of parameters that would result in the greatest impact for resource.

Table O.5-5. USEPA – Benthic Resources

Comment	Response
Critically, the DEIS does not comprehensively evaluate the proposed impacts to Indian River Bay. As EPA has stated, Indian River Bay, along with Little Assawoman Bay and Rehoboth Bay, comprise an estuary of national significance, the Delaware Inland Bays. These highly productive estuarine environments support many species of birds, fish, mammals, and other wildlife as well as robust economic activity. The Inland Bays are particularly sensitive to environmental change, as they are shallow and poorly flushed by tidal movement. The DEIS does not fully evaluate how the proposed installation and maintenance of cables across Indian River Bay, including impacts from the dredging and disposal of an estimated 916,000 cubic yards of material, would impact resources.	Text has been added to Chapter 2, Section 2.1.2.1 which introduces the information supporting the dredging of Indian River Bay for barge access. These updates have been carried over into impact determinations in Section 3.5.2.5.
25. Potential sediment contamination along both the Offshore and Inshore Export Cable Routes is briefly discussed in Section 3.5.2. Disturbance and suspension of contaminated sediment is a substantial concern, particularly in poorly-flushed Indian River Bay. Further sampling and analysis should evaluate the extent of contamination, and the potential impacts of disturbing contaminated sediments in Indian River Bay and offshore should be fully evaluated in the EIS.	The Final EIS summarizes the potential impacts of sediment suspension resulting from export cable installation. This information is based on the sediment transport modeling (Appendix B. Sediment Transport Models) provided by US Wind in the COP.

Comment	Response
30. Table ES-1 (Comparison of Impacts Among Alternatives) indicates that alternatives will be moderately beneficial to benthic resources. While the addition of "reef" areas and new hard structures may increase biodiversity in some areas, it is also considered a habitat conversion, and can decrease the usable habitat for other naturally occurring biota adapted to the naturally occurring habitats. EPA recommends providing additional information demonstrating how these alternatives may be considered beneficial to the benthic resources.	The potential effects of wind farms on offshore ecosystem functioning have been studied using simulations calibrated with field observations (Raoux et al. 2017; Pezy et al. 2018). These studies found increased biomass for benthic fish and invertebrates. However, some impacts, such as the loss of soft-bottom habitat and increased predation pressure on forage species near the structures, may be adverse. Increased biodiversity and the reef effect created from the presence of the offshore infrastructure is especially beneficial for encrusting, hard-bottom or structure-oriented species (Coolen et al. 2022; Degrear et al. 2020; Hutchison et al. 2020; Inger et al. 2009; Raoux et al. 2017). The presence of introduced hard surfaces may result in new habitats for hard bottom species and increases in biomass for benthic fish and invertebrates (Raoux et al. 2017; Kerckhof et al. 2019). In a predominantly soft-bottom environment will enhance local biodiversity; enhanced biodiversity associated with hard-bottom habitat is well documented (Coolen et al. 2022; Degrear et al. 2020). This indicates that marine structures would generate beneficial impacts on the benthic community.
31. Section 3.5.2 indicates that the lease area and offshore export cable corridor overlap with valuable benthic habitat unique to the Delaware Inland Bays and mid-Atlantic region, including portions of the Carl N. Shuster Jr. Horseshoe Crab Reserve that protects spawning, migration, and overwintering habitat for horseshoe crabs. Impacts to horseshoe crabs and the Reserve should be fully evaluated to assess the extent of possible impacts and inform the selection of the preferred alternative. While it is helpful, the discussion regarding electromagnetic fields (EMF) does not address the range of potential impacts.	The Earth's magnetic field is the dominant natural source of magnetic field in the sea (as well as on land); it has a strength of approximately 30 microtesla (μT) at the equator and about 60 μT at the poles. Copping et al. (2016) reported that although burrowing infauna may be exposed to stronger EMFs than those that remain above the seabed, there was no evidence that the EMFs anticipated to be emitted from those devices would adversely impact benthic species, including the horseshoe crab.
34. Pg 3-66 of the DEIS states "in total, about 27.21 acres (10.61 hectares) of seafloor habitat would be permanently affected by the construction and installation of the WTGs, OSSs, and Met Tower foundations for the Proposed Action (Appendix C, Table C-2)." However, the USACE's Public Notice states, "with scour protection, the proposed footprint of each monopile foundation would be approximately 38,000 square feet. The total maximum footprint for the monopile foundations would be approximately 106 acres." We ask that BOEM clarify this discrepancy.	Thank you for your comment. The discrepancy lies in the differences in which the values are provided and what they include. The values provided in the Final EIS benthic impact were provided by US Wind and only includes the foundation. While the values provided in the USACE public notice, as stated, also includes the scour protection for the foundations.
35. The DEIS states, "based on agency approval, scour protection systems used to protect foundations and cables may be left in place to provide seafloor habitat. If required, the scour systems will be removed in such a manner that the seafloor will be returned to pre-project conditions." EPA recommends providing additional information in the EIS documenting the anticipated location and type of scour protection to be used throughout the Project area. Additionally, if the scour systems are to be removed, EPA recommends including this removal in a management plan that includes measures to avoid impacts to the seafloor bed as well as indicating where the material will be placed.	US Wind will include the details of the scour protection systems in the Facility Design Report (FDR) and Fabrication and Installation Report (FIR). Under 30 CFR Part 285 and Renewable Energy Lease Number OCS-A 04980490, US Wind would be required to remove or decommission all facilities, projects, cables, pipelines, and obstructions and clear the seabed of all obstructions created by the Project. All facilities would need to be removed 15 feet (4.6 meters) below the mudline (30 CFR 285.910(a)). Details will need to be provided in a Decommissioning Plan.
37. The impacts of the proposed dredging in Indian River Bay to benthos and finfish is not clearly presented in the EIS. The proposed impact and overlap with existing dredging efforts should be clarified. a. Section 3.5.2.5.1.1 states "Due to the silting of Indian River Bay, a navigational channel has and will continue to be dredged. Therefore, the benthic habitat within Indian River Bay has and would continue to be disturbed." The depth and width and frequency of the existing dredging should be indicated. The EIS should indicate if any of the proposed disturbance, including the proposed maximum 633 feet area of temporary construction disturbance, corresponds with existing dredging efforts. It is also unclear if combining with existing dredging efforts may potentially reduce impacts. As this activity may impact several resource areas, it would be helpful to include information prior to the discussion of resources in Chapter 3. b. Temporary benthic disturbance due to dredging for barge access in Indian River Bay is estimated to be 288.8 acres. It appears that this would be additive to the 168.27 acres of "temporary benthic disturbance due to the cable installation" in Indian River Bay as indicated on page 3-57, given that the maximum area of temporary construction disturbance is 633 feet wide. We recommend that the overall impact area be clarified. c. Page 3-58 states that the maximum volume of dredging across the entire 295-foot width of the cable route would be 916,000 cubic yards, "assuming all 4 cables installed in a single season," which suggests the potential for multiple disturbances and additional dredging to occur. Additional need for dredging or multiple disturbance should be evaluated. d. As acknowledged on Page 3-46, the level of impact from sediment deposition and burial depends on factors such as time of year, especially if it overlaps with sensitive life stages. Sedimentation could have long-term adverse effects on eggs and larvae of demersal species and benthic invertebrates. These impacts should be evaluated. Time of year restrictions may be appropriate to minimize impacts.	Thank you for your comment. Text has been added to Chapter 2, Section 2.1.2 of the Final EIS. which introduces the information supporting the dredging of Indian River Bay for barge access, and includes the estimate volume of dredged material, and time of year restrictions.

Comment	Response
38. We recommend further discussion supporting the conclusion that cable emplacement activities within Indian River Bay are expected to be "notable but resources would recover and impacts would therefore be minor." We recommend explaining the assumption that the benthic community recovery with a few months to a few years based on "nearby sediment dredging, and sand borrow projects including near Indian River Bay inlet."	Text has been added to Chapter 2, Section 2.1.2 which introduces the information supporting the dredging of Indian River Bay for barge access.
39. Impacts associated with operation and maintenance of the cables across Indian River Bay should be fully evaluated.	Impacts associated with the O&M of the cables within Indian River Bay are discussed in Section 3.5.2.5 of the Final EIS. Text was added to address cable heat in more depth.
40. While Section 3.5.2.3 (pages 3-48 and 49) indicates EMF and cable heat are areas that require further study and notes the high degree of uncertainty, the DEIS later indicates that US Wind has conducted a modeling study and found that the EMF produced would be below the reported detection thresholds for "electrosensitive marine organisms." BOEM expects the impacts on finfish, invertebrates, and EFH from EMF and cable heat to be negligible. To support these findings, we suggest providing additional information on this modeling and its assumptions, and recommend that the EIS include additional information on how these impacts will be more fully evaluated in the future. Specifically, we recommend monitoring for potential impacts after construction and during operation of the Project.	Five representative cable configurations were modeled to represent the three portions of the cabling for the Project. The inter-array cables were modeled both at the target burial depth of 3.3 feet and where cable protection of 1-foot protective covering would occur. Similar configurations were modeled for the offshore export cables, adding a minimum of 100 ft separation of the cables. Within Indian River Bay, the configuration modeled the four cables separated by 33 feet and buried to 3.3 feet beneath the seafloor. As Section 3.5.2.5 of the Final EIS states, when operating at peak loading, the maximum level of the magnetic field produced from the Offshore Export Cable Route cables (both offshore and through Indian River Bay) was calculated as 148 mg (14.8 µT) at the seabed, and quickly decreased to 12 mg (1.2 µT) just 3 feet (1 meter) above the seafloor (Exponent 2023). These values are 3.4 and 42 times lower respectively than EMF levels which have shown no impact (Exponent 2023). The maximum EMF levels produced by the inter-array cables at the target burial depth of 3.3 feet (1 meter) was calculated as 49 mg (4.9 µT). At a distance of 10 feet (3 meters) horizontally from all cable types, the EMF decreased to less than 1 mg (0.1 µT) (Exponent 2023). Text was added to Section 3.5.2.5 of the Final EIS addressing cable heat for the O&M phase.
41. Table G-1. Lessee-proposed Mitigation and Monitoring Measures indicates that the applicant will use submarine cables that have proper electrical shielding and bury the cables in the seafloor, "when practicable," to mitigate potential impacts to various resource areas. The EIS should provide additional information regarding potential impacts when it is not practicable to bury or shield the cables.	As Section 3.5.2.5 of the Final EIS stated, when operating at peak loading, the maximum level of the magnetic field produced from the Offshore Export Cable Route cables (both offshore and through Indian River Bay) was calculated as 148 mg (14.8 µT) at the seabed, and quickly decreased to 12 mg (1.2 µT) just 3 feet (1 meter) above the seafloor (Exponent 2023). These values are 3.4 and 42 times lower respectively than EMF levels which have shown no impact (Exponent 2023). The maximum EMF levels produced by the inter-array cables at the target burial depth of 3.3 feet (1 meter) was calculated as 49 mg (4.9 µT). At a distance of 10 feet (3 meters) horizontally from all cable types, the EMF decreased to less than 1 mg (0.1 µT) (Exponent 2023). Text was added to address cable heat. Most infauna communities inhabit the upper 20 centimeters (8 inches) of seafloor sediment (Middleton and Barnhart 2023). Research has shown that heat from buried cables is generally dissipated before reaching within 20 centimeters (8 inches) of the surface where cables are buried 0.6 to 1.2 meters (2 to 4 feet) deep (Tetra Tech, 2021). The minor increases in sediment temperatures above the buried cable would not degrade the benthic habitat even for most infauna species. In a lab setting, mud shrimp (*Corophium volutator*) did not show avoidance behaviors due to increased sediment temperature, while burrowing polychaetes (*Marenzelleria viridis*), distribution was positively correlated with a temperature gradient (Messiner et al. 2006). The burrows of these polychaetes can reach 35 centimeters (13.8 inches) deep (Fotonoff et al. 2018).
As briefly stated in the EIS, glauconite can create significant issues for offshore wind development. It is currently unclear whether geotechnical studies have been conducted to determine the presence of glauconite sands. We recommend conducting such studies as early as possible to inform the viable alternatives and potential impacts.	The US Wind site has already been investigated with a significant number of borings and Cone Penetration Tests (CPT) probes and no significant amount of glauconite has been reported. They also have submitted preliminary pile drivability analyses that show no problems with achieving the full required depth of penetration into the seabed. Investigations of other offshore wind lease areas in the north and Central Atlantic show glauconite deposits more prevalent at shallow depths in areas east of New Jersey and south of New England with the depth of the glauconite deposits trending deeper towards the south and east. These findings suggest that glauconite deposits within the depths of pile embedment are unlikely in the Lease Area.
32. Benthic monitoring does not appear to be included in Appendix G. Given the potential impacts to key species such as horseshoe crabs, we recommend that benthic monitoring be included in the proposal, including in Indian River Bay, to assess long-term impacts to sensitive benthic organisms and habitat. A brief narrative description of the proposed benthic monitoring should be included in the EIS. The EIS should also indicate how such impacts to migration, spawning, nursing, rearing, and/or resting habitat will be mitigated for if impacts are found.	As part of the regulatory review process, US Wind will be engaging and negotiating with the appropriate federal and state regulatory agencies throughout the life of the Project that may lead to the requirement to develop an adaptive benthic monitoring program.

Comment	Response
33. Likewise, we recommend clearly indicating measures that will be taken to reduce the spread of Didemnum vexillum and other invasive species. We recommend committing to monitoring and management actions for such species in the EIS and Appendix G.	As described in Section 3.5.2.5, it will be important to incorporate an invasive species monitoring component into a benthic habitat monitoring plan. However, the potential for introducing an invasive species that is not already present within the region through ballast water releases or biofouling from US Wind operational activities is quite low.
36. The DEIS indicates that jet plowing will be used to lay the cables and that the displaced sediment will settle back over the cable, effectively burying the cable. Page 3-47 of the DEIS states that "overall disturbance of sand waves and sand shoal troughs would be temporary, given that sand waves and shoals are dynamic, adaptable features, with sand ridges requiring more time for full recovery than sand troughs, though still deemed a temporary impact." Additional information should be provided regarding the characterization of temporary impacts. Furthermore, EPA recommends a pre- and post- construction bathymetric survey be provided to ensure the sediment resettles over the proposed cables rather than disturb nearby benthic habitat.	As part of the COP, US Wind has provided results of comprehensive High Resolution Geophysical (HRG) surveys along the Offshore Export Cable, Inshore Export Cable and Inter-array Cable Routes. Although not called out as a specific mitigation measure in the Final EIS, it is common industry practice for the lease to conduct as-built surveys following cable installation to ensure cable alignment and burial depths.
50. The DEIS indicates the maximum volume of dredging would be 916,000 cubic yards of material (page 3-58), whereas the PN indicates dredging will be 1,368,000 cubic yards; please clarify the discrepancy. Furthermore, the PN indicates dredged material will be disposed offshore or upland or may be beneficial used. The various disposal alternatives should be evaluated as each of them may have different requirements and/or result in potentially different impacts to WOTUS and water quality.	Material generated during dredging along the Inshore Export Cable Route to provide barge access will be piped via temporary dredge pipeline to a dewatering staging area at the US Wind Substations, within the planned limits of construction disturbance. Dredged materials will be dewatered and placed in trucks for disposal/placement at an upland landfill location within 161 km (100 mi) of the US Wind Substations area.
51. The provided DEIS indicates that "dredging would be conducted using mechanical, or most likely, hydraulic means. The maximum volume of dredging, assuming all 4 cables installed in a single season, and across the entirety of the 295-foot width of the cable route, would be 916,000 cubic yards." EPA recommends providing a detailed dredging plan indicating the type of dredging, locations to be dredged, planned BMPs, as well as the placement/disposal location for the dredged material to fully evaluate the potential impacts to WOTUS and vital benthic habitat in the Indian River Bay and surrounding areas.	Material generated during dredging along the Inshore Export Cable Route to provide barge access will be piped via temporary dredge pipeline to a dewatering staging area at the US Wind Substations, within the planned limits of construction disturbance. Dredged materials will be dewatered and placed in trucks for disposal/placement at an upland landfill location within 161 km (100 mi) of the US Wind Substations area.
52. If the dredged material is planned to be beneficially used (BU), EPA recommends that the proposed BU site's design, reference site, performance standards, monitoring and adaptive management plan be provided for review to fully evaluate if the proposed BU project may result in ecological uplift. Furthermore, appropriate sediment testing should be completed and provided to the agencies for review to ensure the beneficial use of material for habitat restoration does not result in adverse impacts to existing habitat.	Material generated during dredging along the Inshore Export Cable Route to provide barge access will be piped via temporary dredge pipeline to a dewatering staging area at the US Wind Substations, within the planned limits of construction disturbance. Dredged materials will be dewatered and placed in trucks for disposal/placement at an upland landfill location within 161 km (100 mi) of the US Wind Substations area.

Table O.5-6. USEPA – Biological Resources - General

Comment	Response
11. The anticipated impacts and their significance should be supported in the EIS. Detailed discussion of resource types, habitat types, quality, rarity, and importance of habitats, species, and potential impacts would aid in meaningfully evaluating effects and their significance. Again, estimates of likely temporary and permanent disturbance from construction, operation, and maintenance of onshore and offshore components for each alternative would be helpful in framing impacts.	The analysis considered Project effects in the context of different habitats and resources found in the Project Area, and the text supported the impact conclusions. Within Section 3 of the Final EIS, each resource section addresses impacts during each phase of the project for all alternatives.
12. Where beneficial effects impacts are expected, we recommend supporting this finding and clarifying whether the benefit is appropriately categorized as overall for the resource or limited to certain groups or species. For example, as described, community composition could change mortality of some species and/or increase competition, which could have beneficial or adverse effects to a species or assemblage but may create tradeoffs and ecological shifts within the larger community.	Generally, impacts (adverse and beneficial) have been addressed for resources as a whole, unless specifically indicated otherwise. Adverse and beneficial impacts have been weighed separately. Specifically, BOEM does not consider the possibility of beneficial effects to offset the adverse impacts. Adverse impacts must be properly avoided or mitigated regardless of the potential for beneficial impacts. This provides a conservative (protective) approach.

Table O.5-7. USEPA – Climate Change

Comment	Response
18. This resource section should also include the discussion of how the offshore and onshore components of the Project are designed to be resilient in light of climate change risks such as more frequent severe weather events. Although WTG design to withstand weather events is discussed in the Alternatives Chapter 2.3 (Non-Routine Activities and Low-Probability Events), it would be helpful to examine the resiliency of all Project components in a Climate Change section.	Climate change is covered throughout the Final EIS, in each resource section.

Table O.5-8. USEPA – Coastal Habitat and Fauna

Comment	Response
44. Appendix F indicates that Alternatives C-1 and C2 would have fewer impacts to Indian River Bay habitat, benefiting sensitive and important species like the diamondback terrapin and horseshoe crab, but overall, the EIS does not find any difference in alternatives for Coastal Habitat and Fauna. As noted above, this difference is obscured by the scale of the Level of Impact and the way that cumulative impacts are incorporated. The EIS should allow for meaningful comparison of these types of impacts among the alternatives. We recommend more carefully evaluating impacts from Alternative C on this resource.	Impacts of Alternative C, are further evaluated and described in Section 3.5.4.6, *Impacts of Alternative C – Landfall and Onshore Export Cable Routes on Coastal Habitat and Fauna*.
45. As described in Appendix F, Indian River Bay has areas of excellent diamondback terrapin (Malaclemys terrapin) habitat. Diamondback terrapin are listed as Vulnerable by the IUCN Red List Index of Threatened Species. Terrapins face numerous threats, including habitat loss. We recommend fully evaluating impacts to sensitive life stages for diamondback terrapins, such as nesting and egg laying, and estivation. We recommend including avoidance measures, such as avoiding proximity to nesting locations and time of year restrictions to minimize impacts to M. terrapin and other sensitive species.	Text added to Section 3.5.4.5, O*nshore Activities and Facilities,* and 3.5.4.1 *Terrestrial Flora and Fauna* to include additional analysis of sensitive life stages for diamondback terrapins. Per Appendix G, US Wind will locate cable landfalls and onshore facilities so as to avoid impacts to known nesting beaches, where feasible. The use of HDD for cable installation under the Barrier Beach Landfalls will avoid impacts on beaches. The Project has been sited to avoid sensitive or rare habitats where feasible, and habitat disturbance will be minimized to the extent practicable. Construction is anticipated to occur outside of turtle and terrapin nesting season. Agency consultation and monitoring will be conducted as needed to mitigate disturbances. Onshore construction activities will be scheduled to avoid impacting sensitive coastal habitats, where practicable. US Wind will compile a comprehensive wildlife survey and observation information database to include surveys, PSO data, and other wildlife monitoring records. Data will be made available to government, research, and environmental groups, among others. Information is provided on the following website: Remote Marine and Onshore Technology.
46. Section 3.5.4.4 indicates it is assumed that construction outside of months in which terrestrial habitats and fauna are not present, not breeding, or less active would have lesser impacts on terrestrial fauna. We recommend that BOEM fully evaluate potential temporal impacts and incorporate time of year restrictions for tree clearing to minimize potential impacts to species such as nesting birds and bats. We recommend that the EIS include a discussion of conservation measures recommended by resource agencies such as the US Fish and Wildlife Service and state agencies to minimize impacts.	Per Appendix G, tree clearing activities required for Project construction are not planned between June 1 and July 31 to avoid or minimize impacts to northern long eared bat during the summer maternity period. US Wind will compile a comprehensive wildlife survey and observation information database to include surveys, PSO data, and other wildlife monitoring records. Data will be made available to the government, research, and environmental groups, among others. Information is provided on the following website: Remote Marine and Onshore Technology.

Table O.5-9. USEPA – Cultural Resources

Comment	Response
63. Section 3.6.4.2 indicates that National Historic Preservation Act (NHPA) Section 106 consultation and government-to-government consultation with Native American tribes is ongoing. Government-to-government consultations should allow for BOEM to take Tribal input into consideration before taking any actions or decisions that may impact Tribal resources or interests. Consultations should be conducted individually with each Tribal government, ensuring the consultation is meaningful. BOEM should respond to each Tribe's consultation comments or questions in a written document and notify the Tribes of their ultimate decision or action formally closing out consultation.	Thank you for your comment; BOEM conducted Section 106 consultation and individual Tribal Nation government-to-government consultations based on the requests and interests of the individual Tribal Nations.

Comment	Response
64. EPA encourages effective involvement of tribes in evaluating environmental concerns, terrestrial and marine archaeological resources, and interpreting results. Given that there are 14 ancient submerged landforms within the lease area and a number of other potential resources for which the Tribal significance of these has not yet been determined, it is essential that the appropriate representatives of each Tribe are invited and have opportunity to meaningfully participate in both the government-to-government consultation and the NHPA process. Tribes can provide unique insight into the identification of traditional cultural landscapes that may not be immediately evident to the archaeology team. As a result, the Tribes usually prefer to participate when the archaeology work is being conducted, as opposed to reviewing a report after the field work is completed. We also recommend that Tribes be invited to participate in the development of unanticipated discovery plans for offshore and onshore construction activities.	Per Section 3.6.5.1 and Appendix J (Finding of effect), BOEM has determined the 14 ancient submerged landforms to be eligible for listing on the NRHP. BOEM conducted Section 106 consultation and individual Tribal Nation government-to-government consultations based on the requests and interests of the individual Tribal Nations. Consultation has included and will continue to include cultural resource identification, assessment of effects, resolution of adverse effects on historic properties, archaeological monitoring plans, and unanticipated discovery plans.
65. EPA recommends the Final EIS provide a discussion on the status and outcomes of the government-to-government consultations, including mitigation measures that have been developed in response to Tribal input.	Appendix J of the Final EIS includes details on consultation with federally recognized Tribal Nations (hereafter referred to as Tribal Nations) and Consulting Parties including the Memorandum of Agreement detailing stipulations, mitigations, and measures created through consultation with Tribal Nations through Section 106 and Government to Government consultation. BOEM has engaged in, currently engages in, and will continue to consult with Tribal Nations. Consultation has included and will continue to include cultural resource identification, assessment of effects, and resolution of adverse effects on historic properties.

Table O.5-10. USEPA – Demographics, Employment, and Economics

Comment	Response
62. EPA appreciates US Wind's intentions for "strong interest in the welfare of the workers" and to provide "particular focus on creating meaningful economic opportunities" in Appendix G. However, this does not indicate US Wind's future actions or commitments. EPA recommends providing specific measures summarizing how US Wind plans to assist workers or create economic opportunities within the local communities. If the information is detailed in the COP, it should be summarized in the table in the Appendix.	BOEM has included the available information from the COP regarding these issues in Appendix G. Section 3.6.3 within Appendix F further analyzes the jobs that would be supported by the proposed action.

Table O.5-11. USEPA – Environmental Justice

Comment	Response
58. As the DEIS states on page 3-316, EO 12898 directs federal agencies to consider environmental justice as part of the NEPA process. This includes developing public participation engagement plans. EPA requests that the strategies be summarized in the EIS. Additionally, EPA requests an opportunity to review the public participation strategies that were developed for the Project.	Appendix J of the Final EIS includes details on consultation with Tribes and Consulting Parties. Appendix N of the Final EIS includes a distribution list. Appendix A of the Final EIS provides a description of BOEM's consultation efforts during development of the Final EIS
59. EPA acknowledges that the full list of ports that will be utilized has not yet been determined and may not be available until after the record of decision (ROD) is issued. We therefore request an opportunity to review the detailed analysis of environmental justice (EJ) impacts as soon as they are available. We appreciate that BOEM has stated, "For purposes of evaluating environmental justice impacts, 'measurable' impacts could include, for example, changes in air emissions, water quality, employment, income, vehicle or vessel traffic, or other impacts evaluated in Chapter 3." We look forward to reviewing this analysis.	Thank you for your comment.
61. We urge BOEM to fully and meaningfully engage with communities throughout the life of the Project. EPA encourages BOEM to continue outreach and coordination with Tribes, the fishing community, and other affected communities to identify and minimize potential adverse effects associated with the Project while collaborating on opportunities to reduce or mitigate impacts, and provide opportunities for beneficial impacts such as employment.	Appendix J of the Final EIS includes details on consultation with Tribes and Consulting Parties. Appendix N of the Final EIS includes a distribution list. Appendix A of the Final EIS provides a description of BOEM's consultation efforts during development of the Final EIS
60. EPA encourages BOEM to widely publicize information about the progress of the Project and potential benefits such as opportunities for job training or employment. Likewise, compensation for lost income, fishing gear and damages should reach those potentially impacted. It is unclear how this is being disseminated or if the appropriate information is reaching the target audiences.	Relevant information regarding the benefits of the project have been included in Section 3.6.8.5 in the Final EIS. BOEM will consider how best to disseminate similar information at later stages.

Table O.5-12. USEPA – Mitigation and Monitoring

Comment	Response
66. EPA encourages identification of opportunities to avoid and minimize potential impacts, especially impacts to sensitive and priority habitats and species. As indicated in our July 6, 2023, comments, specific measures should be identified and committed to as early as possible in Project planning. The Final EIS should clearly identify BOEM's selected mitigation measures and indicate how these measures will avoid and minimize adverse impacts during construction and operation of the Project.	Appendix G of the EIS includes an updated list of mitigation and monitoring measures considered and evaluated in each resource section.
67. EPA supports the use of monitoring for adaptive management actions to better understand the range of impacts from offshore wind energy projects. We recommend clarifying the proposed monitoring and management actions in the EIS.	Thank you for your input. BOEM describes mitigation and monitoring measures in Appendix G.

Table O.5-13. USEPA – Other Uses

Comment	Response
56. Additional information on the UXO mitigation activities, especially related to remediation, should be provided to agencies for review. This should include, but is not limited to, siting criteria, mapping, identification/classification of UXO type, and discussion of whether/how each UXO will be monitored once relocated.	Per the mitigation and monitoring measures identified in Appendix G of the Final EIS, US Wind will prior to construction, analyze survey data at installation locations to identify potential MEC/UXO and plan avoidance or clearance in line with industry best practices, including preparing an MEC/UXO Emergency Risk Management Plan.

Table O.5-14. USEPA – Planned Activities Scenario

Comment	Response
10. The offshore wind project timelines presented in the DEIS do not appear to be consistent with the current status of projects. Timelines should be updated to consider impacts from individual projects, overlapping effects, and ongoing/continuing impacts. For example, Section 3.4.1.3.1 indicates that offshore wind projects other than the Proposed Action that may result in emissions and impacts within the air quality geographic analysis area include projects within lease areas OCS-A 0482 (Garden State Offshore Energy 1) and OCS-A 0519 (Skipjack Wind 1 and 2). Based on the assumed construction schedule presented, the projects within the air quality geographic analysis area would have overlapping construction periods beginning in 2024 and continuing through 2030. However, these projects are in planning stages, and based on current project timelines, are not likely to start construction in 2024. We recommend updating the timeline and analyses for each resource area.	BOEM revised FinalEIS Appendix D, Section D.2.1.3 to clarify the status of Ocean Wind 1 and Ocean Wind 2, for which Ørsted, publicly announced their decision to cease development of Ocean Wind 1 and Ocean Wind 2 on October 31, 2023. BOEM also revised the estimated construction year for Skipjack I, Skipjack II, and GSOE and the analyses for each resource area to reflect the following: Construction of the Skipjack Wind I project (17 WTGs), expected 2026–2030, Construction of the Garden State Wind project (96 WTGs), expected 2027–2030, Construction of the Skipjack Wind II project (77 WTCs), expected 2028–2030.

Table O.5-15. USEPA – Socio-Economic Resources - General

Comment	Response
57. The Inland Bays significantly contribute to the local, state, and regional economy. The Economic Value of the Delaware Inland Bays (2022) (https://www.inlandbays.org/wp-content/uploads/Economic-Valuation-of-the-Inland-Bays-FINAL-HIGH-REZ-080222.pdf) indicates that the Delaware Inland Bays support >35,000 jobs and $4.5 billion in economic activity annually. This report states, "The backbone of this economy remains the abundant natural resources of the Bays, which draw tourists from metropolitan areas throughout the mid-Atlantic region and support a plethora of recreational opportunities, including fishing, crabbing, boating, and bird watching." While Section 3.6 acknowledges the importance of recreational boating and fishing in the Delaware Inland Bays, potential impacts to recreational activities and the economic activity generated do not appear to be clearly assessed.	Section 3.6.1 of the Final EIS addresses impacts to Commercial Fishing and For-Hire Recreation Fishing.

Table O.5-16. USEPA – Water Quality

Comment	Response
28. As indicated in Appendix F, long-term impacts from corrosion protection from increased offshore wind facilities are not yet known. Page F-27 states that protective measures for corrosion have different potentials for emissions "(e.g., galvanic anodes emitting metals such as aluminum, zinc, and indium; organic coatings releasing organic compounds due to weathering or leaching)." While the current understanding is that chemical emissions from offshore wind structures is likely low, the effects of multiple projects is not known. Likewise, the cumulative effects of multiple offshore wind farms on hydrodynamics and oceanic processes are not yet well understood. We appreciate this characterization of the current understanding and recommend indicating how water quality will be monitored for this and other projects to better understand potential impacts and how they can be avoided or managed, if necessary.	To adhere to water quality standards, the lessee shall develop strategies for the implementation of a comprehensive water quality testing program with parameters to test pH levels, dissolved oxygen, salinity, conductivity, and for specific corrosion related ions. This testing program should also include flow measurements and velocity profiling to study water movement patterns and the potential of fate and contaminant transport.
23. The impacts to water quality should be fully evaluated. BOEM has moved the water quality assessment to Appendix F, Impact-Producing Factor Tables and Assessment of Resources with Minor (or Lower) Impacts. EPA finds that this characterization provides insufficient analysis of potential impacts to water quality from construction and operation, especially to Indian River Bay.	Thank you for the comment. The Final EIS discusses the effects from the onshore and offshore construction and operation on water quality in Appendix F Sections 3.4.2.5 and 3.4.2.5.
24. Currently, the information regarding water quality impacts to Indian River Bay is limited. Impacts from jet-plowing are briefly discussed; however, dredging impacts for barge access for installation of the Inshore Export Cable under the Proposed Action do not appear to be assessed. a. We recommend providing an analysis that fully evaluates the potential impacts from the proposed activities. Volume II, Appendix B3 of the COP is referenced to support conclusions that the proposed jet plowing for cable installation would result in short-term and localized effects. It is unclear whether dredging impacts have been assessed in the sediment transport analysis. The brief narrative provided in the Appendix B1 memorandum does not provide modeling or a comprehensive analysis, and the sediment transport modeling in Appendix B3 and B2 are not publicly available. b. The Appendix B1 memorandum notes that some areas within Indian River Bay may be more sensitive to sediment deposition or suspended sediment such as the cooling water intake for the Delmarva Power and Light facility, tidal wetlands along the shoreline, and shellfish harvesting areas. The EIS should carefully assess potential impacts to these sensitive resources. c. Given that Indian River Bay is listed on the 303(d) list as an impaired waterway for nutrients and copper, EPA recommends additional information be provided documenting the BMPs, erosion and sedimentation plans, and construction practices that will be in place to ensure the waterbody is not further degraded. Should impacts to Indian River Bay be proposed, EPA also recommends that water quality be monitored prior to, during, and post construction.	Thank you for the comment. a. Further analysis regarding dredging impacts is provided in Appendix F Section 3.4.2.5. b. Please see Sections 3.5.2 Benthic Resources and 3.5.4 Coastal Habitat and Fauna. c. Further analysis regarding dredging impacts is provided in Appendix F Section 3.4.2.5.
27. The EIS should address any potential discharges from onshore or offshore Project components, including WTGs or OSSs and indicating whether they may be subject to National Pollutant Discharge Elimination System (NPDES) permits. While page F-27 indicates "WTGs and OSSs are typically self-contained and do not generate discharges under normal operating conditions," some offshore wind projects do include proposed discharges; we recommend confirming that the proposed facilities within the geographic analysis area will not require NPDES permitting.	The NPDES vessel general permit is stated to be followed as applicable for the proposed project vessels in Appendix F Section 3.4.2.5. In the event of a spill related to an allision or other unexpected or low-probability event, impacts on water quality from discharges from the WTGs or OSS during operation would be temporary. During decommissioning, all offshore wind structures would be drained of fluid chemicals via vessel, dismantled, and removed.
29. As indicated above, the potential impacts of gas- and air-insulated substations will differ; these footprints and potential impacts should be evaluated in the EIS. For the onshore facilities, EPA suggests that BOEM commit to or ensure the applicant commits to reducing impacts of stormwater runoff from impervious surfaces by minimizing the construction of impervious areas and incorporating low impact design and green infrastructure principles where possible.	Thank you for the comment. At the time of the EIS, US Wind has not determined the design for these substations. US Wind will submit the Facility Design Report (FDR) and Fabrication and Installation Report (FIR) that will need to identify the specifics of these substations. As indicated in Appendix G of the Final EIS, US Wind will develop a Stormwater Pollution Prevention Plan (SWPPP) for onshore construction activities, as appropriate.

Table O.5-17. USEPA – Wetlands and Waters of the U.S.

Comment	Response
53. EPA recommends that the Final EIS include a management and action plan if low-probability events occur, including, but not limited to collisions, chemical spills, maintenance activities, etc.	Appendix G of the Final EIS identifies the mitigation and monitoring measures that include those US Wind has committed to and additional mitigation or monitoring measures BOEM considered to further protect and monitor these resources. These measures include project-specific Spill Prevention, Control, and Countermeasure (SPCC) Plan and Oil Spill Response Plan (OSRP) to be prepared prior to construction and for operations activities.
26. Given the characteristics of Indian River Bay, the potential for adverse impacts from a spill in Indian River Bay from construction or maintenance vessels could be much more significant than the offshore environment. While a large spill has very low probability to occur, a large spill could have substantial consequences. Further, based on modeling, small accidental releases are likely to occur during the lifetime of the Project. (Section 3.4.2.3.1 cites a 2013 modeling effort which indicates the most likely type of spill could occur at the WTGs at a volume of 90 to 440 gallons at a frequency of once 1 to 5 years.) Therefore, we recommend selecting avoidance and minimization measures that would reduce the potential for these accidental spills, discharges, and other water quality impacts.	The modeling referenced in the comment relates to accidental releases from WTG or ESPs on the OCS. The only potential for accidental release in Indian River Bay would be from construction and/or maintenance vessels. While the potential for spills from these vessels exist, risk from Project vessels is not greater than risk from other vessels. Further, a Project-specific Spill Prevention, Control, and Countermeasure (SPCC) Plan and an Oil Spill Response Plan (OSRP) will be prepared prior to construction and for operations activities.
47. As previously indicated, the Delaware Inland Bays is one of the 28 estuaries of national significance. These important resources provide valuable socioeconomic benefits, clean waters, healthy habitats, and strong communities. Given this importance, we continue to urge avoidance of impacts to Indian River Bay. Based on the information provided, Alternative C includes an Onshore Export Cable Route that avoids crossing the Indian River Bay and Indian River, while the proposed alternative plans to route the cables through the Indian River Bay. Given that it is anticipated that the USACE will rely on the information in the EIS when it considers related permit applications, the EIS should provide sufficient information to allow the USACE and the public to determine whether the preferred alternative represents the least environmentally damaging practicable alternative (LEDPA) as required by 40 C.F.R.230.10(a).	USACE supported preparation of the Final EIS as a cooperating agency. As noted in Section 1.2 of the Final EIS, USACE would adopt the EIS per 40 CFR 1506.3, if, after its independent review of the document, it concludes that the EIS satisfies the USACE's comments and recommendations. USACE would issue a Record of Decision (ROD) to formally document its decision on the Proposed Action.
48. The Public Notice indicates there will be no impacts to onshore wetlands. The DEIS indicates the intent to minimize impacts; however, "short-term or temporary disturbance" to wetlands may occur. The EIS should confirm that there are no temporary or permanent impacts to onshore waters of the US (WOTUS) anticipated as a result of activities related to the interconnection areas and construction/staging.	As described in the Final EIS, dredged material from Indian River Bay will be piped via temporary dredge pipeline to a dewatering staging area at the US Wind substations. This pipeline may traverse across a portion of existing tidal wetland. These potential impacts would be minimized to the extent practical and temporary in nature. The proposed use of HDD methods would avoid wetland impacts at all landfall locations. Additionally, if one of the Alternative terrestrial onshore export cable routes is selected, some impacts to wetland could occur and are discussed under these alternatives.
49. Potential indirect and secondary effects to aquatic resources and aquatic ecosystems should also be thoroughly evaluated, including compaction, hydrology impacts, and spread or colonization of non-native invasive species. Secondary effects to downstream resources should be avoided and minimized to the maximum extent practicable; the EIS should indicate the BMPs to be implemented to avoid and minimize such effects in addition to the use of horizontal directional drilling. Should unavoidable secondary impacts remain, compensatory mitigation should be provided to offset those effects.	Direct and indirect effects to aquatic resources and aquatic ecosystems are analyzed in Sections 3.5.2 (Benthic Resources) and 3.5.8 (Wetlands and Other Waters of the United States). Mitigation measures committed to by US Wind to avoid and minimize resource impacts are analyzed as part of the Proposed Action in each resource section. Section 3.5.8 of the Final EIS notes that compensatory mitigation may be required to replace the loss of wetlands and associated functions.
54. After all practicable avoidance and minimization measures have been incorporated into the proposed Project, a compensatory mitigation plan (CMP) for the unavoidable impacts to WOTUS should be developed. The CMP should be designed to fully offset the functional losses and meet the requirements of the 2008 Mitigation Rule (see Section 230.93). For purposes of the EIS, the proposed mitigation plan should be detailed enough to allow for meaningful evaluation and comment by the public.	Section 3.5.8 of the Final EIS describes avoidance and minimization measures that would be implemented with the Proposed Action, and the potential for compensatory mitigation to be required by USACE and other agencies with jurisdiction.
55. As Delaware does not currently have an active mitigation bank, EPA recommends early coordination to ensure the proposed mitigation plan is considered sufficient to compensate effectively for the resource impacts.	Thank you for your comment.

O.5.1.2. U.S. Department of the Interior, U.S. Fish and Wildlife Service

Responses to Comments from U.S. Fish and Wildlife Service

Table O.5-18. USFWS – Alternatives - General

Comment	Response
The draft EIS has conflicting dates for tree clearing activities, and it is not clear whether the time of year restrictions will be required by BOEM. Additionally, the time of year restriction dates are not what was proposed in the BA. The Service recommends that the BA time of year restrictions for tree clearing (November 1 to March 31) be required in all alternatives. This timeframe for tree clearing will benefit many species of bats and birds during their reproductive seasons.	Thank you for your comment. Text has been revised.
The proposed alternative includes cable routing through Indian River Bay, which includes sensitive inshore and offshore habitats that contribute to the ecology of the area which cannot be easily replicated or replaced if they are degraded by construction activity. The Service prefers project alternatives that result in less habitat disturbance (e.g., avoiding dredging, using existing developed/disturbed areas), as they generally reduce disturbances to land, water, and fish and wildlife resources.	Thank you for your comment.

Table O.5-19. USFWS – Alternative B - Proposed Action

Comment	Response
However, the Service is concerned that the surveys outlined in Table 5-1, Appendix N2 of the U.S. Wind's Construction and Operations Plan may not be completed before construction commences. Table 5-1 suggests that sampling was supposed to have started in 2022. We recommend BOEM work with the Service on survey design as soon as possible to ensure timely data is collected for the project.	Concern noted. BOEM will work with the Service. It is important to note that the Lessee is not required to conduct pre-construction surveys for birds on the OCS.
If an alternative with dredging is selected, the Service recommends – consistent with FWCA – that BOEM, USACE, and US Wind, Inc. investigate whether the materials can be beneficially used to contribute towards restoration of habitat. Beneficially using dredged materials by strategically placing them into areas such as marshes can restore habitat and reduce the need for increasing capacity in an upland disposal facility. We recommend that BOEM and USACE coordinate with the Service throughout this process.	Material generated during dredging along the Inshore Export Cable Route to provide barge access will be piped via temporary dredge pipeline to a dewatering staging area at the US Wind Substations, within the planned limits of construction disturbance. Dredged materials will be dewatered and placed in trucks for disposal/placement at an upland landfill location within 161 km (100 mi) of the US Wind Substations area.

Table O.5-20. USFWS – Bats

Comment	Response
BOEM's statement that bats may not interact with WTGs during adverse wind conditions lacks supporting evidence. BOEM referenced Arnett et al. (2008) and Erickson et al. (2002) which both discuss findings from land-based wind farms. However, BOEM does not provide evidence to support this conclusion while bats are traveling or migrating over the ocean. If bats were to experience adverse conditions over the ocean, barring returning to land, there are likely no suitable locations for them to roost to wait out the weather. The Service is further concerned that bats may be attracted to the proposed offshore structures once they are constructed as potential roost sites during such conditions, causing a greater risk of collision or injury with operating WTGs. The Service recommends that BOEM includes this potential situation in their impact analysis as well.	The Final EIS has been updated to include language regarding the potential for migrating individuals to be attracted to WTG structures as a potential roost location during periods of adverse weather conditions.

Comment	Response
BOEM's statement that wider spacing of offshore wind turbines will reduce bat collisions lacks supporting evidence. Rather than assume that wider spacing will lower the likelihood of collision or injury rates, the Service recommends analyzing all the possible impacts from wider spacing (avoidance, increased area, time of exposure, etc.). The Service recommends that BOEM elaborates on this and whether the wider turbine spacing could potentially cause greater impacts to bats since there will be a much larger hazardous area for them to navigate through, if they are present. If there is no evidence in the form of direct observations, scientific papers, etc. supporting that wider spacing of offshore WTGs will reduce impacts to bats, the Service recommends removing that assumption within the DEIS.	The assumption that wider turbine spacing will reduce impacts has been removed in response to this comment.
F-40: Little brown bat status should be “Under Review” for Federal status.	The Final EIS has been updated in response to this comment.
F-41: “Given the use of coastlines as migratory routes is likely limited to the fall migration period for cave bats.” This conclusion is not a given. Bats are documented using coastal lands year-round. Even the DEIS references offshore data collected May through October and states, “Given these data, some migratory tree bats might encounter offshore facilities during spring and fall migration.”	The Final EIS states that cave bat use of coastlines is limited to fall migration with supporting evidence from Peterson et al. 2014. tree bats were detected offshore more often and while most (37 of 54) were detected during fall, there is some potential that tree bats are present in the spring.
F-40, Table 3.5.1-1/Throughout: Recommend grouping bat sections based on specific species or based on biologically-significant factors relevant to offshore wind. For example: Sentences referencing individual species’ offshore activity distances (even using the same reference) are scattered across several paragraphs. The reader cannot easily understand how specific species may be impacted.	The Final EIS has been structured to discuss tree bats and cave bats separately. Individual species of each group are identified from current literature and used as a representative example for each group.
F-42: Check/update species’ current status when developing the FEIS. E.g., “There is one bat species listed as endangered and one bat species proposed as endangered under the ESA that may be present in the Project…”	The Final EIS has been updated with the appropriate listing status of species that are potentially present at the time of publication.
F-47: Though hearing loss/impacts are one concern of noise impacts to bats, this paragraph misses the impact of bats avoiding lower-levels of noise during the maternity season. Bats that must move during critical life stages such as the maternity season can be stressed to the point of harm or harassment. Construction noise/lights that forces movement in the maternity season could result in impacts to reproductive success or recruitment.	The Final EIS has been updated with language to address the potential for reduced reproductive success and juvenile recruitment.
In the following, we comment on the statements regarding the “relatively low numbers of tree bats in the offshore environment” and the “wide spacing of WTGs” that BOEM uses to support its overall conclusion that impacts to migrating bats would be negligible. If the wind farms cause bats to exhibit avoidance behaviors such that they have multiple course corrections along their migratory journey, extra energy expenditures will likely be incurred. The Service requests that BOEM include an acknowledgement or analysis of how the energy required for multiple course corrections due to the presence of operating wind turbines may impact migratory bat species.	Text acknowledging the potential for energetic consequences of course corrections has been added to the Final EIS.
The DEIS (Table ES-1) states that all project alternatives and cumulative impacts will have negligible impacts to bats. The Service does not agree with BOEM’s analysis that cumulative impacts of all alternatives proposed would be negligible to bats. The Service recommends that BOEM modify their analysis within the DEIS and re-consider the level of impact for bats. - There are multiple data sources included in BOEM’s analysis and literature that support bat usage of the OCS and project lease area. While the relative abundance of bat species in the lease area and OCS is likely lower than on land, it does not necessarily mean impacts would be so small as to be unmeasurable. Technology could likely measure or estimate impacts of the proposed action on bats. - The Service recommends the inclusion of bats in a long-term Avian and Bat Monitoring Plan. The Monitoring Plan should outline an approach to pursuing post-construction monitoring to advance understanding of bat interactions with offshore wind farms.	Bats will be included in an Avian and Bat monitoring plan to be submitted by the applicant. The plan will be developed in coordination with BOEM, USFWS, and other applicable stakeholders.
The Service recommends expanding the Bats, Birds, and Coastal Habitat and Fauna chapters of the final EIS to include analyses of cumulative impacts to all species, including federally listed, proposed, and candidate species. These sections should include analysis of past, present, and reasonably foreseeable actions of Federal or non-Federal agencies and the anticipated cumulative effects to these species from all existing and future planned offshore wind development.	Each of the referenced Chapters in the Final EIS provides a discussion of cumulative impacts.

Table O.5-21. USFWS – Biological Resources - General

Comment	Response
The Service reviewed the draft BA that BOEM submitted by email on September 29, 2023, and provided comments to BOEM by email on November 6, 2023 and November 9, 2023. The draft BA prepared by BOEM identifies federally listed and proposed species under the jurisdiction of the Service that may be affected by the proposed project. They include the northern long-eared bat (Myotis septentrionalis, endangered), tri-colored bat (Perimyotis subflavus, proposed endangered), eastern black rail (Laterallus jamaicensis, threatened), piping plover (Charadrius melodus, threatened), rufa red knot (Calidris canutus rufa, threatened), roseate tern (Sterna dougallii dougallii, endangered), monarch butterfly (Danaus plexippus, candidate), seabeach amaranth (Amaranthus pumilus, threatened) and Bethany Beach firefly (Photuris bethaniensis, under review). Any determinations or information explained within the DEIS that is related to the Service's review of federally listed, proposed, and candidate species should not be included within future NEPA documentation without concurrence from the Service or an explanation that BOEM is still seeking our concurrence. The onshore geographic analysis area limit for birds is 0.5 miles inland and for bats is 5 miles inland. The DEIS states that the onshore limit was established to cover onshore habitats used by the species that may be affected by onshore components of the Project. Given that the proposed onshore substations are approximately 10 miles inland and are proposed within suitable habitat both for bats and birds, the Service recommends extending the onshore geographic analysis area inland to ensure the onshore substation project work is included. Species such as the saltmarsh sparrow (Ammospiza caudacuta), little brown bat (Myotis lucifugus), spotted turtle (Clemmys guttata), and regal fritillary (Speyeria idalia) are under review for listing per the ESA and may be present within the project's action area. Listing determinations for these species and others throughout the northeastern region are anticipated to occur by September 30, 2024. Additionally, the hoary bat (Lasiurus cinereus) is on the National Listing Workplan. We recommend that the FEIS specifically discuss the impact of the offshore components on this species. Species under review for listing do not receive any protections per the ESA, and the Service has not yet determined if listing for these species is warranted. However, if these species are proposed for listing or listed pursuant to the ESA before or during project construction, additional consultations may be necessary if the BOEM determines their proposed action may affect these species. The National Listing workplan for Fiscal Years 2023-2027 can be found at: https://www.fws.gov/project/national-listing-workplan for more information on species listing timelines. Please ensure that comments related to ESA Section 7 species are reviewed and addressed by BOEM during the ESA Section 7(a)(2) consultation and within the DEIS.	The GAA is defined by the anticipated geographic extent of impacts for each resource. For the mobile resources, such as birds, the species potentially affected are those that occur within the area of impact of the Proposed Action. The GAA for these mobile resources is the general range of the species that could traverse the Project footprint. BOEM has consulted with FWS on ESA listed species in accordance with ESA Section 7 and the consultation has been incorporated in the Final EIS.
We note that BOEM omitted mentioning the FWCA. This project falls under the FWCA in two parts: offshore export cable routes and inshore cable routes through Indian River Bay outlined in and wildlife from proposed Federal actions that may affect waters of the United States. The FWCA requires that wildlife conservation be given equal consideration to other features of water resource development programs through planning, development, maintenance, and coordination of wildlife conservation and rehabilitation. FWCA requires Federal action agencies to consult with the Service "with a view to the conservation of wildlife resources by preventing loss of and damage to such resources as well as providing for the development and improvement thereof in connection with such water-resource development" (16 USC 662). One of the reasons that Congress amended and strengthened the FWCA in 1958 was that it recognized that Federal permitting agencies needed general authority to require "in project construction and operation plans the needed measures for fish and wildlife conservation" S. Rep. 85-1981 (1958). As a result, the Service's FWCA recommendations must be given full consideration by Federal action agencies. FWCA consultation may occur concurrently with the ESA consultation.	Although the Fish and Wildlife Conservation Act (FWCA) does not apply to BOEM's OCS activities, BOEM recognizes that the FWCA requires other Federal action agencies to consult with the Service "with a view to the conservation of wildlife resources by preventing loss of and damage to such resources as well as providing for the development and improvement thereof in connection with such water-resource development". The FWCA is specifically called out in Appendix A Required Environmental Permits and Consultations of the Final EIS.

Table O.5-22. USFWS – Birds

Comment	Response
F-54, paragraph 2: It is unclear where this species number (159) came from. It is important for the interpretation and judgment of this document to have a comprehensive and easily accessible table of all species that could occur within the site. Ideally, this table would also include the state and Federal listing status, Regional Species of Greatest Conservation Need (RSGCN) status, and other important information (e.g., sensitivity to impacts). This list could be coordinated with regional planning efforts such as the Regional Wildlife Science Collaborative for consistency across projects. Tables 6-2 and 6-3 refer to species in association with onshore environments within the Coastal Habitat and Birds section (section 6) of COP Volume II, but there does not appear to be a list of species within the Marine Birds section.	This has been updated to 164 species and to cite Watts 2010. Watts 2010 contains the complete list of species that have some potential to occur within the Project Area.
F-54, paragraph 2: List the orders of birds instead of binning them into migrants, coastal birds, and marine birds, or remove "migrants" as bin due to overlap with other listed groups. Orders of birds that use the Atlantic Outer Continental Shelf (AOCS) include Accipitriformes, Anseriformes, Charadriiformes, Falconiformes, Gaviiformes, Passeriformes, Podicipediformes, Procellariformes, and Suliformes. Table 3.5.1 should also include all families that occur in the AOCS.	BOEM believes that ecological groups are a useful way to organize birds and is also easier for the general reader. Experts and ornithologists know or can quickly find the taxonomic family.
F-58, paragraph 4: Collisions with ships have been documented during weather events such as heavy fog, where birds become disoriented (Black 2005, Gjerdrum et al. 2021). Usage of warmer hued lights, instead of cooler hues, lowers the intensity of lights and casting lights down with shields may help prevent disorientation and hence collisions (Black 2005, Rodríguez et al. 2017). Black, Andy. 2005. "Light Induced Seabird Mortality on Vessels Operating in the Southern Ocean: Incidents and Mitigation Measures." Antarctic Science 17 (1): 67–68. https://doi.org/10.1017/S0954102005002439. Gjerdrum, Carina, Robert A. Ronconi, Kelley L. Turner, and Thomas E. Hamer. 2021. "Bird Strandings and Bright Lights at Coastal and Offshore Industrial Sites in Atlantic Canada." Avian Conservation & Ecology 16 (1). https://pdfs.semanticscholar.org/9683/2b6b39eed81c46e5f6b324e3119a882549a8.pdf. Rodríguez, Airam, Nick D. Holmes, Peter G. Ryan, Kerry-Jayne Wilson, Lucie Faulquier, Yovana Murillo, André F. Raine, et al. 2017. "Seabird Mortality Induced by Land-based Artificial Lights." Conservation Biology 31 (5): 986–1001. https://doi.org/10.1111/cobi.12900.	Thank you for the references. Clarifying language has been added and the suggested citations included.
F-59, paragraph 6: The DEIS states that land birds tend to use a migratory corridor ranging from the coastline to tens of kilometers inland. Adams et al. (2015) states: "There is good evidence that birds are regularly migrating overwater up to 80 km out on the mid-Atlantic Outer Continental Shelf. Given the levels of migratory activity predicted in offshore locations, regulators for offshore wind energy development may want to consider potential impacts to migrants in development scenarios." Adams, Evan M, Phillip B Chilson, and Kathryn A Williams. 2015. "Chapter 27: Using WSR-88 Weather Radar to Identify Patterns of Nocturnal Avian Migration in the Offshore Environment." Final Report.	Additional text clarifying the potential for land birds use of the northern Atlantic during migration. Adams et al. (2015) was cited in the updated text.
3.5.3 Birds: Bald eagles (Haliaeetus leucocephalus) have been documented nesting within areas located onshore in Delaware, including locations within close proximity to the onshore substations. Bald eagles are protected by the Bald and Golden Eagle Protection Act and onshore construction for the proposed project may require a permit from the Service. As project details are finalized, the Service recommends that the Developer utilize the Northeast Bald Eagle Project Screening Form to determine if further review by the Service is required. The form is available at: https://www.fws.gov/project/national-listing-workplan. Please review the Service's Eagle Management Program website (https://www.fws.gov/program/eagle-management) for additional information and appropriate contacts for questions or concerns.	Section 3.5.3 of the Final EIS describes the potential for bald and golden eagles to be present in the geographic analysis area.
Appendix F, F-55 – This section reference to COP Table 6-3 which identifies three threatened ESA-listed birds species (piping plover, rufa red knot and eastern black rail). COP Table 6-3 should include roseate tern, endangered, but does not.	A complete discussion of impacts of the Proposed Project on USFWS-listed species, including the roseate tern is provided in the Project-specific BA submitted to the USFWS.

Comment	Response
F-61, Table 3.5.3-3: It is unclear how this table was generated. Winship et al. (2018) is referenced, but that report does not appear to contain this information. Winship et al. (2018) estimated relative abundance but did not establish distribution boundaries and therefore it is inappropriate to use those data for such an assessment. Even if the appropriate distribution data were used, it seems the percentage of the distribution is likely misleading because abundance is a critical factor contributing to the importance of any given area. Winship, Arliss J., Brian P. Kinlan, Timothy P. White, Jeffery B. Leirness, and John Christensen. 2018. "NCCOS Assessment: Modeling At-Sea Density of Marine Birds to Support Atlantic Marine Renewable Energy Planning from 1978-2016 (NCEI Accession 0176682)." NOAA National Centers for Environmental Information. https://doi.org/10.25921/8EQ5-Q834.	Clarifying footnote describing how table was generated from Winship et al. 2018 - Appendix D.
F-59, paragraph 6: Where is the migratory species number (164) derived from? Please provide a list of these species.	The number of species that utilize the Atlantic flyway is derived from Watts (2010). A table listing the included species can be found as appendix 1 of the cited publication.
F-63, paragraph 1: The statement "it is now evident that seabirds will be exposed to very low risks of collision in offshore wind farms" is too definitive given the very limited amount of information available and associated assumptions and limitations (e.g., Skov et al. 2018, Tjørnløv et al. 2023). For example, Tjørnløv et al. (2023) does not sample a large portion of the year, is strictly diurnal, and only represents a single site, and Skov et al. (2018) states there are inherent limitations to their study, including they "rely on data collected at one site only, largely during daylight and benign weather conditions at the macro scale, and therefore may not capture all the variability in relation to weather conditions or visibility and regional differences." The number of species examined in Tjørnløv et al. (2023) and Skov et al. (2018) also represent a very small proportion of all species potentially impacted. Skov, H., S. Heinänen, T. Norman, R. Ward, S. Méndez-Roldán, and I. Ellis. 2018."ORJIP Bird Collision and Avoidance Study." Final Report. London (UK): The Carbon Trust. Tjørnløv, Rune Skjold, Henrik Skov, Mike Armitage, Mike Barker, Jacob B. Jørgensen, Lars O. Mortensen, Katy Thomas, and Thomas Uhrenholdt. 2023. "Resolving Key Uncertainties of Seabird Flight and Avoidance Behaviors at Offshore Wind Farms" February. https://policycommons. net/artifacts/3453766/aowfl_aberdeen_seabird_study_final_report_20_february_2023/4254081/	The sentence referred to is summarizing the study's (Vattenfall 2023) conclusions and not making a definitive statement. While there are some limitations to these studies, they represent the best available science at this time.
F-63, paragraph 1: When discussing the consequences of avoiding wind development areas (WDAs), it is stated that "any additional flight distances would be miniscule when compared with the overall migratory distances traveled by migratory birds, and no individual fitness or population-level effects would be expected to occur." This does not seem to consider how energetic demands vary across biological seasons and periods. Migration is characterized by huge physiological changes that allow for such an intense undertaking. The physiology and energetic demands of birds during the nesting and non-breeding season will be considerably different. For example, nesting involves extensive energy expenditure during foraging and provisioning, thus increased flight distance may affect body condition, but also juvenile development and survival. The magnitude of impact of a given WDA will also heavily depend on the factors that influence avoidance (e.g., size of turbines, size of WDA, spatial distribution of local resources).	Additional text clarifying the difference between minor course corrections and complete avoidance of WTGs on the OCS has been added.
F-61, paragraph 1: It is not clear what is meant by the statement that the 47 modeled species are "representative of the 55 species that may overlap with offshore wind development on the Atlantic OCS." Any given species could have a markedly different spatial distribution.	The 47 species with sufficient data to model relative abundance are provided in the relevant table in Section 3.5.3.
F-64, paragraph 2: The DEIS states that a benefit of the wind farm is that abandoned or lost fishing nets from commercial fishing may get tangled with foundations, reducing the chance that abandoned gear would cause additional harm to birds if left to drift until sinking or washing ashore. However, it does not consider risks associated with artificial reef effects and entanglement of foraging birds. These risks should be considered with monitoring of potential risks to marine mammals and sea turtles from entangled gear.	Thank you for your comment. Mitigation and monitoring measures can be found in Appendix G of the EIS, including ones relevant to entanglement.

Comment	Response
F-62, paragraph 1: The DEIS cites a study on common eider movement (Masden et al. 2012) as evidence justifying their proposed layout for WTG spacing. Movement behavior may vary considerably across species and geographies, and spacing plans shouldn't rely too heavily on the behavior of one species in the Baltic Sea. Masden, Elizabeth A., Richard Reeve, Mark Desholm, Anthony D. Fox, Robert W. Furness, and Daniel T. Haydon. 2012. "Assessing the Impact of Marine Wind Farms on Birds through Movement Modelling." Journal of The Royal Society Interface 9 (74): 2120–30. https://doi.org/10.1098/rsif.2012.0121.	While BOEM is not entirely relying on this information to justify proposed WTG layouts, the cited publication provides the best available science at this time in the absence of bird responses to WTGs on the Atlantic OCS.
F-63, paragraph 2: This paragraph describes a "worst-case" scenario extrapolated from collision rates estimated at onshore wind turbines. Projecting a "worst-case" scenario in an offshore facility based on collision rates from onshore facilities is inappropriate, as offshore wind facilities have significant differences in turbine design, environmental systems, and species assemblages relative to onshore areas.	While there are certainly differences in WTG design, environmental systems, and species assemblages, in the absence of any empirical data regarding the potential for fatal interactions with operating WTGs, BOEM included this extrapolation to provide some context as to what the expected mortality could be.
F-66, paragraph 2/throughout: The DEIS states that "Given that few roseate terns are expected to be exposed to the Project, impacts associated with the presence of structures are expected to be insignificant and discountable." Current WTG collision risk assessments are directly related to their flight height during migration, which are currently lacking empirical data. The Service assumes that Roseate Terns may fly through the project area during southbound (fall) and northbound (spring) migration (Mostello et al. 2014, Oswald 2023). Given the large amount of uncertainty in risk of Roseate Terns, potential impacts to roseate terns from WTG operation (i.e., collision, displacement) should be reevaluated as new data on migratory routes and flight height become available. Mostello, Carolyn S.; Nisbet, Ian C. T.; Oswald, Stephen A.; Fox, James W. 2014. "Non-breeding season movements of six North American Roseate Terns Sterna dougallii tracked with geolocators." Seabird, 27: 1-21. Oswald, S. A., Nisbet, I. C. and Mostello, C.S., 2023. "Common Terns Sterna hirundo and Roseate Terns Sterna dougallii frequently rest on the sea surface in winter quarters and during migration." Bird Study 70(3): 76-83.	A complete discussion of impacts of the Proposed Project on USFWS-listed species, including the roseate tern, is provided in the Project-specific BA submitted to the USFWS.
F-66, paragraph 2/throughout: The DEIS states that "Given that few roseate terns are expected to be exposed to the Project, impacts associated with the presence of structures are expected to be insignificant and discountable." Current WTG collision risk assessments are directly related to their flight height during migration, which are currently lacking empirical data. The Service assumes that Roseate Terns may fly through the project area during southbound (fall) and northbound (spring) migration (Mostello et al. 2014, Oswald 2023). Given the large amount of uncertainty in risk of Roseate Terns, potential impacts to roseate terns from WTG operation (i.e., collision, displacement) should be reevaluated as new data on migratory routes and flight height become available.	A complete discussion of impacts of the Proposed Project on USFWS-listed species, including the roseate tern, is provided in the Project-specific BA submitted to the USFWS.
F-73, paragraph 2: The statement that the "Lease Area is not likely to contain important foraging habitat for the species susceptible to displacement" is not well founded since it appears to be derived from a layer that considers multiple species. Therefore, certain individual species that are vulnerable might still utilize that area. Moreover, Winship et al. (2018) states that "although model predictions are at a 2-km resolution, interpretation of the maps presented here to inform spatial planning is probably more reliable at scales of 10-100 km." Therefore, these models are more appropriate at regional scales and site-specific assessments should make use of more localized, finer scale information. As such, the Service recommends that the DEIS addresses and clearly articulates these data limitations.	The identified statement was provided in a paragraph discussing the impact relative to those species expected to be displaced by the proposed project and remains true. A discussion of impact to those species that utilize the area and would be exposed to collision risk. are discussed separately. Clarifying language regarding data limitations has been added to the text.

Comment	Response
F-72, paragraph 4: The DEIS states that “many bird species, including songbirds” typically fly above the rotor-swept zone. However, during periods of fog or inclement weather, migrating birds often fly at lower altitudes, therefore increasing their collision risk with lit structures (Wiese et al. 2001, Russell 2005, Ronconi et al. 2015, Gjerdrum et al. 2021). Wiese, Francis K, W A Montevecchi, and J Linke. 2001. “Seabirds at Risk around Offshore Oil Platforms in the North-West Atlantic.” Marine Pollution Bulletin 42 (12). Russell, R. W. 2005. “Interactions between Migrating Birds and Offshore Oil and Gas Platforms in the Northern Gulf of Mexico: Final Report.” OCS Study MMS 9: 327. Ronconi, Robert A., Karel A. Allard, and Philip D. Taylor. 2015. “Bird Interactions with Offshore Oil and Gas Platforms: Review of Impacts and Monitoring Techniques.” Journal of Environmental Management 147 (January): 34–45. https://doi.org/10.1016/j.jenvman.2014.07.031. Gjerdrum, Carina, Robert A. Ronconi, Kelley L. Turner, and Thomas E. Hamer. 2021. “Bird Strandings and Bright Lights at Coastal and Offshore Industrial Sites in Atlantic Canada.” Avian Conservation & Ecology 16 (1). https://pdfs.semanticscholar.org/9683/2b6b39eed81c46e5f6b324e3119a882549a8.pdf	The discussion in the EIS is speaking to songbirds and not seabirds implied by the addition references.
F-73, paragraph 2: The DEIS speculates that the project would not provide foraging opportunities to species with high displacement sensitivity, but species would be able to forage in the immediate vicinity of the project. Many marine birds forage on ephemeral prey resources that are not consistent within a year and among years, so foraging activity within and around the project will likely be variable.	The Final EIS states that that foraging activity within and around Project would be variable.
Potential exists for the federally listed (LT) plant species, seabeach, to occur anywhere along Delaware's Atlantic coast (from Cape Henlopen to Fenwick Island) and the Service recommends implementing measures to avoid disturbance to the coastal, maritime ecosystem. Land disturbance at the 3R's landfall site has potential to impact interdunal wetland (swales) hydrology, habitat quality, and Bethany Beach firefly. Bethany Beach firefly is a state endangered species of firefly that is petitioned for listing under the Endangered Species Act. The Service recommends implementation of a time of year restriction for light sources (June 1 to September 1) to minimize impacts to this species.	A complete discussion of impacts of the Proposed Project on USFWS-listed species, including seabeach amaranth and Bethany Beach Firefly, is provided in the Project-specific BA submitted to the USFWS.
The Service finds the draft mitigation and monitoring measures for birds in Appendix G of the DEIS insufficient. The Service also finds the proposed Avian Monitoring Plan described in Appendix N2 of the COP to be insufficient. The Service, BOEM, and U.S. Wind should work to develop a mutually agreed upon monitoring plan within the next 6 months. Details regarding Survey design, MOTUS, Tagging efforts, multi-sensor systems, mortality monitoring and reporting can be found in Enclosure A of the USFWS letter.	The Final EIS describes in Appendix G and analyzes in Section 3.5.3 mitigation and monitoring measures developed in coordination with USFWS and resulting from ESA Section 7 consultation.

Comment	Response
The DEIS (Table ES-1) states that project alternatives will have minor adverse to minor beneficial impacts for birds and cumulative impacts will have moderate adverse to moderate beneficial impacts. The Service does not agree with BOEM's analysis. - Avoidance of onshore construction noise and/or horizontal directional drilling (HDD) vibrations in the marsh might increase energy demands for birds seeking foraging and nesting habitat. Proposed inshore export cables will connect to the proposed new substations underneath tidal wetlands. Marsh bird surveys nearby and in similar habitat to the project site have detected Delaware Tier 1 Species of Greatest Conservation Need (SGCN) that may be using marshes under export cables. The Service recommends assessing the impact of noise, vibrations, and temperature from HDD installation and project operations on marsh birds and other marsh species. - The DEIS explains that the presence of the new structures could potentially increase prey availability and reduce derelict fishing gear. However, the Service is concerned that any increased prey availability around the proposed wind turbine generator (WTG) will attract birds to those areas and increase the risk of collision (Marques et al. 2021) and increased recreational fishing could expose birds to additional harm from derelict fishing gear. There does not appear to be data supporting BOEM's determination that moderate beneficial impacts will occur. Marques, Ana Teresa, Helena Batalha, and Joana Bernardino. "Bird Displacement by Wind Turbines: Assessing Current Knowledge and Recommendations for Future Studies." Birds 2.4 (2021): 460-475.	Thank you for your comment. Clarifying language regarding potential collision risk, including reference to the suggested citation were included in the EIS. While there are some limitations to these studies, they represent the best available science at this time.
The Service recommends expanding the Bats, Birds, and Coastal Habitat and Fauna chapters of the final EIS to include analyses of cumulative impacts to all species, including federally listed, proposed, and candidate species. These sections should include analysis of past, present, and reasonably foreseeable actions of Federal or non-Federal agencies and the anticipated cumulative effects to these species from all existing and future planned offshore wind development.	The requested analysis for all species is provided in Sections 3.5.1.3, and 3.5.4.3.1. The analysis relative to listed species is provided in sections 3.5.1.3, and 3.5.4.3.

Table O.5-23. USFWS – Coastal Habitat and Fauna

Comment	Response
The Service recommends expanding the Bats, Birds, and Coastal Habitat and Fauna chapters of the final EIS to include analyses of cumulative impacts to all species, including federally listed, proposed, and candidate species. These sections should include analysis of past, present, and reasonably foreseeable actions of Federal or non-Federal agencies and the anticipated cumulative effects to these species from all existing and future planned offshore wind development.	Each of the referenced Chapters in the Final EIS provides a discussion of cumulative impacts.

Table O.5-24. USFWS – Mitigation and Monitoring

Comment	Response
A public notice for a U.S. Army Corps of Engineers (USACE) permit application by US Wind, Inc. - MD Offshore Wind Energy, pursuant to Section 10 of the Rivers and Harbors Act (33 USC 403) and Section 404 of the Clean Water Act (33 USC 1344), was released on October 6, 2023. The Service requests that BOEM ensures that the final EIS (FEIS) is consistent with the impacts identified in the public notice (if they are not already), discusses mitigation for these impacts, and further explains what is being proposed to avoid or minimize impacts. As mentioned above, FWCA applies to this alternative's activities.	The Final EIS was revised to reflect the changes in the final Joint Permit Application noticed on October 6, 2023.
The Service appreciates the inclusion of the avoidance, minimization, mitigation, and monitoring (AMMM) measures for the proposed action within Appendix G. The Service recommends adopting all mitigatory measures listed within Appendix G that would protect Federal trust resources related to fish and wildlife.	Thank you for your comment. Mitigation measures can be found in Appendix G of the Final EIS. Measures have been added based on those included in the Biological Assessment.

Comment	Response
Additionally, the Service recommends that an adaptive management plan is developed and incorporated into the DEIS. The long-term potential impacts to bats and birds from the proposed project currently has a high level of uncertainty and future monitoring will be needed to help reduce that uncertainty. To ensure that the planning, construction, and post-construction activities have minimal impacts on these species, the adaptive management plan should include commitments towards implementing and updating best management practices or surveys, as reasonable and feasible, as new information is made available. This plan may include measures such as updating and including new ways to deter species from the proposed wind turbine structures or including new innovative ways/technologies to monitor them.	The Applicant will develop an adaptive post-construction monitoring framework in coordination with BOEM and USFWS.
The service provides additional measures that the lessee should consider to reduce negative impacts on birds and these are found in Enclosure B to the Daniel Murphy (USFWS) letter.	Thank you for providing the information. Mitigation measures can be found in Appendix G of the Final EIS. Measures have been added based on those included in the Biological Assessment.
The Service also finds the proposed mitigation and monitoring measures for birds in Appendix G and the proposed Avian Monitoring Plan described in Appendix N2 of U.S. Wind's Construction and Operations Plan to be insufficient. The Service strongly recommends that BOEM and U.S. Wind work with the Service to develop a mutually-agreed upon monitoring plan within the next 6 months. Please see Enclosure A for recommendations on the following topics: survey design, Motus Wildlife Tracking System (Motus), coordinated tagging efforts, multi-sensor system, and mortality monitoring and reporting.	A framework of the plan is developed with the BOEM, FWS, and the Lessee during preparation of the EIS. The Lessee will be required to finalize the plan before construction.
The Service recommends that the Avian and Bat Monitoring Plan is coordinated with the Service and finalized before inclusion in the final EIS and that any updates made to this plan are also reflected within the final EIS document. This plan can/should be incorporated into the adaptive management plan. Currently, the DEIS presents bat monitoring only within the ESA context as a possible activity (F-49).	A framework of the plan is developed with the BOEM, FWS, and Lessee during preparation of the EIS. The Lessee will be required to finalize the plan before construction.

Table O.5-25. USFWS – Wetlands and Waters of the U.S.

Comment	Response
The impact indicator (Table F-10) for wetland habitat loss/modification focuses on a quantitative assessment of "acres of impacted habitat." Focusing solely on the amount of habitat lost overlooks the functions and values that wetlands provide, and which vary based upon a wetland's unique hydrologic and biologic features, as well as how feasible it is to replace the wetland's function and values through mitigation. The Service recommends adding a qualitative assessment component for wetland functions and values which includes consideration of habitat for aquatic invertebrates, amphibians, mammals, birds, and fish. Wetlands provide economic and recreational resources, too.	Section 3.5.8 of the Final EIS provides an analysis of potential impacts to wetlands from the Proposed Action and action alternatives.

O.5.1.3. National Oceanic and Atmospheric Administration, National Marine Fisheries Service

Responses to comments from National Marine Fisheries Service

Table O.5-26. NOAA and NMFS – Alternatives – General

Comment	Response
Environmentally Preferred Alternative NMFS considers a combination of Alternative C (1 or 2) and Alternative E to be the Environmentally Preferred Alternative for this project. Offshore, the project is proposed in areas of high relief sand ridge and trough complexes and large distinct bathymetric features. These sensitive ecological areas provide valuable habitat for a number of federally managed fish species, their prey, and other marine resources. They are defined by high habitat heterogeneity and complexity on various spatial scales (from sub-meter to many kilometers) that provide numerous sub- and micro-habitats and support countless species in the region. Inshore, the export cable route is proposed to transit through Indian River Bay (IRB), one of 28 estuaries of national significance as designated by the Environmental Protection Agency's National Estuary Program. IRB provides habitat for a wide variety of commercially, recreationally, and economically important species of fish and shellfish and provides a migratory pathway, spawning, nursery, and forage habitat for diadromous species including alewife, blueback herring, striped bass, and catadromous American eel. Estuaries and embayment's such as the IRB are particularly vulnerable to impacts due to a combination of their physical and biological characteristics and the fact they are already stressed by anthropogenic development. The relevant physical characteristics include shallow depths, confined/enclosed nature, and long retention times; and the relevant biological characteristics include the occurrence of rare and sensitive resources (e.g., widgeon grass, shellfish, estuarine-dependent species), and the concentration of these resources. Given the significance of both inshore and offshore habitats to the ecology of the area, and because these sensitive habitats cannot be easily replaced when degraded by construction activity, we suggest that Alternative C be recognized as the Inshore Habitat Impact Minimization Alternative, Alternative E be recognized as the Offshore Habitat Impact Minimization Alternative, and the combination of these two alternatives be considered the environmentally Preferred Alternative. Given the importance of IRB, it would not be appropriate to consider Alternative E alone as the environmentally preferable option. The DEIS notes that dredging within IRB under the Proposed Action would remove approximately 916,000 cubic yards of material for cable emplacement. This is inconsistent with the 1,368,000 cubic yards of material described in the U.S. Army Corps of Engineers Public Notice and does not account for the additional expected dredging necessary for barge access due to the shallow depths and shoaling nature of IRB. Further, the Proposed Action does not identify locations, means and methods, or other relevant information related to the disposal of this dredge material. This information and analysis should be included in the FEIS because the Proposed Action described in the DEIS does not discuss or analyze all activities required for routing the cable through IRB, which hampers the ability to fully assess impacts. These activities and their associated direct and indirect impacts could be avoided by selecting an upland route; Alternative C would have substantially less impact and would be environmentally preferable to the Proposed Action as we continue to recommend development be avoided within IRB. In our view, the DEIS discussion of Alternatives C and E understates the intensity, magnitude, duration, and, thereby, significance of the project's impacts. The impact conclusions state that impacts of Alternatives C and E would be similar to the Proposed Action, but to a lesser degree. This discounts and minimizes the unique and distinct nature of the important habitats being addressed by the alternatives. We recommend BOEM expand this discussion to clarify the significance of selecting Alternatives C and E and provide information on the importance of the high-value resources that occur within these areas. These habitats should not be treated as equal to all other habitats in the project area, and we recommend impact analyses be contextualized and analyzed accordingly. Alternatives Analysis As we noted in our cooperating agency review, the analysis in the DEIS does not provide for a distinction among the action alternatives. For multiple resources, the DEIS concludes, through short and qualitative discussions, that impacts within the project area would be the same or similar to those expected under the Proposed Action. We recommend the FEIS include detailed impact analyses, with information specific to each alternative, to provide an informative comparative analysis among the action alternatives and the Proposed Action. We recommend that the impacts of each action alternative be context-driven, with an analysis specific to the scale of the project area, and not simply as a subset or smaller percentage of the No Action or Proposed Action.	Thank you for your comment. Chapter 2 of the Final EIS describes the Preferred Alternative.

Comment	Response
Significance Criteria - The significance criteria for some resources, in combination with the defined area of analysis for each resource, do not 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 explained through the significance criteria or applied to the analysis. In these instances, the analyses do not explain the effects of those spatial impacts and temporal losses on NOAA trust resources and the communities that rely on them. Consideration of the scale, magnitude, intensity, frequency, and timing of impacts in the definition and application of the significance criteria would allow for accurate impact conclusions and provide distinctions among action alternatives.	The rationale for the geographic extent of the analysis area for each resource is explained in the introduction to each Section 3 resource section. In general, resources with more localized impacts (i.e., benthic resources) have a smaller geographic analysis area (GAA), while the GAA for species that are highly mobile (i.e., marine mammals, sea turtles, and finfish) is broader to include the movement range of species that could be affected. Final EIS Section 3.3 defines the terminology used throughout the Final EIS to characterize the duration of impacts as short-term (effects that may extend up to 3 years), long-term (effects that may extend between 3 years and 35 years or the life of the Project), or permanent (effects that extend beyond the life of the Project). BOEM uses a four-level classification scheme to characterize the potential impacts of the alternatives. Resource-specific impact level definitions are presented in each resource section, and the impacts of each alternative align with the appropriate impact level, as supported by the analysis.
Geographic Analysis Area - We recommend further clarification of the purpose of each geographic analysis area (GAA) and its application to the impacts analysis, as it is unclear at which geographic scale project level impacts are being evaluated. The GAAs are broad and do not match project effects in a way that would allow for the analysis of impacts from the project or cumulative impacts at the regional level. For example, as we noted in comments on previous EISs and the cooperating agency review of this DEIS, the GAA for Finfish, Invertebrates, and Essential Fish Habitat represents more than 150,000 square miles of the Western Atlantic Ocean; this type of GAA may be more appropriate when analyzing the contribution of this project to cumulative effects.	The rationale for the geographic extent of the geographic analysis area for each resource is explained in the introduction to each Section 3 resource section. In general, resources with more localized impacts (i.e., benthic resources) have a smaller geographic analysis area while the geographic analysis area for species that are highly mobile (i.e., marine mammals, sea turtles, and fish) are broader to include the movement range of species that could be affected.
Section ES.5 Page ES-10: Table ES-1. The executive summary table is missing the incremental impact determinations for each alternative. We encourage BOEM to include incremental impacts in this table for all resources, but they must be included in the summary table at minimum for marine mammal resources.	Incremental impacts are provided in each Section 3 resource topic.
Section ES.5 Page ES-10: Table ES-1. Impact determinations in the executive summary table are not consistent with the text in the Marine Mammal section (3.5.6). For example, the impact determination for odontocetes and pinnipeds from the Proposed Action Alternative is “minor beneficial” in the summary table and “negligible to moderate” in the text. The impact determinations in the summary table and the text for each alternative need to be cross-checked to make sure they are consistent.	Text has been revised in the Final EIS.
Section ES.5 Page ES-10: Table ES-1. The impact determinations for the No Action alternative should be consistent across EISs. The No Action alternative for each project would result in similar ongoing/baseline impacts to marine mammals, therefore, the impact determinations for the No Action alternatives should be similar. Maryland Offshore Wind DEIS is not consistent with previous EISs. For example, the Maryland Offshore Wind DEIS indicates minor baseline/ongoing impacts to all marine mammal’s species under the No Action Alternative. However, the Empire Wind FEIS indicates negligible to major baseline/ongoing impacts to North Atlantic right whales and negligible to moderate baseline/ongoing impacts for all other marine mammal species under the No Action alternative. Please explain why these are different. These determinations need to be checked to be made consistent because they are referring to the same IPFs for each project.	Thank you for your comment. Impact determinations were reviewed across other EISs and in some cases the differences can be attributed to the geographic analysis area.
Section 2.1.2 Page 2-10: Please provide information on the number of vessels anticipated for implementation, O&M, and decommissioning of the Proposed Action	Estimated vessel use has been added to the Final EIS.
Section 2.2 Page 2-30: NMFS requests Section 2.2 be consistent with the language in the published screening criteria (June 2022) incorporated into the VOLPE "Process for Identifying Reasonable Alternatives", and used in the Ocean Wind FEIS. This exact request was made on the PDEIS during the cooperating agency review.	Section 2.2 (Alternatives Considered but Not Analyzed in Detail) of the Final EIS has been revised to be consistent with BOEM’s *Process for Identifying Alternatives for Environmental Reviews of Offshore Wind Construction and Operations Plans pursuant to the National Environmental Policy Act* (BOEM 2022).
Section Ch 2 Page Global: Analyzing the "Maximum Case Scenario" instead of the actual proposed action and action alternatives results in an analysis that lacks clarity and makes it difficult to accurately evaluate and comment on impacts to resources when the actual design parameters and actions are still unknown. NMFS recommends clarifying all intended actions for all alternatives in the DEIS.	Consistent with BOEM’s draft guidance (Draft Guidance Regarding the Use of a Project Design Envelope in a Construction and Operations Plan (boem.gov), US Wind's COP proposes the Projects using a PDE concept. This concept allows US Wind to define and bracket proposed Project characteristics for environmental review and permitting while maintaining a reasonable degree of flexibility for selection and purchase of Project components. The EIS assesses the impacts of the PDE using the “maximum-case scenario.” The maximum-case scenario is composed of each design parameter or combination of parameters that would result in the greatest impact for each resource. If the COP is approved, the Projects must be implemented within the defined PDE. If there are future changes to the Project design that are outside the PDE, additional review could be required.

Comment	Response
Section Ch 2 Page Global: Information on the O&M facilities and port facilities is unclear. Currently it appears multiple locations are being considered; Ocean city, Maryland; Lewes, Delaware; Portsmouth, Virginia; and Baltimore, Maryland. Please clarify if a location has been selected. Additionally, it is unclear whether facilities (i.e. piers) will need to be constructed, or whether existing structures/facilities will be used. Further, the habitats and resources present in any proposed areas should be discussed and potential impacts evaluated. This information should be clear and consistent between documents.	Text has been added to clarify.
Section 3.2 Page 3-7: To ensure accuracy of the impacts analysis, please insert "Where the impact determination of an action alternative is influenced by the inclusion of any mitigation and monitoring measures in the analysis, all such measures will be incorporated in the ROD if that alternative is selected "before the sentence that starts with "BOEM may choose to incorporate one or more of these." The findings of the impacts analysis must be valid and based on all assumptions presented, and as currently drafted, this section suggests the mitigation measures are optional.	Text has been revised in the Final EIS.
Section Global Page: As NMFS commented during the cooperating agency review, several sections seem to be utilizing structure and language from a time prior to BOEM and the cooperating agencies' negotiations through VOLPE. Please utilize the language and structures agreed upon by the cooperating agencies. Examples of this language can be found in the VOLPE Reusable Language document, VOLPE Alternatives Process Summary document, and the Ocean Wind FEIS.	Text has been revised in the Final EIS.

Table O.5-27. NOAA and NMFS – Alternative A - No Action

Comment	Response
No Action and Cumulative Impacts Analysis in the FEIS. We continue to have concerns with the treatment of the Cumulative Effects Analysis in the context of the No Action alternative. In multiple resource sections and discussion of impact producing factors (IPF), the document references a cumulative effects scenario when discussing the project-specific impacts of the Proposed Action. This approach minimizes the true intensity of the direct and indirect impacts of the action alternative. For several resources (including, for example, Benthic Resources, Coastal Habitat, and Finfish, Invertebrates, and Essential Fish Habitat), the No Action alternative is described as likely to cause moderate to major impacts, which is based on the cumulative effects scenario rather than the existing baseline. For all resources and IPFs, we recommend that BOEM revise the analysis consistent with the mutually agreed approach taken on this issue in the Ocean Wind 1 (OW1) FEIS. BOEM also used this approach recently in the EIS for the Revolution Wind project. The Maryland Wind EIS should identify how the impacts of the action alternatives compare to the impacts of the No Action alternative (i.e., existing baseline condition of resources in the context of past and ongoing activities), separate from any consideration of the cumulative effects and all reasonably foreseeable future wind projects across the region. We appreciate that BOEM has committed to following the OW1 approach and we look forward to working with you on the revisions to ensure this FEIS is consistent with that approach.	The No Action Alternative analyzes the current baseline, which includes ongoing offshore wind projects and non-offshore wind activities in the GAA. Cumulative impacts are now discussed in a separate subsection.

Table O.5-28. NOAA and NMFS – Alternative C - Landfall and Onshore Export Cable Routes

Comment	Response
Section ES.4.3 and ES.4.5 Page ES-6 and ES-7: Re naming Alts. C & E is recommended to clarify that both are habitat-minimizing alternatives. Alt. C is an inshore & estuarine habitat minimization and Alt. E is an offshore habitat minimization. The distinction of geographic location is important to distinguish the two alternatives.	Thank you for your comment.

Table O.5-29. NOAA and NMFS – Benthic Resources

Comment	Response
Uncertain Presence of Glauconite - The DEIS notes that there may be glauconite in the project area, but it is not yet known. If glauconite is present in planned turbine locations, significant changes to the proposed action may be necessary. It is not clear at what point a determination will be made on the presence of glauconite and how that will affect the proposed action. The absence of this information at this stage in the NEPA process may result in delays and inefficiencies in environmental reviews and consultations as it creates the risk that the DEIS will not accurately reflect a realistic project design described in the proposed action and alternatives. We recommend BOEM provide cooperating agencies a clear timeline on when this information will be known, and, if the information will result in meaningful project changes, provide for a supplemental review process that allows cooperating agencies sufficient time to evaluate and provide comments on the analysis of impacts caused by the changes and recommend any additional or modified minimization options or measures. Any supplemental process should provide opportunities for public participation to develop information to support our comments and decision making with respect to NOAA trust resources.	The US Wind site has already been investigated with a significant number of borings and Cone Penetration Tests (CPT) probes and no significant amount of glauconite has been reported. They also have submitted preliminary pile drivability analyses that show no problems with achieving the full required depth of penetration into the seabed. Investigations of other offshore wind lease areas in the north and Central Atlantic show glauconite deposits more prevalent at shallow depths in areas east of new Jersey and south of New England with the depth of the glauconite deposits trending deeper towards the south and east. These findings suggest that glauconite deposits within the depths of pile embedment are unlikely in the lease area.
Impact Definitions and Support for Conclusions - As we noted in our preliminary cooperating agency review of this DEIS, several sections would benefit from additional information to support impact conclusions. We recommend that BOEM ensure the conclusions are consistent with the rationale presented for determining impact level, and that the conclusions are supported by the text and the best available information. For example, the DEIS concludes that presence of structures and benthic habitat conversion will lead to moderate beneficial impacts due to “habitat creation” from offshore wind projects. This conclusion discounts and minimizes the adverse impacts from habitat conversion more broadly (i.e., does not consider tradeoffs between habitat loss for benthic fauna and creation of complex or structure-based habitat for other species), and does not discuss vulnerability of structure-oriented fish assemblages to overexploitation or potential for colonization by invasive species.	Thank you for your comment. The potential effects of wind farms on offshore ecosystem functioning have been studied using simulations calibrated with field observations (Raoux et al. 2017; Pezy et al. 2018). These studies found increased biomass for benthic fish and invertebrates. However, some impacts, such as the loss of soft-bottom habitat and increased predation pressure on forage species near the structures, may be adverse. Increased biodiversity from habitat creation from the presence of the offshore infrastructures is especially beneficial for encrusting, hard-bottom or structure-oriented species (Coolen et al. 2022; Degrear et al. 2020; Hutchison et al. 2020; Inger et al. 2009; Raoux et al. 2017). The presence of introduced hard surfaces may result in new habitats for hard bottom species and increases in biomass for benthic fish and invertebrates (Raoux et al. 2017; Kerckhof et al. 2019). In a predominantly soft-bottom environment will enhance local biodiversity; enhanced biodiversity associated with hard-bottom habitat is well documented (Coolen et al. 2022; Degrear et al. 2020). This indicates that marine structures would generate beneficial impacts on the benthic community.
Section 3.5.2.5.1.1 Page 3-42; 3-56: Please include evaluation of activities such as anchoring, seabed preparation, and cable emplacement to cause resuspension of settled contaminants in soils in both inshore and offshore habitats. As stated, PAHs were detected in the Project area that exceed DNREC division of Waste and Hazardous Substances screening levels, as well as PCBs and elevated concentrations of arsenic and nickel, with arsenic and nickel levels both exceeding Delaware Ecological Marine Sediment Screening Levels and NOAA effects range-low level for nickel. These contaminants may be re-introduced into the marine environment via disruption from proposed activities within the seabed and become readily available for bioaccumulation by filter feeders which may cumulatively lead to toxic levels and adverse effects. Please provide analysis of these impacts on benthic resources as appropriate.	Text has been added to Section 3.5.2.5 to address the resuspension of contaminants. Both surface and subsurface samples had similar PCB levels. The authors concluded that the quality of the sediments will be generally the same after dredging as before dredging with regard to total PCBs. Section 3.5.2.1 stated that PCBs were also detected, however, in concentrations low enough that toxicity to aquatic life is not expected (Cargill and Pratt 2020).
Section 3.5.2 Page 3-30: Please clarify if the 330-ft buffer of analysis area for the offshore export cable route is 330-ft on either side of the centerline or a total of 330-ft wide corridor. Please also describe the geographic analysis area of the inshore cable route through Indian River Bay. Based on Figure 3.5.2-4, habitat information does not appear evenly distributed around the centerline of the inshore cable route.	The buffer around the Offshore Export Cable Route used for analysis of impacts is 330 feet (100.5 meters) extending from the edge of the route, and the Final EIS has been updated to reflect this. The area of analysis used for the Inshore Export Cable Route through Indian River Bay is the same 330 foot (100.5 meter) wide buffer. The buffer area associated with the Inshore Export Cable Route may seem larger in the Figure 5.5.2-1 and 3.4.2-4 since it includes the previous northern route within Indian River Bay that was surveyed.
Section Page 3-35; 3-36: See 3.5.2-2; 3.5.2-3. Although not found in abundance, it would be helpful to have figures that document the locations of boulders and large cobble, especially where stony corals, sea whips, or other emergent megafauna were simultaneously documented. Additionally, the legend includes 'large grained complex' as a habitat type but it is difficult to determine where this is present in the visual.	Thank you for your comment. The resources figures in the benthic section focus on the benthic habitat types. The occurrence of the large grain complex habitat occurs at less than 0.02 percent of the offshore project area and as such is not noticeable in relevant figures in Section 3.5.2.
Section 3.5.2.1.1 Page 3-38: Please include a figure of the lease area and cable corridor overlain with the boundaries of the Carl N. Shuster Jr. Horseshoe Crab Reserve.	The Horseshoe Crab Reserve has been added to the relevant figure in Section 3.6.1.

Comment	Response
Section 3.5.2.1.1 Page 3-39: The DEIS notes that there may be glauconite in the project area, but it is not yet known. If glauconite is present in planned turbine locations, significant changes to the proposed action may be necessary. It is not clear at what point a determination will be made on the presence of glauconite and how that will affect the proposed action. The absence of this information at this stage in the NEPA process may result in delays and inefficiencies in environmental reviews and consultations as it creates the risk that the DEIS will not accurately reflect a realistic project design described in the proposed action and alternatives. We recommend BOEM provide cooperating agencies a clear timeline on when this information will be known, and, if the information will result in meaningful project changes, provide for a supplemental review process that allows cooperating agencies sufficient time to evaluate and provide comments on the analysis of impacts caused by the changes and recommend any additional or modified minimization options or measures. Any supplemental process should provide opportunities for public participation to develop information to support our comments and decision making with respect to NOAA trust resources.	The US Wind site has already been investigated with a significant number of borings and Cone Penetration Tests (CPT) probes and no significant amount of glauconite has been reported. They also have submitted preliminary pile drivability analyses that show no problems with achieving the full required depth of penetration into the seabed. Investigations of other offshore wind lease areas in the north and Central Atlantic show glauconite deposits more prevalent at shallow depths in areas east of new Jersey and south of New England with the depth of the glauconite deposits trending deeper towards the south and east. These findings suggest that glauconite deposits within the depths of pile embedment are unlikely in the Lease Area.
Section 3.5.2.1 Page 3-43: Horseshoe crabs lay eggs May - June on sandy beaches in Maryland and Delaware which might be impacted by cable laying. Important for this project to avoid critical periods when egg laying occurs.	Text has been added to Section 3.5.2.1 to address horseshoe crab spawning.
Section 3.5.2.4 Page 3-56: Using a Project Design Envelope and Maximum-Case Scenario for impacts is not appropriate for analysis; all potential variances in project designs must be individually evaluated. Each of the three bullet points of potential project variability at the end of this section would result in differing impacts, alone or in combination with other project alterations. Such project variability may not necessarily reduce the spatial scope or magnitude of impacts. Without providing possible project configurations within the differing habitat types of the lease, alternative cable routes, and other possible project variations, it is impossible to fully assess the environmental impacts.	US Wind has chosen to present a Project Design Envelop (PDE) in their COP. As such BOEM has the obligation to evaluate the maximum case scenario of the PDE for all resources. The maximum case scenario aims to assess the worst case scenario with the greatest number and size of the WTGs. Therefore, Alternatives, or the Preferred Action would all have impacts that are the same or less than what the Final EIS analyzed.
Section 3.5.2.5.1.1 Page 3-56: Please clarify to the reader that an in-water assessment for SAV was not subsequently conducted following recognition of poor water clarity that affected the utility of underwater imaging. Turbid waters obscuring a clear view of the bottom for detecting SAV is not conclusive evidence of the resource's absence. This clarification should be made elsewhere in the document as appropriate.	Section 3.5.2.5 addresses that no follow-up SAV surveys or underwater imagery were conducted in 2022-2023.
Section 3.5.2.5.1.1 Page 3-56: Where is the proposed route through Indian River Bay relative to the maintained navigational channel? In this dynamic system, and especially at the inlet, what measures will ensure sufficient burial to prevent exposure and for future navigational maintenance dredging?	US Wind conducted a Cable Burial Risk Assessment (COP Appendix II- K7) that evaluated potential risks and identified the target cable burial depths for the offshore export, inter-array and inshore export cables US Wind proposes to install the cables along a southern Inshore Export Cable Route through Indian River Bay (see Figure 2-2). This route avoids the dynamic nature of the area west of the Indian River Inlet and the Indian River Bay Federal Navigation Project, essentially deconflicting the eastern portion of the Inshore Export Cable Route. Measures to ensure sufficient burial depth can be found in Appendix G.
Section 3.5.2.5.1.1 Page 3-58: Substantial dredging of nearly 1 million cubic yards of material is proposed to allow barge and vessel access to Indian River Bay for cable installation. Additional details of this action are needed along with impact analysis of the dredging operation. Placement of the material needs to be determined; any proposed beneficial reuse of the material requires full impact analysis. Please include detailed information, including relevant figures, of all proposed dredging work and material disposal. However, please note that NMFS recommends Alternative C - routing the cable upland and out of Indian River Bay - be selected as part of the preferred alternative to the Proposed Action.	Material generated during dredging along the Inshore Export Cable Route to provide barge access will be piped via temporary dredge pipeline to a dewatering staging area at the US Wind Substations, within the planned limits of construction disturbance. Dredged materials will be dewatered and placed in trucks for disposal/placement at an upland landfill location within 161 km (100 mi) of the US Wind Substations area.
Section 3.5.2.5.1.1 Page 3-59: Please expand the analysis of the potential conversion of 10+ acres of soft bottom habitat resulting from placement of marine mattresses around cables. A more robust discussion of habitat conversion, invasive species colonization, and potential biodiversity enhancements is needed.	The impacts of habitat conversion are discussed in more detail under the sub header Presence of Structures, in multiple chapters within Section 3.5.2.5.
Section 3.5.2.5.1.1 Page 3-59: The DEIS indicates that the conversion of soft-bottom benthic habitat to hard-bottom habitat can enable the expansion on invasive species, but can also enhance local diversity. Of particular concern in mid-Atlantic estuaries is the potential for the spread of bay nettles (Chrysaora chesapeakii), a jellyfish that is a voracious predator of fish eggs and larvae, as well as the larval stages of many shellfish species. Studies from estuaries in Maryland and NJ have shown that an increase in hard surfaces may lead to increase in nettles (via the introduction of suitable "spawning" habitats). The DEIS should provide additional discussion on the potential for this, and other community-level, adverse introductions.	Text has been revised regarding invasive species in Section 3.5.2.5 (for offshore and inshore).

Comment	Response
Section 3.5.2.5 Page 3-59: Noise – Please include an evaluation of the effect of pre-construction seismic survey noise in this section.	Text has been added to Section 3.5.2.1 to address noise from G&G surveys.
Section 3.5.2.5 Page 3-60: Noise- Please provide context for the following sentence: "US Wind would compile a preliminary Construction Noise Management Plan to comply with DNREC and local noise regulations prior to construction." Please clarify whether US Wind is planning to compile this plan or not, and/or under what conditions would require this plan. NMFS requests to view this plan if it is drafted.	This plan would only be compiled if the use of cofferdams was once again considered. The use of cofferdams was previously considered but was not pursued further due to the increased underwater sound.
Section 3.5.2.5 Page 3-61: This section states: "The increase in risk related to the offshore wind industry would be small in comparison to the risk from ongoing activities (e.g., transoceanic shipping). Therefore, impacts on benthic resources from invasive species as a result of the Proposed Action, would be considered negligible. In the context of reasonably foreseeable environmental trends, the combined impacts from this IPF from ongoing and planned actions, including the Proposed Action, would be expected to be localized and temporary due to the likely limited extent and duration of a release and result in negligible impacts." Please remove this language from this section. Impact determinations for an alternative should be based on impacts of the actions of that alternative and should not be made based on a comparison of, or as a proportion of, impacts from all other ongoing or foreseeable activities. This type of comparison should only occur under a separate, clearly distinguished Cumulative Impacts evaluation.	Thank you for your comment, a cumulative impact section is included in the Final EIS.
Section 3.5.2.5 Page 3-61: Accidental releases – Please provide a rationale and supporting scientific citations for the conclusion that the invasive species impacts are "highly unlikely" as described in these statements: “Although the likelihood of invasive species becoming established due to offshore wind-related activities is low, the impacts of invasive species could be strongly adverse, widespread, and permanent if the species were to become established and out-compete native fauna. Indirect impacts could result from competition with invasive species for food or habitat and loss of foraging opportunities if preferred prey is no longer available due to competition with invasive species. Such an outcome, however, is considered highly unlikely.”	The text on invasive species has been revised based on the most updated information available for both offshore and inshore waters in Sections 3.5.2.5 in the Final EIS.
Section 3.5.2.5.1.1 Page 3-62: Cable emplacement and maintenance- this section states that cable laying equipment cannot operate on slopes of more than 10 degrees and that installation would be complicated. Please clarify what cable laying operations would consist of in these areas, particularly in the south-western portion of the Lease Area where steep slopes of more than 20 degrees were identified.	It should be noted that slopes exceeding 20 degrees located within the southwest corner of the Lease Area are extremely limited and localized, and could be avoided by micro-siting WTG locations.
Section 3.5.2.5.1.1 Page 3-63: Please provide details on the potential backfilling or repurposing of the material excavated from the gravity cells.	Any material excavated for the gravity cell installation will be reused on site or disposed of at an appropriate offsite location based on the quality of the material. The excavation will be backfilled with the excavated material and/or the appropriate clean fill upon completion of the work.
Section 3.5.2.5 Page 3-63: Cable emplacement and maintenance: Please provide a recovery time to support the conclusion in the following sentence: “features. These sand-dominated substrates are resilient by nature and are capable of tolerating disturbances because the sediment is regularly disturbed by wave action, nor’easters, offshore storms and hurricanes (Rutecki et al. 2014).” The citation Rutecki et al. 2014 is a synthesis study. If there are specific citations within this synthesis that supports this conclusion, then please provide them.	The recovery times of benthic invertebrates from offshore wind cable emplacement are not yet fully known. Seafloor recovery rates vary with currents, sediment mobility, substrate composition, and type of disturbance. Recovery rates from sand mining projects and similar benthic disturbances show that in general recovery ranges from a few months to years (Boyd et al. 2005; Brooks et al. 2006; vanDalfsen et al. 2000; Coates et al. 2015; Kraus and Carter 2018, HDR 2020), with increased rate of sediment infilling strongly correlated to the recovery rate of the number of individuals within the disturbed area (Dernie et al. 2003). Recovery rates of these disturbed benthic species depend on the community composition, their lifecycle sensitivity, feeding type, the extent of disturbance, and the nature of the protection material (if used).
Section 3.5.2.5 Page 3-64: This section states: "Although no hard-bottom substrate was found in the Offshore Project area, localized areas of cobbles are known to occur within the Lease Area (Guida et al. 2017). Patches of gravel and shell hash along with boulder, mounds of smaller boulders and cobbles were identified during 2021 surveys. Pebble/granule was classified in one percent of the benthic grab samples (COP, Volume II, Appendix D4; US Wind 2022)." This paragraph should clearly indicate that these habitats constitute complex habitat, which serve as important benthic resources for many species, and should be analyzed accordingly.	Clarifying text was added to Section 3.5.2.5 in the Final EIS to address complex habitats.
Section 3.5.2.5 Page 3-64: Cable emplacement and Maintenance: The vanDalfsen et al. 2001 is not in the literature cited section provided in Appendix K. Please add.	Reference has been added to Appendix K in the Final EIS.
Section 3.5.2.5 Page 3-64: Climate Change -- There is abundant scientific literature on this topic. Please provide citations.	Citations regarding climate change are provided in Section 3.5.2.3.

Comment	Response
Section 3.5.2.5 Page 3-65: Noise – Please include an analysis of noise from pre-construction seismic surveys in this section.	Text has been added to Section 3.5.2.5 in the Final EIS to address noise produced from G&G surveys.
Section 3.5.2.5 Page 3-65 & 3-66: Noise – This entire section describes how the information on this topic is “lacking” and “ambiguous” yet comes to the conclusion that impacts will be “localized, short-term, and minor”. Please provide a rationale for this conclusion.	BOEM uses the best available science to determine the potential effects of an action. NEPA requires BOEM to identify incomplete or unavailable information. In the Final EIS, this discussed in Appendix E. Where information may be incomplete or unavailable, BOEM seeks to gather information through the Environmental Studies Program, federal and state partners, or through information available about similar topics in primary literature. BOEM does not believe that there is incomplete or unavailable information on benthic resources that is essential to a reasoned choice among alternatives.
Section 3.5.2.5 Page 3-65, 3-68, and 3-70: EMF: Burial at stated depths may mitigate effects of electrical fields but not magnetic fields. As stated on pg. 3-48, magnetic fields could elicit behaviors out to 50 ft. Therefore burial depths as stated are not protective against magnetic fields. As stated, 10% of the inter-array cables and 10% of the export cabling will require armoring because they cannot be buried. This portion of the cable will emit both electrical and magnetic fields into the environment that may affect benthic species. Please discuss how EMFs could affect movement, migration, and behavior of benthic species. There have been many papers published since the report published by CSA Ocean Sciences Inc. and Exponent 2019. Please review the literature and present a complete analysis of EMF.	EMFs are discussed in depth in Sections 3.5.2.3, and 3.5.2.5 in the Final EIS, with many references provided. US Wind conducted a site-specific study of potential EMF impacts. The modeling study found that the electric field produced would be below the reported detection thresholds for electrosensitive marine organisms (Exponent 2023).
Section 3.5.2.5 Page 3-66: Please describe what are 'skirt piles' and 'pin piles. 'In addition it appears there may be an error where the text states "skirt piles pin piles" in multiple places in this chapter; please explain what this means or correct the error.	Jacket foundations are typically installed in two ways: pre-piled (pin piles preinstalled in the seabed using a template) or post-piled (piles driven through jacket skirts). The skirt piles are used with the OSS jacket installation as a jacket pile guide (COP Volume I, Section 3.4.1.1), they are 3 meters in diameter, and were modeled with 1,500 kJ, while the pin piles are used for the Met tower, are 1.8 meters in diameter, and were modeled with 500 kJ in the acoustic modeling report (COP Appendix II-H1; Table 9). Distinction between OSS skirt piles and Met Tower pin piles have been made through the Final EIS for clarity.
Section 3.5.2.5 Page 3-66: Please provide a figure that depicts the WTG configurations described, including the potential adjustments made for micro siting, as well as the potential locations for the OSS and met tower.	Figures of Alternative B- Proposed Action, as well as all other Alternatives are provided in Section 2.1 of the Final EIS.
Section 3.5.2.5 Page 3-68: EMF -- Please provide a complete citation for “Exponent 2023” in Appendix K. Is this document publicly available?	Reference added to Appendix K. The paper is available: Maryland Offshore Wind Project: Offshore Electric and Magnetic Field Assessment.
Section 3.5.2.5 Page 3-69: There are additional types of accidental release which are not mentioned in this section. Please add the release of antifouling and anti- corrosion paints as well as other chemicals, and discuss their potential effect on benthic resources.	The release of paint and other chemicals is a low-probability event as described in Section 2.3. Text in Section 3.5.2.5 has been updated to reflect the accidental releases described.
Section 3.5.2.5 Page 3-69: Accidental Releases – Please provide a rationale supported by scientific citations for the determination of “negligible impact” of invasive species via marine discharge. The introduction of hundreds of artificial structures into the offshore marine ecosystem has the potential to provide habitat for marine species including invasives. The conclusion of “negligible impact” does not comport with the scientific literature that has shown marine discharges to be a leading cause of the establishment and range expansion of invasive species. The statement that marine discharges “are not part of routine operations” does not mean they will not occur.	Although the introduction of invasive species can have widespread and lasting effects, the potential for introducing an invasive species through ballast water releases or biofouling from US Wind operational activities is quite low. One of the only instances where the spread of invasives were mentioned relates to the Block Island Wind Farm, which is in the state waters of RI, and expanded the range of an invasive already present within RI nearshore waters. BOEM is currently conducting research to evaluate various options that will improve the quality of construction derived complex habitats created from scour and cable protection.
Section 3.5.2.5 Page 3-70: Noise: please discuss in detail noise generated from "routine WTG operations" and impacts to benthic resources.	Text has been added to Section 3.5.2.5 to address the sound produced from the operational phase of the Project.
Section 3.5.2.5 Page 3-70: Noise – This section should include a discussion of substrate vibration.	The added text to Section 3.5.2.5 about operational noise produced addresses vibration.
Section 3.5.2.5 Page 3-70: Noise – This section mentions HRG noise but does not present an analysis. Please evaluate this impact producing factor.	Sound impacts produced from HRG surveys are discussed in Section 3.5.2.3.

Comment	Response
Section 3.5.2.5 Page 3-71: Presence of Structures: Please provide impact analysis for the presence of structures on local and mesoscale water flow that is based on the habitats and conditions present within the lease area. While referencing prior work in New England can be helpful, benthic habitats in New England and the mid-Atlantic differ. Complex habitats tends to dominate in New England while soft bottom tends to dominate in the mid-Atlantic. Local and regional current regimes will also differ. It is therefore critical to evaluate hydrodynamic changes based upon the conditions of the lease and proposed project. Further, such analysis should include all potential configurations of the project to understand how project variances may affect local or meso-scale hydrodynamics.	While BOEM agrees that the habitat of New England and the Mid-Atlantic are not equal, the most recent US studies were conducted within the Massachusetts- Rhode Island WEA, and therefore the modeling is conducted for that region. Additionally, 2 of the managed species (summer flounder and Atlantic Sea scallop) studied, also occur within the Project area. Meso-scale hydrodynamics are addressed in Section 3.5.2.5.
Section 3.5.2.5 Page 3-71: Presence of Structures – This section presents an analysis of “mesoscale” hydrodynamic effects or wind wake effects. Please do a comprehensive review of wind wake effects and provide an analysis that includes relevant scientific citations other than the Johnson et al. 2021 report. There is a growing body of literature on this topic. Further, a National Academics of Science panel was convened this year to discuss this topic and the output of this panel should be included here.	As you have noted in your comment, the National Academies of Science, Engineering, and Medicine has published a report titled "Potential Hydrodynamic Impacts of Offshore Wind Energy on Nantucket Shoals Regional Ecology." Their conclusions, however, indicate that the impacts of offshore wind projects on zooplankton will likely be difficult to distinguish from the significant impacts of climate change and other influences on the ecosystem, noting the need for continued monitoring and research.
Section 3.5.2.5 Page 3-71: Presence of Structures – Regarding the following sentence, please provide relevant scientific citations to support: “Indirect impact of structures influencing primary productivity and higher trophic levels are possible but are also not well understood. ”	Text was added to Section 3.5.2.5 to address the findings from the most recent findings of the indirect impacts from hydrodynamic changes due to the presence of offshore structures.
Section 3.5.2.5 Page 3-72: Presence of Structures – “…depending on the receptor”, is a key part of the sentence describing the conclusion of this section. This should be carried over to the table on page ES-9. Most of the effects are adverse or uncertain. Only species that colonize hard bottom structures will see a benefit, assuming that they are not consumed by predators or out-competed by invasive species.	Modifiers to Table ES-1 would be inconsistent.
Section 3.5.2.5 Page 3-72: Presence of Structures -- Please include a discussion of chemical contaminants in this section.	The release of paint and other chemicals is a low-probability event as described in Section 2.3. Text in Section 3.5.2.5 has been updated to reflect the accidental releases described.
Section 3.5.2.6 Page 3-74: Please provide a figure depicting the routes for Alternatives C1& C2.	Figures for Alternative C-1 and C-2 are found in Section 2.1.3.
Section 3.5.2.6 Page 3-75: The following sentence lacks context and clarity: "Alternative C would have an appreciable impact when compared to all ongoing and planned activities." What kind of impact are you referring to? Beneficial or Adverse? Impacts to what resources? Sweeping statements such as these should be avoided. Please clarify or remove. Further, if impacts of the alternative are being compared to all ongoing and planned activities this sentence should be moved to a Cumulative Impacts section.	Thank you for your comment, this text has been removed.
Section 3.5 Page Global: Please provide detailed descriptions and evaluations of all alternatives. Currently, the Proposed Action has a much more robust description and evaluation than all other alternatives.	In order to avoid repetitiveness, the evaluations of the alternatives (other than the Proposed Action) are limited to evaluating only those impacts that would change in each Alternative.
Section 3.5 Page Global: The DEIS states that UXOs would be relocated if encountered. NMFS requests to see either a detailed plan on how UXOs will be handled if encountered (where and how they will be relocated) and/or to see the Munitions Response Plan provided to BOEM in the event UXOs are confirmed.	US Wind will prepare an MEC/UXO Emergency Risk Management Plan prior to construction. At the time of the Final EIS this plan is not yet available.
Section 3.5 Page Global: Information on benthic habitats and resources present in areas proposed for the O&M facility and port modifications should be presented, and potential impacts to these resources should be evaluated.	Additional information on the seafloor and benthic habitats impacted by the construction of the proposed O&M Facility in Ocean City is presented in Section 3.5.2.5 of the Final EIS.
Section 3.5 Page Global: Please ensure that in addition to impacts of continuing or planned activities in the region, the No Action Alternative section also evaluates the difference in impacts of not carrying out the Proposed Action. For example, not implementing the Proposed Action would mean adverse impacts to benthic habitat in the Project area from the proposed action would not occur. This should not be considered inherent and should be explicitly stated. Further, please ensure that evaluations of the No Action Alternative are not just for the larger surrounding region (large geographical analysis area), but also evaluate impacts to the localized Project area.	The No Action Alternative is discussed in Section 2.1.1 in the Final EIS. Text has been added to Section 3.5.2.3, clearly stating "Under the No Action Alternative, BOEM would not approve the COP. Project construction and installation, O&M, and decommissioning would not occur, and no additional permits or authorizations for the Project would be required."

Table O.5-30. NOAA and NMFS – Biological Resources - General

Comment	Response
EFH and ESA Consultation The essential fish habitat (EFH) and Endangered Species Act (ESA) consultations for this project have not yet been initiated. At this time, the EFH assessment and biological assessment remain incomplete and the milestone dates for initiating EFH and ESA consultation have been delayed to January 2024. The list of information missing from both assessments has been provided to BOEM. Given the status of these documents and associated consultations, we are not able to determine if the DEIS is consistent with those assessments. We expect BOEM to ensure that the FEIS accurately reflects the analysis and conclusions in the pending EFH and ESA consultations.	Relevant information in the consultation documents has been incorporated into the Final EIS where applicable.

Table O.5-31. NOAA and NMFS – Commercial Fishing and For-Hire Recreational Fishing

Comment	Response
Impact Definitions and Support for Conclusions - For certain resources, the DEIS makes impact determinations that are inconsistent with the definitions used in the document and that are not supported by the analyses. For commercial fisheries, we are concerned with the statement suggesting that impact level conclusions are based on whether an entire fishery is affected, versus expected impacts to any "activity," which has been previously interpreted by BOEM to include impacts to individual vessel operations, not an entire fishery's operations. This determination is a departure from the impact conclusions of previous project EISs and does not accurately reflect the intensity of impacts. We recommend that the impact analysis for commercial fisheries in this FEIS be consistent with the approach taken in previous offshore wind EISs. Individual vessels can be substantially dependent upon fishing within a lease area for their annual fishing revenue and impacts to that vessel's activity could have direct and indirect impacts on many other entities in the larger port community. Those impacts are not captured in the DEIS using this revised threshold for impact level conclusions.	BOEM recognizes some fishing vessels may experience different impact levels in section 3.6.1.5.4 of the Final EIS.
Incomplete analyses - All anticipated IPFs should be analyzed for each resource area and for each alternative. We recommend that the FEIS avoid simply referring back to the No Action alternative when discussing impacts of IPFs; rather, the FEIS should provide a thorough and complete evaluation under each alternative. In addition, both the direct and indirect impacts of project activities on affected resources should be discussed to capture all potential effects. For example, some commercial fisheries may experience direct impacts due to displacement, while also experiencing adverse indirect impacts due to direct adverse impacts to targeted species. BOEM should also ensure that the FEIS includes data from all relevant sources, not just information for vessels issued permits by the NMFS Greater Atlantic Regional Fisheries Office (GARFO). As we have highlighted for previous project EISs, data for state-permitted vessels and those issued a permit from the NMFS Southeast Regional Office for highly migratory species (HMS) and those fisheries managed by the South Atlantic Fishery Management Council must be included in this analysis in order to be complete. These operations are affected by the activities considered in the EIS, yet are not captured in fisheries data for GARFO-permitted vessels. Further, impacts on shoreside communities reliant upon vessel landings from this area should also be included along with fishery impacts from cable emplacement activities. If such data are not included, the analysis will likely underestimate relevant fishery impacts.	Thank you for your comment. The Final EIS is structured the same way as other EISs. Referring back to the No Action alternative avoids unnecessary repetition throughout the Final EIS. Tables in Section 3.6.1 1 have been updated. It has been noted that Data are for vessels issued federal fishing permits by GARFO. Landings and revenue are likely underestimated because they do not include vessels without GARFO permits and fishing for species managed by ASMFC or states and by NMFS for highly migratory species.
Section 3.6.1.1 Page 3-226 and 3-229: Please ensure that this EIS includes data from all relevant sources, not just information for vessels issued permits from the NMFS Greater Atlantic Regional Fisheries Office (GARFO). As we have highlighted for nearly every project EIS to date, data for state-permitted vessels and those issued a permit from the NMFS Southeast Regional Office for highly migratory species (HMS) and those fisheries managed by the Southeast Fishery Management Council must be included in this analysis because such operations are affected, yet are not captured in fisheries data for GARFO-permitted vessels. If such data are not included, the analysis will likely underestimate relevant fishery impacts for this project. The text at the bottom of this page references these other fisheries, but does not suggest that any data other than that of GARFO permits will be evaluated. This should be corrected in the FEIS. Finally, please include a reference to the conch/whelk fishery that is managed in state waters.	It has been noted that Data are for vessels issued federal fishing permits by GARFO. Landings and revenue are likely underestimated because they do not include vessels without GARFO permits and fishing for species managed by ASMFC or states and by NMFS for highly migratory species. The Final EIS has been updated to indicate that whelk fisheries are managed by the states.
Section 3.6.1.1 Page 3-231: Please remove reference to HMS permitted vessels in the last sentence of the first paragraph and note that smooth dogfish and chain dogfish are federally managed species under the HMS FMP. HMS vessels are required to submit VTRs, but they submit them to the NMFS Southeast Regional Office, not GARFO. Such data are available upon request and should be integrated into this analysis in the FEIS.	Final EIS has been updated to clarify the characterization of HMS permitted vessels by changing Atlantic HMS permitted vessels to read "open-access Atlantic HMS permitted vessels. Also added a sentence to note that Smooth Dogfish are managed under the Atlantic HMS FMP.

Comment	Response
Section 3.6.1.1 Page 3-235: Please note that whelk landings/revenue is not well captured in the GARFO data because it is not a federally managed fishery. GARFO vessels report whelk as bycatch. Whelk is a state fishery targeted by state permitted vessels. As noted above and in Appendix A of BOEM's draft fishery compensation guidance (https://www.boom.gov/sites/default/files/documents/renewable-energy/Appendix%20A%2006232022_0.pdf), state data are the primary source for whelk data and must be included in the FEIS, otherwise the analysis will underestimate fishery impacts.	The Final EIS has been updated to indicate that whelk fisheries are managed by the states.
Section 3.6.1.1 Page 3-238: Please update the VMS data used to inform this EIS. As we have noted for other projects, the VMS data is outdated and should be updated to reflect more recent fishing activity consistent with our guidance on information needs for socioeconomic impact analysis of wind projects (https://media.fisheries.noaa.gov/2022-02/Socioeconomic-InfoNeeds-OSW-GARFO.pdf). BOEM has access to more recent VMS data and it should be integrated into the FEIS.	The EIS uses the most current data that is readily available and easily comparable specific to the Lease Area available as of February 2024 on NMFS page: Descriptions of Selected Fishery Landings and Estimates of Vessel Revenue from Areas: A Planning-level Assessment. [Accessed on 2/26/24].
Section 3.6.1.1 Page 3-248: Please include reference to and analysis of the NOAA Large Pelagic Survey data (available here: https://www.fisheries.noaa.gov/data- tools/recreational-fisheries-statistics-queries) and DePiper et al. 2023 paper entitled "Leveraging Data from a Private Recreational Fishing Application to Begin to Understand Potential Impacts from Offshore Wind Development (available at: https://academic.oup.com/icesjms/advance-article/doi/10.1093/icesjms/fsad154/7293717). Such data must be included to ensure the EIS adequately includes the best scientific information available describing all fisheries that are affected by this project. Some of these species are mentioned in Table 3.6.1-11, but not from all relevant data sources. You could also apply the methods outlined in Kirkpatrick et al 2017 (available here: https://espis.boem.gov/final%20reports/5580.pdf) to the existing Marine Recreational Information Program data, as noted in BOEM's Draft Fishery Mitigation Guidance's Appendix A.	Thank you for your comment. Additional relevant information on large pelagic has been incorporated in the Final EIS.
Section 3.6.1.1 Page 3-249: Please reference the fact that the project-specific party/charter report that we developed (available here: https://www.greateratlantic.fisheries.noaa.gov/ro/fso/reports/WIND/WIND_AREA_REPORTS/rec/OCS_A_0490_US_Wind_rec.html) also identified relative dependence of party/charter vessels on this lease area for their annual fishing revenue. That report notes that one entity was dependent upon fishing within the lease area for 100 percent of fishery revenues in 2008 and 2012, while other entities were dependent upon this area for over 25 percent of annual fishery revenue in other years. This should be noted in addition to the small business information.	Thank you for your comment. The Final EIS includes more recent data than 2008-2012. The 2019-2021 data included in the Final EIS shows a revenue exposure of 48-86%.
Section 3.6.1.3 Page 3-252: Please ensure that this section includes a discussion of the impacts from previously approved projects. Insert reference to the EISs for such projects. This is necessary under NEPA to establish the baseline conditions from which the impacts of this proposed action can be evaluated. Please also ensure that the cumulative effects of past and reasonably expected future projects are evaluated consistent with the approach BOEM and NOAA agreed to as a result of the review of the Ocean Wind 1 project.	Thank you for your comment. Cumulative impacts including other offshore wind projects is discussed in Section 3.6.1.3.
Section 3.6.1.3 Page 3-253: In the second full paragraph, please note that fishery management measures are intended to ensure the long-term sustainability of fisheries, not just that fisheries can continue to occur. There is a difference that should be noted in that long-term sustainability will produce benefits to the fishery and associated communities, not just continued access.	Thank you for your comment. Added as suggested.
Section 3.6.1.3.1 Page 3-254: Please insert or reference an appropriate discussion of current regional trends and baseline conditions to validate the discussion in this section. While the previous sections identified one or two trends in fishery participation rates (e.g., recreational trips), there was no discussion of fishery biological or operational trends that would support the conclusion that baseline conditions for fisheries would continue regional trends. As we have noted in previous project reviews, it is necessary to support your conclusions in the EISs. Without data on fishery trends or the establishment of baseline conditions for either the fishery or the fishery resource (i.e., biomass and recruitment levels and trends), this conclusion is unsupported, particularly in light of the argument that climate change and other factors would more directly affect fishery resources and management responses to changes to those fishery resources.	Thank you for your comment. Added a reference to the NMFS report State of the Ecosystem- Mid Atlantic 2023.
Section 3.6.1.3.1 Page 3-255: Under cable emplacement and elsewhere, as appropriate, please note the impacts to the commercial fisheries as a result of cable emplacement and other construction activities include both direct economic impacts due to displacement, reduced revenue, gear damage/loss, and increased conflict, but also indirect economic impacts as a result of biological impacts of such activities on the fishery resource itself. Both these direct and indirect impacts to fishery operations must be identified throughout this section, particularly if operations are going to occur during spawning periods for many species such as cod and longfin squid, as we have noted in our comments on other projects.	Thank you for your comment. Added that impacts to fisheries can be direct and indirect. An in-depth discussion on impacts to the biological resource can be found in the Finfish, Invertebrate, and EFH section.

Comment	Response
Section 3.6.1.3.1 Page 3-256: Under port utilization, please include a discussion of competition for services and associated potential price increases for fishing ports, which would have additional adverse impacts on fishing operations through higher prices and costs to seek those services elsewhere.	Thank you for your comment. Information added to the section as suggested.
Section 3.6.1.3.1 Page 3-257: Under presence of structures and the discussion of impacts to fisheries surveys, it's important to note that changes to fishery surveys that form the basis of data used in stock assessments will likely increase uncertainty in those assessments and lead to lower fishery quotas based on current fishery management council risk policies and control rules. This will have an indirect negative impact on fishery operations that should be noted in this section.	Thank you for your comment. Information added to the section as suggested.
Section 3.6.1.3.1 Page 3-259: When referencing higher costs to vessels, please include reference to lower product quality and therefore lower market price for species such as surf clams and ocean quahogs which are often stored on deck and can degrade in quality when transit between fishing grounds and ports is increased.	Thank you for your comment. Information added to the section as suggested.
Section 3.6.1.3.1 Page 3-260-261: Table 3.6.1-15. Please include additional fishery information from sources beyond just GARFO permitted vessels that include all fishing vessels, shoreside support services, and communities that would be affected by regional offshore wind development projects. Please include statements in the table and narrative that this table is based exclusively on revenue data from GARFO permitted vessels and does not fully reflect impacts to all fishing vessels affected by regional offshore wind development projects. As noted above, relying exclusively on GARFO data underestimates impacts to affected fishing vessels and does not accurately describe the cumulative impacts of regional wind projects. This section should include information describing impacts to state permitted vessels as well as those permitted by NMFS to fish for highly migratory species and those managed by the South Atlantic Fishery Management Council. This section should also discuss the additional impacts to shoreside support services and communities that would be negatively affected if fishery landings were to decline as a result of the presence of structures from regional wind projects. Methods to estimate such impacts are outlined in BOEM's draft fishery mitigation guidance. Failure to include such data would give the public the impression that impacts resulting from the presence of structures are less than what they may be if all impacts are fully evaluated in the EIS.	Thank you for your comment. A footnote to the table has been added to reflect the dependence on GARFO-permitted vessel data, and to note that similar impacts would be felt by state permitted vessels. The state specific vessel data is not readily available for analysis. Additionally, Section 3.6.4 includes analysis of impacts to commercial fishing dependent communities in the Fishing Engagement and Reliance discussion.
Section 3.6.1.3.1 Page 3-262: Please remove the discussion of climate change in this section because it is not an impact-producing factor associated with offshore wind development projects and was already discussed in the section regarding ongoing activities other than offshore wind. This section should be limited to factors that are directly attributable to regional wind projects and should not repeat the climate change impact discussion.	Thank you for your comment. The discussion on climate change has been moved to the first half of the No Action Alternative.
Section 3.6.1.3.2 Page 3-263: Please offer justification for the impact conclusions based on the definitions listed in Table 3.6.1-14. These conclusions are not supported based on the text in this section.	Thank you for your comment. Conclusions are made based on the data available and impact levels are presented as a range due to uncertainties.
Section 3.6.1.5.1.1 Page 3-265: Please include information to support claims that port utilization during construction and installation would have negligible to moderate impacts and that the proposed action would not considerably increase impacts compared to the no action alternative. The qualitative and incomplete description of the no action alternative relative to port utilization does not support this conclusion, given to the limited information available on regional projects and their utilization of ports. While some projects have identified which ports may be used, there is insufficient information on the nature and scale of that usage to inform the impact conclusion in this section.	Thank you for your comment. Conclusions are made based on the data available and impact levels are presented as a range due to uncertainties.
Section 3.6.1.5.1.2 Page 3-265: Under cable emplacement and maintenance, please quantify the impacts expected to fishery operations that operate in this area by submitting a data request for fishing revenue exposed along a 0.5 mile wide cable corridor using our fishing footprint method to nmfs.gar.data.requests@noaa.gov. This has been conducted for previous projects and it is possible to estimate the fishing revenue exposed to construction activities along the export cable corridor. This will provide the information necessary to inform impact conclusions for this impact producing factor. As the DEIS notes in previous sections, fishing operations are negatively affected by cable emplacement through effort displacement, reduction in fishery revenue, and gear damage/loss. In addition, as we have observed through the construction of the South Fork and Vineyard Wind projects, cable emplacement construction activities can be prolonged, with portions of the cable corridor subject to construction activities and safety zones for as long as a year in certain locations. Thus, previous experience has suggested that impacts could be much longer than suggested here. This should be noted and analyzed in this section.	The NMFS model is too coarse to finely scale footprint impacts on revenue along the transmission corridor. BOEM's approach more fully considers which fisheries are likely to be affected in the short-term.

Comment	Response
Section 3.6.1.5.1.2 Page 3-266: Please delete the sentence that reads, "However, the Proposed Action would not increase the impacts across entire fisheries beyond those impacts expected under the No Action Alternative." We disagree with the implication in this sentence that it is appropriate to use impacts to entire fisheries when evaluating and comparing impacts between alternatives. As written, the impact definitions outlined in Table 3.6.1-14 reference "the affected activity or community." This has been previously interpreted by both BOEM and NMFS to include impacts to individual vessels, not just entire fisheries. Accordingly, impact conclusions have been revised based on our comments that a project would affect individual vessel operations, not all operations of a particular fishery or fleet. Because an "affected activity" could be represented by the operations of one vessel, we believe the appropriate metric to evaluate and compare fishery impacts should remain at the vessel activity level, not the entire fishery or fleet's activity level. As we have noted in the review of previous projects, individual vessels can be substantially dependent upon fishing within a lease area for their annual fishing revenue. Impacts to that vessel's activity could have direct and indirect impacts on many other entities, including individual crew members, shoreside businesses that support that vessel's activity, and the larger port community that may also be reliant upon that vessel's fishing operations to remain economically viable.	Thank you for your comment. Sentence deleted as suggested.
Section 3.6.1.5.1.2 Page 3-266: Please revise the range of impact conclusions from "negligible to major" to "minor to major." It is incorrect to conclude that the presence of structures from current and foreseeable regional wind projects would result in negligible (i.e., no or immeasurable) fishery impacts. We have measured impacts to commercial fishery operations for every single wind projects in the Greater Atlantic Region. Concluding that cumulative fishery impacts would be negligible is inconsistent with the impact definitions in Table 3.6.1-14. This should be corrected in the FEIS.	Thank you for the comment. Some commercial fisheries will experience negligible impacts, while others may experience minor to major impacts, depending on the fishery.
Section 3.6.1.5.1.2 Page 3-267: Under vessel traffic, please revise the impact conclusions from "minor" to "moderate, " to be consistent with Table 3.6.1-14. Available vessel monitoring system data available on the Northeast Ocean Data Portal clearly show high concentrations of vessel transit activity through the lease area. Further, as noted in this section, up to 2,343 vessel trips over 3 years by potentially 37 vessels operating simultaneously in the lease area indicates that commercial and for-hire recreational vessels "would be required to avoid project vessels and restricted safety zones." This, by definition, is inconsistent with minor impacts as defined in Table 3.6.1-14 because such activities would "disrupt the normal or routine functions of the affected activity or community." Adjustments to navigation to avoid the project vessels and associated safety zones would not be normal because fishing vessels have navigated unimpeded through the lease area and have not been required to avoid construction activities previously. Thus, they would be required to change their activity as a direct result of this project. Disruptions to normal and routine functions of fishing vessels have been observed during the construction of the South Fork and the Vineyard Wind projects due to safety zones and vessel traffic, validating the discussion in this section.	Thank you for the comment. Safety exclusion zones will be temporary, occurring only during construction or during short-lived maintenance activities. Upon completion of construction, the impact to vessel traffic will no longer occur.
Section 3.6.1.5.1.2 Page 3-267: Please remove the discussion of climate change in this section because it is not an impact-producing factor associated with the proposed action and was already discussed in the section regarding ongoing activities other than offshore wind. This section should be limited to factors that are directly attributable to the proposed action and should not repeat the climate change impact discussion.	Thank you for your comment. The discussion on climate change in this section has been removed.
Section 3.6.1.5.2.2 Page 3-275: Under presence of structures, please either remove inaccurate impact conclusions included earlier in this section or revise the impact conclusions for both commercial and for-hire recreational vessels from "minor" and "negligible to minor" to "moderate" and "minor to major, " respectively, throughout to be consistent with impact definitions in Table 3.6.1-14.As demonstrated in our socioeconomic impact reports, this project will have measurable impacts on commercial and for-hire recreational fisheries based on historic logbook data summarized in our lease-specific reports (available at: https://www.fisheries.noaa.gov/resource/data/socioeconomic-impacts-atlantic-%20offshore-wind-development?utm_medium=email&utm_source=govdelivery).Several vessels are dependent upon this area for more than 10 percent of annual fishing revenue in most years, with at least one individual for-hire vessel dependent on the lease area for all of their fishing revenue in two years. Further, this section discusses the numerous ways in which normal fishing activities are disrupted. Because structures are the predominant impact to fisheries operations in the lease area, normal fishing activities would be disrupted, and measurable impacts are expected with some substantial impacts to at least one individual, impacts should be revised as recommended in this comment.	Thank you for the comment. Some commercial fisheries will experience negligible impacts, while others may experience minor to major impacts, depending on the fishery.
Section 3.6.1.5.2.2 Page 3-276: Table 3.6.1-16.Please update this table to include more recent data that are available online at: https://www.fisheries.noaa.gov/resource/data/socioeconomic-impacts-atlantic-offshore-wind-%20development?utm_medium=email&utm_source=govdelivery and upon request. Both data and methods to develop that data have been updated. Consistent with our guidance on socioeconomic impacts, data reflecting fishing operations within the most recent two years should be included in project EISs.	The EIS uses the most current data that is readily available and easily comparable specific to the Lease Area available as of February 2024 on NMFS page Descriptions of Selected Fishery Landings and Estimates of Vessel Revenue from Areas: A Planning-level Assessment.

Comment	Response
Section 3.6.1.6 Page 3-279: Please insert a discussion of direct impacts to commercial and for-hire recreational fisheries that operate in Indian River Bay and indirect impacts to commercially and recreational fisheries targeting species that use Indian River Bay for spawning and early life history stages. While this section indicates that no impacts to fisheries would occur, there is no information to support this conclusion. In fact, the scant information on near-shore fisheries suggests there are for-hire fisheries that operate in and around this area. Finally, please remove text suggesting that Alternative C would have similar impacts to the Proposed Action. By avoiding direct and indirect impacts to fisheries operations in Indian River Bay, Alternative C would result in fewer impacts that the Proposed Action. This must be noted in this section to accurately describe the impacts of Alternative C.	Thank you for your comment. Revised text to include potential impacts to vessels operating in Indian River Bay or Indian River. The text states that Alternative C would have similar or slightly less impacts than the Proposed Action.
Section 3.6.1.6.1 Page 3-279: Please revise the range of impact conclusions to ensure the impact conclusions of the Proposed Action are accurately described and that this alternative is compared to all other alternatives considered for this action. There is no justification that the proposed action alone would result in major impacts. Therefore, when comparing impacts of Alternative C to the Proposed Action, the impact range should reflect negligible to moderate.	The use of onshore routes (Alternative C) does not change the offshore commercial fishing effects, as the transmission cable, WTGs, and inter array cables would still exist.
Section 3.6.1.8 Page 3-281: Please revise this section to discuss the differences in impacts between the various alternatives, as noted in the descriptions of those alternatives in previous sections. Although the general regional cumulative impact conclusions to fisheries would be the same (negligible to moderate, as noted above, and minor beneficial), there are differences between the alternatives that must be noted here, as required by NEPA. For example, Alternative C, D, and E would likely have fewer direct and indirect impacts on fisheries operations than the proposed action based on the information presented in this general section.	Thank you for your comment. Revised as suggested.

Table O.5-32. NOAA and NMFS – Finfish, Invertebrates, and Essential Fish Habitat

Comment	Response
General Comments Many comments and suggested edits we provided through our preliminary review as a cooperating agency were not addressed in the DEIS. It is our understanding that you intend to wait to address these comments in the FEIS. We are concerned that waiting until the FEIS incorporates key changes to the analytical approach of the document, which are meant to provide clarity in the assessment of impacts, will not allow cooperating agencies sufficient time for review and comment. Given that we are recommending significant technical and analytical changes to the DEIS, we request cooperating agencies have the opportunity to review the preliminary FEIS with an extended comment period. We remain concerned with how the DEIS describes and analyzes impacts from the project on NOAA trust resources and fishing operations. As a result, we reiterate many of those previously provided comments through this letter and in the attached spreadsheet. We suggest BOEM review those prior comments, as many of those comments remain applicable. We recommend BOEM take the time to resolve these important issues prior to cooperating agency review of the draft FEIS.	Cooperating agencies, including NMFS, were provided with the opportunity to review the Final EIS before it was published, and BOEM addressed comments provided by cooperating agencies
Section 3.5.5.1 Page 3-81: Figure 3.5.5-1. This text states "The northern portion of the geographic analysis area includes only U.S. waters (Figure 3.5.5.5-1)." Figure 3.5.5.5-1 shows the fish GAA extending up through the Bay of Fundy, which is not considered U.S. waters. The statement and the figure are inconsistent, please fix.	Text in Section 3.5.5.1 in the Final EIS has been corrected to indicate the GAA extends into the Bay of Fundy.
Section 3.5.5.1 Page 3-84: While Slacum et al (2011) found species diversity, abundance, and richness to be greater in flat-bottom habitats than in shoal habitats in a 2-year study, a multiyear study by Vasslides and Able (2008) found the opposite to be true. Vasslides, J.M. and K. Able (2008)."Importance of shoreface sand ridges as habitat for fishes off the northeast coast of the United States." Fishery Bulletin 106: 93-107.	Slacum et.al., 2011 discusses the methodologies and findings utilized and presented by Vasslides and Able, 2008 and outlines the differences between the two studies. One of the significant points identified was that the data set analyzed by Vasslides and Able (2008) consisted of a single 23 km linear transect that only sampled a single sand ridge habitat. The sample area in the Slacum et al. 2011 study collected data at four separate sand ridge areas along with 4 separate flat-bottom habitat sites. Slacum et al. 2011 identified changes in the structure of the offshore assemblage to be mainly influenced by seasonal changes, as did Vasslides and Able (2008). One main difference between the two studies was that Slacum et al. 2011 also sampled macroinvertebrates, showing the same differences between flat-bottom habitats representing higher diversity over shoal habitats. Slacum et. al. 2011 points out the differences in their results over Vasslides and Able (2008) but provides suggestions for how to best delineate these differences in future study designs.

Comment	Response
Section 3.5.5.1.2 Page 3-90: The introductory paragraph in this section requires editing. The first sentence is not accurate. There are six species listed under the endangered species act, some are listed as endangered, others are threatened, as shown accurately in the table below. The sentence states that six species are all listed as endangered, but then lists only five, and includes species that are listed as threatened not as endangered. As listed in the table below, the giant manta ray, oceanic whitetip shark, and scalloped hammerhead shark are listed as threatened, not endangered as it appears in text. It would be beneficial to list the DPSs for each of the listed species if applicable. Consider also adding them to table 3.5.5-2.	Thank you for your comment. Edits have been made to the Final EIS.
Section 3.5.5.1.2 Page 3-90: Please clarify which ESA species will be thoroughly assessed in this document, and which will not be discussed further. It is not clear from this introductory section and remains unclear throughout each corresponding Impacts of Alternative X on ESA Listed Species section. Please reference the BA.	Thank you for your comment. Edits have been made to the Final EIS.
Section 3.5.5.1.2 Page 3-91: The seasonal incidence defined by Secor et al.2020 actually reads "Atlantic sturgeon occurred over broad periods during early spring-early summer and early autumn-early winter each year (Figure 16), with very few detections during later summer or winter months." "Briefly during the spring" is not supported by the reference. This project also investigated striped bass, it is possible that the author accidentally switched the species information, as "Detections of Atlantic sturgeon occurred throughout autumn and early winter and throughout spring and early summer. Striped bass occurrence was more concentrated during winter months and brief during spring."	Thank you for your comment. Edits have been made to the Final EIS.
Section 3.5.5.1 Page 3-91: Please change cross-self to cross-shelf when describing Atlantic Sturgeon detections in the study.	Thank you for your comment. Edits have been made to the Final EIS.
Section 3.5.5.1Page 3-91: Please add that studies conducted in more recent years, such as in Ingram et al. (2019), suggest that Atlantic Sturgeon habitat and distribution is likely more expansive than previously thought, and that additional targeted research is needed to fully and accurately assess their habitat use.	Thank you for your comment. Edits have been made to the Final EIS.
Section 3.5.5.1 Page 3-92: Please use a word other than limit. If individuals have lived up to 36, 25 is not the limit. An example to consider could be estimated life expectancy.	Thank you for your comment. Edits have been made to the Final EIS.
Section 3.5.5.2 Page 3-93: Please provide more detail about the impact criteria for beneficial impacts, either in the discussion in this section, or in the impact table here.	Thank you for your comment. Resource-specific adverse and beneficial impact level definitions are presented in each Section 3 resource sub-section.
Section 3.5.5.3 Page 3-96: Earlier in this section, it is stated that "noise from large commercial ships, as well as smaller fishing and recreational vessels, is likely to be present and persistent in the geographical area." Please clarify how it is determined here that vessel noise is expected to be short term.	Thank you for your comment. The sentence you are referring to is addressing vessel noise as a whole in the area. Additionally, vessel noise from the Proposed Action would be "short term" through the construction phase and the additional vessel noise from the O&M would not increase vessel noise substantially. These issues are addressed in Section 3 of the Final EIS and effects on ESA fishes are analyzed in the biological assessment.
Section 3.5.5.3 Page 3-96: There is no section 3.13.3.2 in this document. Please fix.	Thank you for your comment. Edits have been made to the Final EIS.
Section 3.5.5.3.2 Page 3-98: There are additional types of accidental release which are not mentioned in this section. Please add the release of trash/debris as well as antifouling and corrosion paints and the potential effect on finfish and EFH.	Thank you for your comment. Edits have been made to the Final EIS.

Comment	Response
Section 3.5.5.3.1 Page 3-98: EMFs and cable heat- Although NMFS agrees more research is needed on EMFs to fully understand impacts, this section should be modified to more accurately reflect the best available science. For example, you state "Biologically notable impacts on finfish, invertebrates, and EFH have not been documented for alternating current (AC) cables (Thomsen et al.2015; CSA Ocean Sciences Inc. and Exponent 2019)". This is inaccurate. A review by SEER 2022 states that physiologically, it has been shown that juvenile benthic organisms are affected cellularly when they are exposed to a high-strength (i.e., 50-Hz) AC EMF field.AC cables used for electric power transmission generally operate at 60 Hz in the United States (50 Hz in Europe).Additionally, when encountering AC cables, another study found that small-spotted catshark more frequently visited the area and exhibited less movement nearby the AC cables, which are behaviors typically associated with feeding patterns in benthic catsharks (SEER 2022).Furthermore, you state in this section that "Transmission cables using HVAC emit ten times less magnetic field than HVDC (Taormina et al.2018); therefore, HVAC cables are likely to have less EMF impacts on benthic species." However, SEER 2022 explains that overall, the intensity of EMFs does not directly correlate to potential environmental effects in which higher intensity means more likely effects. Instead, lower-intensity EMFs that are within the frequency detection range of marine organisms may be more likely to elicit a response. Please modify these statements (and similar statements made in section 3.5.5.5.2.1) accordingly.	EMFs are discussed in depth in Sections 3.5.5.5 in the FEIS, with many references provided. US Wind conducted a site-specific study of potential EMF impacts. The modeling study found that the electric field produced would be below the reported detection thresholds for electrosensitive marine organisms (Exponent 2023).
Section 3.5.5.3.2 Page 3-103: Please provide more detail to support the negligible impact determination of port utilization. Increases in port activity may result in behavioral responses such as avoidance and temporary displacement. Mortality at less-mobile life stages such as eggs and larvae could also occur.	Thank you for your comment, this issue is covered extensively in the EFH Assessment as part of the Final EIS documentation.
Section 3.5.5.3.2 Page 3-104: The analysis on potential hydrodynamic disturbance is severely lacking. The marine mammal section of this DEIS does a great job describing potential impacts. In this section, more sources are required. Please add Floeter et al 2017 for information on primary productivity, Schultze et al 2020 for information on stratification, and carpenter et al for more on vertical mixing. Cazenave et al.2016 would add more for additional hydrodynamic effects.	Thank you for your comment. Text within Section 3.5.5.3 relevant to the potential for hydrodynamic disturbance has been added with the suggested literature listed in your comment.
Section 3.5.5.3.1 Page 3-106: Consider moving the Seabed profile alterations and Sediment deposition and burial sections closer to the cable emplacement and maintenance section. These effects are related to the cable emplacement and maintenance IPF and together would provide a more thorough and easy to find assessment.	Thank you for your comment.
Section 3.5.5.3.3 Page 3-106: Please discuss gear utilization in this section, as Atlantic sturgeon may be captured in survey gear such as trawl.	Thank you for your comment. Text within Section 3.5.5.3 relevant to the impacts related to gear utilization has been added.
Section 3.5.5.3.3 Page 3-106: Please include that Atlantic sturgeon prey on small, bottom oriented fish and that these prey items are subject to aforementioned IPFs.	Thank you for your comment. Text within Section 3.5.5.3 relevant to the impacts related to gear utilization impacting the Atlantic sturgeon prey species has been added.
Section 3.5.5.4 Page 3-107: Please add the length of intermarry and offshore export cables to the PDE parameters that would influence the magnitude of impacts	The length of the cable routes has been added to the text in Section 3.3.3.4 of the Final EIS
Section 3.5.5.5.1 Page 3-108: As with a similar prior comment on the SAV survey in Indian River Bay, because water turbidity affected the utility of the image survey, it is inappropriate to conclude that SAV does not exist on site. Although the route through IRB is not supported by NMFS, please note that an SAV survey using appropriate methodology for the existing field conditions is required. We advise you to work with our staff and appropriate representatives from Delaware on the most suitable methods.	Thank you for your comment. Additional SAV surveys may be required by permitting agencies prior to cable installation. SAV surveys may require ground truthing when aerial photography is not suitable.
Section 3.5.5.5.1.1 Page 3-110: Please include a discussion of the potential impacts of re-suspended contaminated sediments found in Indian River Bay (i.e., PAHs, PCBs, nickel, arsenic) on filter feeding invertebrates associated with cable installation and dredging.	Despite the presence of metals in the samples, toxicity to aquatic life from dredging activities due to metals was not expected and the potential toxic impact to humans was considered low based on a comparison of the analytical results with the applicable Delaware Screening Values. Estimated arsenic concentrations exceeded the Delaware chronic toxicity standards for surface water but were within the range of sediment values detected regionally within the Inland Bays.

Comment	Response
Section 3.5.5.5 Page 3-112: Accidental releases -- Regarding this sentence, “These releases, if any, would occur infrequently at discrete locations and vary widely in space and time; as such, BOEM expects localized and temporary negligible impacts on finfish, invertebrates, and EFH resulting from these accidental releases.” This could be said of other types of in-water development, yet these sorts of activities have led to the introduction and establishment of invasive species around the world. Please provide a scientific rationale for this statement that includes relevant scientific citations.	As stated in Section 3.5.5.5, "Vessels are required to adhere to existing state and federal regulations related to ballast and bilge water discharge, including USCG ballast discharge regulations (33 CFR 151.2025) and USEPA National Pollutant Discharge Elimination System (NPDES) Vessel General Permit standards, both of which aim at least in part to prevent the release and movement of invasive species. Adherence to these regulations would reduce the likelihood of discharge of ballast or bilge water contaminated with invasive species."
Section 3.5.5.5.1.1 Page 3-114: Light is an impact producing factor that will be present during the construction phase, not only the operations and maintenance phase, as it is asserted in text. Transiting and working vessels associated with construction would use artificial lighting which is considered an attractant to finfish (Marchesan et al.2005).It should be noted that any light that penetrates the ocean surface could attract fish.	Thank you for your comment. Edits have been made to clarify impacts from lighting in the Final EIS
Section 3.5.5.5 Page 3-114: Cable Emplacement and Maintenance – Regarding the following sentence, please provide a recovery time for sand waves and ridges if stated in the literature. Otherwise, please provide a rationale for the following statement. “These sand-dominated substrates are resilient by nature and are capable of tolerating disturbances because the sediment is regularly disturbed by wave action, nor’easters, offshore storms, and hurricanes (Rutecki et al.2014).”	The recovery times of benthic invertebrates from offshore wind cable emplacement are not yet fully known. Seafloor recovery rates vary with currents, sediment mobility, substrate composition, and type of disturbance. Recovery rates from sand mining projects and similar benthic disturbances show that in general recovery ranges from a few months to years (Boyd et al.2005; Brooks et al.2006; vanDalfsen et al.2000; Coates et al.2015; Kraus and Carter 2018, HDR 2020), with increased rate of sediment infilling strongly correlated to the recovery rate of the number of individuals within the disturbed area (Dernie et al.2003).Recovery rates of these disturbed benthic species depend on the community composition, their lifecycle sensitivity, feeding type, the extent of disturbance, and the nature of the protection material (if used).
Section 3.5.5.5.1.1 Page 3-115: Please include vibratory pile driving in the list of activities associated with the proposed action that could cause underwater noise effects.	US Wind is not proposing the installation of offshore facilities with vibratory pile driving. This activity was considered and included in early versions of the analysis but has subsequently been removed from the proposed action. Therefore, there is no consideration of noise from vibratory pile driving in the proposed action's environmental impact and including vibratory pile driving in a list of offshore construction impact producing factors is unwarranted.
Section 3.5.5.5 Page 3-115: Cable Emplacement and Maintenance – Regarding the following statement, please state whether there is a plan to monitor the recovery for species that take several years to recover. “Past studies following sand mining operations showed that the time scales for recolonization also vary by taxonomic group, with polychaetes and crustaceans recovering in the first several months and deep burrowing mollusks with a long-term recovery within several years.	As part of the regulatory review process, US Wind will be engaging and negotiating with the appropriate federal and state regulatory agencies throughout the life of the Project that may lead to the requirement to develop an adaptive benthic monitoring program.
Section 3.5.5.5 Page 3-115: Cable Emplacement and Maintenance – Please describe the biology of megaripple habitat and the potential impacts to this habitat and the organisms that utilize it	Megaripples were the least widespread benthic feature in the Offshore Project area, confined to the far southeastern corner of the Lease Area. A total of 93 percent of the seafloor slope within the Lease Area and Offshore Export Cable Route is one degree or less.
Section 3.5.5.5 Page 3-115- 3-118: Noise – Please include a discussion of particle motion and substrate vibration in this section.	Particle motion is addressed in Section 3.5.2.5.
Section 3.5.5.5 Page 3-115- 3-118: Noise -- Please include in the discussion the effect of noise on masking auditory communication.	Acoustic masking is addressed in Section 3.5.2.5.
Section 3.5.5.5 Page 3-118: Noise – It is stated that G&G survey equipment would result in a nominal increase in potential sources of noise. Please provide a scientific rationale and citations for this statement.	G&G noise anticipated for the Proposed Action, would use sub-bottom profiling technologies that generate sound waves for shallow penetration of the seabed.
Section 3.5.5.5 Page 3-120: Climate Change: There is abundant scientific literature on this topic. Please provide citations.	Climate change is covered throughout the Final EIS, including Section 3.5.5.3.
Section 3.5.5.5 Page 3-121- 3-122: EMF - Burial at stated depths may mitigate effects of electrical fields but not magnetic fields. As stated on pg.3-48, magnetic fields could elicit behaviors at <50 ft. Therefore burial depths as stated are not protective against magnetic fields. As stated, 10% of the inter-array cables and 10% of the export cabling will require armoring because they cannot be buried. This portion of the cable will emit both electrical and magnetic fields into the environment that may affect finfish and invertebrate species. Please discuss how EMFs could affect movement, migration, and behavior of these species. There have been many papers published since the report published by CSA Ocean Sciences Inc. and t Exponent 2019.Please review the literature and present a complete analysis of EMF impacts.	EMFs are discussed in depth in Section 3.5.5.5 in the Final EIS, with many references provided. Any portion of the cable not buried will be covered by concrete mattresses.US Wind conducted a site-specific study of potential EMF impacts. The modeling study found that the electric field produced would be below the reported detection thresholds for electrosensitive marine organisms (Exponent 2023).

Comment	Response
Section 3.5.5.5 Page 3-121- 3-123: EMF - Please provide a complete citation for “Exponent 2023” in Appendix K. Is this document publicly available?	Thank you for your comment. Citation has been added to Appendix K. The document can be found at - Tethys: Affiliated Marine and Wind Energy Environmental Documents.
Section 3.5.5.5 Page 3-123: Noise – A study about operational noise measured at Block Island Wind Farm (BIWF) is used to support the statement that, “activities would not be expected to exceed the impacts expected under the No Action Alternative…” BIWF turbines are much smaller than the ones proposed for Maryland Offshore Wind. These larger turbines will generate greater operational noise. Therefore, this comparison is not valid. Please provide information on operational noise of turbines that are of a similar size as those proposed for the project.	Text was added to Section 3.5.5.5 to include results from modeling of underwater turbine noise from wind farms in European waters. They found that operational noise from a turbine was at least 10 to 20 decibels less than the levels measured from commercial ships at the same distance (Tougaard et al.2020) and were not able to be separated from areas with high ambient noise levels (Holme et al.2023).
Section 3.5.5.5 Page 3-123: Noise – Please provide an analysis of HRG survey noise.	Only boomers, sparkers, bubble-guns, and some sub-bottom profilers are likely audible to fishes and therefore, unless those sources are considered for use during operations and maintenance, HRG would not be expected to be an impact producing factor.
Section 3.5.5.5 Page 3-123: Noise – Please provide an analysis that includes the effects of sound pressure, particle motion, and substrate vibration.	Thank you for your comment. There is an extensive discussion of sound pressure and particle motion on finfish, invertebrates and EFH in the EFH Assessment.
Section 3.5.5.5 Page 3-123: Noise – Please include in your analysis the effect of noise on masking of auditory communications.	Thank you for your comment. There is an extensive discussion of the effect of noise from various aspects of the Proposed Action on masking of auditory communications on finfish in the EFH Assessment.
Section 3.5.5.5.1.1 Page 3-124: It is important to note that Christiansen et al.2022 has demonstrated that wind wakes and their effects on surrounding hydrodynamic patterns likely extend 10's of km outside the border of wind developments. Please also cite Daewel et al 2022 that showed (via modeling) large scale changes in annual primary production with local changes of up to 10% which occur in the direct vicinity of the OWF clusters and distributed over a wide region.	Thank you for your comment. Edits were made in the Final EIS.
Section 3.5.5.5.1.1 Page 3-124: Please add that the concentration of recreational fishing around the foundations would potentially increase the risk of Atlantic sturgeon entanglement in fishing lines and subsequent injury and mortality due to infection and starvation.	Thank you for your comment. Edits were made in the Final EIS.
Section 3.5.5.5 Page 3-124: Presence of Structures - This section presents an analysis of “mesoscale” hydrodynamic effects or wind wake effects. Please do a comprehensive review of wind wake effects and provide an analysis that includes relevant scientific citations other than the Johnson et al.2021 report. There is a growing body of literature on this topic. Further, a National Academics of Science panel was convened this year to discuss this topic and the output of this panel should be included here.	Thank you for your comment. Edits were made in the Final EIS. The hydrodynamic effects of wind wakes has been updated in Section 3.5.5.3 Future Offshore Wind Activities (without Proposed Action) Presence of Structures.
Section 3.5.5.5 Page 3-124: Presence of Structures – This section notes the benefit of adding hard bottom habitat via the placement of turbine foundations, scour protection, and cable protection for structure-oriented species. Please note that elevated abundance around structures may simply be a spatial reorganization of existing biomass and thus may be a neutral effect. Also, aggregating individuals in this way could make them more vulnerable to recreational fishing which would have an adverse effect on these species. Also, please note that this addition of artificial hard bottom habitat will reduce soft bottom habitat within the project area and this could have an adverse effect on species that utilize soft bottoms.	Thank you for your comment. The issues and impacts outlined in this comment have been addressed in the No Action Alternative Section 3.5.5.3 and extensively in the US Wind EFH assessment.
Section 3.5.5.5 Page 3-124- 3-125: Presence of Structures – The conclusion that the risk is “small” regarding invasive species in the following statement does not recognize that the addition of artificial hard bottom habitat at the scale proposed by the project has never occurred on the Northeast US Continental Shelf before. Please revise this analysis to note the potential for the establishment and range expansion of invasive species into areas where they have never before occurred. Please support the statements and conclusions with scientific citations. “…impacts of invasive species on finfish, invertebrates, and EFH could be strongly adverse, widespread, and permanent if the species were to become established and out compete native fauna or modify habitat. The increase in this risk related to the Proposed Action would be small in comparison to the risk from ongoing activities.”	The text on invasive species has been revised based on the most updated information for offshore waters in Sections 3.5.2.5.and 3.5.5.2 in the Final EIS.
Section 3.5.5.5 Page 3-124- 3-125: Presence of Structures – Please include an analysis of chemical contaminants in this section.	The release of paint and other chemicals is a low-probability event as described in Section 2.3. Text in Section 3.5.5.5 has been updated to reflect the accidental releases described.

Comment	Response
Section 3.5.5.5.1.1 Page 3-125: The text appears to indicate that the placement of hard structures and rock into what is currently a sandy environment will present no greater risk for the introduction of invasive species beyond ongoing activities. As support they point to the establishment of invasive sea squirt at Georges Bank as described in Bullard et al (2007).It should be noted that Bullard explicitly states that sea squirt appear to require hard substrate (or gravel at a minimum) upon which to form a colony ("To date, we have no observations of the species inhabiting exclusively soft-bottom habitats").Therefore the proposed action is likely to substantially increase the risk for invasion beyond ongoing activities. Furthermore, the reference for Bullard et al 2007 is not included in Appendix K. S.G. Bullard, G. Lambert, M.R. Carman, J. Byrnes, R.B. Whitlatch, G. Ruiz, R.J. Miller, L. Harris, P.C. Valentine, J.S. Collie, J. Pederson, D.C. McNaught, A.N. Cohen, R.G. Asch, J. Dijkstra, K. Heinonen. 2007. The colonial ascidian Didemnum sp. A: Current distribution, basic biology and potential threat to marine communities of the northeast and west coasts of North America. Journal of Experimental Marine Biology and Ecology 32(1): 99-108	Thank you for your comment. Section 3.5.5.5. states, "Invasive species becoming established as a result of the additional habitat provided by the structures is possible." and uses references to support the findings of invasives on hard structures. Bullard et al. 2007 has been added to Appendix K.
Section 3.5.5.5.4 Page 3-127: More detail is needed on sturgeon hearing. Please add that Meyer et al. (2010) and Lovell et al. (2005) studied the auditory system morphology and hearing ability of lake sturgeon (Acipenser fulvescens), a species closely related to the Atlantic Sturgeon. The Acipenseridae (sturgeon family) have a well-developed inner ear that is independent of the swim bladder and therefore it appears that sturgeon rely directly on their ears to hear. The results of these studies indicate a generalized hearing range from 50 to approximately 700 Hz, with greatest sensitivity between 100 and 300 Hz. Popper (2005) summarized studies measuring the physiological responses of the ear of European sturgeon (Acipenser sturio). These results suggest sturgeon are likely capable of detecting sounds from below 100 Hz to about 1 kilohertz. Noise impacts may occur due to impact pile driving for WTGs and OSS foundations and effects of exposure that may result in physiological injury and behavior disturbance.	Appendix B provides a background on fish hearing, including the sturgeon. Text in Section 3.5.5.5 has been added regarding sturgeon hearing.
Section 3.5.5.5.4 Page 3-128: Please provide more detail as to how the negligible determination was made for Atlantic Sturgeon. Ocean Wind 1 has a minor to moderate impact stating that "the effects of trawl surveys from Project monitoring activities leading to potential capture or minor injury are anticipated to have minor to moderate impacts on small numbers of ESA-listed Atlantic sturgeon." As we have commented elsewhere, impacts for similar activities should have similar impact conclusions across EISs.	US Wind will not be monitoring utilizing trawl or gill net sampling methodologies where other offshore wind projects like Ocean Wind 1 will be monitoring using these techniques. Because of the differing monitoring methods between Maryland Wind and Ocean Wind 1 the potential capture or minor injury are anticipated to have minor to moderate impacts on small numbers of ESA-listed Atlantic sturgeon in relation to the Operation and Maintenance of the Maryland Wind project.
Section 3.5.5.8.2 Page 3-133: This section mainly just repeats basic information already provided about ESA listed species and does not discuss how negative impacts "could potentially be reduced." Please expand the discussion here to describe this in more detail.	Thank you for your comment. This has been addressed in the Final EIS.
Section 3.5.5.5.4 Page: Please consider adding some discussion on the risk of vessel strike for short nose sturgeon as project vessels make transits to and from Sparrows Point (Chesapeake Bay and Delaware Bay); same applies for Atlantic sturgeon	Thank you for your comment. Vessel strike analysis for short nose sturgeon was added in the biological assessment.
Section 3.5.5 Page Global: A more in-depth discussion of the Cold Pool in the MAB should be provided in the context of offshore wind and the potential to alter oceanographic processes and the biological systems (such as fisheries) that rely on them This section should include a discussion of why this feature is important to many fish species; how processes that establish, maintain, and degrade stratification associated with the Cold Pool through vertical mixing in this seasonally dynamic system may be altered from WTGs (Miles et al.2021); as well as how warming waters may shift fish species into wind energy areas (Nye et al.2009).	The MAB Cold Pool is addressed in Section 3.5.5.1, and the suggested references have been added.

Table O.5-33. NOAA and NMFS – General NEPA

Comment	Response
Section 1.6 Page 1-9: NMFS again requests that Section 1.6 be modified to be consistent with the language and structure that was agreed upon during the review of the Ocean Wind FEIS.NMFS previously provided comments on the Empire Wind and CVOW Cooperating Agency DEISs, Sunrise Wind's PDEIS, and Revolution Wind's DEIS, about various concerns with this section titled, "Methodology for Assessing Impacts from Planned Actions." In each instance, BOEM addressed our concerns by changing that section to what is in the Ocean Wind FEIS, which BOEM has communicated to NMFS is now being utilized as a template for offshore wind EISs.	Section 1.6 has been revised in the Final EIS to be consistent with the Ocean Wind Final EIS.

Comment	Response
Section 3.5.5 Page Global: Please provide detailed descriptions and evaluations of all alternatives. Currently, the Proposed Action has a much more robust description and evaluation than all other alternatives.	Section 2.4 addresses the comparison of alternatives. To avoid repetition of analysis, the other alternatives only describe the difference in impacts compared to the Proposed Action.
Section 3.5.5 Page Global: Please ensure that in addition to impacts of continuing or planned activities in the region, the No Action Alternative section also evaluates the result of not carrying out the Proposed Action. For example, not implementing the Proposed Action would mean adverse impacts from project activities in the Project area would be entirely avoided, and benthic resources would not be disturbed. This should not be considered inherent and should be explicitly stated. Further, please ensure that evaluations of the No Action Alternative are not just for the larger surrounding region (large geographical analysis area), but also evaluate impacts to the localized Project area.	In each resource section of the Final EIS, the No Action Alternative analyzes the current baseline, which includes ongoing offshore wind projects in other leased areas but does not include the Proposed Action. Cumulative impacts are now discussed in a separate subsection in each resource section of the Final EIS.
Section 3.5.5 Page Global: With the exception of the No Action Alternative, please present any impacts discussions that include impacts of all ongoing and planned activities under a separate "Cumulative Impacts" heading (i.e., "all reasonably foreseeable environmental trends in the area"). Keep all other analyses specific to impacts of the Project actions and Project area for that alternative.	Cumulative impacts are now discussed in a separate subsection in each resource section of the Final EIS.
Section A.2 Page A-2: Please change the section title to "Required Environmental Permits and Authorizations". NMFS LOA is an authorization.	Section heading updated.
Section Page Global: Please consider revisiting the July 21, 2023, comments we submitted during the cooperating agency review of the preliminary DEIS. Many of those comments remain valid and should be addressed and incorporated into the FEIS	Previous comments have been reviewed and incorporated as appropriate.
Section Global Page: Please ensure all tables and figures are 508 compliant (e.g., please add Alternative text to figures and images, sub setting columns and rows) before any drafts are released to the public to ensure full public review and participation is possible and so that BOEM and the cooperating agencies may receive all possible comments from members of the public.	All EIS documents are made 508-compliant when released to the public.

Table O.5-34. NOAA and NMFS – Marine Mammals

Comment	Response
MMPA Incidental Take Authorization As you are aware, after independent review and a determination of sufficiency, NMFS intends to adopt BOEM's FEIS for purposes of fulfilling our independent responsibilities under NEPA to inform our decision under the MMPA of whether to issue an incidental take authorization to US Wind allowing the take of marine mammals. To strengthen the analysis directly related to our action for the purposes of adopting the EIS, NMFS provided BOEM substantive edits to the Marine Mammals section of Chapter 3 of the OW1 DEIS. In addition to ensuring the format and structure follow the previously agreed upon approach, and to ensure we can adopt the FEIS, we recommend that the content, technical analysis, and impact determination framework provided on previous FEISs (e.g., OW1, Revolution Wind) be incorporated into the Maryland Wind FEIS. We look forward to working with BOEM to make revisions consistent with the progress made to date with respect to our adoption needs. This includes, but is not limited to, an additional determination on the incremental impacts of the No Action alternative (i.e., not approving the COP) on marine mammals that is comparable to the incremental effect determinations for each alternative and that all incremental impact determinations are included in the FEIS analysis (including the summary table, as this table is applied to the Record of Decision). We recommend BOEM review the determinations across alternatives within the EIS and among EISs to address potential inconsistencies. For example, under the Maryland Wind DEIS Proposed Action alternative, the summary table indicates minor beneficial impacts for odontocetes and pinnipeds while the text indicates negligible to moderate impacts. BOEM should ensure consistency between the summary table and text for all determinations in the Maryland Wind DEIS. In addition, BOEM should review the consistency of determinations for the No Action alternative across similar EISs. For example, under the No Action alternative, the Maryland Wind DEIS states that all marine mammal species would experience minor impacts from ongoing and planned non-offshore wind activities. However, under the No Action Alternative for the Empire Wind FEIS, BOEM indicates negligible to major impacts from ongoing and planned non-offshore wind activities. Where impact determinations for nearly identical "no action" scenarios differ, BOEM should provide a rationale for the variation(s) in the analysis. We recommend further discussions with NMFS OPR prior to publication of the FEIS.	Incremental effect determinations have been added for each alternative in the marine mammals section (Section 3.5.6) in the Final EIS to support NMFS' ability to adopt the Final EIS. Additionally, BOEM reviewed and revised the impact determinations revised in the Final EIS.

Comment	Response
Section 3.5.6 Page Global: Overall comment: There are several cases throughout this section in which the information presented does not align with the proposed action (i.e., number of days of WTG installation, number of days of impact pile driving, maximum number of piles planned to be installed per day, risk of PTS for low-frequency AND high-frequency (harbor porpoises) cetaceans).In particular, on pg.3-203, in the Impacts of Alternative B on ESA-listed Species section, the statement “Additional mitigation measures such as larger clearance or exclusion zones may be implemented, if necessary, during April and November, ” does not align with the proposed action.US Wind has not proposed larger clearance or exclusion zones, especially for NARWs as these zones are any distance. In addition, pile driving is not planned for April or November. Please cross-check the EIS with the COP and correct these inconsistencies.	Section 3.5.6 has been reviewed and all pile driving information has been updated to align with the most recent modeling report, COP, LOA application and take memos, and published ITR.
Section 3.5.6.1 Page 3-135: The largest geographic analysis area (GAA) includes territorial waters of Canada (Figure 3.5.6-1 on page 222). However, no activities in Canadian Waters are listed in Appendix D nor included in the baseline analysis. The GAA boundaries continue to be inconsistent with the identified planned and ongoing activities described in Appendix D. NMFS continues to request that the GAA boundaries and lists of projects, actions, and activities match throughout the document. In this case we request the Canadian Scotian Shelf be removed from the figures/maps and text descriptions of the GAA in the document so that the GAA matches the list of activities in Appendix D.	The Canadian Scotian Shelf LME has been removed from the marine mammal GAA.
Section 3.5.6.1 Page 3-140: US Wind's acoustic exposure modeling generated non-zero acoustic exposure estimates for killer whales, striped dolphins, and rough- toothed dolphins. These species have been added to the proposed take authorization and should be included in the EIS as well. Harp seals are also being added to the proposed take authorization due to an increasing number of harp seal occurrences in coastal Maryland. Please include harp seals, killer whales, striped dolphins, and rough-toothed dolphins in this EIS. The analysis of the Proposed Action should include 19 species (20 stocks).	These species are currently considered "rare" for the Project area and are therefore not carried through for analysis; per typical EIS format, we only carry through common, regular, or uncommon designated species.
Section 3.5.6.1 Page 3-141: Please cite the most recent NMFS stock assessment report for species information, the 2022 final SARs (Hayes et al., 2023).	Reference to the final 2022 SAR (Hayes et al.2023) has been incorporated into the Final EIS.
Section 3.5.6.1 Page 3-145: Please include the most updated numbers of humpback and minke whales to have stranded in the UMEs.	Humpback and minke whale UME numbers have been updated (as of January 5, 2024).
Section 3.5.6.3.1 Page 3-156: In the second paragraph under Cable emplacement and maintenance, the same sentence is written twice. Please take one duplicate sentence out.	This section has been reviewed. The first statement is for impacts from ongoing and planned non-offshore-wind activities, whereas the second statement is for other offshore wind activities. No changes have been made to the Final EIS.
Section 3.5.6.3.2 Page 3-180: Sei whale is also included in the proposed take authorization and should be included in the EIS section Impacts of Alternative A on ESA- listed species as well.	Sei whale occurrence has been reviewed and changed to "uncommon"; the species is included in analyses carried forward.
Section 3.5.6.3.3 Page 3-181: Conclusions for the No Action Alternative: This section should begin with the following statement that is included in the Empire Wind FEIS, Revolution Wind FEIS, and Ocean Wind FEIS: "Impacts of the No Action Alternative. Under the No Action Alternative, BOEM would not approve US Wind’s COP. As such, stressors from construction, operation, and maintenance of the Project would not occur. Baseline conditions of the existing environment would remain unchanged. Therefore, not approving the COP would have no additional incremental effect on marine mammals. Similarly, NMFS’s 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." Please include this statement.	This text has been included in Section 3.5.6.3, *Conclusions for the No Action Alternative.*
Section 3.5.6.3.3 Page 3-181: Please delete or modify the sentence in the first paragraph of the section that starts with "Ongoing activities are expected…" As currently drafted, this determination of "minor impacts" conflicts with the determination stated in the last paragraph of this section for the No Action Alternative.	Section 3.5.6.3 has been re-written, with edits that address this comment.
Section 3.5.6.3.3 Page 3-182: The last sentence of the conclusions section (“Impacts on the NARW would be major….) needs to be reworded to discuss why there are major impacts to NARWs due to ongoing activities. The impacts on NARWs would be major for the No Action Alternative primarily due to ongoing vessel strikes and entanglement. Pile driving noise and presence of structures should not be included as factors causing major impacts (however, it would be appropriate to indicate that the presence of structures may impede foraging due to oceanographic changes).	Section 3.5.6.3 has been re-written, with impacts for NARW stating the following: "BOEM anticipates that the combined impacts of ongoing non-offshore wind and offshore wind activities would be major for NARW due to the current stock status for which serious injury or loss of an individual from vessel strike or entanglement, and the continued stressor of climate change reducing the health and resilience of the population, would result in population-level impacts that threaten the viability of the species."

Comment	Response
Section 3.5.6.3.3 Page 3-182: Clarification is needed for the statement "but populations are expected to recover completely when IPF stressors are removed and remedial or mitigating actions are taken." NMFS interprets this to mean that impacts would be reduced by applying mitigation measures that would only actually apply when taking an action. Given that this is the No Action Alternative, mitigation measures would not be applied. Please edit this to state the impacts without mitigation measures applied. Should this edit result in a change to the impact determination (e.g., moderate changed to major), please make corresponding edits to the cumulative impact determinations for alternatives B, C, D and E.	This statement has been removed from Section 3.5.6.3 and the following alternatives.
Section 3.5.6.5.1.2 Page 3-188: Impact Pile Driving Noise section: The acoustic exposure estimate table is missing from this section in the proposed action section of the EIS. This is a major part of the analysis and needs to be included.	A table with exposure numbers from the LOA has been added to Appendix B of the Final EIS.
Section 3.5.6.5.1.2 Page 3-190: US Wind has also requested take by Level A harassment of harbor porpoises. As harbor porpoises are high frequency cetaceans, this hearing group should also be included in the statement on the last paragraph of this page.	The Final EIS has been updated to include the risk of PTS for HFC per the takes requested by the Applicant's LOA Application
Section 3.5.6.5.4 Page 3-203: The following statement “Vessel noise is known to increase stress hormone levels in NARW, which may contribute to suppressed immunity and reduced reproductive rates and fecundity (Hatch et al.2012; Rolland et al.2012)” suggests that the vessels associated with the project would "suppress immunity" and lead to "reduced reproductive rates and fecundity." There is no impact analysis associated with this statement. Although not described in the EIS, this is suggesting major impacts to NARWs from the project. Is BOEM suggesting major impacts to NARWs from vessels associated with the project? If so, it would be difficult for NMFS to make a negligible impact determination. This paragraph needs to be rewritten to provide an analysis of vessels associated with the project on NARWs and presented in context with the vessels associated with the project. In addition as stated elsewhere, this analysis should reflect the resulting determination of incremental impacts on NARWs.	Text has been updated to include an impact determination as follows: "Vessel noise is known to increase stress hormone levels in NARW, which may contribute to suppressed immunity and reduced reproductive rates and fecundity (Hatch et al.2012; Rolland et al.2012).Masking may also be a significant issue for this species as modeling results indicate vessel noise could substantially reduce communication distances for NARWs (Hatch et al.2012).However, there is still a lack of understanding of the biological consequences of these behavioral disturbances and how they would affect the viability of given populations. Overall, as discussed in Section 3.5.6.5, construction vessels under the Proposed Action construction vessels would only be present for a relatively short period, and vessel traffic during the O&M phase of the Proposed Action is expected to be infrequent and limited to the use of smaller vessels which would limit the level of noise produced during the maintenance trips and geophysical surveys. Additionally, Project vessels would adhere to speed restrictions which are aimed to reduce the risk of vessel strike (see Traffic IPF below), but reduced vessel speeds have been shown to reduce the noise level produced by these vessels (ZoBell et al.2021).With the addition of other vessel strike mitigation such as minimum separation distances (Appendix G, Mitigation and Monitoring) that would be expected to reduce exposure of ESA-listed marine mammals to above-threshold noise and because the extent of Project vessel traffic would result in a nominal increase in vessels compared to the existing traffic (Section 3.5.6.3), BOEM anticipates impacts on ESA-listed marine mammals from Project construction vessel noise to be minor as effects would be detectable, but short term, localized, and not expected to lead to population-level effects."
Section 3.5.6.5.5 Page 3-204: The Conclusion section for the Proposed Action Alternative suggests major impacts to NARWs from the Project, which would make it difficult for NMFS to make a negligible impact determination. This entire proposed action impact analysis needs to be rewritten to reflect BOEM's interpretation of impacts of the proposed action on marine mammals.	Incremental effect determinations for each alternative have been edited and addressed within the Final EIS.
Section 3.5.6.5.5 Page 3-204: As described for the executive summary table, please be consistent with describing impacts as a range or with one impact determination. Why are overall impacts provided for the cumulative impacts determination and a range of impacts provided for the baseline/ongoing determination? These should be consistent; there should be a range or overall impact determination for each.	The overall impact determinations presented in the summary tables are consistent with those presented in the text for each resource area in the Final EIS.
Section 3.5.6.5.5 Page 3-204: Please delete or modify this statement: "but marine mammals are expected to recover completely when IPF stressors are removed and remedial or mitigating actions are taken”. As currently drafted, this statement is only tied to the cumulative impacts-- it needs to be tied to the individual action impact and not the baseline impacts. It also suggests IPF stressors will be removed independent of remedial or mitigating actions, which is likely inaccurate. If modification or deletion of this statement alters the cumulative impact determinations, please revise them accordingly.	This statement has been revised accordingly. It now reads, "BOEM made this determination because the anticipated impact would be notable and measurable, but the viability of populations would not be affected, except for the NARW, as population level impacts cannot be ruled out."
Section 3.5.6.7.1.1 Page 3-206: Please delete or modify this statement: "but marine mammals are expected to recover completely when IPF stressors are removed and remedial or mitigating actions are taken”. As currently drafted, this statement is only tied to the cumulative impacts-- it needs to be tied to the individual action impact and not the baseline impacts. It also suggests IPF stressors will be removed independent of remedial or mitigating actions, which is likely inaccurate. If modification or deletion of this statement alters the cumulative impact determinations, please revise them accordingly.	This statement has been revised accordingly. It now reads, "...but the viability of populations would not be affected, except for the NARW."

Comment	Response
Section 3.5.6.8 Page 3-207: It is unclear what impacts are being described in the first full paragraph on this page. Please clarify if these determinations are describing incremental, baseline/ongoing, or cumulative impacts.	Incremental effect determinations for each alternative have been edited and addressed within the Final EIS.
Section 3.5.6.8 Page 3-207: Please delete or modify this statement: "but marine mammals are expected to recover completely when IPF stressors are removed and remedial or mitigating actions are taken". As currently drafted, this statement is only tied to the cumulative impacts-- it needs to be tied to the individual action impact and not the baseline impacts. It also suggests IPF stressors will be removed independent of remedial or mitigating actions, which is likely inaccurate. If modification or deletion of this statement alters the cumulative impact determinations, please revise them accordingly.	This statement has been revised accordingly. It now reads, "...but the viability of populations would not be affected, except for the NARW."
Section 3.5.6 Page Global: The incremental impact determinations are missing for all alternatives in the text. These must be included in the EIS.	Incremental effect determinations for each alternative have been edited and addressed within the Final EIS.
Section 3.5.6 Page Global: With the exception of the No Action Alternative, please present any impacts discussions that include impacts of all ongoing and planned activities under a separate "Cumulative Impacts" heading (i.e. "all reasonably foreseeable environmental trends in the area"). Keep all other analyses specific to impacts of the Project actions and Project area for that alternative.	Thank you for your comment, cumulative impacts are now discussed in a separate subsection.

Table O.5-35. NOAA and NMFS – Mitigation and Monitoring

Comment	Response
Mitigation measures - We recommend the FEIS analyze and describe: • The anticipated impacts of the Proposed Action, including mitigation measures considered to be part of that action; • The effectiveness of these measures; • The expected impacts if additional mitigation methods are applied; and, • The likelihood that such measures will be required and implemented. This structure is important to clarify the final impact determinations but is not applied to the DEIS. For example, the DEIS lists proposed mitigation measures for impacts to benthic resources and references additional measures listed in a table in an appendix. However, there is no analysis or discussion of how the impacts might be mitigated by the application of these measures. While Appendix G lists possible additional mitigation measures, not all of these measures are analyzed in the DEIS. The DEIS 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, the document makes assumptions about the success of mitigation measures despite a lack of evidence or adequate detail regarding specific mitigation measures (e.g., fisheries and resource survey impact mitigation).	US Wind's committed mitigation measures are outlined in the COP and analyzed as part of the Proposed Action, and as such contribute to the impact level conclusions. BOEM evaluates proposed mitigation measures for each resource in Section 3 and describes whether implementation of the measure would result in reduced impacts. Specifics on the implementation of proposed mitigation measures are found in Appendix G, which has been updated with additional details based on public comments on the Draft EIS, and consultations.
Section G.1 Page G-12: G-1. Surveys for sensitive marine habitats should be conducted during the appropriate seasons and times following best practices (i.e. SAV surveys in Indian River done at times of maximum potential growth and low turbidity (May/June for Zostera, September for Ruppia).	This request to update the Lessee-proposed mitigation measure was not made, since it is not in the COP. Additional mitigation and monitoring measures are being considered by BOEM, and mitigation measures are required through consultation with cooperating agencies.

Comment	Response
Section G.1 Page G-31: Comment from NOAA Integrated Ocean Observing System Program Office.G-2."Other potential mitigation and monitoring measures analyzed". Updated language for NOAA IOOS oceanographic HF-radar wind turbine interference mitigation has been developed by the IOOS Surface Currents Program in consultation with NOAA's Office of General Counsel and provided to BOEM's Andrew McGuffin and team. This table needs to be updated to reflect this new language. Accordingly, in Row 1, Column 4 on p.G-31 in Table G-2, replace the contents of the "Mitigation and Monitoring Measures" cell with the following: US Wind will enter into a mitigation agreement with NOAA, to mitigate operational impacts on oceanographic high-frequency radars, including the following measures: 1.High-Frequency Radar Interference Analysis and Mitigation US Wind's Project has the potential to interfere with oceanographic high-frequency (HF) radar systems in the U.S. Integrated Ocean Observing System (IOOS®), which is managed by the IOOS Office within the National Oceanic and Atmospheric Administration (NOAA) pursuant to the Integrated Coastal and Ocean Observation System Act of 2009 (Pub.L.No.111-11), as amended by the Coordinated Ocean Observation and Research Act of 2020 (Pub.L.No.116-271, Title I), codified at 33 U.S.C.3601–3610 (referred to herein as "IOOS HF-radar").IOOS HF-radar measures the sea state, including ocean surface current velocity and waves in near real time. These data have many vital uses ("mission objectives"), including tracking and predicting the movement of spills of hazardous materials or other pollutants, monitoring water quality, and predicting sea state for safe marine navigation. The U.S. Coast Guard also integrates IOOS HF-radar data into its Search and Rescue systems.US Wind's Project is within the measurement range of: 1 IOOS HF-radar SeaSonde® system operated by the University of Delaware in Cape Henlopen, DE; 2 IOOS HF-radar SeaSonde systems operated by Old Dominion University in Assateague Island, MD and Cedar Island, VA; and 6 IOOS HF-radar SeaSonde systems operated by Rutgers University in Brigantine, Cape May Point, Love ladies, North Wildwood, Strathmere, and Wildwood, NJ. 1.1. Mitigation Requirement Due to the potential interference with IOOS HF-radar and the risk to public health, safety, and the environment, US Wind must mitigate unacceptable interference with IOOS HF-radar from US Wind's Project. Interference must be mitigated before commissioning the first WTG or blades start spinning, whichever is earlier, and interference mitigation must continue throughout operations and decommissioning until the point of decommissioning where all rotor blades are removed. Interference is considered unacceptable if, as determined by BOEM in consultation with NOAA's IOOS Office, IOOS HF-radar performance falls or may fall outside any of the specific radar systems' operational parameters or fails or may fail to meet IOOS's mission objectives. 1.2. Mitigation Review US Wind must submit to BOEM documentation demonstrating how it will mitigate unacceptable interference with IOOS HF-radar systems in accordance with the Mitigation Requirement.US Wind must submit this documentation to BOEM (renewable_reporting@boem.gov) at least 120 days prior to commissioning the first WTG or blades start spinning, whichever is earlier. If, after consultation with the NOAA IOOS Office, BOEM deems the mitigation acceptable, US Wind must conduct activities in accordance with the proposed mitigations. If, after consultation with NOAA IOOS Office, BOEM deems the mitigation unacceptable, US Wind must resolve all comments on the documentation to BOEM's satisfaction.	Text has been updated in Appendix G.

Comment	Response
Section Page: 1.3 Mitigation Agreement US Wind is encouraged to enter into an agreement with the NOAA IOOS Office to implement mitigation measures, and any such Mitigation Agreement may satisfy the requirement to mitigate unacceptable interference with IOOS HF-radar. The point of contact for the development of a Mitigation Agreement with the NOAA IOOS Office is the Surface Currents Program Manager, whose contact information is available at https://ioos.noaa.gov/about/meet-the-ioos-program-office/ and upon request from BOEM. If the parties reach a mitigation agreement, US Wind must submit it to BOEM at renewable_reporting@boem.gov.US Wind may satisfy its obligations under Section 1.2 by providing BOEM with an executed Mitigation Agreement between US Wind and NOAA IOOS. If there is any discrepancy between Section 1.2 and the terms of a Mitigation Agreement, the terms of the Mitigation Agreement will prevail. 1.4 Mitigation Data Requirements. Mitigation required under Section 1.2 must address the following: 1.4.1 Before commissioning the first WTG or blades start spinning, whichever is earlier, and continuing throughout the life of US Wind's Project until the point of decommissioning when all rotor blades are removed, US Wind must make publicly available via NOAA IOOS near real-time, accurate numerical telemetry of surface current velocity, wave height, wave period, wave direction, and other oceanographic data measured at US Wind's Project locations selected by US Wind in coordination with the NOAA IOOS Office. 1.4.2 If requested by the NOAA IOOS Office, US Wind must share with IOOS accurate numerical time-series data of blade rotation rates, nacelle bearing angles, and other information about the operational state of each WTG in US Wind's Project to aid interference mitigation. 1.5 Additional Notification and Mitigation 1.5.1 If at any time the NOAA IOOS Office or an HF-radar operator informs US Wind that US Wind's Project will cause unacceptable interference to an HF-radar system, US Wind must notify BOEM of the determination and propose new or modified mitigation pursuant to Section 1.5.2 as soon as possible and no later than 30 days from the date on which the determination was communicated. 1.5.2 If a mitigation measures other than that identified in Section 1.2 is proposed, then US Wind must submit information on the proposed mitigation measure to BOEM for its review and concurrence. If, after consultation with the NOAA IOOS Office, BOEM deems the mitigation acceptable, US Wind must conduct activities in accordance with the proposed mitigations.US Wind must resolve all comments on the documentation to BOEM's satisfaction, in consultation with the NOAA IOOS Office, prior to implementation of the mitigation.	Text has been updated in Appendix G.
Section G.1 Page G-32: G-1.For vessel transits in New England (ME, MA, RI, CT) and Long Island waters, the trained lookout will monitor https://seaturtlesightings.org/ prior to each trip and report any observations of sea turtles in the vicinity of the planned transit to all vessel operators/captains and lookouts on duty that day as an aid to situational awareness. https://seaturtlesightings.org/ should not be considered indicative of the magnitude of sea turtle presence or absence of sea turtles given sightings are opportunistic and voluntarily reported.	Measure has been added to Appendix G.

Table O.5-36. NOAA and NMFS – Navigation and Vessel Traffic

Comment	Response
Section 3.6.6.5 Page 3-379 to 3-391: Comment from the NOAA Office of Coast Survey. Chapter 3 of the DEIS identifies the need for cable protection due to crossings and sea floor conditions and contemplates use of either concrete mattresses or rock placement. For either method, what is the potential impact to vessel navigation? How high off the sea floor will cable protection be (e.g., would the rock pile be 6 feet tall? 15 feet tall?)? Do any of the anticipated cable protection areas transect or overlay with shipping lanes?	Section 3.6.6.5. of the Final EIS describes the impacts of cable protection on navigation and vessel traffic. Specifically, see the impact producing factor discussions for Anchoring and the Presence of Structures. The proposed offshore export cable route would not intersect the Delaware Bay Traffic Separation Scheme lanes.

Table O.5-37. NOAA and NMFS – Other Uses

Comment	Response
Section 3.6.7.3.1 Page 3-403: The text states that mitigation and monitoring measures would likely be consistent with the joint NMFS/BOEM Final Survey Mitigation Strategy. Please remove the word likely.	Text removed in Section 3.6.7.3, *Future Offshore Wind Activities (without Proposed Action)*.

Comment	Response
Section 3.6.7.5 Page 3-409, 3-314: This analysis should include a discussion on all 4 mechanisms of survey impacts as stated in Hare et al.2022.These include 1) Preclusion of survey platforms; 2) Change in statistical survey design; 3) Habitat change leading to changes in variance structure of monitored populations; and 4) Change in survey time and cost due to the need to navigate around the wind project area.	Text added to Section 3.6.7.5. *Offshore and Inshore Activities and Facilities,* to include additional analysis of the four mechanisms of survey impacts.
Section 3.6.7.5 Page 3-409, 3-314: Please state that addressing the impacts to scientific surveys will require advancing the principles laid out in the BOEM/NMFS Survey Mitigation Strategy (Hare et al.2022).	Text added to Section 3.6.7.5, *Offshore and Inshore Activities and Facilities,* to include text specified in comment.
Section 3.6.7.3.1 Page Global: The DEIS concludes that major impacts are expected for scientific research and surveys, particularly for NOAA surveys supporting commercial fisheries and protected-species research programs. To reduce impacts to our scientific surveys and consistent with our collaborative efforts to date, we strongly recommend BOEM insert the NMFS/BOEM Final Survey Mitigation Strategy for the Northeast U.S. Region described in text as a mitigation measure in Appendix G. Both project-specific survey mitigation as well as cumulative effects of not being able to conduct long standing surveys need to be addressed.	US Wind has committed to work with federal agencies on survey mitigation efforts, including sponsoring efforts to examine statistical analyses, how to incorporate existing methodologies (e.g., Northeast Monitoring and Assessment Program protocols), and other data analysis and integration tools. Currently, the Lessee has provided a number of baseline surveys to address fisheries resources including Essential Fish Habitat, fish species, as well as invertebrate studies. The Essential Fish Habitat and Protected Fish Species Assessment (appendix E of the COP) identifies EFH, species and habit areas of special concern and threatened or endangered fish species in the Offshore Project Area. The NEPA process allows for the full evaluation of potential impacts to these resources from the proposed action as well as alternatives considered in the EIS. In addition, the EIS considers potential cumulative activities in the region and their timing.

Table O.5-38. NOAA and NMFS – Planned Activities Scenario

Comment	Response
Section Appendix D Page Global: The largest geographic analysis area (GAA) includes territorial waters of Canada (Figure 3.5.6-1 on page 222). However, no activities in Canadian Waters are listed in Appendix D nor included in the baseline analysis. The GAA boundaries continue to be inconsistent with the identified planned and ongoing activities described in Appendix D. NMFS continues to request that the GAA boundaries and lists of projects, actions, and activities match throughout the document. In this case we request the Canadian Scotian Shelf be removed from the figures/maps and text descriptions of the GAA in the document so that the GAA matches the list of activities in Appendix D.	The Canadian Scotian Shelf has been removed from the figures/maps and text descriptions of the GAA in the Final EIS.
Section Appendix D Page Global: Please update this appendix with the latest data that BOEM has utilized in recent Eiss. Currently a majority of the data points listed for each activity category are located exclusively in Maryland and Delaware. Only two projects are listed for Georgia and Florida. Please provide a complete and accurate analysis of all ongoing and planned activities within BOEM's determined GAA's in order for the baseline analysis to be reasonable and accurate.	Appendix D, offshore wind activities, has been updated.

Table O.5-39. NOAA and NMFS – Project Design Envelope

Comment	Response
Section ES.1 Page ES-3: Comment from NOAA National Weather Service - National Data Buoy Center Figure ES-1.Please note there is a National Data Buoy Center buoy (44009 Delaware Bay) located approximately 3.5nm from the NNE of the lease area. There is a potential for the proposed infrastructure in the lease area to interact with the buoy (and trailing mooring remnant) if the buoy's mooring was to fail.	To keep the figures clean and concise, the data buoy was not added.

Table O.5-40. NOAA and NMFS – Purpose and Need

Comment	Response
Section ES.2 Page ES-2: Please change the (2) term from "in shared goals of the federal agencies" to "the goals of the administration".	Text has been updated per comment request.

Comment	Response
Section 1.4 Page 1-8: 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.”). Please briefly describe the content of each of the documents referenced in this section.	Text has been added to summarize the references.
Additionally, the Purpose and Need statement indicates that the project’s “full build-out” comprises as many as 121 wind turbine generators (WTG); however, Section 2.1.2 indicates that the Proposed Action includes only 114 WTG due to a 1-nautical mile setback from the traffic separation scheme (TSS) from Delaware Bay, an overlap with which makes the full build out scenario infeasible. While the Proposed Action includes up to 114 WTGs, the analysis in the DEIS still includes impacts of up to 121 WTG. This discrepancy should be resolved in the FEIS; we note that, consistent with 43 CFR 46.420(b), analyses should only occur for reasonable alternatives which are technically feasible.	For consistency with the COP, the EIS impact assessments are based on the PDE of 121.

Table O.5-41. NOAA and NMFS – Sea Turtles

Comment	Response
Section 3.5.7 Page Global: With the exception of the No Action Alternative, please present any impacts discussions that include impacts of all ongoing and planned activities under a separate "Cumulative Impacts" heading (i.e. "all reasonably foreseeable environmental trends in the area"). Keep all other analyses specific to impacts of the Project actions and Project area for that alternative.	Thank you for your comment, cumulative impacts are now discussed in a separate subsection.
Section 3.5.7 Page Global: It would be beneficial to discuss each Alternative separately instead of grouping Alternatives C, D, and E together for analysis on impacts to Sea Turtles.	Thank you for your comment, it has been considered, however, to avoid repetition, the discussion remains grouped.

O.5.1.4. National Park Services

Responses to Comments from National Park Services

Table O.5-42. NPS – Cultural Resources

Comment	Response
[1] **DEIS** Section 3.6.8 Recreation and Tourism and DEIS Section 3.6.8.1.3 Onshore, Inshore and Offshore Recreation There is no mention of Assateague Island National Seashore nor the Wilderness in these sections. It should be included as it is within the geographic analysis area. NPS manages Assateague National Seashore (NS), a unit of the National Park System in the US Wind Project area and provided the following for incorporation into the DEIS. We believe this information should be added to the final EIS. Assateague Island National Seashore (NS) Assateague Island consists of three major public areas, including Assateague Island National Seashore, a unit of the National Park System and managed by the NPS, Chincoteague National Wildlife Refuge, managed by the U.S. Fish and Wildlife Service, and Assateague State Park, managed by the State of Maryland. Congress established Assateague Island National Seashore in 1965 and further instructed the NPS in 1976 "to preserve the outstanding Mid-Atlantic coastal resources of Assateague Island and its adjacent waters and the natural processes upon which they depend and to provide high quality resource-compatible recreational opportunities." (Pub.L.89–195). In addition, approximately 6,500 acres of Assateague Island (Maryland and Virginia) have also been determined to be suitable for federal wilderness designation. About 5,200 acres of those lands are managed by the NPS in Maryland. Section 6.3.1 of the 2006 NPS Management Policies guide the protection of the wilderness values of this specially designated area, which includes natural views and visual resources. At present, the view from the ocean beach of the proposed Assateague Island Wilderness is lacking in human constructs or unnatural features, either by day or night. Overall, the visual resources of Assateague Island possess a high degree of integrity. With the exception of a very small portion of the viewshed visible from the northern portion of the island where conditions are altered by the presence of the Town of Ocean City, Maryland, the remaining seascape visible from Assateague Island is entirely natural and constitutes a high-value scenic resource. As such, the Natural Coastal Environment which includes the beaches, scenic landscape, and qualities of wilderness character, are considered Fundamental Resources of the Seashore. Recreational Use at Assateague Island NS Approximately 2.7 million people visit the Assateague Island NS annually. They come to relax on the beaches, surf, enjoy the overland vehicle zone, search for seashells, witness the amazing diversity of birds along the Atlantic Flyway, canoe and kayak, fish, crab, clam, and hunt. Among the seashore's many natural and recreational attractions, it is also famous for other unique wildlife viewing, including the wild horse herd in Maryland and the separate Virginia herd managed by the "salt water cowboys" of Chincoteague. Access by road is only to a small part of the island. The rest of the island is accessible only by boat or by foot and about 1/3 of the island is designated proposed or potential wilderness, one of the few proposed wildernesses in the mid-Atlantic states. The Park's enabling legislation and general management plan emphasize preserving and protecting the natural processes that shape barrier island geology and ecology and make barrier island unique. [2] **Furthermore**, the former Assateague Beach Coast Guard Station located at the extreme southern end of Assateague Island, Virginia is an historic resource determined eligible for the National Register of Historic Places based upon the significance of its historic architecture and cultural landscape. Existing features that contribute to the national significance of the Station's cultural landscape include views of the Atlantic Ocean from the perspective of the Station, including the Lookout Tower. At present, these ocean facing views and vistas are free from human impairments. [3] **DEIS** Figure 3.6.8-1 Recreation and Tourism Geographic Analysis Area Map. Please show and label Assateague Island National Seashore on this map.	1] Final EIS Section 3.6.8.1 has been revised to include additional information on Assateague Island and Assateague Island National Seashore. As stated in Section 3.6.9 and described in greater detail in Final EIS Appendix H, BOEM found that the Project would have major impacts on seascape/landscape areas and viewpoints within Assateague Island National Seashore. BOEM notes that the closest WTG position is approximately 18.5 statute miles from KOP 3 (Assateague Island National Seashore) and approximately 17.5 miles from the closest federally managed location within the National Seashore. [2] The Assateague Beach Coast Guard Station was identified as an historic property within the visual APE, as described in the HRVEA. The station was determined to have limited visibility of the Project due to its distance from the Project components; the station falls within the 30-43 radial distance at the outer edge of the visual APE. Please see Attachment I3-8, Historic Properties in PAPE Maritime Setting and Analysis and the figures provided in the HRVEA. [3] Delaware Seashore State Park and Assateague Island National Seashore labels have been added to the relevant figure in Section 3.6.8 Recreation and Tourism GAA in the Final EIS.

Table O.5-43. NPS – Land Use and Coastal Infrastructure

Comment	Response
DEIS Section 3.6.5 Land Use and Coastal Infrastructure There is no mention of Land and Water Conservation Fund (LWCF) sites. There are a number of LWCF state and local assistance sites along the coast in the US Wind Project area. It appears that US Wind plans to connect their offshore power cable in a LWCF site. BOEM, NPS and the state of Delaware have had discussions to continue the process of identifying whether a conversion would take place. These discussions will continue, but at minimum, the proposal to connect the offshore power in a LWCF site and the efforts to resolve whether a conversion would take place, should be disclosed in the EIS. NPS provides the following information that may be useful in the preparation of the final EIS. The Land and Water Conservation Fund (LWCF) State Assistance Program was established by the LWCF Act of 1965 (Public Law 88-578) and is enacted as positive law at 54 U.S.C.§ 2003 et seq. The purposes of the LWCF Act are to assist in preserving, developing, and assuring accessibility to outdoor recreation resources for all citizens and visitors in the United States. The LWCF provides matching grants to States and through States to local governments and federally recognized tribal governments for acquisition and development of public outdoor recreation areas and facilities. To date, LWCF matching grants have funded projects in every county in the country, over 40,000 projects since 1965, representing $5.1 billion in investments in local communities to create state and local public outdoor recreation facilities. In addition to providing financial assistance, a permanent legacy of outdoor recreation resources is established under LWCF grants. Any property acquired and/or developed cannot not be wholly or partly converted to other than public outdoor recreation uses without the approval of NPS pursuant to the LWCF Act (54 U.S.C.§ 200305(f)(3)) and implementing regulations (36 C.F.R.§ 59.3).The conversion provisions of the LWCF Act, regulations, and guidelines in the LWCF Program Manual (U.S. Department of the Interior, National Park Service Land and Water Conservation Fund State Assistance Program, Federal Financial Assistance Manual, Volume 71, 2021) apply to each area or facility for which LWCF assistance is obtained, regardless of the extent of participation of the program in the assisted area or facility and consistent with the contractual agreement between NPS and the State (Grant Agreement).	BOEM has reviewed the project information available on the Land and Water Conservation Fund online map and identified past LWCF projects within the Delaware Seashore State Park (The Land and Water Conservation Fund) The information provided by the National Park Service and through the LWCF website has been added to Sections 3.6.8.1.3 and 3.6.8.5.

Table O.5-44. NPS – Mitigation and Monitoring

Comment	Response
Appendix G Mitigation and Monitoring As noted in the PDEIS review, NPS requests a copy of the Oil Spill Response Plan to ensure that the NPS and specifically Assateague Island National Seashore is appropriately included. NPS requests the opportunity to review and provide edits to the developer and BOEM for this critical element of future operations of the US Wind projects. Additionally, in Appendix G on page G-18, figure G-1, the text currently reads" The Project will minimize aviation lighting impacts, such as aiming lighting upward and using the longest permissible off cycles, in consultation with the FAA and BOEM." Please revise to read "The Project will minimize aviation lighting impacts, such as aiming lighting downward and using the longest permissible off cycles, in consultation with the FAA and BOEM."	Text has been updated in Appendix G.

Table O.5-45. NPS – Visual Resources

Comment	Response
Appendix H Cumulative Seascape, Landscape, and Visual Impact Assessment (SLVIA) NPS appreciates the opportunity to review Appendix H. Now that it is complete, NPS requests a meeting with BOEM, the developer and NPS staff to discuss visual and recreational impacts and what might be done to lessen such impacts to the recreational and visitor experience at Assateague Island National Seashore. As noted in earlier comment submissions, preserving the visual landscape is one of the most important values associated with coastal national parks. At Assateague Island NS, a natural ocean seascape is vital to the character of the proposed Assateague Island Wilderness, the cultural landscape associated with the historic Assateague Beach Coast Guard Station, and to the overall purpose of Assateague Island National Seashore. The "Natural Coastal Environment" is considered a Fundamental Resource according to the Assateague Island NS Foundation Document. The Natural Coastal Environment was defined as "including natural and scenic landscape features and qualities of wilderness character." More than 75% of visitors to Assateague surveyed in 2006 identified scenic views as a key component of their experience and one of the important reasons for visiting the Park (Eppley, 2007). The presence of offshore wind towers or other associated facilities within the ocean viewshed visible from the beaches of Assateague Island would alter existing conditions and likely detract from the desired experience of millions of Park visitors. Based upon the quality, integrity and significance of existing visual resources and their importance to the desired visitor experience, the NPS is concerned that development of the US Wind projects, at their closest point just over 10 miles away, and within the ocean viewshed of Assateague Island, may significantly harm the values and purpose of the National Seashore.	Thank you for your comment, your meeting request is noted. As stated in Section 3.6.9 and described in greater detail in Appendix H of the Final EIS, BOEM found that the Project would have major impacts on seascape/landscape areas and viewpoints within Assateague Island National Seashore. BOEM notes that the closest WTG position is approximately 18.5 statute miles from to KOP 3 (Assateague Island National Seashore) and approximately 17.5 miles from the closest federally managed location within the National Seashore.

O.5.2 Cooperating State Agencies

O.5.2.1. Delaware Department of Natural Resources and Environmental Control

Table O.5-46. Responses to Comments from Delaware Department of Natural Resources

NEPA or Resource Topic	Comment	Response
Alternatives - General	BOEM should consider combining alternatives to minimize impacts. DNREC supports the minimization of impacts to habitats and species of ecological, recreational, and commercial importance. There does not seem to be an adequate amount of data to substantiate some claims of negligible to minor impacts on affected areas.	The action alternatives analyzed in this EIS are not mutually exclusive; BOEM may select a combination of alternatives that meet the purpose and need. BOEM's obligation under NEPA is to use the best available science to analyze the impacts of the Proposed Action and alternatives; provide for public disclosure of assessed impacts and opportunities for public review and comment; and analyze mitigation measures that will avoid, minimize, or mitigate impacts, where appropriate. This Final EIS includes sufficient analysis to support impact level conclusions.
Alternative A - No Action	Alternative A: The geographic scope for considering future activities seems too broad for consideration as the analysis for the No Action Alternative included other future proposed wind development projects, which have not been approved to date. Including the evaluation of future wind development would be more appropriate for discussion in the analysis addressing cumulative impacts. DNREC recommends differentiating the No Action Alternative from the cumulative impacts resulting from overall wind energy development so that the No Action Alternative can function as the current baseline. Otherwise, including the future proposed development adds unnecessary speculation and does not adequately assess if this project is considering the current uses.	The No Action Alternative analyzes the current baseline, which includes ongoing offshore wind projects in the GAA. Cumulative impacts of the No Action Alternative are analyzed separately in the Final EIS.
Alternative B - Proposed Action	Alternative B (Proposed Action): The Indian River Bay, one of Delaware's inland bays, is designated as a water of exceptional recreational or ecological significance (ERES). As an ERES designated water, the Indian River Bay warrants protection and enhancement as described in Delaware Surface Water Quality Standards.1 DNREC is concerned about the impacts to the Indian River Bay	Thank you for your comment. The Final EIS has included additional information on the impacts of proposed activities associated with the Proposed Action (Alternative B) to resources within Indian River Bay.

NEPA or Resource Topic	Comment	Response
Alternative C - Landfall and Onshore Export Cable Routes	Alternative C: DNREC recommends that BOEM conduct a more detailed comparative analysis among the alternatives, including an analysis of the specific resource for which the alternative was to address. DNREC requests a comparative table quantifying impacts to resources by alternative that specifically evaluates the impacts from the point of landfall to the Indian River Substation.	As noted in Section 1.5 of the Final EIS, this Final EIS assesses the impacts of the PDE described in the COP (US Wind 2024) and presented in Appendix C, Project Design Envelope and Maximum-Case Scenario, by using the "maximum-case scenario" process. The maximum-case scenario is composed of each design parameter or combination of parameters that would result in the greatest impact for resource. BOEM uses the best available information at the time of the analysis and makes reasonable assumptions, described in the EIS where relevant, to analyze impacts. Quantitative comparisons are provided where possible in additional to the qualitative comparison of impacts among alternatives.
Alternative D - Reduce Visual Impact	Alternative D: This alternative seeks to address concerns regarding viewshed while meeting energy needs via current procurement in this lease area. DNREC requests clarification on the impacts of Coast Guard lighting as it relates to Alternative D versus Alternative B. Specifically, more information is requested regarding the activation of the lighting (i.e., will the lights only be activated when vessels are passing by wind turbines similar to the proposed lighting for aviation) as well as more detailed information regarding the visibility of this lighting from the shore.	As stated in Section 3.6.9 and in multiple other locations throughout the Final EIS, the Project has committed to voluntarily implementing an Aircraft Detection Lighting System (ADLS) that only activates aviation hazard lighting when aircraft approach the wind farm. This was estimated to occur during approximately 0.1 percent of annual nighttime hours.
Benthic Resources	The navigation channel within Indian River Bay has not been dredged since 1980.Other smaller dredging projects have occurred within the watershed, but none are comparable to the proposed dredging for this project. DNREC has concerns about impacts to hard clam populations from proposed cable routes in the Indian River Bay. While the DEIS references Dernie et al. and states that benthic communities quickly recover, benthic community recovery is variable depending on sediment, level of disturbance, time of year of disturbance, availability of larvae for recruitment, etc. It is important to note that clam densities have been stable in Indian River Bay with no indication of population decline. Increased turbidity from sediment disturbance will impact the population. The DEIS also states that the cable route within the Indian River Bay would occur in an area where hard clam landings are not likely to occur. However, the concern is not just for hard clam landings, but also for hard clam distribution and reproduction. DNREC recommends that the inshore cable route is sited to avoid shellfish aquaculture development areas in the bay and to consider areas for future expansion of shellfish aquaculture. If the route is not adjusted, shellfish aquaculture activities may later (if there is expansion of shellfish aquaculture to these available Shellfish Aquaculture Development Areas) impact the buried cable. The Shellfish Aquaculture Development Area boundary is set in Delaware regulation 7 Del Admin.C.3801.(https://regulations.delaware.gov/AdminCode/title7/3000/3800/3801.pdf)	Thank you for your comment. Text has been added to Chapter 2, Section 2.1.2.1 of the Final EIS, which provides additional information describing the dredging of Indian River Bay for barge access. Additionally, US Wind assumes no construction within Indian River Bay, including any dredging, would occur between March 1 and September 30, which would benefit the spawning cycle of the hard clams.

NEPA or Resource Topic	Comment	Response
Coastal Habitat and Fauna	DNREC recommends that a full ecological assessment be implemented to document any sensitive habitats and/or species at the proposed landing location. DNREC looks forward to reviewing the Biological Assessments when they are available. Appendix E and Appendix K note that these assessments are still in progress. BOEM acknowledges that impacts to coastal habitat and fauna from Alternative C would be undetectable; however, the DEIS concludes that combined with impacts from ongoing and planned activities, impacts would be moderate. If the entirety of this analysis is based on speculative future development to the area unrelated to this project, that should not be reflected and associated with this alternative. That is not a factor that makes this alternative distinct from the others. While the use of horizontal directional drilling may reduce adverse effects on wetlands, it may increase adverse effects on other protected natural resources such as beaches and dunes. The evaluated impacts in 3.5.4 are incomplete, as the beaches and dunes serve additional functions including coastal storm damage reduction and recreational areas.	In Section 3.5.4.6, *Conclusions*, the first paragraph describes how Alterative C is distinct from others, and the text states "When considering all the IPFs, the impact on coastal habitat and fauna would still be minor." The second paragraph discusses impacts associated with Alternative C when combined with the impacts from ongoing and planned activities including offshore wind. This paragraph states, "In the context of reasonably foreseeable environmental trends, the incremental impacts contributed by Alternative C to the overall impacts on coastal habitat and fauna would be undetectable." Impacts to coastal habitat and fauna associated with Alternative Care stated to be minor in the first paragraph, and moderate when combined with the impacts from ongoing and planned activities including offshore wind. In Section 3.5.4.5, *Onshore Activities and Facilities*, the text states "HDD operations will occur in the proposed landfall location at the existing 3R's Beach parking lot, which are already disturbed". "The Project has been designed to avoid alteration of coastal dunes and interdunal wetlands". Added text to include discussion of additional functions of beaches and dunes to Sections 3.5.4.5 and 3.5.4.1 *Atlantic Coastal Beach and Dune*. US Wind will compile a comprehensive wildlife survey and observation information database to include surveys, PSO data, and other wildlife monitoring records. Data will be made available to government, research, and environmental groups, among others. Information is provided on the following website: Remote Marine and Onshore Technology.
Commercial Fishing and For-Hire Recreational Fishing	DNREC encourages continued coordination with the fishing community regarding when and where activities would be occurring to avoid conflicting uses. It is important to note that approximately 99.9% of commercial hard clam landings have been in the Indian River Bay from 2017-2021. Based on the information provided, Alternatives C, D, and E would result in minimized impacts to commercial fisheries and for-hire recreational fisheries compared to the Alternative B. Commercial and for-hire recreational fishing vessels would be excluded from cable areas during routine cable surveys, which should be taken into consideration for compensatory mitigation. A compensation program for lost income for only 5 years post-construction would not address long-term impacts from conflicting uses that would no longer be able to occur in those areas. DNREC urges BOEM to require a more robust and long-term compensatory mitigation.	Thank you for your comment. Fishery displacement is discussed in the Final EIS.
Finfish, Invertebrates, and Essential Fish Habitat	Approximately 109 km2 of the lease area is located within the southwestern portion of the Carl N. Shuster, Jr. Horseshoe Crab Reserve.US Wind did not encounter any horseshoe crabs in their 2021 benthic survey. A detailed description of survey methods is not provided, and the surveys were not conducted during the time of year when horseshoe crabs would have been present in the lease area.	Thank you for your comment.

NEPA or Resource Topic	Comment	Response
Marine Mammals	DNREC encourages BOEM to include a uniform 500-yard minimum approach distance for vessels in the mitigation and monitoring measures. The project region is an important migratory corridor for several large Endangered Species Act (ESA) listed whales, including the North American right whale (NARW)4, in addition to other non-listed whale species. Given the intent of National Marine Fisheries Service (NMFS) to implement additional speed restrictions based on well-established data, US Wind should be encouraged to voluntarily adhere to those restrictions as a best practice to minimize risks to ESA-listed species, even if the implementation has not been finalized by the time construction would commence. Currently, the mitigation and monitoring measures included in the DEIS state that pile driving would occur between May 1 through November 30 while vessel traffic operators must monitor NMFS NARW reporting systems from November 1 through April 30. DNREC suggests a time of year restriction for all activities within the Atlantic Ocean and Delaware Bay from November 1st – April 30th (no activities to occur during this time frame) for the protection of the right whale.	Thank you for your comment. Mitigation measures are described in Appendix G.
Mitigation and Monitoring	Monitoring practices are discussed in conjunction with mitigation, but not all monitoring is associated with mitigation. Monitoring is a means for assessment and not an offset to an impact. An adaptive management plan should be required where components requiring monitoring can outline corrective actions if monitoring reveals undesirable outcomes.	Thank you for your input. BOEM describes mitigation and monitoring measures in Appendix G.
Other Uses (marine minerals, military use, aviation, research and surveys)	Sand borrow areas in state waters are public resources, with high societal and economic value; and those sand borrow areas vary in quality. DNREC will seek to protect high quality sand resources to preserve its ability to conduct shoreline management activities. Damage to known sand resources should be avoided, minimized, and/or mitigated.	Thank you for your comment.
Recreation and Tourism	DNREC appreciates that the construction of the proposed cable landing would not occur during the peak summer tourism season. However, DNREC encourages BOEM to provide an evaluation of economic impacts from temporary beach and/or waterway closures.	Potential impacts on economics and employment of the cable landfall and onshore segments are described in the Final EIS Section 3.6.3.5 and are compared to Alternatives C-1 and C-2 in Section 3.6.3.6.
Visual Resources	Given that BOEM's methodology for the Seascape, Landscape, and Visual Impact Assessment was not published until after the visual assessments were conducted by US Wind, please clarify how these methodologies compare.	Final EIS Section 3.6.9 and Appendix H describe how the COP VIA differs from the BOEM 2021-032 Assessment of Seascape, Landscape, and Visual Impacts of Offshore Wind Energy Developments on the Outer Continental Shelf of the United States. The guidance is a requirement for the Final EIS and recommended for COPs.
Water Quality	Although specific water quality details will be provided in federal and state applications for impacts to Delaware waters, it is our understanding that this EIS will be utilized by multiple federal agencies to satisfy NEPA requirements. Therefore, DNREC recommends that the EIS include the necessary information to adequately disclose impacts to water quality. Impaired water quality has not prevented the bay from harboring stable shellfish populations. Prohibited and seasonally prohibited shell fishing areas are designated from a consumption standpoint for human health. DNREC recommends including impacts from the proposed dredging in sediment transport modeling in addition to the use of jet plowing for cable installation. DNREC looks forward to reviewing the oil spill response plan when it becomes available.	Thank you for your comment. Further analysis regarding dredging impacts is provided in Appendix F Section 3.4.2.5.

O.6 Responses to Lessee Comments on the Draft EIS

Table O.6-1. Responses to Comments from US Wind

NEPA or Resource Topic	Comment	Response
Alternative B - Proposed Action	US Wind notes the following corrections to the Proposed Action: Under Alternative B on page 2-2: US Wind revised the COP to remove the reference to "two new substations" and potential substation locations within 0.5 miles of the existing substation as described in a memorandum to BOEM submitted May 1, 2023, and as reflected in COP Revision 5 submitted July 28, 2023.Figure 2-3 on page 2-9 correctly shows the proposed new substation configuration per COP Revision 5. Section 2.1.2.1.1 page 2-8: As noted above, the other potential substation locations were removed from the COP per memorandum to BOEM submitted May 1, 2023, and as reflected in COP Revision 5 submitted July 28, 2023.The referenced statement should be removed as it is no longer included in the PDE. Section 2.1.2.3 Conceptual Decommissioning page 2-20: the Lease number is incorrectly stated as OCS-A 0498.	Text has been updated in the Final EIS.
Alternative C - Landfall and Onshore Export Cable Routes	Alternative C, Landfall and Onshore Export Cable Route Alternative US Wind analyzed the land-based cable routes during development, presenting information in the COP as well as in US Wind's Individual Permit Application under Section 10 of the Rivers and Harbors Act and Section 404 of the Clean Water Act. Based on the information presented, as well as the analysis in the DEIS, the routes in Alternatives C1 and C2, while technically feasible, are not preferred and would have additional impacts that are not presented in the DEIS. Therefore, US Wind does not support selection of Alternative C, sub-alternatives C1 or C2. The rights-of-way (ROWs) proposed for use to install the export cables are likely crowded with buried electric and water utility lines. The growth experienced in Sussex County, Delaware, up 20.4 percent from 2010 to 20206, stressed infrastructure not initially designed for the current population. Additionally, there is significant resistance from legacy owners and operators of existing infrastructure to locating additional cables within the ROWs based on concerns about potential disturbance during construction and future maintenance. The risk goes both ways in that US Wind would be concerned about potential risk to disturbance of the export cables during work in and around the ROWs. The analysis of Section 3.6.7.1 should be expanded to include discussion of potential impacts to cables and pipelines in the ROWs; Section 3.6.7.6 does not address this infrastructure concern in consideration of impacts of Alternative C, which could be minor to moderate. Disruption during construction would be anticipated. More than 1,000 homes and business along any of the land-based cable routes, based on parcel totals (Based on GIS mapping using State of Delaware Parcels (DE FirstMap, last updated September 2023) and Census Bureau American Community Survey population density data for 2017-2021: Onshore Export Cable Corridor 1a: 1,770 parcels [population density per square mile: 20,028]), would be affected during construction with road closures and increased exposure to construction noise. Sussex County and local municipalities are undertaking projects to accommodate significant growth in the county. Such project construction is planned outside tourist season, which would be the same window of construction for US Wind's land-based cable installation, creating potential disruptions to local land use and coastal infrastructure.	Potential impacts to existing infrastructure along the terrestrial Onshore Export Cable Routes associated with Alternative C have been included in Section 2.2.3 of the Final EIS.

NEPA or Resource Topic	Comment	Response
Alternative D - Reduce Visual Impact	Alternative D, No Surface Occupancy to Reduce Visual Impacts Alternative The visual impacts of Alternative D and the Proposed Action (Alternative B) were found to be similar as noted on page 3-466: “the action alternatives [including Alternative D] would not result in meaningfully different impacts on visual resources compared to Alternative B. As a result, the impacts of the action alternatives would likely remain the same as Alternative B: moderate to major with an overall moderate impact.” Alternative D does not warrant selection. Maryland’s goals for offshore wind, including a new highly skilled Maryland-based workforce, would be frustrated if Alternative D were selected. On April 21, 2023, Maryland Governor Wes Moore signed into law an increase to the state goal for offshore wind energy to 8.5 GW of offshore wind by 2031 (COP Section 1.1.1).The law provides new opportunities for power offtake for federal offshore wind leaseholders off the Delmarva Peninsula through a new procurement of offshore wind-generated electricity through a power purchase agreement with the state with contracts for up to 5 million megawatt-hours annually. The future development area, i.e., the 32 WTG locations in the western portion of the Lease area, would be an important contributor to meeting Maryland’s expanded offshore wind goals. The removal of 32 WTG locations and 1 OSS location would result in a significant loss of wind-generated energy and reduction of greenhouse gas emissions, as well as the economic benefits and potential supply chain opportunities for businesses in the region. The opportunity for 4,928 job-years would be surrendered, including US Wind’s commitment to MBE and union participation in the projects and the associated benefits from training a skilled workforce, Up to 36.7 million tons of CO2 would not be avoided from emissions-free electricity generation, and The benefit of 33 new structures, spaced 0.77 NM east to west and 1.02 NM north to south, would not be installed to provide reef effects closer to shore for commercial and recreational fisheries.	Thank you for your comment.

NEPA or Resource Topic	Comment	Response
Alternative E - Habitat Impact Minimization	Alternative E, Habitat Impact Minimization Alternative US Wind questions the broad interpretation of "habitat areas of concern" as depicted in Figure 2-9 (DEIS page 2-29) as it relates to "large, landscape scale features such as high-relief sand ridge and trough complexes and deep holes/drop-offs" (DEIS page 2-28) for the reasons discussed below. Additionally, Alternative E would represent an immediate material risk to the viability of US Wind's planned development in the Lease area. Alternative E – Sand Ridges and Troughs The DEIS notes "[s]teeper slopes exceeding 20 degrees were identified in the western portion of the Lease Area" (DEIS page 3-33).However, the cited reference of COP Appendix II-K5 states "The seafloor interpretation [identifies] locally steeper slopes located by the south-western border of the Lease area, where local slopes over 20° are identified" (Section 3.2.4).A review of the data reveals that these features are extremely limited and local, which could be avoided by micro-siting WTG locations. As noted in Appendix II-K5 of the COP and elsewhere "[i]n general, slopes do not exceed 1° for 93% of the Lease area and additionally slopes do not exceed 2° for 99% of the Lease area." See Figure 2 below, which is included as Figure 3.6 in COP Appendix II-K5. Areas of high relief in the southwest corner were not included during the identification process for the eventual Lease which started in 2010.The major sand ridges in the immediate vicinity extend to the south and southwest of the Lease area, see Figure 3 below, with only the upper reaches of the features extending into and dissipating within the Lease area. The nomenclature of "major sand ridges" used in Figure 2-9 of the DEIS are relative to other areas within the Lease area and not the regional features. Therefore, the habitat areas of concern are located outside of the Lease area except in the few locations where micro-siting individual WTG locations could avoid the features. Alternative E – Biological Function The biological function of the identified areas is not supported by site-specific data collected by US Wind in support of the COP. From a biological perspective, the 2021 benthic infaunal community results suggest no discernable difference between samples collected from within the areas of concern and those collected outside of the areas of concern. This is demonstrated by the lack of clustering in the non-metric multidimensional scaling (nMDS) ordination below (Figure 4), which includes the 16 samples collected from the areas of concern and compares them to the 16 samples collected outside of but nearest to each of the areas of concern. NMFS-GARFO's 2021 "Updated Recommendations for Mapping Fish Habitat" indicates that "sand features that occur or migrate over gravel pavements (i.e., gravel exposed in sand wave troughs) versus those that do not is of importance to differentiate types of EFH." COP Appendix II-A "Integrated Site Characterization Report – Offshore" observed in Section 6.4.2: "Post-sea-level rise sediments underlying the Lease area and Offshore Export Cable Corridor consist of a variable thickness of primarily granular, Holocene-age sediments. The thickness of these surficial sediments in the Lease area varies from less than 1 m to nearly 12 m. A greater thickness of Holocene sandy material coincides with the presence of the sand ridges. The thickness of these surficial sediments in the Offshore Export Cable Corridor varies from less than 0 m to 5.8 m. The greatest thickness of Holocene sandy material coincides with the presence of sand dunes/ridges." The habitat areas of concern generally align with sand ridges in the Lease area and sand dunes in the Offshore Export Cable Corridor. These sand ridge and dune features represent the areas of thickest Holocene sand deposits in the Lease area and Offshore Export Cable Corridor, respectively (Figure 5), and therefore gravel pavements are unlikely to be present at or near the seabed surface. This is further confirmed by benthic grab samples and video transects collected within the areas of concern in 2021 (COP Appendix II-D4 and supporting data), showing primarily sand or gravelly (<30% gravel) substrates, even in samples collected from the troughs between sand ridges.	NMFS identified six habitat areas using data provided by US Wind and previously collected data and reports (e.g., Guida et al.2017, Habitat Mapping and Assessment of Northeast Wind Energy Areas). The major sand ridges in the immediate vicinity extend to the south and southwest of the Lease area, with only the upper reaches of the features extending into and dissipating within the Lease area. The nomenclature of "major sand ridges" used in the relevant figure in Section 2 of the Final EIS are relative to other areas within the Lease area and not the regional features. Therefore, the habitat areas of concern are located outside of the Lease area except in the few locations where micro-siting individual WTG locations could avoid the features.

NEPA or Resource Topic	Comment	Response
Alternative E - Habitat Impact Minimization (cont'd)	The addition of structure in the Lease area would also be beneficial. Scour protection can provide habitat similar to natural hard bottom, offering finfish refuge from predators and enhancing opportunities for spawning and growth of finfish and macroinvertebrate species that prefer hard substrates (Kerckhof et al.2018, Degraer et al.2020, Hutchison et al.2020).When associated with artificial structures in the water column, scour protection habitats also tend to produce higher density and diversity of macrofauna, due to factors such as increased bio deposition by the biofouling community that colonizes the vertical structures (Coolen et al.2020, Degraer et al.2020). Alternative E – Loss of WTGs The additional anticipated impacts of the selection of Alternative E would result in immediate material, and potentially irreparable, harm to development in the Lease area beyond the loss of specific offshore components. Alternative E could result in the removal of an additional 9 to 25 WTG locations, up to 140 to 425 MW, beyond the identified 11 WTG locations and 185 MW described in the description of the alternative (DEIS page Section 2.1.5). At a minimum, selection of Alternative E would result in the removal of 11 WTGs, assuming that inter-array cables, export cables, and construction vessels can be micro-sited around and throughout the areas of concern such that only wind turbine foundation installation locations are affected. Such a significant loss of WTGs is disproportionate to the small area of impact. Permanent disturbance of the seafloor by foundations and scour protection within the areas of concern, assuming the total area encompasses approximately 9,044 acres as shown, is extremely small, just 0.024% of the identified areas of concern. Removal of these proposed wind turbines represents a reduction of approximately 185 MW of nameplate capacity for the Lease area. Moreover, these wind turbines represent a disproportionately higher amount of power generation9 due to the locations' beneficial exposure to the prevailing wind directions. Removal of the proposed Met Tower location, along with one Alternate Met Tower location, jeopardizes both project operations and safety (through removal of power curve verification and real time meteorological and ocean condition monitoring), as well as key stakeholder benefits and mitigations. For example, it is anticipated that the Meteorological Tower will be a crucial component of any mitigation efforts to reduce impacts to oceanic high-frequency radar systems operated by the Integrated Ocean Observing System (IOOS) as anticipated in DEIS Appendix G page G-30. US Wind's expected impact of selection of Alternative E would be much greater if all temporary and permanent bottom-impacting construction activities were forbidden in the areas of concern. Due to the interconnected nature of the wind farm components, the inability to construct within these areas significantly multiplies the detrimental effects. For example: Delivery of any power to shore from the Lease area would require that the entire export cable corridor to the north of the Lease area be re-sited. noted above, a route to shore that does not impact similar habitat may not be available. An additional 9 to 15, or more, wind turbine locations would have to be abandoned due to a combination of stranding, construction feasibility, and navigation risk. This represents a loss of approximately 140 to 200+ MW beyond the 11 directly impacted locations. The proximity of an area of concern to location UJ-10 potentially requires abandonment of that location as an offshore substation due to an inability to safely and effectively route cables and conduct construction activities within the remaining unaffected area. This results in up to 25 additional wind turbine positions (nominally 425 MW) at risk of abandonment due to the increased construction challenges and economics. The areas of concern identified in Alternative E do not appear to be supported by the available data due to the lack of significant steep slopes and available habitat in the Lease area. The potential impact to the Project is material and significant with the removal of a minimum of 20 and up to 52 WTG and 1 OSS locations and would not meet the Purpose and Need.	Continued from above

NEPA or Resource Topic	Comment	Response
Commercial Fishing and For-Hire Recreational Fishing	Alternative E – Fishing Grounds The northern area of concern within the Offshore Export Cable Corridor is also noted for inclusion due to fishing grounds, however, only a small portion of the potential fishing grounds would be temporarily affected by the installation of offshore export cables. The Prime Fishing Grounds of New Jersey are extensive throughout the Mid-Atlantic region and in the immediate vicinity of US Wind's Lease area (hatched areas in Figure 6). The Lease area was defined in part to avoid fishing grounds. Installation of offshore export cables in the Offshore Export Cable Corridor north of the Lease area could potentially, and temporarily, affect a minute portion of the identified areas per the Mid-Atlantic Ocean Data Portal. Removal of the area of concern in the Offshore Export Cable Corridor would require that the entire export cable corridor to the north of the Lease area is re-sited, creating significant delays due to the need for new high-resolution geophysical surveys necessary to determine habitats and characterize potential marine cultural resources for avoidance. A route to shore that does not impact similar habitat is likely unavailable. Additionally, the establishment of an anchorage area for vessels transiting into and out of Delaware Bay and potential sand borrow areas precludes changes to the routing of the offshore export cables from the Lease area to the landing locations on shore (see Figure 7 below, from COP Volume II Section 17.6.1). US Wind supports the proposed mitigation measure (DEIS Appendix G, page G-22) for compensation of impacted commercial fishers. In fact, US Wind has engaged with the Special Initiative for Offshore Wind in its efforts to stand up a regional commercial fisheries compensation fund and administrator, as well as in consultation with the Maryland Department of Natural Resources and the Delaware Department of Natural Resources and Environmental Control. However, any compensation must be provided commensurate with commercial fishing activity in the Lease area. The DEIS states "The economic impacts associated with lost fishing revenues would be less than the total annual revenue from within the Lease Area (DEIS page 3-277)".US Wind is concerned that the revenues presented (DEIS Section 3.6.1.1, page 3-233, Figure 3.6.1-5) are an inaccurate reflection of fishing activity in the Lease area and the species landed from the Lease area, particularly in the latter half of the study period. Additionally, Figure 3.6.1-16 includes percentage of revenue associated with the incorrect lease, Lease OCS-A 0498, and also must be corrected. The Lease area provides limited commercial fishing activity in recent years (DEIS Figure 3.6.1-4 and Section 3.6.1.1.2). Fishing activity in the Lease area today is almost exclusively using static gear such as pots/traps for species such as black sea bass and whelk (COP Appendix II-K5 Section 3.1.2). Mobile gear such as trawls and gillnets are rarely deployed in the Lease area any longer as evidenced by AIS data, recent fisheries observations, and bottom conditions revealed during US Wind surveys. AIS data indicates that scallopers transit the Lease area and fish to the northeast and east outside of the Lease area (DEIS Figure 3.6.1-14). Historical tracklines show that these vessels often transit slowly back to port and through the Lease area while processing their catch, without any deployment of fishing gear. A good example of this can be seen in DEIS Figure 3.6.1-16 Commercial Scallop Fishing from 2015-2016, which clearly shows scallop fishermen on an east-west transit across the Lease area to and from fishing grounds well east of the Lease area. The value of the scallop fishery included in the DEIS in Figures 3.6.1-3 and 3.6.1-5 is based in part on a methodology that uses vessel monitoring systems (VMS) that indicate speed of scallop vessels (less than 5 knots) transiting the Lease area. While BOEM acknowledged that "some vessels may also be using slower speeds while transiting or engaging in other activities such as processing at sea," it does not take into account that this is exclusively what is taking place during scallop vessel and clam vessel VMS pings below 5 knots through the Lease area. At-sea observations of fishing activity in 2021 and 2022 indicate that mobile gear is rarely deployed in the Lease area and that scallop and surf clam fishing vessels are transiting the Lease area rather than fishing within it. In support of the COP, US Wind conducted offshore geophysical and geotechnical surveys from about April 7, 2021, through May 23, 2022, with a stand-down period from November 5, 2021, through January 8, 2022.	The data and analysis included in the EIS are from NMFS data sets and have been incorporated into BOEM's analysis of the proposed action and alternatives.

NEPA or Resource Topic	Comment	Response
Commercial Fishing and For-Hire Recreational Fishing (continued)	Data collected during US Wind's geophysical surveys did not reveal evidence of trawling or dredging activity in the Lease area. In the Integrated Site Characterization Report – Offshore (COP Appendix II-A1, Section 5.2.7.2) the seafloor scarring was interpreted as related to anchor scars and there was significant evidence of pots/traps based on side scan sonar contacts (COP Appendix II-A1, Table 5-5 and Figure 5-10).Fisheries using static gear such as pots/traps are generally incompatible with mobile gear fisheries due to the potential for negative gear interactions. Inclusion of revenues from scallops, surf clams, and longfin squid does not accurately reflect fishing activity in the Lease area and should be revised in Sections 3.6.1.1.2 and 3.6.1.5.2.2.Information included in the DEIS also illustrates a non-sensical accounting of revenue from scallops in Figure 3.6.1-2, which shows commercial landings in pounds with years 2017-2019 indicating no scallop landings in the Lease area, while Figures 3.6.1-3 and 3.6.1-5 indicate increasing revenue derived from scallops. Therefore, the DEIS conclusions about impacts to the mobile gear fisheries, such as "The relocation of fishing activity outside the Lease Area or Offshore Export Cable Route may increase conflict among fishermen as other areas are encroached. Competition is expected to be higher for less mobile species (e.g., lobster, crab, surf clam/ocean quahog, scallop)" (DEIS page 3-278) are not supported and must be revised based on the information presented in this comment letter.US Wind is available to discuss the information presented here with BOEM and NMFS to better quantify commercial fishing in the Lease area and the potential impacts.	Continued from above
Finfish, Invertebrates, and Essential Fish Habitat	The addition of structures will provide a reef effect for species (e.g., DEIS pages 3-124, 3-199, 3-275, 3-278), particularly black sea bass which is an important recreational and commercial fishery in the Lease area. The DEIS notes "Structures associated with the Project could lead to fish aggregation of structure-oriented species, increasing the opportunities for for-hire recreational fishery resources (DEIS page 3-278)". Based on the type of fishing gear used in the Lease area, the presence of structures is also likely to benefit fishers deploying pots/traps, for species such as black sea bass. The significant majority of fishing in the Lease area as described in this section of US Wind's comments uses static gear such as pots/traps.	Thank you for your comment.
Land Use and Coastal Infrastructure	US Wind requests that the impacts of Alternatives C1 and C2 to land use and coastal infrastructure (DEIS Section 3.6.5) be included in the Final EIS. Section 5.18.1.2 of US Wind's USACE Section 10/404 Permit Application submitted August 30, 2023, and provided to BOEM September 1, 2023, includes information that could inform expanded detail in the FEIS.	Final EIS Section 3.6.5.6 has been revised to incorporate material from Section 5.18.1.2 of US Wind's USACE Section 10/404 Permit Application dated August 2023.
Marine Mammals	Inaccurate inclusion of mobile gear in the Lease area is referenced in numerous other sections of the DEIS as it relates to potential impacts (e.g., DEIS page 3-274) and loss of mobile gear, potentially snared on the WTG and OSS foundations or scour protection, which is noted as having the greatest potential for entanglement. However, on page 3-203, increased entanglement risk for the North Atlantic right whale is suggested as "due to increased fishing activity or a shift to fixed gear types". As demonstrated above, fixed gear is the predominant fishing gear used in the Lease area already, and presumably the entanglement risk would be present under the No Action Alternative (Alternative A). Additionally, US Wind's work with UMCES to demonstrate ropeless pots in the commercial fishing study (COP Volume II Section 17.5.2.1) has the potential to mitigate some of the entanglement risk from commercial fishing gear in the Lease area as fishers adopt the new and more protective techniques. The baseline information for the Lease area should be corrected in these sections to correctly reflect fishing gear used in the Lease area where impacts from the Proposed Action are considered as additive to existing impacts from commercial fishing in the Lease area.	The description of the fisheries monitoring surveys under the Proposed Action, including the mitigation measures that will be implemented, is now updated in Section 3.5.6.5. Additionally, baseline fishing activity is addressed in Section 3.6.1.

NEPA or Resource Topic	Comment	Response
Other Uses (marine minerals, military use, aviation, research and surveys)	Military Radar Interference/DOD Mitigation Agreement US Wind in May 2023 received Determinations of No Hazard from the Federal Aviation Administration (FAA) for the wind turbine generators effective as of July 1, 2023 (COP Volume I Table 8-1).A component of the FAA process is review of the proposed structures by the Department of Defense for interference with radar and military operations which can result, in the case of offshore wind projects, in a formal Mitigation Agreement with DOD. Mitigation Agreements may include elements such as those in the mitigation measure on page G-30 in Appendix G.DOD declined to pursue a Mitigation Agreement with US Wind following issuance of the Determinations of No Hazard (see COP Volume II, Section 16.6).Should the situation change, US Wind would enter into an agreement with DOD, however, at this time there is not a need for an agreement to mitigate radar interference. The DEIS should be updated to reflect this information as included in the COP.	Text added to Section 3.6.7.5, Offshore and Inshore Activities and Facilities to include this information.
Wetlands and Waters of the U.S.	Section 3.5.8.6 of the DEIS discusses potential disturbance of wetlands among Alternatives C1 and C2.However, the low-lying nature of the region, particularly north of Indian River Bay, and the need for multiple critical water crossings (see US Wind Request for Information Response dated January 13, 2023, and US Wind/TRC memorandum "Upland Cable Route Corridors and Onshore Electrical Infrastructure Construction Details" dated May 1, 2023) are not identified in the DEIS. The potential for wetlands impacts arising from the need for construction in the low-lying areas immediately adjacent to wetlands and water crossings during cable installation should be added in the alternatives impacts considerations in Section 3.5.8.6 of the DEIS. Section 5.5.2.3 of US Wind's USACE Section 10/404 Permit Application submitted August 30, 2023, and provided to BOEM September 1, 2023, includes information that could inform expanded detail in the FEIS.	The Final EIS includes the referenced information.

O.7 Responses to Substantive Other Agency, Stakeholder, & Public Comments on the Draft EIS

O.7.1 Air Quality

Table O.7-1. Responses Substantive – Air Quality

Comment No	Comment	Response
FDMS_0114_003	The entire reason for the offshore wind project is to lower carbon dioxide emissions. **The project may actually increase emissions**.US Wind claims a possible 6.3 million metric tons of emission savings by pretending all generation will replace high-emitting coal. In reality, any type of generation on the regional grid may be replaced, including zero-emission nuclear, hydro, onshore wind, and solar. The US Wind assumption overstates saving by fivefold. In Maryland, in 2024-2007, power plants will stop using coal and continue to operate using alternative (low carbon) fuels/solutions irrespective of the offshore wind projects. Also, when the project was being approved by the Maryland Public Service Commission, two different consultants stated the offshore wind projects would simply replace onshore wind projects. In fact, one consultant goes on to calculate emissions will actually be higher for the offshore projects as they are located near the edge of the regional grid, while onshore projects would be more centrally located, resulting in lower regional transmission losses. The same amount of onshore wind and solar could be built for one-quarter to one-third the cost. **Emission savings of offshore wind should be shown as zero.**	[1] Thank you for your comment. The avoided emissions tool represents the dispatch of electricity and historical patterns of power generation. Data from EPA's Air Markets Program and National Emissions Inventory is analyzed including actual past generation patterns, heat input, and emissions data given regional demand levels. The tool can estimate the emissions impacts of onshore and offshore wind energy projects and calculate emissions impacts based on the hourly generation information in the regional data files. [2] Thank you for your comment. The Lessee can only propose WTG sites within their lease area, which extends approximately 23 nautical miles (27 statute miles) from shore at the farthest point. Analyses of turbine installation outside of the identified lease area does not meet BOEM's Purpose and Need. Under the no action alternative (Alternative A), BOEM would disapprove the COP and the Project described in the COP would not be built in the lease area.

Comment No	Comment	Response
FDMS_0814_002	The biggest environmental problem with the US Wind proposal is fossil fuel use during construction. I would like to challenge the applicant to strive to be fossil-fuel free as much as possible - even during construction and repair operations - by using electric vehicles/vessels for transport when available. This could also open the door to new jobs and training opportunities on the Eastern Shore. It would be nice to see the Shore's boat building industry modernize to be more "green". It would be good to see annual reports from this project, shared broadly, that highlight how many jobs are created, where they're located (I hope to see many on the Eastern Shore), and how many apprenticeships or training programs are going on and their participation (especially with Eastern Shore institutions).	Thank you for your comment. BOEM does not mandate the usage of electric vehicles/vessels.
MAILIN_0005_218	The DEIS states: "However, the implementation of offshore wind projects such as the Proposed Action would likely result in a long-term net decrease in greenhouse gases. While the decrease may not be measurable, it would be expected to help reduce climate change to some degree, although any negligible benefit would only last until the Project is decommissioned." This statement should be rephrased for accuracy. Mass adoption of renewable energy may contribute to a slower rate of temperature increase but is very unlikely to "reduce climate change". In addition, "reducing climate change" is an inaccurate phrase. Refer to either IPCC or National Climate Assessment for more accurate language that should be incorporated in the DEIS.	Thank you for the comment. This has been updated in the text in Section 3.6.1.5 of the Final EIS.

O.7.2 Alternatives - General

Table O.7-2. Responses Substantive – Alternatives General

Comment No	Comment	Response
FDMS_0767_006	Impact Analysis of Alternatives It is imperative the public is able to differentiate impacts from the various alternatives presented in the DEIS to understand the suitability of prospective project alternatives. The Summary and comparison of impacts among alternatives with no mitigation measures (Table ES-1) provides limited information on how the alternatives differ. For example, the Alternative with a habitat and habitat impact minimization intention (Alternative E) has no difference of impacts to the Benthic Resources, Coastal Habitats, Essential Fish Habitat, or Commercial Fisheries and For-Hire Recreational Fishing from the Proposed Action (Alternative B). It is unclear in the documents how impacts from the various alternatives differ from each other. Instead, the impact analysis compares the collective back to the Proposed Action, which the DEIS assumes would be the most likely “Alternative.” 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. Confusion is further compounded as the different alternatives can be combined for the Final EIS. The alternatives listed in the DEIS 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 the preferred alternative is. 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.	The Final EIS provides a comparison of alternatives, both in summary tables in the Executive Summary and Chapter 2, and in each resource section in Chapter 3. BOEM identifies the preferred alternative in the Final EIS. The Preferred Alternative is identified to let the public know which alternative BOEM, as the lead agency, is leaning toward before an alternative is selected for action when a Record of Decision is issued. No final agency action is being taken by the identification of the Preferred Alternative and BOEM is not obligated to select the Preferred Alternative.

Comment No	Comment	Response
MAILIN_0005_012	Alternative D decreases the impacts to offshore habitat when compared with the Proposed Alternative, however, it also includes redesign of WTG locations to avoid high relief sand ridge and trough complexes, deep holes and drop offs where loss of bottom habitat could mean identifiable adverse impacts. It is not clear from an overall resource perspective whether alternative C, D, or E are preferred, that requires an assessment of which outcomes are more desirable from the benthic perspective. For example, is less impact on Indian River benthic habitat more important than reducing offshore benthic habitat impacts? The preservation of important benthic habitat areas as proposed in Alternative E may be more important than a simple decrease in the number of WTGs s in Alternative D, but then again, many more WTGs are removed in Alt D than E (32 vs 11) and Alternative A eliminates all impacts. An additional alternative that eliminates development in the Shuster Horseshoe Crab Sanctuary should also be considered.	Thank you for your comment. Section 2.1.6 of the Final EIS describes the Preferred Alternative. As discussed in Section 2.2 Alternatives Considered but Not Analyzed in Detail, BOEM considered a range of alternatives during the Final EIS development process that emerged from scoping, interagency coordination, government-to-government consultation, and internal BOEM deliberations.
FDMS_0805_001	Please accept these comments from the Mid-Atlantic Fishery Management Council (Mid-Atlantic Council) and the New England Fishery Management Council (New England Council) on the draft environmental impact statement (DEIS) for the proposed Maryland Offshore Wind Project....We were unable to review the Maryland Wind DEIS in detail given other priorities and workload constraints; therefore, we offer the general comments listed below, all of which have been stated in previous comment letters on other wind projects. More detailed recommendations are available in the Councils' offshore wind energy policies, which apply to all offshore wind energy projects and are available at https://www.mafmc.org/northeast-offshore-wind. BOEM should not be bound to consider only projects large enough to meet existing or anticipated energy procurements. State-level targets for offshore wind energy production do not account for existing uses of the marine environment and were not directly informed by input from BOEM, NOAA Fisheries, the Councils, or other relevant agencies. Other projects are currently facing many challenges in fulfilling their existing contracts with states, including increased costs and supply chain issues. In addition, a lack of consideration of smaller projects than those desired by the developer limits BOEM's ability to reduce negative impacts, including protecting biodiversity and ocean co-use. As such, we recommend that BOEM revise the purpose and need in the EIS to clarify that smaller scales of the project than those proposed by the developer or necessary to meet existing procurements may be considered. All alternatives should be thoroughly analyzed and compared against each other. The analysis of the no action alternative should thoroughly and separately consider two scenarios: one where all other proposed wind projects are constructed and one where no new projects are constructed beyond those already in operation or under construction. (Also mailed-in attached letter)	BOEM's purpose as stated in Section 1.2 to determine whether to approve, approve with modifications, or disapprove Us Wind's COP is needed to fulfill BOEM's duties under the lease. The Final EIS provides a comparison of alternatives, both in summary tables in the Executive Summary and Chapter 2, and in each resource section in Chapter 3.

O.7.3 Alternative A - No Action

Table O.7-3. Responses Substantive – Alternative A - No Action

Comment No	Comment	Response
FDMS_0767_005	Framing of the No Action Alternative The DEIS provides a No Action Alternative that assumes only the Proposed Action will not occur over the 25-plus year lifetime analysis of the project. The baseline conditions described in Appendix D of the DEIS initially include only the projects with approved construction and operations plans, but incorporate overtime additional construction and operations of unapproved planned offshore wind projects. This strategy presupposes the approval of future OSW projects that have not even begun an environmental assessment, nor have the public had the opportunity to provide input on. At a minimum, an additional alternative should be analyzed and compared against a baseline of a No Planned Development Alternative. The No Action Alternative as presented should still be included in the DEIS, but a complimentary No Planned Development Alternative should also be provided. Again, this demonstrates the need for a robust cumulative impacts analysis and mitigation measures aimed to identify and address cumulative impacts to understand the true impacts of OSW in the Atlantic.	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 (i.e., cumulative impacts). A detailed description of BOEM's methodology for assessing impacts is provided in Section 1.6 of the Final EIS.

O.7.1 Alternative B - Proposed Action

Table O.7-4. Responses Substantive – Alternative B - Proposed Action

Comment No	Comment	Response
FDMS_0791_001	US Wind notes the following corrections to the Proposed Action: Under Alternative B on page 2-2: US Wind revised the COP to remove the reference to “two new substations” and potential substation locations within 0.5 miles of the existing substation as described in a memorandum to BOEM submitted May 1, 2023, and as reflected in COP Revision 5 submitted July 28, 2023.Figure 2-3 on page 2-9 correctly shows the proposed new substation configuration per COP Revision 5. Section 2.1.2.1.1 page 2-8: As noted above, the other potential substation locations were removed from the COP per memorandum to BOEM submitted May 1, 2023, and as reflected in COP Revision 5 submitted July 28, 2023.The referenced statement should be removed as it is no longer included in the PDE. Section 2.1.2.3 Conceptual Decommissioning page 2-20: the Lease number is incorrectly stated as OCS-A 0498.	Text has been updated in the Final EIS.

O.7.2 Alternative C - Landfall and Onshore Export Cable Routes

Table O.7-5. Responses Substantive – Landfall and Onshore Export Cable Routes

Comment No	Comment	Response
FDMS_0024_001	On behalf of Protect our Coast - DE, a group representing recreational users of the Indian River and Bay in Delaware, in response to the Draft Environmental Impact Statement (DEIS) for US Wind Inc's proposed Wind Energy Facility Offshore Maryland. We urge you to consider the concerns and safety of recreational users in the vicinity of the proposed project. One of the primary concerns we wish to address is the burying of (4) 275,000-volt power lines as shallow as 3 feet below the bottom of the Indian River Bay and river. As stated in the DEIS (Cite: US Wind DEIS Appendix C: Project Design Envelope and Maximum-Case Scenario on page C-4), these lines pose a significant risk to recreational users of the bay, as the vast majority of the area is too shallow for commercial transit, with NOAA Bathymetric hydrographic survey data indicating depths ranging from 0 to 6 feet at MLWL (Cite: https://oceanservice.noaa.gov/facts/sounding.html , accessed on 10/20/23). The safety concerns arise from the fact that the proposed high-voltage cables could be as close as 2 feet below the water's surface, jeopardizing the well-being of swimmers, water skiers, tubers, anglers, and all who enjoy these shallow waters. Several regulations, codes, and standards establish clearances for power lines to protect public safety and prevent contact with electrical current. The National Electrical Code (NEC), National Electrical Safety Code (NESC), and Delaware State Fire Prevention Commission regulations all mandate clearances of no less than 8 feet above shared use sidewalks (Cite: https://regulations.delaware.gov/register/july2021/final/25%20DE%20Reg%2071%2007-01-21.pdf,%20accessed%20on%2010/20/23). OSHA regulations, specifically 1926.960, dictate working on or near exposed energized parts (Cite: https://www.osha.gov/laws-regs/regulations/standardnumber/1926/1926.960, accessed on 10/20/23), and none of these regulations allow for clearances of less than 10 feet from high-voltage utility lines. Given the anticipated buried depth of 3 feet and the maximum bay/river depth of 6 feet, it is evident that the minimum required clearance for lower classes of high-voltage utility lines is not met. Furthermore, OSHA and NFPA 70E (Cite: https://www.nfpa.org/-/media/Files/Code-or-topic-fact-sheets/70E2021FactSheet.ashx, accessed on 10/20/23) require equipment not in a verified Electrically Safe Work Condition (ESWC) to be considered energized, necessitating working space regardless of which Authority Having Jurisdiction (AHJ) inspects the installation. OSHA 1926.1408 - Power line safety (up to 350 kV)--equipment operations mandates the definition of work zones around equipment if proximity is within 20 feet (Cite: https://www.osha.gov/laws-regs/regulations/standardnumber/1926/1926.1408, accessed on 10/20/23).Our research and the provided references clearly indicate that no existing regulations allow for the general public to be in proximity to high-voltage utility lines within 8 feet. It is worth noting that existing infrastructure either places utility lines high overhead or uses lower-voltage lines that can be buried safely. The proposed installation of 275,000-volt transmission lines in shallow waters is a unique and concerning situation that calls for a comprehensive reevaluation of safety standards. We, the members of Protect our Coast - De, urgently request that you halt all permits and disallow passage in the tidal inland bay until these safety concerns are adequately addressed. We believe that this project should be stopped to prevent any potential loss of life. Moreover, we demand that the draft environmental impact statement only consider Alternative C – Landfall and Onshore Export Cable Route Alternative (Cite: https://www.boem.gov/sites/default/files/documents/renewable-energy/state-activities/MDOffshore%20Wind%20final%20DEIS_2023_Oct02_508.pdf, chapter 2.1.3) based on omitted pertinent information. Specifically: 1. We demand to know how US Wind plans to eliminate the risk of failed utility line insulation and how they will ensure continuous testing of the insulation to prevent deterioration. 2. We demand to know how US Wind intends to keep the 275kV cables buried in shallow, shifting currents. 3. We demand to know how US Wind intends to inspect the cable annually before the start of the summer's high in/on-water activities. 4. We demand that the National Fire Protection Agency (NFPA) prohibit the installation of shallow-buried 275,000-volt cables in water without requiring concrete encasement and conducting additional environmental impact studies on the larger easement required through public lands. In conclusion, the safety of recreational users in the Indian River Bay and the river is of paramount concern, and it is crucial that these concerns are addressed and resolved before any permits are granted for this project. We look forward to your response and action on this matter.	Maryland Offshore Wind conducted an Electromagnetic Field (EMF) Assessment for both the onshore and offshore sections of their cable routes, the results of which are presented in the COP (Volume 2 Section 7.2.2.).Results of the study suggest that cable burial depth of 1 meter is far below the reference level limit for human exposure of 2,000 milligauss (ICNIRP Guidelines for Limiting Exposure to Electromagnetic Fields (1 Hz to 100 kHz).Health Phys 99:818-836, 2010).Cable burial depths of at least 1 meter are proposed and recommended in the COP (Volume 2 Appendix K7). Furthermore, the COP (Volume 1 Section 6.1.5) provides the anticipated cable inspection schedule following installation. Cables are also anticipated to be monitored with distributed temperature sensing equipment, which provides real-time information on changes in the temperature of the cable. Changes in cable temperature could be the result of scouring of overlying sediments and exposure of the cable.

Comment No	Comment	Response
FDMS_0579_003	2.BOEM should require US Wind to bring its high-voltage transmission lines for the Maryland projects onshore in a remote area of Maryland, not a densely populated area of Delaware. Tower Shores is located approximately one-third of a mile from 3Rs Road, one of the two locations in the Delaware Seashore State Park that US Wind proposes to bring the project's cables onshore. Our private beach is located approximately six miles from the second proposed site of Tower Road. During the tourist season our beach is densely populated with children and families. Transmission cables from the Block Island offshore wind project became exposed several years ago despite the burial of 6' or more, including on a recreational beach.US Wind states that their high voltage electric cables with 1,100 mW of capacity will be buried only 3.3 to 9.8 feet (1 to 3 meters). How can BOEM be confident that voltage from these cables poses no direct harm to humans and marine life swimming off our private beach? Or that the installation of those cables using towed or self-driving jet plow will not render the waters off our beach unsuitable for swimming? Possible associated tidal erosion could make our private beach more susceptible to storm damage, resulting in future expenses for our homeowners in beach replenishment and repairs to homes. In addition, the DEIS states that the cables may need additional protection such as mattresses, rock placement, or cable protection systems. What harm could the use of these objects cause to human or marine life or the environment? The noise, beach erosion, public safety, economic and possible health impacts of bringing four high-voltage power lines onshore near a densely populated community and beach must be more thoroughly considered. There is no question that our densely populated Delaware beachfront community will be greatly impacted by this onshoring. Yet, the US Wind project was approved by the Maryland Public Service Commission, and as currently planned, all the electric power will be received by consumers in Maryland. The economic benefits proposed by US Wind (jobs in Ocean City, MD, installing and maintaining the wind turbines) are explicitly for Maryland.US Wind must find an onshoring location for its Maryland wind project high-voltage transmission lines in a remote area of Maryland.US Wind moved the onshore location to Delaware when Maryland residents complained. This is a Maryland project, and the benefits are in Maryland; the detriments should not be "offshored" to people in Delaware who were barely, if at all, consulted. The onshoring of cables must be done in Maryland and not in a densely populated area of Delaware.	US Wind extensively evaluated all the various landfall, Point of Interconnection (POI), and transmission routing options available on the Delmarva Peninsula, including in Delaware, Maryland and Virginia. Specifically, all POIs greater than 115 kV and within 100 miles of the Lease area were assessed. Engineering analysis commissioned by US Wind show that POIs south of the Maryland/Delaware border have significant power flow congestion issues and a high number of likely grid violations under scenarios where new injections of power are made to this relatively weak part of the local electric grid and result in more adverse impacts from the necessary transmission to those POIs. The Indian River POI is the furthest south location that is rated at 230 kV and therefore is robust enough to interconnect power from the Project without significant, disruptive, and costly upgrades to the transmission system. Currently, all of the substations in Maryland near the coast are below 230 kV, making them infeasible POIs.
FDMS_0791_002	Alternative C, Landfall and Onshore Export Cable Route Alternative US Wind analyzed the land-based cable routes during development, presenting information in the COP as well as in US Wind's Individual Permit Application under Section 10 of the Rivers and Harbors Act and Section 404 of the Clean Water Act. Based on the information presented, as well as the analysis in the DEIS, the routes in Alternatives C1 and C2, while technically feasible, are not preferred and would have additional impacts that are not presented in the DEIS. Therefore, US Wind does not support selection of Alternative C, sub-alternatives C1 or C2. The rights-of-way (ROWs) proposed for use to install the export cables are likely crowded with buried electric and water utility lines. The growth experienced in Sussex County, Delaware, up 20.4 percent from 2010 to 20206, stressed infrastructure not initially designed for the current population. Additionally, there is significant resistance from legacy owners and operators of existing infrastructure to locating additional cables within the ROWs based on concerns about potential disturbance during construction and future maintenance. The risk goes both ways in that US Wind would be concerned about potential risk to disturbance of the export cables during work in and around the ROWs. The analysis of Section 3.6.7.1 should be expanded to include discussion of potential impacts to cables and pipelines in the ROWs; Section 3.6.7.6 does not address this infrastructure concern in consideration of impacts of Alternative C, which could be minor to moderate. Disruption during construction would be anticipated. More than 1,000 homes and business along any of the land-based cable routes, based on parcel totals (Based on GIS mapping using State of Delaware Parcels (DE FirstMap, last updated September 2023) and Census Bureau American Community Survey population density data for 2017-2021: Onshore Export Cable Corridor 1a: 1,770 parcels [population density per square mile: 20,028]), would be affected during construction with road closures and increased exposure to construction noise. Sussex County and local municipalities are undertaking projects to accommodate significant growth in the county. Such project construction is planned outside tourist season, which would be the same window of construction for US Wind's land-based cable installation, creating potential disruptions to local land use and coastal infrastructure.	Potential impacts to existing infrastructure along the terrestrial Onshore Export Cable Routes associated with Alternative C have been included in Section 2.2.3 of the Final EIS.

Comment No	Comment	Response
FDMS_0805_006	We support Alternative C as it avoids impacts to the Indian River Bay, which is EFH for many species, including summer flounder, scup, black sea bass, butterfish, bluefish, dogfish, and multiple species of skates. Estuaries such as the Indian River Bay provide important nursery habitats for many marine species and are already subject to multiple stressors. Alternative C includes two sub-alternatives, both of which avoid placement of cables in Indian River Bay. Alternative C-2 has a shorter offshore export cable route than Alternative C-1. In addition, the DEIS notes that stony corals were observed along a transect of the offshore export cable route for Alternative C-1.For these reasons, Alternative C-2 may be preferable to C-1 from a habitat perspective. Overall, it is challenging to understand the conclusions in the DEIS with respect to comparing the habitat impacts of Alternative B, the developer's proposed action, and Alternatives C1 and C2, which is framed as avoiding impacts to Indian River Bay. Discussions we would broadly characterize as habitat impacts are decomposed into biological/benthic resource impacts, which consider effects on open water habitats, coastal habitats and fauna, and wetlands and other waters of the U.S. It is difficult to read across these sections and understand the difference between Alternatives B and C. The same information should also be provided for all relevant alternatives. For example, Table 3.5.8-3 shows the intersection of the different export cable routes with various wetlands types, but a like table does not appear to be provided for Alternative B, posing challenges for a direct comparison of wetlands impacts between the two approaches. We expect that NOAA EFH staff are closely involved in developing conservation recommendations for both open water and wetland habitats used by their trust resources. We defer to their judgment as to the alternative (or modification thereof) that best minimizes impacts to fish habitats.	Thank you for your comment. Conservation recommendations resulting from EFH consultation are provided in Appendix G of the Final EIS and analyzed in each resource section.

O.7.3 Alternative D - Reduce Visual Impact

Table O.7-6. Responses Substantive – Alternative D - Reduce Visual Impact

Comment No	Comment	Response
FDMS_0645_001	As a dual resident of Maryland and a Delaware beach community, I will be directly impacted by the offshore wind projects. While the BOEM EIS is comprehensive, it contains a major flaw which must be addressed before the final EIS is submitted for decisions. Alternative D, Viewshed Alternative, does not adequately present a meaningful alternative to reduce the visual impacts of the project. The premise of Alternative D is stated in the EIS as "The public comment process proposed a 15-mile (24.1 kilometer) exclusion zone for WTGs…" This is an inaccurate generalization of the viewshed objections raised during the previous public comment periods. A better summary of the public comments from those concerned about the impact to our viewshed can be summarized with term "Green and Unseen." (reference: https://oceancitymd.gov/oc/oc-supports-green-unseen-wind-farms/). Alternative D summary in EIS section H.5.2 states: "The user groups and receptor sensitivity components for the KOPs would be the same under Alternative D as described for Alternative B (Section H.4.1.2)." Furthermore, it concludes that Alternative D "…would not change the impact magnitude components or ratings provided for Alternative B in Section H.4.1.2." Therein lays the problem: the EIS only presents one Viewshed alternative based on a misperception that the public recommended offshore wind at 15 miles. What BOEM should have done is used the scientific process detailed an EIS Appendix H to determine the distance at which the WTGs would reduce the impact level from "major" for the Beaches LSZ. In simple terms, how far away do the WTGs need to be for impact level at the Beaches LSZ to be reduced from Major to Moderate, Minor, Low, or Negligible? Is it 20 miles, 25 miles, 30 miles? The EIS fails to answer that question and BOEM should address this flaw before presenting the final EIS.	The Lessee can only propose WTG sites within their lease area, which extends approximately 23 nautical miles (27 statute miles) from shore at the farthest point. Analyses of turbine installation outside of the identified lease area does not meet BOEM's Purpose and Need. Under the no action alternative (Alternative A), BOEM would disapprove the COP and the Project described in the COP would not be built in the lease area.

Comment No	Comment	Response
FDMS_0791_005	Alternative D, No Surface Occupancy to Reduce Visual Impacts Alternative The visual impacts of Alternative D and the Proposed Action (Alternative B) were found to be similar as noted on page 3-466: “the action alternatives [including Alternative D] would not result in meaningfully different impacts on visual resources compared to Alternative B. As a result, the impacts of the action alternatives would likely remain the same as Alternative B: moderate to major with an overall moderate impact.” Alternative D does not warrant selection. Maryland’s goals for offshore wind, including a new highly skilled Maryland-based workforce, would be frustrated if Alternative D were selected. On April 21, 2023, Maryland Governor Wes Moore signed into law an increase to the state goal for offshore wind energy to 8.5 GW of offshore wind by 2031 (COP Section 1.1.1).The law provides new opportunities for power offtake for federal offshore wind leaseholders off the Delmarva Peninsula through a new procurement of offshore wind-generated electricity through a power purchase agreement with the state with contracts for up to 5 million megawatt-hours annually. The future development area, i.e., the 32 WTG locations in the western portion of the Lease area, would be an important contributor to meeting Maryland’s expanded offshore wind goals. The removal of 32 WTG locations and 1 OSS location would result in a significant loss of wind-generated energy and reduction of greenhouse gas emissions, as well as the economic benefits and potential supply chain opportunities for businesses in the region. The opportunity for 4,928 job-years would be surrendered, including US Wind’s commitment to MBE and union participation in the projects and the associated benefits from training a skilled workforce, Up to 36.7 million tons of CO2 would not be avoided from emissions-free electricity generation, and the benefit of 33 new structures, spaced 0.77 NM east to west and 1.02 NM north to south, would not be installed to provide reef effects closer to shore for commercial and recreational fisheries.	Thank you for your comment.

O.7.4 Alternative E - Habitat Impact Minimization

Table O.7-7. Responses Substantive – Alternative E - Habitat Impact Minimization

Comment No	Comment	Response
FDMS_0791_006	Alternative E, Habitat Impact Minimization Alternative US Wind questions the broad interpretation of "habitat areas of concern" as depicted in Figure 2-9 (DEIS page 2-29) as it relates to "large, landscape scale features such as high-relief sand ridge and trough complexes and deep holes/drop-offs" (DEIS page 2-28) for the reasons discussed below. Additionally, Alternative E would represent an immediate material risk to the viability of US Wind's planned development in the Lease area. Alternative E – Sand Ridges and Troughs The DEIS notes "[s]teeper slopes exceeding 20 degrees were identified in the western portion of the Lease Area" (DEIS page 3-33).However, the cited reference of COP Appendix II-K5 states "The seafloor interpretation [identifies] locally steeper slopes located by the south-western border of the Lease area, where local slopes over 20° are identified" (Section 3.2.4).A review of the data reveals that these features are extremely limited and local, which could be avoided by micro-siting WTG locations. As noted in Appendix II-K5 of the COP and elsewhere "[i]n general, slopes do not exceed 1° for 93% of the Lease area and additionally slopes do not exceed 2° for 99% of the Lease area." See Figure 2 below, which is included as Figure 3.6 in COP Appendix II-K5. Areas of high relief in the southwest corner were not included during the identification process for the eventual Lease which started in 2010.The major sand ridges in the immediate vicinity extend to the south and southwest of the Lease area, see Figure 3 below, with only the upper reaches of the features extending into and dissipating within the Lease area. The nomenclature of "major sand ridges" used in Figure 2-9 of the DEIS are relative to other areas within the Lease area and not the regional features. Therefore, the habitat areas of concern are located outside of the Lease area except in the few locations where micro-siting individual WTG locations could avoid the features. Alternative E – Biological Function The biological function of the identified areas is not supported by site-specific data collected by US Wind in support of the COP. From a biological perspective, the 2021 benthic infaunal community results suggest no discernable difference between samples collected from within the areas of concern and those collected outside of the areas of concern. This is demonstrated by the lack of clustering in the non-metric multidimensional scaling (nMDS) ordination below (Figure 4), which includes the 16 samples collected from the areas of concern and compares them to the 16 samples collected outside of but nearest to each of the areas of concern. NMFS-GARFO's 2021 "Updated Recommendations for Mapping Fish Habitat" indicates that "sand features that occur or migrate over gravel pavements (i.e., gravel exposed in sand wave troughs) versus those that do not is of importance to differentiate types of EFH." COP Appendix II-A "Integrated Site Characterization Report – Offshore" observed in Section 6.4.2: "Post-sea-level rise sediments underlying the Lease area and Offshore Export Cable Corridor consist of a variable thickness of primarily granular, Holocene-age sediments. The thickness of these surficial sediments in the Lease area varies from less than 1 m to nearly 12 m. A greater thickness of Holocene sandy material coincides with the presence of the sand ridges. The thickness of these surficial sediments in the Offshore Export Cable Corridor varies from less than 0 m to 5.8 m. The greatest thickness of Holocene sandy material coincides with the presence of sand dunes/ridges." The habitat areas of concern generally align with sand ridges in the Lease area and sand dunes in the Offshore Export Cable Corridor. These sand ridge and dune features represent the areas of thickest Holocene sand deposits in the Lease area and Offshore Export Cable Corridor, respectively (Figure 5), and therefore gravel pavements are unlikely to be present at or near the seabed surface. This is further confirmed by benthic grab samples and video transects collected within the areas of concern in 2021 (COP Appendix II-D4 and supporting data), showing primarily sand or gravelly (<30% gravel) substrates, even in samples collected from the troughs between sand ridges. The addition of structure in the Lease area would also be beneficial. Scour protection can provide habitat similar to natural hard bottom, offering finfish refuge from predators and enhancing opportunities for spawning and growth of finfish and macroinvertebrate species that prefer hard substrates (Kerckhof et al.2018, Degraer et al.2020, Hutchison et al.2020).When associated with artificial structures in the water column, scour protection habitats also tend to produce higher density and diversity of macrofauna, due to factors such as increased bio deposition by the biofouling community that colonizes the vertical structures (Coolen et al.2020, Degraer et al.2020).	NMFS identified six habitat areas using data provided by US Wind and previously collected data and reports (e.g., Guida et al.2017, Habitat Mapping and Assessment of Northeast Wind Energy Areas). The major sand ridges in the immediate vicinity extend to the south and southwest of the Lease area, with only the upper reaches of the features extending into and dissipating within the Lease area. The nomenclature of "major sand ridges" used in the relevant figure in Section 2 of the Final EIS are relative to other areas within the Lease area and not the regional features. Therefore, the habitat areas of concern are located outside of the Lease area except in the few locations where micro-siting individual WTG locations could avoid the features.

Comment No	Comment	Response
FDMS_0791_006 (cont'd)	Alternative E – Loss of WTGs The additional anticipated impacts of the selection of Alternative E would result in immediate material, and potentially irreparable, harm to development in the Lease area beyond the loss of specific offshore components. Alternative E could result in the removal of an additional 9 to 25 WTG locations, up to 140 to 425 MW, beyond the identified 11 WTG locations and 185 MW described in the description of the alternative (DEIS page Section 2.1.5). At a minimum, selection of Alternative E would result in the removal of 11 WTGs, assuming that inter-array cables, export cables, and construction vessels can be micro-sited around and throughout the areas of concern such that only wind turbine foundation installation locations are affected. Such a significant loss of WTGs is disproportionate to the small area of impact. Permanent disturbance of the seafloor by foundations and scour protection within the areas of concern, assuming the total area encompasses approximately 9,044 acres as shown, is extremely small, just 0.024% of the identified areas of concern. Removal of these proposed wind turbines represents a reduction of approximately 185 MW of nameplate capacity for the Lease area. Moreover, these wind turbines represent a disproportionately higher amount of power generation9 due to the locations' beneficial exposure to the prevailing wind directions. Removal of the proposed Met Tower location, along with one Alternate Met Tower location, jeopardizes both project operations and safety (through removal of power curve verification and real time meteorological and ocean condition monitoring), as well as key stakeholder benefits and mitigations. For example, it is anticipated that the Meteorological Tower will be a crucial component of any mitigation efforts to reduce impacts to oceanic high-frequency radar systems operated by the Integrated Ocean Observing System (IOOS) as anticipated in DEIS Appendix G page G-30. US Wind's expected impact of selection of Alternative E would be much greater if all temporary and permanent bottom-impacting construction activities were forbidden in the areas of concern. Due to the interconnected nature of the wind farm components, the inability to construct within these areas significantly multiplies the detrimental effects. For example: • Delivery of any power to shore from the Lease area would require that the entire export cable corridor to the north of the Lease area be re-sited. As noted above, a route to shore that does not impact similar habitat may not be available. • An additional 9 to 15, or more, wind turbine locations would have to be abandoned due to a combination of stranding, construction feasibility, and navigation risk. This represents a loss of approximately 140 to 200+ MW beyond the 11 directly impacted locations. • The proximity of an area of concern to location UJ-10 potentially requires abandonment of that location as an offshore substation due to an inability to safely and effectively route cables and conduct construction activities within the remaining unaffected area. This results in up to 25 additional wind turbine positions (nominally 425 MW) at risk of abandonment due to the increased construction challenges and economics. The areas of concern identified in Alternative E do not appear to be supported by the available data due to the lack of significant steep slopes and available habitat in the Lease area. The potential impact to the Project is material and significant with the removal of a minimum of 20 and up to 52 WTG and 1 OSS locations and would not meet the Purpose and Need.	continued from above

O.7.5 Bats

Table O.7-8. Responses Substantive – Bats

Comment No	Comment	Response
FDMS_0836_007	8.Appendix F: Note: Most of the comments pertaining to 3.5.4 are arguably associated with the offshore work. Included herein because these comments are associated with flying species, whose impact offshore can impact populations within the Inland Bays. • Example: 3.5.1.5.1.1: The report indicated a potential temporary effect (e.g., noise). Should seasonal restrictions during construction be discussed? • Also, this evaluation focused on Federally listed bat species. The Center suggests that New Jersey, Maryland, Delaware, and Pennsylvania be contacted to incorporate regional species of State concern. This is a general comment/recommendation for all fauna	While not explicitly stated, any mitigation measures included to be protective of Federally listed species would also be protective of all bats that may be roosting and/or foraging in the vicinity of project facilities.

Comment No	Comment	Response
FDMS_0892_004	Birds and Bats: • Include the proposed measure on the use of novel monitoring technologies for birds and bats in the ROD and explicitly require Maryland Offshore Wind to commit to deploying collision detection technology, once commercially available. • Require post-construction monitoring for bird and bat presence and collision rates by including radar, visual and thermal camera systems, acoustic detectors, and Motus and GPS tracking of both listed and non-listed species; require Maryland Offshore Wind to deploy and maintain Motus towers within their offshore lease area and coastal sites. • Specify how impacts to bat and bird species will be determined from monitoring data (as the only currently proposed post-construction monitoring is annual reports of carcasses on vessels and structures) as well as what will trigger adaptive management. • Consult with the U.S. Fish and Wildlife Service about potential offshore collision impacts to the endangered northern long-eared bat.	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 No	Comment	Response
FDMS_0892_028	In this DEIS, BOEM dismisses impacts to bats from offshore wind as negligible194 even though there is insufficient research on bats offshore to support such a conclusion. BOEM should not interpret a lack of data as a lack of impacts and instead work with Maryland Offshore Wind, the RWSC, and other developers to implement monitoring regimes to enable better understanding of bat impacts from offshore wind development. a. The Cumulative Impact Analysis for Bats Is Inadequate Of particular concern for the accuracy of BOEM's cumulative impact analysis for bats is the geographic analysis area. quick survey of available research on bat migration does not support BOEM's rationale for their limited inland geographic analysis area in Maryland Offshore Wind's DEIS b. Current Data Are Inadequate to Support BOEM's Determination of Negligible Impacts to Bats 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 be exposed to multiple land-based wind energy projects as well as multiple offshore wind energy projects. Given the addition of structures post-construction and bats' known attraction to structures, including wind turbines, basing post-construction impact analyses on data collected in the absence of turbines is inappropriate. The data analyzed in the COP and DEIS are woefully inadequate to support BOEM's claim that the "overall impacts on bats would be negligible because no measurable impacts are expected due to the likely absence of bats within the offshore portions of the Project area." 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. c. Collision Impacts to Cave-Hibernating Bats Are Poorly Analyzed 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 impact. Cave-hibernating bats may be found offshore more frequently and at greater distances from shore than the assessments in the COP and DEIS indicate. The DEIS cites a study to claim that "exposure to wind projects offshore of the mid-Atlantic states is not likely for cave bats (Sjollema et al.2014)."235 The study cited does not support this conclusion. The authors actually advised that "] offshore wind projects proposed for locations beyond the maximum detection distances noted in our study would likely have few impacts…however…projects closer to shore could result in fatalities similar to those reported at onshore wind facilities."236 The maximum detection distances of bat echolocations in the study were 21.9 km offshore; Maryland Offshore Wind's turbines in the Proposed Alternative start at 16.2 km offshore, closer than the maximum detection distance. Furthermore, cave bat calls have been detected further offshore than in Sjollema et al.(2014)237 and the study authors caution that their acoustic detections of bats were near the surface, and not at the height of the rotor-swept zone of offshore wind turbines.238.BOEM Should Consult with U.S. Fish and Wildlife Service About Potential Offshore Collision Impacts to Northern Long-Eared Bats (235 MDOSW DEIS, Appendix F at F-41, citing Sjollema et al.2014.Sjollema, Angela L., J. Edward Gates, Robert H. Hilderbrand, and John Sherwell."Offshore Activity of Bats Along the Mid-Atlantic Coast." Northeastern Naturalist, vol.21, no.2 (2014): 154–63.236 Sjollema et al.2014; MDOSW COP, Volume II at 271.237 Peterson et al.2016, Appendix A.238 Sjollema et al.2014.)	Appendix F, Section 3.5.1.1 provides description of the affected environment and bat occurrence with citations. Appendix D of the Final EIS states 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, operations and maintenance, and conceptual decommissioning of the US 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 0490.

O.7.6 Benthic Resources

Table O.7-9. Responses Substantive – Benthic Resources

Comment No	Comment	Response
FDMS_0078_006	US Wind states that scour protection on inter-array and transmission cables will only be used as needed, and estimates that may be only 10% of the time, and the minimum depth of burial of transmission cables could be as small as 3'. Transmission cables from the Block Island offshore wind project became exposed several years ago despite the burial of 6' or more, including on a recreational beach. Scour protection should be required on all cables. The Indian River Bay is classified as a Water of Exceptional Recreational Significance and a Harvestable Shellfish Water. Placing cables in the bay should be viewed as unacceptable instead of the first choice, as listed in the DEIS. No studies have been conducted on the impacts of turbines and cables on the horseshoe crab. The lease area sits atop the horseshoe crab reserve. Project approval should be withheld until studies of the impact on horseshoe crabs are complete.	Thank you for your comment. Due to the importance of the horseshoe crabs and shellfish to the Mid-Atlantic, US Wind conducted a site-specific study of potential EMF impacts using 5 different scenarios. The modeling study found that the electric field produced would be below the reported detection thresholds for even electrosensitive marine organisms (Exponent 2023). As Section 3.5.2.5 stated, when operating at peak loading, the maximum level of the magnetic field produced from the Offshore Export Cable Route cables (both offshore and through Indian River Bay) was calculated as 148 mg (14.8 µT) at the seabed, and quickly decreased to 12 mg (1.2 µT) just 3 feet (1 meter) above the seafloor (Exponent 2023).These values are 3.4 and 42 times lower respectively than EMF levels which have shown no impact (Exponent 2023).

Comment No	Comment	Response
FDMS_0086_001	How long would benthic environments take to completely recover?	The recovery times of benthic invertebrates from offshore wind cable emplacement are not yet fully known. As described throughout Section 3.5.2, *Benthic Resources*, seafloor recovery rates vary with currents, sediment mobility, substrate composition, and type of disturbance. Recovery rates from sand mining projects and similar benthic disturbances show that in general recovery ranges from a few months to years (Boyd et al.2005; Brooks et al.2006; vanDalfsen et al.2000; Coates et al.2015; Kraus and Carter 2018, HDR 2020), with increased rate of sediment infilling strongly correlated to the recovery rate of the number of individuals within the disturbed area (Dernie et al.2003). Recovery rates of these disturbed benthic species depend on the community composition, their lifecycle sensitivity, feeding type, the extent of disturbance, and the nature of the protection material (if used).
FDMS_0836_005	2.The HWR memo asserts that Indian River Bay will be sensitive to sediment deposition but then inexplicably asserts that calculating the potential impacts to the following receptors is beyond the scope of this analysis: • The cooling water intake for Delmarva Power and Light facility (sensitive to suspended sediment). • Tidal wetlands along the shoreline of Indian River Bay (sensitive to suspended sediment and deposition). • Shellfish harvesting areas (sensitive to suspended sediment and deposition). 3.The DEIS lacks necessary analysis and discussion of the impacts of project-related activities on Benthic Resources; Finfish, Invertebrates, and EFH in the Indian River Bay, including the following: • These sections lack an analysis and discussion of the impacts of disturbing contaminated sediments within Indian River Bay during cable-laying activities. The applicant should perform sediment contaminant transport modeling to support this analysis. • These sections lack a cohesive and detailed discussion of cable heat impacts and should be revised to include this information and analysis. • These sections lack any mention of egg and larval entrainment during jet trenching activities and should be revised to include this information and analysis. • The discussion of noise impacts is lacking detail. This section should be revised to include information regarding the level of noise generated by these activities, as well as information regarding the impacts of the particle motion aspect of noise on benthic organisms. 4.The DEIS's description of affected environment (Section 3.5.5.1), does not describe the inshore cable route in Indian River Bay at all. This section has only one sentence describing the finfish present in the Indian River Bay and does not discuss any invertebrates in the Bay. Without a description of the habitat and organisms present in Indian River Bay, one cannot fully understand the potential impacts of this proposed cable route. 5.Benthic Resources, Proposed Action: This section should be revised to include more detailed information on the level of noise that will be generated by HDD and gravity cell installation. 6.Finfish, Invertebrates, and EFH, Proposed Action: This section lacks a discussion of noise impacts due to cable laying activities within Indian River Bay and should be revised to include this information and analysis.	Thank you for your comment. The Final EIS assesses the reasonably foreseeable impacts associated with the proposed activities (impact producing factors) for each resource area. Additional details of impacts to resources in Indian River Bay is presented in the EFH Assessment (i.e., habitat loss, suspended sediment, entrainment, underwater noise, introduction of invasive species, accidental spills, hydrodynamic effects, EMF, heat, water quality and marine debris). The discussion of fish, invertebrates and EFH in Section 3.5.5.1 of the Final EIS has been supplemented to call out resources in Indian River Bay. The results of the Indian River Bay Sediment Transport assessment indicated that most of the fluidized sediments lost to the water column are predicted to quickly settle back to the bay floor. Suspended sediment concentrations are predicted to be less than 200 mg/L at distances greater than 4,600 feet (1,400 meters) from the cables. All suspended sediment concentrations greater than 50 mg/L above ambient conditions are predicted to dissipate in less than 12 hours after the passage of the jet plow. Suspended sediment plumes greater than 10 mg/L are predicted to disappear within 24 hours after the completion of jetting operations. US Wind would prepare a Turbidity Monitoring Plan for dredging operations for submittal to BOEM, DNREC, and USACE, as required, prior to conducting construction activity in Indian River Bay. Despite the presence of metals in the samples, toxicity to aquatic life from dredging activities due to metals was not expected and the potential toxic impact to humans was considered low based on a comparison of the analytical results with the applicable Delaware Screening Values. Estimated arsenic concentrations exceeded the Delaware chronic toxicity standards for surface water but were within the range of sediment values detected regionally within the Inland Bays.
FDMS_0887_002	Concerned about the unexploded, live munitions that exist on/under the ocean floor that continue to be found when beach replenishment is conducted locally. Construction associated with OSW is likely to increase this danger. Please provide research and information regarding the public safety best practices that are in place and the plans for mitigation of unexploded munitions.	While not anticipated, if a UXO is detected, UXO clearance has the potential to cause disturbances to the seafloor (sediment suspension and deposition) as well as punctuated extreme levels of noise if detonation is utilized as a removal methodology. The most common approach utilized to deal with UXOs within a cable route or footprint of a WTG or OSS, is avoidance. Avoidance entails micro siting of cable routes and WTG/OSS foundations to avoid UXO hazards. UXO clearance involves relocation, removal, or detonation/incineration in place (Middleton et al.2021). Clearance methodologies are not a common mitigation approach because of the high risk and cost (Middleton et al.2021). The micro-sitting or relocation adjustments are usually limited to 50 to 100 feet (15 to 30 meters) from the UXO hazard (Middleton et al.2021). The micro siting efforts result in the same type of short-term construction-related and permanent operational impacts as those described in the construction methods for cable installation and WTG and OSS foundation installation.

Comment No	Comment	Response
FDMS_0892_005	Benthic: • BOEM should adopt Alternative B - Proposed Action, and require micro siting of the export cables and wind turbine generators to avoid, minimize, and mitigate impacts to complex and sensitive benthic habitats. • Require a benthic monitoring plan and anchoring plan to address impacts to benthic habitat from long term impact producing factors such as anchoring, and understudied factors such as underwater noise.	US Wind has not presented a benthic monitoring plan at this time. As part of the regulatory review process, US Wind will be engaging and negotiating with the appropriate federal and state regulatory agencies throughout the life of the Project that may lead to the requirement to develop an adaptive benthic monitoring program.
MAILIN_0005_002	BOEM is 's The reader is referred to Appendix F, Impact-Producing Factor Tables and Assessment of Resources with Minor (or Lower) Impacts for a discussion of current conditions and potential impacts on water quality from implementation of the No Action Alternative, the Proposed Action, and other action alternatives. Please provide a summary narrative within the DEIS section of the content included in the Appendix for the reader's ease of reference.	Per the Department of Interior Secretary Order 3355 "Streamlining National Environmental Policy Act Reviews and Implementation of Executive Order 13807 ", BOEM is attempting to adhere to a directive to maintain page limits. As such adding additional summaries in the Final EIS document that are also found in the Appendices would create unnecessary redundancy.
MAILIN_0005_003	The DEIS states: "The Project has been cited to avoid sensitive or rare habitats, such as artificial reefs, clam beds, submerged aquatic vegetation (SAVE) beds, and hardbottom habitats, where practical". In reviewing the habitat maps, Fig 3.5.2, 1-3, other habits are identified that can support scallop beds and species adapted to shifting sands, ripples and ridges such as sand dollars that can be food source for a variety of finfish. A discussion of other habitats present, and their importance to the variety of benthic species present would further the reader's understanding of the full range of impacts resulting from the project.	Thank you for your comment. Section 3.5.2.1 describes the habitats present in both the offshore and Inshore Project areas, including a map of the benthic habitats (relevant figures in Section 3.5.2). Alternative E proposes an option that avoids areas of concern, as agreed upon by the National Marine Fishers Service (NMFS) and the Lessee.
MAILIN_0005_004	The lease area overlaps the southern portion of the Shuster Horseshoe Crab Reserve. The area along the route of the preferred alternative is expected to be over wintering habitat. Based on the project configuration, impacts associated with the cable routes look to be more of a concern than those related to the WTGs. Additionally, surveys identified heterogeneous seafloor sediments along the export cable route and in Indian River Bay. Habitat value in these areas cannot be discounted. The assessment of horseshoe crabs and their viable habitats should be fully assessed in the EIS. No record of decision or alternative selection should be made until BOEM completes further study to adequately determine the impacts of the project on the horseshoe crab. The DEIS should include additional discussion about the seafloor habitat and specific impacts to the horseshoe crab in terms of seafloor habitat disturbance. No record of decision or alternative selection should be made until BOEM completes further study to adequately determine the impacts of the project on the horseshoe crab.	Thank you for your comment. The Carl N. Shuster Jr. Horseshoe Crab Reserve is discussed in Section 3.5.2.1. Review Section 3.5.2.5 for discussions on the impacts of noise, EMF, and cable emplacement on invertebrate species including the horseshoe crab. Negligible to short-term, minor impacts from Alternative B (the Proposed Action) are expected for horseshoe crabs. Expected impacts from the other alternatives are also discussed throughout Sections 3.5.2.3 through 3.5.2.9.
MAILIN_0005_005	The DEIS references an assessment of the ecological condition of the Delaware and Maryland Bays, noting that 77% of Indian River Bay is characterized by degraded benthic habitat with associated poor water quality. As such, habitat is already compromised (runoff in the upper watershed being the primary cause). Given that habitat is degraded under the existing condition, it is important that the Project not compromise it further. Language documenting how the Project would not result in additional impacts to the ecological conditions should be included if that is accurate. Alternately, mitigation should be proposed if it is found that impacts cannot be avoided.	Benthic impacts from the Proposed Action as well as all Alternatives are addressed in Sections 3.5.2.5 through 3.5.2.9 of the Final EIS. Impacts on Indian River Bay are only called out when they are distinct from offshore waters. Appendix G of the Final EIS identifies the mitigation and monitoring measures associated with each resource area.
MAILIN_0005_007	Regarding acoustics impacts, the DEIS notes accurately that there is a "Vast gap in knowledge" about thresholds and recovery for invertebrates and other species; the horseshoe crab being of greatest concern. This is followed by a statement indicating that given the gap, an assessment of impacts would be speculative. The subsequent conclusion that impacts "would likely be negligible" should be revised as with the lack of knowledge/information, such a conclusion should not be drawn. No record of decision or alternative selection should be made until BOEM completes further study to adequately determine the acoustic impacts of the project.	BOEM uses the best available science to determine the potential effects of an action. NEPA requires BOEM to identify incomplete or unavailable information. In the Final EIS, this is referred to in Appendix E. Where information may be incomplete or unavailable, BOEM seeks to gather information through the Environmental Studies Program, federal and state partners, or through information available about similar topics in primary literature.

Comment No	Comment	Response
MAILIN_0005_008	Dredging and placement of concrete mattresses where the cables cross hard substrates will result in impacts, including mortality and displacement, to a variety of marine organism eggs and juveniles as well as sessile and slow-moving organisms. While recovery of benthic habitat within a few months on the short end of the spectrum would likely result in minor impacts, a multiple year recovery time frame would be of significant concern for certain benthic species. As such, the EIS should provide further reasoning behind the conclusion that population level impacts would not result from the construction, operation and decommissioning of the Project. Additionally, a description of how the sensitive timing of the horseshoe crab movements from offshore to the beaches, bays and wetlands to spawn as well as early finfish life cycles are to be avoided to minimize potential impacts.	Past studies following sand mining operations showed that the time scales for recolonization also vary by taxonomic group, with polychaetes and crustaceans recovering in the first several months and deep burrowing mollusks with a long-term recovery within several years (Brooks et al.2006, Wilber and Clarke 2007). US Wind assumes all construction within Indian River Bay, including any dredging, would occur in October-March window, observing the general time of year restrictions for summer flounder and other species. These restrictions would best avoid the spawning for the horseshoe crabs. Time of year restrictions would be determined through consultations with DNREC.
MAILIN_0005_015	The DEIS should more fully analyze cumulative impacts to the horseshoe crab populations, sustainability and harvest from the perspective of the full build out of all the lease areas. No record of decision or alternative selection should be made until BOEM completes further study to adequately determine the cumulative impacts on the horseshoe crab.	BOEM uses the best available science to determine the potential effects of an action. NEPA requires BOEM to identify incomplete or unavailable information. In the Final EIS, this is located in Appendix E. Where information may be incomplete or unavailable, BOEM seeks to gather information through the Environmental Studies Program, federal and state partners, or through information available about similar topics in primary literature.
MAILIN_0005_016	A more detailed analysis of how potential impacts to the horseshoe crab will affect the supply of materials to the research industry and what it means from a medical and socioeconomic perspective should be incorporated into the EIS.	Please see Sections 3.5.2 and 3.5.5 of the Final EIS for discussions on the impacts of noise, EMF, and cable emplacement on invertebrate species including the horseshoe crab. With negligible to short-term, minor impacts expected for horseshoe crabs, no population changes are expected.
TRANS-24_0003_001	I saw my first horseshoe crab when I was about five or six years old while visiting my mom's family in Sussex County. I recall thinking, ew!, the crabs were just about the ugliest things I had every seen .Needless to say, my opinion of horseshoe crabs has totally changed. As an adult I have learned how essential the crabs are to medicine. According to the NIH, American horseshoe crabs play an indispensable role in biomedical research. Not only does their blood contain special chemicals that scientists use to detect bacteriotoxins in our medicines and our delivery systems, that their eyes also contain a neural network that has provided much insight to our own visual system. You can read all about it. The blue blood of horseshoe crabs may be one of the most valuable liquids on earth, currently valued at $15,000 per quart. It is used throughout the biomedical field to secure the safety of just about anything that you can think of from vaccinations to surgery to cancer treatment research. If you have ever had a vaccine, chances are it was tested for safety using horseshoe crab blood. If you have ever had surgery, you should be very grateful for it being used to detect endotoxins which can contaminate antibiotics and surgical equipment. One-third of the blood of the crabs are extracted, and then they are returned to the ocean. Given all of these facts and the fact that the crab is already on the endangered species list, it is more than disturbing that there was a horseshoe crab stranding on the beach of Delaware State Park the weekend of October 7th, just west of the offshore wind surveying that is happening. The pictures of hundreds if not thousands of dead horseshoe crabs are horrifying. A stranding of this type has never occurred before according to locals who study the crabs and are involved in conservation efforts. There's evidence someone tried to clean up the evidence, but the pictures both before and after were destroyed. Is it just a coincidence that this occurred after only five days of surveying of the ocean floor of the high-voltage offshore wind cable positioning? The surveying by U.S. Wind and Atlantic Bounty is being done right in the 1,500 square mile crab sanctuary. Let me repeat that. It is being done in the sanctuary. By the way, I just recently found out that this sanctuary is the largest horseshoe crab habitat on earth. This is only one of the problems that can most likely be laid at the feet of the offshore wind industry and those supporting it with our tax dollars. There's also the increased deaths of whales and dolphins that there are always going to be accidents occurring and the sudden scarcity of certain beloved seafood items. Additionally, we've been continuously misled about the size, number and location of the turbines which is continuously changing without requiring additional approvals or environmental impact assessments. This must be challenged, and we must demand clarity and accountability. Isn't it time to tell our federal and state agencies that we need a complete moratorium of offshore wind exploration and development until all of this can be figured out?	Thank you for your comments. The Atlantic horseshoe crab (*Limulus polyphemus*) is not currently listed under the Endangered Species Act, nor is it listed as a threatened or endangered species in Maryland or Delaware. Please see Sections 3.5.2 and 3.5.5 of the Final EIS for discussions on the impacts of noise, EMF, and cable emplacement on invertebrate species including the horseshoe crab.

Comment No	Comment	Response
TRANS-24_0004_001	We have many concerns about building offshore wind complexes within the horseshoe sanctuary which was created in 2001 to protect the crabs from harvesting in bycatch. This area is home to the largest population of horseshoe crabs in the world. The protein Limulus Amebocyte Lysate found in their blood is very valuable and used to detect endotoxins in everything from pharmaceuticals to artificial hip replacements and all vaccines including COVID. The U.S. Wind project is partially located within the southern boundary of this marine protected area. Sediment plumes created during excavation for the turbine foundations could remain suspended in the water tower for weeks to months. Many toxic substances unearthed beneath the sea floor make the turbidity increase and sunlight decrease with the species here including the prey that horseshoe crabs consume. Large concrete protection around each base would create another type of sediment with the water rushing past the turbines. These sediment plumes have been shown to persist indefinitely, spreading hundreds of miles in the North Sea where offshore wind is abundant.	The Carl N. Shuster Jr. Horseshoe Crab Reserve is discussed in Section 3.5.2.1. Review Section 3.5.2.5 for discussions on the impacts of noise, EMF, and cable emplacement on invertebrate species including the horseshoe crab. Negligible to short-term, minor impacts expected for horseshoe crabs. The results of the Indian River Bay Sediment Transport assessment indicated that most of the fluidized sediments lost to the water column are predicted to quickly settle back to the bay floor. Suspended sediment concentrations are predicted to be less than 200 mg/L at distances greater than 4,600 feet (1,400 meters) from the cables. All suspended sediment concentrations greater than 50 mg/L above ambient conditions are predicted to dissipate in less than 12 hours after the passage of the jet plow. Suspended sediment plumes greater than 10 mg/L are predicted to disappear within 24 hours after the completion of jetting operations.

Comment No	Comment	Response
FDMS_0013_001	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. Nature-based design elements and nature based features allow the structure to actively provide carbon sequestration, decrease the magnitude and frequency of maintenance leading to increased structural lifespan. Using ecological concrete as a mitigation measure and design alternative supports compliance with strict environmental regulations. The term “ecological concrete" is an alternative to traditional concrete where material composition enhances or encourages the growth of flora or fauna when placed in the marine environment. Ecological concrete may include recycled materials, such as recycled or reclaimed concrete, resulting in reduced greenhouse gas emissions compared to traditional concrete. The DEIS specified that the shared aim of all federal agencies involved is to “deploy 30 gigawatts of offshore wind energy capacity by 2023, while protecting biodiversity and promoting ocean co-use.” In order to achieve this goal, “cable protection measures are required to guard exposed cables and prevent abrasion with other cables. Cable protection approaches include concrete mattresses, rock dumping, and articulated pipes…Therefore, a maximum of 29.98 acres (12.13 hectares) of the inter-array cables, and 34 acres (13.76 hectares) of the Offshore Export Cable Route would require cable protection. The total for offshore cable protection would be 63.98 acres (25.9 hectares) of permanent benthic impacts, conservatively. This acreage would be converted from soft-bottom to hard-bottom species.” Additionally, “Scour protection would be added to the base of each foundation. Scour protection will consist of a layer of small rocks up to 2 feet (0.5 meters) thick to help stabilize the sand substrate around the pile. The permanent benthic habitat that would be impacted from the installation of the scour protection at the WTG foundations (PDE of up to 121) is approximately 22.7 acres (91.9 hectares) and at the OSSs foundations (4) is approximately 0.38 acres (0.15 hectares).US Wind estimates a maximum of 10 percent of the offshore export cable would require additional protection such as concrete mattresses and scour protection but is likely to be significantly less (COP, Volume II, Section 3.6.1).The presence of these introduced hard surfaces may result in new habitats for hard-bottom species and result in increases in biomass for benthic fish and invertebrates. Overall the “Increased biodiversity and the reef effect created from the presence of the offshore infrastructure is especially beneficial for encrusting, hard-bottom or structure oriented species.” Given the aforementioned details above, all concrete materials should solely be fabricated from ecological concrete, including all cable and scour protection, in order to minimize negligible impacts and create marine habitat opportunities. Furthermore, the species that settle and grow on the ecological concrete mattress and cable protection would create a living layer providing bioprotection which hardens the structure. Most of the essential fish habitat and habitat areas of concern fall within and near the Chesapeake Bay watershed. To minimize the impacts of habitat conversion from scour and cable protection, natural or engineered rounded stone should be used featuring a consistent grain size that mimics natural seafloor substrates. At a minimum, any exposed surface layer should be designed and selected to provide three-dimensional structural complexity that creates a diversity of crevice sizes (e.g., mixed stone sizes) and rounded edges (e.g., tumbled stone), and be sloped such that outer edges match the natural grade of the seafloor. When using concrete mattresses and scour protection, bioactive concrete (i.e., with bio-enhancing admixtures) should be used as the primary scour protection or veneer to support biotic growth. In a recent technical report, The Nature Conservancy (TNC) recommended nature-based designs for cable protection and scour protection. Ecological concrete technology is also featured in the Wind Energy Monitoring & Mitigation Technologies Tool developed by the International Energy Agency Wind Task 34 (WREN), the Pacific Northwest National Laboratory, and the National Renewable Energy Laboratory. Specifying hybrid nature-based features for the project would further capitalize on existing carbon goals and nature inclusive frameworks laid out by the White House and the Council on Environmental Quality (CEQ), the USACE’s Engineering with Nature report, including the resiliency future climate action strategies.	Thank you for your comment. BOEM has not identified a preferred or required form of scour protection in the Final EIS. The use of NID materials to encourage habitat enhancement will be considered, although it is ultimately up to the Lessee to decide what type and volume of materials to use for scour and cable protection. BOEM's proposed mitigation measures outlined in Appendix H include minimizing the amount of scour protection required. BOEM's Guidelines for Mitigating Impacts to Commercial and Recreational Fisheries on the Outer Continental Shelf Pursuant to 30 CFR Part 585, which states, "If needed, cable protection measures should reflect the pre-existing conditions at the site. This mitigation measure chiefly ensures that seafloor cable protection does not introduce new obstructions for mobile fishing gear. Thus, the cable protection measures should be trawl-friendly with tapered or sloped edges. If cable protection is necessary in 'non-trawlable' habitat, such as rocky habitat, then the Lessee should consider using materials that mirror the benthic environment."

Comment No	Comment	Response
FDMS_0805_003	The locations of transmission cables, turbine and offshore substation foundations, and other project structures should avoid sensitive habitats and habitats that are of important value to any life stages of Council-managed and other species. These habitats include, but are not limited to, sand ridges, hard bottom substrates, submerged aquatic vegetation, tidal wetlands, and deep-sea corals. NOAA Fisheries' habitat conservation recommendations, developed through the EFH consultation process, should be adopted and integrated into final project alternatives. Detailed maps of all relevant habitat data should be publicly available to allow for informed public comment on ways to avoid or minimize potential impacts to sensitive habitats. Figure 2.9 on page 2-29 of the DEIS is useful, but smaller scale, and ideally interactive maps would be easier to work with. In general, the Councils support the use of larger turbines and substations to reduce the number of structures needed to produce a given amount of electricity if doing so reduces the total area impacted by a project. However, some foundation types with larger footprints have lesser sound impacts during construction, which is an important consideration for multiple marine species. We recommend working closely with NOAA Fisheries to determine how to best balance these tradeoffs.	Thank you for your comment. The National Marine Fishers Service (NMFS) is an active participant in the EIS and their comments and edits are being addressed and incorporated. The Alternatives take many factors into account when planning the placement of the infrastructure. Alternative E proposes an option that avoids areas of concern, as agreed upon by NMFS and the Lessee.

O.7.7 Biological Resources - General

Table O.7-10. Responses Substantive – Biological Resources - General

Comment No	Comment	Response
FDMS_0078_007	Each offshore wind turbine and substation carries many gallons of lubricating oil and diesel oil listed in Appendix H of the COP. The total stored offshore is 508,078 gallons. A massive hurricane could threaten a major spill. The oil response plan seems inadequate to handle a major release and needs to be improved.	Text has been added to the Final EIS providing additional information on how WTGs are designed to sufficiently withstand severe storm events. The design of WTGs and the OSS includes a specification for a 500-year hurricane event in line with the requirements in IEC61400-3-1 Annex I. The 500-year full population tropical cyclone conditions define the robustness level criteria. An additional increase in water level due to (e.g.) climatic effects is estimated to be 0.3 m by the end of the operational lifetime of the turbines. This has been included in the design. Section 3.4.2, *Water Quality,* addresses the potential water quality impacts from construction, O&M, and decommissioning of the Project.US Wind would need to obtain all necessary federal and state permits for protecting water quality. The terms and conditions of these permits would include any necessary mitigation or monitoring requirements to ensure water quality standards are not exceeded. The Project's OSRP provides the framework and detailed process for responding to an accidental spill.
FDMS_0087_001	What was the research time frame for how offshore wind development will affect marine habitat?	Thank you for your comments. BOEM uses the best available science to determine the potential effects of an action. In Section 3 of the Final EIS, impacts to terrestrial, marine, and estuarine resources, as well as socioeconomic resources are analyzed. The EIS discusses potential impacts to the ecosystem, habitats, and several marine species. The large marine ecosystem in the Northeast Atlantic is one of the most studied ecosystems, and studies are cited where relevant. The EIS also cites studies from regions (i.e., Europe) where offshore wind was installed decades ago, giving an indication of some of the long-term impacts to ecosystems that may occur here. Section 3.3 defines the terminology used throughout the Final EIS to characterize the duration of impacts as short term (effects that may extend up to 3 years), long term (effects that may extend between 3 years and 35 years or the life of the Projects), or permanent (effects that extend beyond the life of the Projects).

Comment No	Comment	Response
FDMS_0114_005	Tall turbines to be used for this project have never been placed in the ocean globally, so the impacts on the critically endangered North Atlantic right whale, the endangered Red Knott bird, the protected horseshoe crab, and other animals are unknown. Operational noise, ocean stratification, and electromagnetic field effects are unknown. The twelve-turbine South Fork project under construction should be thoroughly studied for animal impacts before any other projects are approved. Federal agencies have approved Incidental Take during construction & operation on recent projects without establishing a maximum allowed monthly estimated density of critically endangered NARW in the month's construction is allowed. Allowed densities vary by a 28 fold difference, and there is no standard for the version of the source data used. Requirements for Incidental Take need to be standardized.	Thank you for your comments. BOEM uses the best available science to determine the potential effects of an action. Please see Section 3 of the Final EIS for discussions on the impacts of project activities on terrestrial and marine species including those listed in the Endangered Species Act. Specific information can be found in the USFWS and NMFS Biological Assessment documents for the project. Additionally, US Wind applied to NMFS for an incidental take authorization in the form of a Letter of Authorization (LOA) for Incidental Take Regulations under the Marine Mammal Protection Act for incidental take of marine mammals during Project construction.
FDMS_0149_002	In addition to the very real economic concerns alluded to above, offshore wind poses an existential threat to marine habitats and wildlife. NOAA scientist and Chief of Endangered Species, Dr. Sean Hayes warned that harassment from wind turbine construction could result in extinction of the North American Right Whale. For the several years, whales have beaching along the Atlantic coast in unprecedented numbers, corresponding with areas ocean surveillance for wind farms. In a recent documentary, "Thrown to the Wind, "scientists recorded high decibel emissions (in violation of the Marine Mammal Protection Act), which are likely leading to whale disorientation, resulting in collision with vessels and death. There have also been recent reports about hundreds of dead horseshoe crabs washing up on the Delaware shore after ocean surveillance. The Delaware Bay is a horseshoe crab sanctuary, and they are vital to manufacturing vaccines. The proposed "wind farm" zone sits in the Atlantic flyway. Nearby Assateague, a protected national seashore, is home to over 300 bird species, including eagles, falcons, and herons. Wind turbines are known to kill many thousands of birds each year.	Thank you for your comments. BOEM uses the best available science to determine the potential effects of an action. In Section 3 of the Final EIS, impacts to terrestrial, marine, and estuarine resources, as well as socioeconomic resources are analyzed.
FDMS_0429_002	A. Environmental Damage Will Be Major Table ES-1 reveals how much the environmental damage to the region has been underestimated in the DEIS for Alternatives B, C, D, and E. It defies common sense to rate the impacts to Water Quality as minor when there are dozens of turbines using oil and lubricants off the coast. And the impact of the energy running through cables onto the Sussex County shoreline has not been addressed, particularly for accidents and unexpected occurrences. This impact must be reevaluated as Major. Water quality will affect all the animal life listed in Table ES-1.At least you have recognized the major impact on the NARW. And where has the noise from the turbines been evaluated on everyday life in the region? It will be major. B. Industrialization of the Region Will Be Major It is horrifying to anyone who lives in this region to read the Landfall and Onshore Cable Routes alternatives in Alternatives B, C, D, and E. These cables (whether above ground or buried in shifting shallow soil) and the stations to support them will turn our marshes and inland bays that are teeming with animal and aquatic life into an industrial wasteland akin to any oil and gas pipeline area. Why must Sussex County be ruined not only along the coast but for miles inland? And where have you evaluated the resulting heavy industry that will move in the constantly service the turbines, the cabling and the stations? The DEIS is deficient in this regard.	Thank you for your comments. The impacts of non-routine activities and low-probability events have been addressed in Section 2.3 of the Final EIS. Section 3.4.2, Water Quality, addresses the potential water quality impacts from construction, O&M, and decommissioning of the Project.US Wind would need to obtain all necessary federal and state permits for protecting water quality. The terms and conditions of these permits would include any necessary mitigation or monitoring requirements to ensure water quality standards are not exceeded. The Project's OSRP provides the framework and detailed process for responding to an accidental spill. Additionally, the impacts of EMF and noise to resources have been assessed in Section 3.

Comment No	Comment	Response
FDMS_0579_004	3.BOEM should reject or defer the US Wind proposal until all studies are completed for the protection of marine and bird life, including whales, horseshoe crabs and migratory birds. Members of the Tower Shores community have recently observed ocean floor survey vessels dragging a sonar array through pods of dolphins feeding very close to our private beach. How much more disturbance of marine life will be caused by installation of the cables and the turbines? US Wind's own proposal acknowledges that they have not completed vital studies on the potential impacts of the project on several species including the horseshoe crab. The project is proposed to be built directly on top of the Carl N. Shuster, Jr. Horseshoe Crab Sanctuary. The blood from these creatures is harvested annually by pharmaceutical companies as it is the only material suitable for finding antigens in vaccines. Project approval should be withheld until studies of the impact on horseshoe crabs are complete. Likewise, US Wind admits that bird kills, including of the endangered Red Knot, occur from the wind turbines (each of which sweeps an area the size 10 football fields with blade tip speeds up to 180 mph), but it does not provide meaningful data on bird kills. Lastly, US Wind acknowledges sightings of the critically endangered North Atlantic Right Whale and other endangered species in the lease area. BOEM should require US Wind to measure the underwater sound levels of the proposed turbines and adopt a mitigation strategy to protect the Right Whales and other endangered species. BOEM should require US Wind to complete all studies needed to ensure the protection of marine and bird species before issuing a final EIS. Each offshore wind turbine and substation carries many gallons of lubricating oil and diesel oil listed in Appendix H of the COP. The total stored offshore is 508,078 gallons. A massive hurricane could threaten a major spill which would have direct impact on our private beach. The oil response plan seems inadequate to handle a major release and needs to be improved. This project has been approved by Maryland, however, there is no specification land filled material such as turbine blades that will be placed in Maryland. Deficiencies must be addressed to protect against environmental hazards to Delaware's beaches and marine life.	Thank you for your comments. BOEM uses the best available science to determine the potential effects of an action. Please see Section 3 of the Final EIS for discussions on the impacts of project activities on terrestrial and marine species including those listed in the Endangered Species Act. Specific information can be found in the USFWS and NMFS Biological Assessment documents for the project. Mitigation measures for the Project are presented in Appendix G. Text has been added to the Final EIS providing additional information on how WTGs are designed to sufficiently withstand severe storm events. The design of WTGs and the OSS includes a specification for a 500-year hurricane event in line with the requirements in IEC61400-3-1 Annex I. The 500-year full population tropical cyclone conditions define the robustness level criteria. An additional increase in water level due to (e.g.) climatic effects is estimated to be 0.3 meters by the end of the operational lifetime of the turbines. This has been included in the design. Section 3.4.2, Water Quality, addresses the potential water quality impacts from construction, O&M, and decommissioning of the Project.US Wind would need to obtain all necessary federal and state permits for protecting water quality. The terms and conditions of these permits would include any necessary mitigation or monitoring requirements to ensure water quality standards are not exceeded. The Project's OSRP provides the framework and detailed process for responding to an accidental spill.

Comment No	Comment	Response
FDMS_0771_004	THE PROJECT WILL HAVE ADVERSE EFFECTS AND UNKNOWN, POTENTIALLY ADVERSE, EFFECTS ON BIOLOGICAL RESOURCES. • Expected adverse effects from shoreline and deeper sea drilling and construction, and the resulting unnatural structures becoming permanently affixed to the sea floor, can be expected to affect sea mammals, sea turtles, fish, crabs, smaller sea life and aquatic plants. The risk posed to birds from the turbines is especially troubling as the Lease Area encompasses or is in close proximity to migratory routes up and down the Atlantic. • It is well known that the proposed lease area is home to the critically endangered North Atlantic Right Whale and other endangered species, and US Wind even acknowledges sightings of the NARW in the lease area. Most whale experts agree that unless human-caused mortalities are immediately curtailed to zero, the NARW will become extinct in the next 30 to 60 years. For these reasons, it is imperative that BOEM, through the DEIS, examine closely, carefully, and comprehensively the US Wind project's potential to adversely affect NARW and exacerbate existing threats to the species. Unfortunately, the DEIS fails this basic task, leaving many impacts undisclosed, unstudied, and unmitigated. • Noise and potential adverse effect from such sonic activity also counsels against approval of the Project. At a minimum, prior to full consideration of an EIS, BOEM should require US Wind to measure the underwater sound levels of construction and of the proposed turbines in operation, and adopt a mitigation strategy to protect the Right Whales and other endangered species and ocean life, prior to any construction activity. • Similarly, and relevant to the socioeconomic category, no data is provided as to what noise levels may be audible to those persons living or working within various radii of the turbines. • US Wind's own proposal acknowledges that they have not completed vital studies on the potential impacts of the project on several species including the horseshoe crab. The project is proposed to be built directly on top of the Carl N. Shuster, Jr. Horseshoe Crab Sanctuary. The blood from these creatures is harvested annually by pharmaceutical companies as it is the only material suitable for finding antigens in vaccines. • US Wind also admits that bird kills, including of the endangered Red Knot, occur from the wind turbines (each of which sweeps an area the size 10 football fields with blade tip speeds up to 180 mph), but it does not provide any meaningful data on bird kills. It is known that many shorebirds migrate at night, at a time when the turbines may not be visible at all to them, and could prove deadly. • Even in the unlikely event that birds are not directly killed, the site will likely additionally cause changes in migratory patterns, potentially disrupting food chains along the coast. This also applies to marine life • The impact of electro-magnetic fields emanating from the buried and incoming very high voltage cable lines is unknown and unexplored in the COP—both as to humans and marine life. As a prerequisite for consideration of the Project, including US Wind's proposed landfall in a heavily utilized area of Delaware State Park, including a beach and bay where children play, and where fishing is conducted, US Wind should undertake studies and provide data on this potential risk. • Obviously, the construction phase itself would entail significant destruction and disruption of plant and animal sea life, as well as the detrimental effect to the habitat of affixing numerous large artificial structures into the sea floor. • BOEM should reject or defer the US Wind proposal until all studies are completed for the protection of marine and bird life, including whales, horseshoe crabs (a very significant feature of this Lease Area) and migratory birds. BOEM should require US Wind to complete all studies needed to ensure the protection of marine and bird species before any approval of the Project, even with any or all of the proposed Alternatives.	Thank you for your comments. BOEM uses the best available science to determine the potential effects of an action. Please see Section 3 of the Final EIS for discussions on the impacts of project activities on terrestrial and marine species including those listed in the Endangered Species Act. Specific information can be found in the USFWS and NMFS Biological Assessment documents for the project. NEPA requires BOEM to identify incomplete or unavailable information. In the Final EIS, this is referred to in Appendix E. Where information may be incomplete or unavailable, BOEM seeks to gather information through our Studies program, our federal and state partners, or through information available about similar topics.
FDMS_0836_006	7.Several potentially impacted aspects of Indian River Bay are listed as low/no impact and reference Appendix F. Appendix F is inadequate for a thorough, site-specific understanding of potential impacts. • Appendix F is "Impact-Producing Factor Tables and Assessment of Resources with Minor (or Lower) Impacts." The main document (DEIS) should include some discussion that categorizes/justifies a habitat or fauna as having minor impacts before it gets placed into these tables.	As described in Section 3.3, the Final EIS uses a four-level classification scheme to characterize the potential impacts of the alternatives. Resource-specific impact level definitions are presented in each resource section, and the impacts of each alternative align with the appropriate impact level, as supported by the analysis. Appendix F contains both Impact-Producing Factor Tables (F.1) and Assessment of Resources with Minor (or Lower) Impacts (F.2). After conducting a thorough analysis of all resources, those that concluded that the Project would result in minor or lower impacts to a specific resource, said resources were moved to the Appendix.

Comment No	Comment	Response
HANDIN-26_0012_001	What kind of long-term studies have been done regarding the affects on marine wildlife as it concerns. NVH, EV, HEV, Noise, Vibration, Acoustics, Electrification, ADDAS. Just in short time of testing in the ocean we have seen whales dying at an unprecedented level.	Thank you for your comments. BOEM uses the best available science to determine the potential effects of an action. In Section 3 of the Final EIS, impacts to terrestrial, marine and estuarine resources, and socioeconomic resources are analyzed and include assessments of noise and EMF.NEPA requires BOEM to identify incomplete or unavailable information. In the Final EIS, this is referred to in Appendix E. Where information may be incomplete or unavailable, BOEM seeks to gather information through our Studies program, our federal and state partners, or through information available about similar topics.
FDMS_0009_001	In review of BOEM–2023–0050 regarding windfarms off Maryland, I note the inclusion of particle motion as an issue of interest. I certainly agree with this inclusion since, as pointed out, all fishes and likely all invertebrates that hear use particle motion, and relative few fishes use sound pressure, at least as a major component of hearing. Thus, understanding the potential impacts of particle motion on behavior, as opposed to sound pressure, is critical for assessment of potential impacts of sounds produced during construction and operation of wind farms. However, and more recently, there is an increased realization that a very likely additional issue for potential impacts of pile driving and other sources that produce sound is the potential energy that they put in the substrate and how this can impact animals living in, on, or just above the substrate (e.g., Hawkins et al., 2021).This includes numerous invertebrates of ecological and economic importance. And, there is also the likelihood of detection by, and potential impact on, fishes (including elasmobranchs) that spend time on or within a few meters (depending on frequency) above the bottom. These signals, broadly referred to as substrate vibration, are very likely to have potential impact on animals, though this has yet to be well-studied (e.g., Roberts and Wickings, 2022). But it is quite certain that these signals are detectable by fishes and invertebrates as particle motion, and through their ears and, in the cases of fishes, probably the lateral line. My point is that for this project, and any others with wind farms (and seismic exploration and many more), consideration needs to be given to signals that can emanate from the substrate. It also important to note that normal mitigation devices for pile driving do not have any impact on substrate vibrations, and the signals can travel substantial distances from the source before leaving the substrate and potentially impacting animals on or just above the substrate. Hawkins, A.D., Hazelwood, R.A., Popper, A.N., and Macey, P.C. (2021)."Substrate vibrations and their potential effects upon fishes and invertebrates," The Journal of the Acoustical Society of America 149,2782-2790.10.1121/10.0004773 Roberts, L., and Wickings, K. (2022)."Biotremology: Tapping into the world of substrate-borne waves," Acoustics Today 18, 49-57. https://doi.org/10.1121/AT.2022.18.3.49.	Sections 3.5.2 and 3.5.5 of the Final EIS contain discussions of particle motion and vibration impacts to these resources. BOEM uses the best available science to determine the potential effects of an action. These sections acknowledge various informational gaps concerning the effects of noise on invertebrates and indicate that impacts are speculative, but current evidence suggests they are negligible.

O.7.8 Birds

Table O.7-11. Responses Substantive – Birds

Comment No	Comment	Response
FDMS_0098_002	During both day and night, how will the lights on wind turbines affect migratory birds and marine life? Could you also supply an image of what the turbines will look like at night from shore along with how deep the lights will be seen below the oceans surface?	The impacts of lighting associated with the Proposed Action is found in Section 3.5.3.5. As discussed in Section 3.5.3.5 in Appendix F, the Proposed Project will utilize an Aircraft Detection Lighting System, which will limit the amount of time that project components will be lit to and estimated 5 hours, 46 minutes, and 22 seconds annually.

Comment No	Comment	Response
FDMS_0836_008	Figure 3.5.3-1: The bird geographic analysis area appears to hug the coastal and back bay shorelines. There does not appear to be any buffer upland or flyways included. Suggest including additional discussion on how the analysis area was determined. 3.5.3.1 The document lists numbers of state species related to some kind of listing. The document does not indicate which state. Since these species are migratory, the Center recommends this assessment to include all coastal Mid-Atlantic states that fall within traditionally accepted migratory pathways (including neotropical species). 3.5.3.5.4: This section stated four species are of concern and only three species were noted. Is this a cut and paste error or is there another species not noted? Birds General: There is just not enough discussion on neotropical species. A main route for these species is the leap from Cape May Point, NJ to the Lewes, DE region. Heavy winds, storms, or other distractions could bring species off-course and into the project area while making the crossing. This is an issue that should be evaluated. There is a weak discussion on Page F-73 regarding passerine species. This is not sufficient to dismiss this avian resource when considering its proximity to a major migratory pathway. 3.5.3.6: How can a wind turbine field be considered “moderately beneficial” to birds? This is a major stretch without a good deal of back up information and presentation effort.	A discussion of how the geographic analysis area was determined is included in Section 3.5.3 in Appendix F. The text in Section 3.5.3.5 will be clarified in the Final EIS.
FDMS_0855_003	The Rufa Red Knott (RN) was listed as a threatened spp.in 2013 (USFWS, 2015) & this was attributed to its unique & narrow-range life needs such as critical migration stops, food requirements, changing migration habitat, & climate change (Thieler & Hammer-Klose, 2000).Red knots make one of the longest distance migrations known in the animal kingdom, traveling up to 19,000 miles (migration from Canada to lower So. America).Delaware Bay serves as the principal spring migration staging area for the red knot because of the rich availability of horseshoe crab eggs on beaches (Clark et al.2009) that is seasonally constrained. The US Wind project will be appreciably offshore, yet RNs do migrate over offshore territory, especially during weather changes (& inclement visibility) & this can pose as a mortality threat to RNs (Drewitt and Langston 2006, p.31; Hüppop et al.2006, pp.102).If birds are migrating at high altitudes & suddenly encounter fog, precipitation, or strong head winds, they may be forced to fly at lower altitudes, increasing their collision risks if they fly in the rotor (i.e., turbine blade) swept zone (Drewitt &Langston 2006, p.31).The USFWS (2015) concedes from its assessment that wind turbine strikes occur and will likely increase due to increased outlay of onshore & offshore wind turbines. While this impact is difficult to ascertain, it needs to be addressed at some point & it could very well be specified as a condition to a LOA cumulative impact. RNs could be exceptionally vulnerable to a large-scale oil spill from US Wind turbines. Each offshore wind turbine & substation carries many gallons of lubricating oil & diesel oil (Appendix H, COP). The total stored offshore for this project encompasses 508,078 gallons. If this amount were released from a massive hurricane, it could spoil critical horseshoe crab eggs during the late migration of RNs in the Spring. The oil response plan as identified in the US Wind COP, appears inadequate to handle a major release & needs to be improved to afford minimal impacts to this sensitive species.	A complete discussion of impacts of the Proposed Project on Rufa Red Knots is provided in the Project-specific BA submitted to the USFWS. The oil spill response plan will continue to be updated.
FDMS_0887_003	Concern that the information presented was unclear regarding the location of Burton Island. The significance of this is alarming from the standpoint off ensuring good information is provided by US Wind, relative to Burton Island, the bald eagle nest, and restricted buffers. Confirm specific longitude and latitude for Burton Island and buffering guardrails in place to protect the bald eagle nesting area(s)	The coordinates to the Indian River Power Plant on Burton Island are: 38.5852, -75.2334. The buffer would be 330 ft or 660 ft if the nest is active. A specific reference to the cited USFWS Proposed Eagle Rule was added to the EIS. The Proposed Rule includes protection measures for Eagles and their nests during construction activities.

Comment No	Comment	Response
FDMS_0892_025	Avian risks from offshore wind energy development can be curtailed first and foremost by avoiding the greatest concentrations of marine birds on the OCS.BOEM must expand avian monitoring objectives to better evaluate and mitigate (where necessary) for some federal and/or state-listed endangered and threatened species. At present, the DEIS gives insufficient attention to federally listed or candidate species that may occur in or near the Project Area, including Red Knot, Piping Plover, and Black-capped Petrel. Although the candidate-listed Black-capped Petrel is not as likely as the two shorebirds to occur inshore near the project footprint, 119 the DEIS and attendant monitoring plans nevertheless should justify this lack of inclusion with adequate evidence, given that eBird occurrence mapping shows Black-capped Petrel to have occurred in comparably shallower waters in adjacent Virginia and Delaware.120 Although state-listed species such as Common Tern, Forster's Tern, Least Tern, and Royal Tern are mentioned as endangered and/or threatened in either Maryland or Delaware within the risk assessment document, no specifics for monitoring are given for any of these species in the project's COP, 121 except for focusing the aerial digital survey effort on months when such species of interest are most likely to occur.122.Red Knot, Piping Plover, and Roseate Tern migrate broadly through offshore waters of the Mid-Atlantic Bight through or very near the Projects.123 Past tracking studies clearly indicate that at least some individuals of these species also pass through other offshore wind lease areas in the broader region. 124 Consequently, post-construction monitoring programs for all three of these listed species should remain effectually robust to detect any impacts from offshore wind projects. we urge at least a similar level of commitment to Motus tagging for seabirds and nocturnal passerine migrants, as well as to use additional operator-installed Motus receivers on turbines as part of the Projects' post-construction monitoring plan.US Wind must furnish greater detail about those measures that are to be taken to protect bird species and their habitats during the nesting season. 118 For example, see: Ocean Wind 1 Offshore Wind Farm.2023. Final Environmental Impact Statement, Appendix H, Mitigation and Monitoring. 119 This species was not observed at the local scale during lease area-specific Mid-Atlantic Baseline Studies (MABS) project surveys for marine birds. See Appendix 4D in Williams KA, Connelly EE, Johnson SM, Stenhouse IJ, Eds.2015.Wildlife Densities and Habitat Use Across Temporal and Spatial Scales on the Mid-Atlantic Outer Continental Shelf: Final Report to the Department of Energy EERE Wind & Water Power Technologies Office. Report BRI 2015-11, Biodiversity Research Institute, Portland, Maine, p.28.120 https://ebird.org/map/bkcpet?env.minX=-96.4566785697946&env.minY=7.67905077852812&env.maxX=-7.523465441962&env.maxY=47.02752144317 121 MOWP, COP.2021.Appendix II-N1, Avian Risk Assessment, pp.8–9. 122 MOWP, COP.2021.Appendix II-N2, Avian Monitoring Plan. 123 E.g., see Figure 6 in Loring PH, McLaren JD, Goyert HF, Paton PW.2020.Supportive wind conditions influence offshore movements of Atlantic Coast Piping Plovers during fall migration. The Condor 122:duaa 028. 124 Loring PH, McLaren JD, Smith PA, Niles LJ, Koch SL, Goyert HF, Bai H.2018.Tracking movements of threatened migratory rufa Red Knots in U.S. Atlantic outer continental shelf waters. OCS Study BOEM 2018-046.US Department of the Interior, Bureau of Ocean Energy Management, Sterling (VA), 145 pp; Loring PH, Paton PWC, McLaren JD, Bai H, Janaswamy R, Goyert HF, Griffin CR, Sievert PR.2019.Tracking offshore occurrence of Common Terns, endangered Roseate Terns, and threatened Piping Plovers with VHF arrays.[Online.] Available at (more detailed text within the document)	A complete discussion of impacts of the Proposed Project on USFWS-listed species is provided in the Project-specific BA submitted to the USFWS. 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 G-1.Mitigation and monitoring measures that may result from reviews under the statutes listed above are shown in Table G-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 G-1 and G-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 G-1 and G-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 G-1 and G-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 black-capped petrel was not analyzed in further detail because based on available data it was not expected to occur in the OCS (Table within Appendix F of the Final EIS).
HANDIN-26_0011_002	I do have concern about the other lease area North of the current area proposed for development that appears to cover a much higher bird density	This EIS analyzes impacts that could occur as a result of construction, operation, and decommissioning of the US Wind Project located within Lease OCS-A 0490, including a cumulative impacts analysis that takes into account reasonably foreseeable activities on the OCS.
MAILIN_0005_017	The defined geographic area does not include much of the offshore Atlantic basin which is important habitat for many of the offshore pelagic species that regularly occur in the Project Area (primarily the 6 Proceltariforms species, Table 3.5.3M1). Please indicate how the offshore limit of the geographic area was established and the reasoning for not extending it further offshore.	Thank you for your comment. The geographic analysis area is based on the geographic extent of potential Project impacts, either direct or interdependent or interrelated activities/effects, rather than the entire range of a particular species that overlap with Project areas. The inclusion of all areas where individuals who may cross Project areas would quickly result in impractically large areas to incorporate into the geographic analysis (e.g., monarch butterflies, humpback whales, blue whale, and roseate terns).

Comment No	Comment	Response
MAILIN_0005_018	"According to the North American Bird Conservation Initiative (NABCI), more than half of the offshore bird species (57 percent, 31 species) have been placed on the NABCI watch list". Given there are many more than 57 offshore bird species, is this sentence referring to those documented in the Project Area? If yes, then the text should be revised to specify more than half the offshore bird species that occur in the Project Area have been placed on the watchlist.	NABCI (2016) states the data is based on the conservation vulnerability assessment for all 1,154 native bird species that occur in Canada, the continental United States, and Mexico.
MAILIN_0005_019	The COP refers to the MABS study (Williams et al 2015) to provide collision risk assessments of seabird species in the wind area, but the EIS refers to the COP and to Robinson Wilmott et al 2013.Please clarify which study was used to determine collision risk for species considered in the EIS and to inform Figure 3.5.3-2.For the reader's benefit, the DEIS should provide further detail on how collision risk and displacement assessments evaluated in the document were conducted.	The Final EIS uses multiple sources of information including the COP's analysis to inform collision risk all of which are cited in the text.
MAILIN_0005_020	In the DEIS, it is assumed that the 47 out of 55 species that had enough data to model relative abundance would be representative of the species found in the project area. These 47 species are not but should be identified, so the reader can evaluate the stated conclusion.	The 47 species with sufficient data to model relative abundance are provided in the relevant table in Section 3.5.3.
MAILIN_0005_021	Table 3.5.3M3 caption indicates the presented data is the percent of each seabird population that overlaps with the offshore wind energy development on the OCS by season and refers to Winship 2018 as the data source. However, Winship 2018 created species distribution maps from relative densities, which are inherently very different from percent population overlap with OCS. The reader cannot properly evaluate Figure 3.5.3-2 and Table 3.5.3-3 with text that describes the data as something it is not.	Thank you for your comment. A clarifying footnote describing how the relevant table in Section 3.5.3 was generated from Winship et al.2018, Appendix D was added.
MAILIN_0005_022	The DEIS uses the Winship 2018 dataset for relative abundances, however this dataset is intended to represent averages over long timescales and over a large area. These maps, as explicitly written in Winship 2018, "represent long-term relative density and do not highlight areas that are consistently used by large numbers of birds for short periods (e.g., movement corridors)". Movement corridors would be very important to evaluate given the proximity of the lease area to the Atlantic Flyway. The DEIS should be revised to ensure that important patterns in bird occurrence in the lease area are not missed due to a spatial-temporal scale that averages short-term hotspots out. The Williams et al 2015 report from the MABS study is much more targeted to this region with higher resolution aerial and vessel survey data on seabirds and would appear to be a more robust dataset for assessing project-level impacts. Maps of predicted abundance and persistent abundance of seabirds differ from those in Winship 2018 with more overlap/presence of bird species in the OCS lease area than what is modeled in Winship 2018.For example, Figure 3a in the Risk Assessment (COP Appendix N1) shows high densities of loons and gannets in the lease area in Winter whereas the Windship et al 2018 model showed none. The assessment of impacts should be revised to include the MABS study.	The applicability of Winship 2018 will be considered for this discussion when preparing the Final EIS.
MAILIN_0005_023	The DEIS refers to the Vattenfall 2023 study to say, "it is now evident that seabirds will be exposed to very low risks of collision in offshore wind farms during daylight hours." This is not a conclusion that can be reached from this one study, because this study included only four species of seabirds, 3 of them being gulls (herring gulls, black backed gulls, and kittiwakes) and the other being gannets. Gulls and gannets have wing morphology that allows them to be agile and maneuverable fliers. This is not true of all seabirds including pelicans, or the Procellariform species, like shearwaters, or albatross, that have high wing-loadings. While the Vattenfall 2023 study and others (e.g., the recent Schatz energy work, and Willmott et al 2023) certainly provide robust data on micro and mesoscale avoidance of collision for some species in some regions, the statement in the DEIS is over-reaching and should not be included as a general statement about all seabirds for all regions. Offshore birds present in the study area include acids, grebes, terns, jaegers, loons, sea ducks, shearwaters, fulmars, and storm-petrels in addition to gulls and gannets. There is increasing evidence that many species of seabirds are good at avoiding collision, and the DEIS is right to highlight this; however, it is necessary to acknowledge this may not be true for species in the Procellariforms Order such as shearwaters, especially in high wind speeds. The project region does not have many species or high densities of albatrosses, shearwaters, or petrels, but the statement quoted above is a blanket statement and should be refined.	Thank you for your comment. Clarifying language regarding potential collision risk has been added to the Final EIS. While there are some limitations to these studies, they represent the best available science at this time.

Comment No	Comment	Response
MAILIN_0005_024	The DEIS describes collision risk as the greatest risk to birds associated with offshore wind development. Due to the lack of accurate, high-resolution data on flight heights for many seabird species - this is a known problem - and the fact that flight height is a critical data piece needed for collision risk models, the conclusion that "it is now evident that seabirds will be exposed to very low risks of collision in offshore wind farms during daylight hours" is made without data critical for accurate modelling. In addition, flight heights can vary dramatically with wind, with some birds flying much higher in high winds. There is currently insufficient data on this that spans the species groups which occur in the lease area. As such, there is uncertainty in collision risk models. The DEIS itself states "there is a high degree of variability and a lack of information regarding flight heights (Gauthreaux 1991; Huppop et al.2006; Robinson Willmott 2013)" (p F-72). Given the preceding, the conclusion made about very low risk of collision should be revised. No record of decision or alternative selection should be made until BOEM completes further study to adequately determine the impacts of the project on seabird collisions.	Thank you for your comment. While there are some limitations to current studies, including a high degree of variability and uncertainty, the studies presented represent the best available science at this time.
MAILIN_0005_025	Regarding collision risk, the DEIS should also note that various turbine sizes considered in the PDE have different swept zone heights which can impact collision frequency. It will be important for additional collision risk modeling to be done after the decision is made on which turbine size to install since the unit type will dictate the details of the actual rotor swept zone and the area available for birds to pass safely below the blades. It's not made clear in the DEIS who is responsible for the collision risk modeling and what the steps would be for minimizing impacts on seabirds once the risk is known (i.e., after CRMs are run using known turbine rotor-swept-zones). This should be included in the EIS.	In the biological assessment, BOEM followed the parameterization of the Band Model (Band 2012) and Stochastic Collision Risk Assessment for Movement (SCRAM) (Gilbert et al.2022) to evaluate the potential risk of bird collision with operating WTGs. These models factor bird size and flight behavior, number of individuals passing through the migratory corridor, migratory corridor and wind farm width, number of WTGs, rotor swept zone (RSZ), percentage of individuals flying at altitudes within the RSZ, predicted operating time during the migration season by month, and a behavioral avoidance modifier to estimate collision risk. A reference was added to a collision risk assessment that spans the Atlantic from the Vineyard Wind EIS (BOEM 2021).
MAILIN_0005_026	Section 3.5.3.3.1 refers the reader to the Biological Assessment (BA) in a number of locations, but this document is not accessible, making it difficult to understand how the impacts were evaluated for the ESA-listed species. For ease of reference, beyond the reference to the BA, language should be included in the DEIS summarizing the salient points included in the BA so the reader can understand the evaluation of risks to ESA listed birds and the mitigation strategies recommended. Section 3.5.3.5 refers the reader to the BA for information on federally-listed species and states the proposed action is likely to adversely impact piping plover and rufa red knot. Without access to the BA document, it is not possible to review the risk assessment and mitigation measures proposed for these species.	A complete discussion of impacts of the Proposed Project on USFWS-listed species is provided in the Project-specific BA submitted to the USFWS, which is available here: FWS ESA Consultations | Bureau of Ocean Energy Management (boem.gov).
MAILIN_0005_027	The installation of turbines and associated cables, including cable laying activities, that result in sediment disturbance, would likely impact benthic foraging species (e.g., sea ducks, scoters) due to direct impacts on prey. The DEIS states that these impacts should be short-term but scoters have been documented to be reluctant to forage near turbine arrays for a minimum of three (3) years following construction (Guillemette et al.1998; Petersen et al.2006, 2007; Larsen and Guillemette 2007). The DEIS should acknowledge impacts to certain benthic foraging species may be longer than "short term" citing the literature noted.	Thank you for your comment. The applicability of Guillemette et al.1998; Petersen et al.2006, 2007; and Larsen and Guillemette 2007 was considered when preparing the Final EIS.
MAILIN_0005_028	The DEIS mentions that many songbirds were not observed at wind speeds above 6m/s, thus wind turbines would likely not be rotating when they are flying in the area. However, many marine seabirds rely on high winds and would be more likely to be in the project area at wind speeds when turbines are operating (e.g., shearwaters). High winds also lead to higher flight heights in many species and would therefore be expected to result in greater collision risk. No record of decision or alternative selection should be made until BOEM completes further study to adequately determine the impacts of the project on seabird collisions.	The section referenced discusses impacts to Passeriformes and not the additional species groups discussed in the comment.
MAILIN_0005_029	Flight heights were evaluated as average heights per avian family, but ranges would also be important to evaluate - if max ranges overlap with RSZ, then a collision risk exists. It will be important to understand the links between flight heights that overlap with RSZ and windspeed. Average flight heights can water down meaningful data about actual risk so a maximum and minimum on a range of heights should be included. The DEIS notes that, for flight height from aerial surveys to be included, a "flight height confidence of >70%" was required. How was flight height confidence measured? Also, errors (confidence intervals, etc.) in flight height estimates are not provided. Given that there are large differences in estimated flight heights across this study and others (Furness 2013), likely due to variability and causes (e.g., wind, etc.) the EIS should also consider other studies referenced in this comment.	The details being requested are provided in the source documents from Williams et al.2015a and 2015b.

Comment No	Comment	Response
MAILIN_0005_030	The DEIS includes the following: "Although it is possible that migrating passerines could collide with offshore structures, migrating passerines are also occasionally found dead on boats, presumably from exhaustion (e.g., Stabile et al.2017)."The meaning of this sentence is unclear. Is the intent to indicate that dead birds might occur near the turbines due to exhaustion? Or, that turbines won't be the only cause of death for migrating birds? Either way, it doesn't change impact on birds due to death from collision with turbines.	Edits have been made in the Final EIS.
MAILIN_0005_031	The DEIS states that "suitable foraging habitat exists in the immediate vicinity of the Project and throughout the region", but prey resources in the marine environment are extremely patchy. Therefore, if birds lose their feeding habitat by avoiding a windfarm, it does not necessarily mean that there would be available prey nearby. The DEIS further states: "substantial foraging habitat for resident birds would remain available outside of the proposed offshore lease areas. Impacts on birds due to the presence of operating wrGs would likely be minor, with no individual fitness or population-level impacts expected to occur." While an evaluation of the increased distances and energetic expenses are required for displaced birds to get to foraging habitat outside of wind areas is included, it is not clear how suitable habitat was determined. The Avian Risk Assessment of the COP identified Northern Gannet to occur in all current WEAs of the Mid-Atlantic, It was also one of the most abundant seabird species in the lease area during the MABS study. What analyses, if any, (e.g., PVA) were conducted to determine minor impacts with no individual fitness or population-level impacts expected to occur? Finally, there will be considerable additional buildout of wind energy areas throughout the Atlantic OCS overlapping with gannet non-breeding habitat, so cumulative effects of displacement on avoidant seabirds are likely but are not addressed in the EIS.	As stated in the Final EIS (F-72), the US Wind performed an exposure assessment to estimate the risk of various offshore bird species encountering the Lease Area (COP, Volume II, Appendix N1; US Wind 2023). Most species were identified as having “minimal” to “low” overall exposure risk. While some non-marine birds could be exposed to the Lease Area, the Lease Area is far enough offshore to be beyond the range of most breeding terrestrial or coastal bird species.
MAILIN_0005_032	The following is included in the DEIS: "Because the Lease Area is not likely to contain important foraging habitat for the species susceptible to displacement, BOEM expects this loss of habitat to be negligible." What data was used to determine that the Lease Area is not likely to contain important foraging habitat for species susceptible to displacement? The high densities of scoters, loons, grebes, gannets (MABS study) suggests that the opposite is true. The Winship et al 2018 models for the entire OCS show that relative densities are low in this region, but given that the MABS data shows otherwise, the DEIS should also refer to the MABS study since its data is at the scale and resolution that is much more relevant and applicable to the project. The Winship data, while valuable for sitting decisions, are averaged out over a scale that is relevant for the OCS region as a whole and would be less helpful for making decisions about risk and exposure at the project level.	As stated in the Final EIS (F-72), the US Wind performed an exposure assessment to estimate the risk of various offshore bird species encountering the Lease Area (COP, Volume II, Appendix N1; US Wind 2023). Most species were identified as having “minimal” to “low” overall exposure risk. While some non-marine birds could be exposed to the Lease Area, the Lease Area is far enough offshore to be beyond the range of most breeding terrestrial or coastal bird species.
MAILIN_0005_033	The DEIS notes: "Population-level, long-term impacts resulting from habitat loss would not be expected." Given analyses conducted on whether foraging habitat would be available nearby, what the energetic costs of getting to those foraging grounds would be, what the subsequent population effects would be, and how that would be influenced by cumulative impacts of habitat loss across the region from multiple windfarms is limited, this conclusion should be reconsidered. Once additional analysis is completed, the conclusion can be restated if supported or rewritten if not. No record of decision or alternative selection should be made until BOEM completes this analysis.	Impacts from reasonably foreseeable offshore wind activities on ESA-listed species will be discussed in detail in subsequent Project-specific analysis documents. As is the case with this Project, each proposed project will be required to address ESA-listed species at the individual project scale and cumulatively. Additionally, BOEM is currently working on a programmatic framework for ESA consultation with USFWS to address the potential impacts of the anticipated development of Atlantic offshore wind energy facilities on ESA-listed species. In the context of other reasonably foreseeable environmental trends, the incremental impacts contributed by the Proposed Action to the overall impacts on birds would be undetectable.
MAILIN_0005_034	The DEIS does not address the potential impact of low frequency operational noise emitted from turbines on various avian species; only vessel operational noise impacts are included. Wind turbines can emit low frequency sound, including infrasound (<20 Hz), which can be perceived by birds, and which has also been demonstrated to serve as an attractant in some seabird species, as recently demonstrated in albatross (Gillies et al 2023).Albatross were shown to use infrasound to navigate, and this is likely true across species in the Procellariform Order (e.g., shearwaters, storm-petrels, etc.).If sounds emitted by operational turbines attract some species of birds, this could have a potentially adverse impact through increased collision exposure and/or disorientation of birds. Procellariform species including shearwaters and petrels are known to the project area. The DEIS should include an assessment of the potential for infrasound to impact avian species in the lease area. No record of decision or alternative selection should be made until BOEM completes this assessment.	Additional language acknowledging the potential for infrasound was added to the Final EIS, Appendix F, Section 3.5.3.3.

Comment No	Comment	Response
MAILIN_0005_036	There is limited information on which species will be target species for nanotag monitoring. Additional details on which species have been tagged and will continue to be tagged throughout the lifetime of the project should be included in the EIS.	As noted in Appendix G of the Final EIS, prior to, or concurrent with, offshore construction activities, including seabed preparation activities, US Wind must complete, obtain written concurrence from the BOEM and USFWS, and adopt an avian and bat monitoring plan, including coordination with interested stakeholders.
MAILIN_0005_037	It is stated in the DEIS that: "The mid-Atlantic supports large populations of birds in summer, some of which breed in the area, such as coastal gulls and terns. Other summer residents, such as shearwaters and storm-petrels, visit from the Southern Hemisphere (where they breed during the austral summer)." The avian monitoring plan in the COP does not plan to survey summer months (June, July, August, Table 3.1 in Appendix N2 of the COP), the reason being that the highest density birds do not occur in these months. The "species of interest" in the survey plan (Appendix N2 of COP) are limited to gannets, loons, and scoters due to high densities and displacement risk; however, density is not the only indicator of risk, and other species (gulls, shearwaters) that are present in summer in less densities may still be impacted by the project. A more conservative plan would be to survey across the year. This would provide data on all species potentially impacted and allow for coverage for timing and distributions that may shift with changing ocean conditions and habitat due to climate change.	Thank you for your comment. Appendix G of the Final EIS provides mitigation and monitoring measures.
MAILIN_0005_039	The DEIS concludes impacts on Birds would be minor. However, there's limited data on some important factors that contribute to both collision and displacement risk for birds. First, there is a lack of data on accurate flight heights to inform collision exposure for many migrating songbirds as well as seabirds. Second, there are high densities of species that are vulnerable to displacement (loons, gannets) in the project area. While, from a single project perspective, the impacts of displacement could be minor (though how the EIS came to that conclusion is not described) the cumulative impacts of windfarms along the Atlantic OCS from the combined loss of habitat could be significant. Further, the conclusion that there is a general lack of birds in the lease area is not necessarily supported by figures from the MABS study (Williams 2015, Goyert et al 2015) which is more specific to the lease area than the Winship 2018 data (the primary focus of the EIS).Winship 2018 has seabird occurrence averaged out over long timescales and a large regional area and, as such, it would be more suitable for decisions around wind area siting rather than project-decision risk to birds. The Avian Risk Assessment from the COP is detailed, comprehensive, and covers more site specific details (e.g., based on data from the MABS study) than the EIS. The EIS should consider the results documented in the MABS and reconsider the designation of minor impacts to the local avian populations.	Thank you for your comment. Specific references to the MABS data were included in Appendix F, the relevant table in Section 3.5.3 depicts the potential species that may occur in the Project Area.
MAILIN_0005_040	Much of the data from the Avian Risk Assessment of the COP (Appendix N2), which is repeatedly referred to in the DEIS, comes from studies using data from the MABS study (Williams 2015). The MASS study provides valuable data on bird distributions and abundance in the Lease Area and the OCS in general. The limitation with this dataset however is that it is biased towards species that occur closer to shore. The transects used start near shore and extend out as far as the eastern edge of the Lease Area, so coverage begins much closer to shore than the Lease Area begins, but it does not extend past the Lease Area into waters further offshore. Thus, there is a bias towards loons, grebes, gannets, etc. and a bias against pelagic species such as storm-petrels. Much of the assessments of risk and decisions made on the monitoring and mitigation plan focus on this dataset, however it is important for the DEIS's and the COP's Avian Monitoring Plan to acknowledge the bias against pelagic species (shearwaters, petrels, storm-petrels) which would lead to an underestimation of abundance in the region of those species relative to the species that occur closer to shore. The distributions of marine species are very dynamic as they rely on habitat that is characteristically dynamic, and thus it seems important to evaluate the risk to those offshore species that occur in higher densities just east of the Lease Area, closer to the shelf break, e.g., shearwaters, storm petrels, and migrating Phalaropes. The Procellariforms Order that includes pelagic species like petrels, storm-petrels, and shearwaters is one of the most endangered avian groups (Croxall et al 2012). The DEIS emphasizes data from the Winship et al 2018 MOAT models whereas the data from the MASS study is at a better scale and resolution for a project-level impact assessment. The COP and its avian risk assessment prioritizes the MABS data.	The EIS relies on data derived from Winship 2018 and references the data collected as part of the MABS studies. While there are some technical limitations to these studies, they represent the best available science at this time.

Comment No	Comment	Response
MAILIN_0005_041	The Sea Duck Joint Venture identifies 15 species, which include eiders, scoters, golden eyes, bufflehead, long-tailed duck, Harlequin duck, and mergansers. However, only five species are considered. According to eBird for Sussex County, Delaware, king eider common eider, surf seater, white-winged seater, black scoter, Harlequin duck, long tailed duck, bufflehead, common golden eye, hooded merganser, common merganser, and red-breasted merganser are all present at some level during migration. While this does not mean all are present every year, each should be documented as occurring in the area and an assessment of project impacts should be included. No record of decision or alternative selection should be made until BOEM completes this assessment.	As discussed in the EIS, the five species that are included are ones that have sufficient data to calculate the modeled percentage of a species population that would overlap with the anticipated offshore wind development on the Atlantic OCS. Additionally, these five species are included in the MABS data and are discussed the Avian Risk Assessment.
MAILIN_0005_042	It is noted that red knots were not observed during the MABS surveys. However, Williams et al. 2015 note on page 14 that the identification rates of terns and shorebirds were low, and it is possible that more roseate terns and some red knots were present, but not identified. It is important to note that failure to observe a specific species due to incomplete detection should not be used to indicate an absence of the species. The DEIS should note that all species for which habitat is present may utilize that habitat and, as a result, should document the potential for impacts to result.	The Final EIS states (F-54) that the area is a complex ecosystem where the community composition shifts regularly, and temporal and geographic patterns are highly variable. Section 3.5.3.3 within Appendix F summarizes potential impacts on birds.
MAILIN_0005_043	Cape Henlopen, up the coast from Towers (Rehoboth Beach), is the primary nesting location of Piping Plovers in Delaware (https://dnrec.alpha.delaware.gov/fishwildlife/conservation/pipingplovers/#:-:text=They%20begin%20arriving%20and%20nesting,at%20Cape%20Henlopen%20State%20Park.).According to eBird, there are records of Piping Plovers on the shoreline from Cape Henlopen south to Maryland. Further discussion of this species and potential impacts should be provided.	A complete discussion of impacts of the Proposed Project on piping plover as well as proposed mitigation measures relative to ESA listed species is provided in the Project-specific BA submitted to the USFWS.
MAILIN_0005_044	Black rail use salt marshes, which could be disturbed during construction (https://www.fws.gov/species/eastern-black-rail-laterallus-jamalcensis-jamaicensis).Consideration should be given to minimizing disturbance in these habitats and mitigating where avoidance is not possible.	A complete discussion of impacts of the Proposed Project on eastern black rail as well as proposed mitigation measures relative to ESA listed species is provided in the Project-specific BA submitted to the USFWS.
MAILIN_0005_045	The sections on Procellariidae and Threatened and Endangered species do not mention Black-capped Petrels which are known to traverse an area of ocean to the shelf break (see eBird listings) which includes the Project Site. This species is listed as proposed threatened by USFWS wherever it occurs (https://ecos.fws.gov/ecp/species/4748) and, as such, should be included in the environmental review.	The current threatened status of the Black-capped petrel has been acknowledged in the relevant table in Section 3.5.3. This species is not included in the MABS data or discussed in the Avian Risk Assessment, but was included in the EIS analysis based on Winship 2018 data.
MAILIN_0005_047	There is no discussion in the DEIS that shorebirds as a group are in a steep decline globally (https://www.stateofthebirds.org/2022/shorebirds/), or that a key stopover location for the Endangered Species Act threatened red knot is present throughout this area of coastline, particularly in the Chesapeake area and Delaware Bay due to the presence of horseshoe crab eggs in the spring. The DEIS should document that adequate protection for shorebirds moving through the area and for horseshoe crabs moving from offshore in the project to the beaches, bays and wetlands to spawn are provided.	A complete discussion of impacts to the Carl N. Schuster Jr. Horseshoe Crab Reserve is provided in the Essential Fish Habitat (EFH) Assessment. A complete discussion of impacts of the Proposed Project on USFWS-listed species, including the red knot, is provided in the Project-specific BA submitted to the USFWS. While the abundance of horseshoe crab eggs was once considered a primary threat to the species and reduced availability at key migratory stopover sites was considered a likely cause of recent species declines (Niles et al.2008; USFWS 2014), currently harvest of horseshoe crabs is not considered a threat to the species due to management by the Atlantic States Marine Fisheries Council (ASMFC). Clarifying text directing the reader to the BA has been added to the Final EIS.
MAILIN_0005_048	There is no discussion of the assumptions and caveats in the MABS study, particularly when it comes to detection. There are multiple times in this DEIS Appendix where the absence of a species is claimed. Because detection was not 100% in the MABS study, absence of a species from the study area cannot be supported.	A detailed description of the assumptions and caveats can be found in Winship et al. (2018). The data were used to provide seasonal occurrence of species that overlap with the proposed offshore wind buildout. No species were determined to be absent year-round, however, some were identified as being present (generally in low numbers) during some or all of the year.
MAILIN_0005_049	It is noted that storm petrels and grebes are absent from the project area in the fall. As noted previously, because individuals of a species were not identified, does not mean they are not present. It is important to note that storm-petrels are small, dark birds and difficult to detect. Wherever there is habitat for a particular species, if the species is known to the area, then the conclusion should be made that individuals may utilize the habitat.	The Final EIS states (F-54) that the area is a complex ecosystem where the community composition shifts regularly, and temporal and geographic patterns are highly variable. Section 3.5.3.3 within Appendix F summarizes potential impacts on birds.

Comment No	Comment	Response
MAILIN_0005_050	Icteridae possibly present in the Project area should include eastern meadowlark, rusty blackbird, and orioles (eBird).	BOEM does not call out specific non-listed species in the EIS. The includes all the species potentially present.
MAILIN_0005_051	It should be noted that night herons are a state listed species in Delaware.	Text relating to the Black-crowned Night Heron and potential impacts arising from onshore construction have been added to the EIS.
MAILIN_0005_052	Research into Delaware coastal bird use is incomplete based on publicly available records, including eBird and the USGS Breeding Bird Survey. Please review these sources and revise bird lists as needed.	Relevant table has been added to Section 3.5.3 of the Final EIS.
MAILIN_0005_053	It is noted that birds which nest in coastal marshes and low-level habitats are vulnerable to sea-level rise. It is recommended that birds which nest on "shorelines" be added because nesting shorebirds are also susceptible to habitat loss from sea level rise and severe coastal storms.	Shorelines was added to the Final EIS in response to this comment.
MAILIN_0005_054	Please cite the literature for eagles remaining within 500 meters of the shoreline.	The citation Buehler 2000 was added to the text: Buehler, D.A.2000.Bald Eagle (*Haliaeetus leucocephalus*). In *The Birds of North America*, No.506 (A. Poole and F. Gill, eds.). The Birds of North America Inc., Philadelphia, PA.
MAILIN_0005_055	In regard to the eagle nest at Burton Island, the USFWS eagle rule requires a 660 foot disturbance buffer around bald eagle nests (https ://www.Federa1register.Gov/documents/2022/09/30/2022-21025/permits-forincidental-take-of-eagles-and-eaqle-nests).This and other disturbance restrictions documented in the eagle rule and related guidance should be included in the DEIS.	A specific reference to the cited USFWS Proposed Eagle Rule was added to the Final EIS.
MAILIN_0005_056	eBird records indicate that black-crowned night heron, yellow-crowned night heron, pied billed grebe, American oystercatcher, black skimmer, common tern, Forster's tern, least tern, sedge wren, hooded warbler, and northern harrier all have records in Indian River Bay, and near 3R's Fishing Beach and Tower Beach. The DEIS should incorporate further discussion of state listed endangered species (DNREC).	The 47 species with sufficient data to model relative abundance are provided in the relevant table in Section 3.5.3.
MAILIN_0005_057	The DEIS does not discuss the potential impact on ESA-listed shorebirds if there were to be negative impacts on horseshoe crabs in the area. Horseshoe crab eggs are the primary diet of numerous shorebird species during spring stopover in Delaware Bay (Tsipoura and Burger 1999), including the ESA-listed red knot. Previous declines of red knots in the late 1990s have been linked with the unregulated harvest of horseshoe crabs, leading to a decline in eggs. This harvest has been regulated since the early 2000s, however there has been a lack of recovery of horseshoe crab eggs (and shorebird) abundance to pre-1990s level. Further disturbance to horseshoe crab egg abundance could further impact shorebird species that rely on them as a food source during migration. Documentation of the connection between impacts to horseshoe crabs/eggs and shorebirds should be included in the EIS.	A complete discussion of impacts to the Carl N. Schuster Jr. Horseshoe Crab Reserve is provided in the Essential Fish Habitat (EFH) Assessment. A complete discussion of impacts of the Proposed Project on USFWS-listed species, including the red knot, is provided in the Project-specific BA submitted to the USFWS. While the abundance of horseshoe crab eggs was once considered a primary threat to the species and reduced availability at key migratory stopover sites was considered a likely cause of recent species declines (Niles et al.2008; USFWS 2014), currently harvest of horseshoe crabs is not considered a threat to the species due to management by the Atlantic States Marine Fisheries Council (ASMFC).

O.7.9 Climate Change

Table O.7-12. Responses Substantive – Climate Change

Comment No	Comment	Response
FDMS_0151_002	The wind farm is going to be situated in the ocean affected hurricane seasonally, even the coast line is deeply affected each season and need replenishment yearly now. In our reality of climate change the hurricanes are predictably going to get more stronger and will appear more often. Hence it will definitely damage the turbines in the regular and getting more often manner. How it is going to be sustainable and not pollute the ocean? I did not find anywhere any researches exploring that fact.	Section 2.3 of the Final EIS provides an assessment of severe weather and natural events.
HANDIN-24_0053_003	There is science that says the altering of hydrodynamic processes actually mimics climate change in the area of the wind farm. Increasing water temps, etc. How can we support a project that is actually causing what they say they are fixing?	Thank you for your comment. Hydrodynamic effects are discussed under the IPF of Presence of Structures in Sections 3.5.2, *Benthic*; 3.5.5, *Finfish, Invertebrates, and EFH*; and 3.5.6, *Marine Mammals.*

O.7.10 Commercial Fishing and For-Hire Recreational Fishing

Table O.7-13. Responses Substantive – Commercial Fishing and for hire recreational fishing

Comment No	Comment	Response
FDMS_0328_004	III. Offshore Wind Job Creation Is Overstated A. Claim: "Offshore wind will create 15, 000 or more jobs." Comment: See link that explains that the jobs do not materialize as expected. In addition, you need to subtract the jobs lost in the fishing, tourism, and the fossil fuel industry. See link where a BOEM funded survey predicts a 15% drop in clam fishery revenue. Study Shows Offshore Wind Jobs Overstated https://www.nationalfisherman.com/northeast/fishing-advocates-study-shows-%20offshore-wind-jobs-overstatedy	Section 3.6.1 of the Final EIS discusses the impacts of the Project on commercial fishing and for-hire recreational fishing (including impacts from the Project alone and cumulative impacts of the Project combined with other Atlantic offshore wind projects).
FDMS_0767_009	Cable Burial The Block Island facility experiences exposure of buried transmission cables. When discussing repairs, the operator of that facility indicated it "will aim to bury the cable between 10 and 30 feet beneath the seafloor." Any and all cable burial requirements for offshore wind should be informed by that experience. We recommend the Maryland Offshore Wind Project be required to bury its cables at a minimum of eight to ten feet below the seafloor. The fishing industry maintains the request for a minimum of 8-10 feet to avoid interactions, rather than the 3-9.8 feet included in the Project Parameters. If a shallower depth is permitted, it must be paired with remote monitoring to ensure the cable remains adequately buried at all times. BOEM must provide clear standards as to what this depth is, how it is determined, and monitoring protocols to ensure there are no future interactions. Moreover, the cable layout should be designed to minimize instances where cables transect fishing tow areas. Neither the fishing nor wind industries want any interaction between gear and cables and every measure should be taken to achieve this.	Thank you for your comment. The upper limit of the proposed burial depth (9.8 ft) is above the minimum required burial depth (8 ft) requested by the fishing industry.
FDMS_0767_013	Small Businesses Analysis Fishing has a rich history in Delmarva's coastal communities and is over a billion dollar annual industry to the state. The majority of fishing businesses are small businesses, often multigenerational, supporting small businesses that make up many coastal communities. The Magnuson Stevens Fishery Conservation and Management Act defines "fishing community" as a community which is substantially dependent on or substantially engaged in the harvest or processing of fishery resources to meet social and economic needs, and includes fishing vessel owners, operators, and crew and United States fish processors that are based in such community. The DEISs fail to fully address the impacts that the projects will have on small fishing community 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 unfeasible or impossible. The impacts to fishing and processing jobs must not be diminished in the DEIS analysis. 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 to adequately understand the impacts of offshore wind development activities on small businesses.21 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.	Section 3.6.1 of the Final EIS addresses impacts to Commercial Fishing and For-Hire Recreation Fishing. BOEM concluded that the Proposed Project would have a negligible to major impact on fishery and fishing operations, depending on the type of operation. Federal agencies are not required to complete a Regulatory Flexibility Act (RFA) analysis for non-rulemaking actions. However, in response to SBA Advocacy and stakeholder requests, BOEM has included NOAA/NMFS estimates for Lease Area catch and revenue from small and large commercial fishing businesses. This analysis can be found in Section 3.6.1.1.
MAILIN_0005_217	"The number of small for-hire recreational fishing businesses within the northeast region has grown from 289 businesses generating $1,769,000 of revenue in 2019 to 402 businesses generating $4,368,000 of revenue in 2021." This is a large increase that warrants discussion. Please include additional information on this growing business sector and include a full assessment of project-related impacts on these businesses.	Thank you for your comment. The change in small business revenue is already discussed using available data from NMFS.

Comment No	Comment	Response
FDMS_0066_001	I represent Sunset Marina, Ocean City Fisherman's Marina and Ocean City Fishing Center, all of which are marinas located on the east coast in Worcester County, Maryland and near Ocean City. Those marinas contain (combined) 400 wet boat slips and 300 dry boat slips for inside storage. Ocean City, Maryland is the White Marlin Capital of the World. As reflected on Exhibit "A" attached hereto, there are not less than 12 offshore fishing tournaments each summer season with between 1,300 and 1,400 boats participating. This equates to roughly 6,500 fishing trips offshore that pass through the Ocean City Inlet. Combining the number of trips leaving and then returning to the Ocean City Inlet would double that number to approximately 13,000. When adding the non-tournament trips (to and from the inlet), those numbers increase to approximately 50,000. Attached as Exhibit "B" is a rendering prepared by Seamark, LLC, a marine navigation and mapping specialist. Among other things, it identifies some of the most popular east coast offshore fishing grounds and the negative impact caused by the proposed windfarm lease area. The green lines reflect direct routes to those grounds. The red lines reflect the routes to be taken if avoiding the lease area becomes mandatory or otherwise necessary due to the dangers associated with trying to navigate through the lease area. On the lower right-hand corner is a legend that reflects the miles added to a normal fishing trip caused by having to avoid the lease area (an enlarged copy of which is attached as Exhibit "C"). It should be noted that even if travelling through the lease area is not expressly prohibited, doing so may simply be deemed too dangerous for many (or most) anglers. Navigating through 121 windmill towers at night and/or in fog is a dangerous task for most boat captains, professional or otherwise. As can be seen on Exhibit "B," some of the more popular inshore fishing grounds are identified as the Elephant Trunk, Massey's Canyon, Hot Dog, Hambone and Tea Cup. These are generally most popular for tuna fishing. The offshore canyons identified include Spencer Canyon, Wilmington Canyon, Baltimore Canyon, Poor Mans (lower and upper) and Washington Canyon. The Norfolk Canyon would not be impacted. For the recreational fishing community, the proposed lease area could not be placed in a more damaging location. Virtually all of the most popular fishing grounds require that anglers pass through (or avoid totally) the lease area. If, for safety reasons, fisherman choose to avoid the lease area, it could add many miles to a normal fishing trip. It should also be noted that, especially for smaller vessels, the angle of the route (from the inlet to the fishing grounds) can have a significant bearing on where one chooses to fish. The direction of the wind and waves often dictates where certain boats choose to fish on a particular day. This can also increase the distance to be travelled and the time spent doing so. For all of these reasons, anglers will fish less often. Charter boats will have fewer customers. All boats will burn less fuel. Less bait and tackle will be purchased. Hotels and motels will have fewer customers. Restaurants (and other attractions) will also have fewer patrons. The economic impact is significant. It is believed that fishing from the Ocean City Inlet contributes hundreds of millions of dollars (annually) to the local economy. The proposed location of the lease area will put all of this at risk. My clients adamantly oppose the proposed lease area. The negative impact upon their businesses (and others in Ocean City and throughout Worcester County) is beyond description. If windfarms must be located off the east coast, they should be placed where the negative impact to the recreational fishing community can be minimized or eliminated.	Thank you for your comment. The Final EIS discusses transiting safety, navigational, and maneuverability challenges, as well as fishery displacement and potential loss of income to fisheries.

Comment No	Comment	Response
FDMS_0592_006	p.3-231. What does NK sea bass, and NK seatrout reference? NK=not known to species? We think the importance of scallop fishing should be conditioned on the fact that most of the harvest occurred over 10 years ago and since 2011, catches have been close to de minimis. p.3-235. Bottom trawling would include horseshoe crabs, which is not mentioned in this section yet are very valuable. Should these not be included? We expect their value would be well in excess of the $702,000 presented in Table 3.6.1-6. p.3-326. Table 3.6.1-7. It is unclear what number of vessels references. Are these the number of unique vessels in each year? p.3-326, Table 3.6.1-8, Here number of vessels matches expectation for unique vessels. We think showing the trend of number of vessels (fleet size) over the study period – 2008-2011 would be informative. p.3-240-3-245.These VMS bearings are interesting but what does it mean in terms of fishing behaviors and impact. Some interpretative narrative would be helpful. p.3-247. Suggest putting for hire fleets on a differently scaled plot. It's not possible to interpret annual trends from the presented plots in these fisheries. p.3-247. For MD top species, freshwater and estuarine catches are clearly conflated with ocean catches. This analysis should exclude Chesapeake Bay and Delaware Bay catches. Likewise, Table 3.6.1-11 is impossible to interpret in terms of marine recreational catches. p.3-249. Statistics on charter revenues for the wind project area are fascinating – amazed that they could be estimated. Can these revenues be presented as a fraction of the Ocean City, Lewes charter incomes? We think the 0.48 to 0.86% estimates are for the entire NE region, which is not too useful. p.3-265. Working harbor-front dockage is extremely limited in W. Ocean City and under continued pressure from tourism, hotel, and residential development. Harbor development by US Wind will provide further economic pressure and possible displacement of the commercial fishing fleet. Some narrative on how fleet berth space is allocated at the W. Ocean City harbor seems warranted. p.3-267, Presence of structures. The presence of scour material, mattress, exposed cables represent hazards and entanglement risks for bottom tending gear in commercial fisheries. This should be mentioned as a possible negative impact. p.3-269. 1st paragraph. Not sure impacts would be negligible in Ocean City and Lewes as harbor space for commercial fleet is quite limited. P.3-275. Statement that local biomass increases would not be significant is not supported by the literature which shows >10-fold increases in abundance by structure-oriented fishes. Perhaps something else is meant here. The comment that migration behavior changes would be negligible is also not supported. Black sea bass for instance support winter fisheries on reef structures in NJ. Should increased structure occur off MD coast, black sea bass could forgo their winter migration to slope waters. p.3-413. Impacts for scientific research and surveys are not all negative. Offshore wind is already supplying regional networks of observing systems that promise to provide spatial and temporal coverage of oceanographic processes, fish movement and cetacean incidence currently unavailable through fixed season surveys that NOAA has traditionally relied upon. We think this should be listed also as a long-term benefit – that is, long-term observing of marine resources and ocean parameters, adding another bullet to benefits listed on p.4-7.	Thank you for your comments and suggestions. Correct, NK= not known as defined by NMFS. Horseshoe crabs are discussed in the Final EIS and the data on value of the horseshoe crab fishery is from NMFS. The relevant table in Section 3.6.1 of the Final EIS shows the number of unique vessels within the lease area each year. The relevant table in Section 3.6.1 of the Final EIS shows the number of unique vessels by target species. Although more analysis could be done, the Final EIS is conducted to fulfill NEPA requirements and not for research purposes.

Comment No	Comment	Response
HANDIN-24_0018_001	Ocean City, Maryland is the White Marlin Capital of the World. As reflected on Exhibit "A" attached hereto, there are not less than 12 offshore fishing tournaments each summer season with between 1,300 and 1,400 boats participating. This equates to roughly 6,500 fishing trips offshore that pass through the Ocean City Inlet. Combining the number of trips leaving and then returning to the Ocean City Inlet would double that number to approximately 13,000. When adding the non-tournament trips (to and from the inlet), those numbers increase to approximately 50,000. Attached as Exhibit "B" is a rendering prepared by Seamark, LLC, a marine navigation and mapping specialist. Among other things, it identifies some of the most popular east coast offshore fishing grounds and the negative impact caused by the proposed windfarm lease area. The green lines reflect direct routes to those grounds. The red lines reflect the routes to be taken if avoiding the lease area becomes mandatory or otherwise necessary due to the dangers associated with trying to navigate through the lease area. On the lower right-hand corner is a legend that reflects the miles added to a normal fishing trip caused by having to avoid the lease area (an enlarged copy of which is attached as Exhibit "C").It should be noted that even if travelling through the lease area is not expressly prohibited, doing so may simply be deemed too dangerous for many (or most) anglers. Navigating through 121 windmill towers at night and/or in fog is a dangerous task for most boat captains, professional or otherwise. As can be seen on Exhibit "B," some of the more popular inshore fishing grounds are identified as the Elephant Tnmk, Massey's Canyon, Hot Dog, Hambone and Tea Cup. These are generally most popular for tuna fishing. The offshore canyons identified include Spencer Canyon, Wilmington Canyon, Baltimore Canyon, Poor Mans (lower and upper) and Washington Canyon. The Norfolk Canyon would not be impacted. For the recreational fishing community, the proposed lease area could not be placed in a more damaging location. Virtually all of the most popular fishing grounds require that anglers pass through (or avoid totally) the lease area. If, for safety reasons, fisherman choose to avoid the lease area, it could add many miles to a normal fishing trip. It should also be noted that, especially for smaller vessels, the angle of the route (from the inlet to the fishing grounds) can have a significant bearing on where one chooses to fish. The direction of the wind and waves often dictates where certain boats choose to fish on a particular day. This can also increase the distance to be travelled and the time spent doing so. For all of these reasons, anglers will fish less often. Charter boats will have fewer customers. All boats will burn less fuel. Less bait and tackle will be purchased. Hotels and motels will have fewer customers. Restaurants (and other attractions) will also have fewer patrons. The economic impact is significant. It is believed that fishing from the Ocean City Inlet contributes hundreds of millions of dollars (annually) to the local economy. The proposed location of the lease area will put all of this at risk. My clients adamantly oppose the proposed lease area. The negative impact upon their businesses (and others in Ocean City and throughout Worcester County) is beyond description. If windfarms must be located off the east coast, they should be placed where the negative impact to the recreational fishing community can be minimized or eliminated. (Includes attachments of original file, Map, statistics)	The location of the WEA was chosen with consideration of impacts to many sectors, not just the for-hire recreational sector. The Final EIS discusses transiting safety, navigational, and maneuverability challenges, and potential loss of income to the fishing industry.

Comment No	Comment	Response
FDMS_0791_007	Alternative E – Fishing Grounds The northern area of concern within the Offshore Export Cable Corridor is also noted for inclusion due to fishing grounds, however, only a small portion of the potential fishing grounds would be temporarily affected by the installation of offshore export cables. The Prime Fishing Grounds of New Jersey are extensive throughout the Mid-Atlantic region and in the immediate vicinity of US Wind's Lease area (hatched areas in Figure 6). The Lease area was defined in part to avoid fishing grounds. Installation of offshore export cables in the Offshore Export Cable Corridor north of the Lease area could potentially, and temporarily, affect a minute portion of the identified areas per the Mid-Atlantic Ocean Data Portal. Removal of the area of concern in the Offshore Export Cable Corridor would require that the entire export cable corridor to the north of the Lease area is re-sited, creating significant delays due to the need for new high-resolution geophysical surveys necessary to determine habitats and characterize potential marine cultural resources for avoidance. A route to shore that does not impact similar habitat is likely unavailable. Additionally, the establishment of an anchorage area for vessels transiting into and out of Delaware Bay and potential sand borrow areas precludes changes to the routing of the offshore export cables from the Lease area to the landing locations on shore (see Figure 7 below, from COP Volume II Section 17.6.1). US Wind supports the proposed mitigation measure (DEIS Appendix G, page G-22) for compensation of impacted commercial fishers. In fact, US Wind has engaged with the Special Initiative for Offshore Wind in its efforts to stand up a regional commercial fisheries compensation fund and administrator, as well as in consultation with the Maryland Department of Natural Resources and the Delaware Department of Natural Resources and Environmental Control. However, any compensation must be provided commensurate with commercial fishing activity in the Lease area. The DEIS states "The economic impacts associated with lost fishing revenues would be less than the total annual revenue from within the Lease Area (DEIS page 3-277)".US Wind is concerned that the revenues presented (DEIS Section 3.6.1.1, page 3-233, Figure 3.6.1-5) are an inaccurate reflection of fishing activity in the Lease area and the species landed from the Lease area, particularly in the latter half of the study period. Additionally, Figure 3.6.1-16 includes percentage of revenue associated with the incorrect lease, Lease OCS-A 0498, and also must be corrected. The Lease area provides limited commercial fishing activity in recent years (DEIS Figure 3.6.1-4 and Section 3.6.1.1.2).Fishing activity in the Lease area today is almost exclusively using static gear such as pots/traps for species such as black sea bass and whelk (COP Appendix II-K5 Section 3.1.2).Mobile gear such as trawls and gillnets are rarely deployed in the Lease area any longer as evidenced by AIS data, recent fisheries observations, and bottom conditions revealed during US Wind surveys. AIS data indicates that scallopers transit the Lease area and fish to the northeast and east outside of the Lease area (DEIS Figure 3.6.1-14). Historical tracklines show that these vessels often transit slowly back to port and through the Lease area while processing their catch, without any deployment of fishing gear. A good example of this can be seen in DEIS Figure 3.6.1-16 Commercial Scallop Fishing from 2015-2016, which clearly shows scallop fishermen on an east-west transit across the Lease area to and from fishing grounds well east of the Lease area. The value of the scallop fishery included in the DEIS in Figures 3.6.1-3 and 3.6.1-5 is based in part on a methodology that uses vessel monitoring systems (VMS) that indicate speed of scallop vessels (less than 5 knots) transiting the Lease area. While BOEM acknowledged that "some vessels may also be using slower speeds while transiting or engaging in other activities such as processing at sea," it does not take into account that this is exclusively what is taking place during scallop vessel and clam vessel VMS pings below 5 knots through the Lease area. At-sea observations of fishing activity in 2021 and 2022 indicate that mobile gear is rarely deployed in the Lease area and that scallop and surf clam fishing vessels are transiting the Lease area rather than fishing within it. In support of the COP, US Wind conducted offshore geophysical and geotechnical surveys from about April 7, 2021, through May 23, 2022, with a stand-down period from November 5, 2021, through January 8, 2022. Data collected during US Wind's geophysical surveys did not reveal evidence of trawling or dredging activity in the Lease area. In the Integrated Site Characterization Report – Offshore (COP Appendix II-A1, Section 5.2.7.2) the seafloor scarring was interpreted as related to anchor scars and there was significant evidence of pots/traps based on side scan sonar contacts (COP Appendix II-A1, Table 5-5 and Figure 5-10).Fisheries using static gear such as pots/traps are generally incompatible with mobile gear fisheries due to the potential for negative gear interactions.	The data and analysis included in the Final EIS are from NMFS data sets and have been incorporated into BOEM's analysis of the Proposed Action and alternatives.

Comment No	Comment	Response
FDMS_0791_007 (continued)	Inclusion of revenues from scallops, surf clams, and longfin squid does not accurately reflect fishing activity in the Lease area and should be revised in Sections 3.6.1.1.2 and 3.6.1.5.2.2.Information included in the DEIS also illustrates a non-sensical accounting of revenue from scallops in Figure 3.6.1-2, which shows commercial landings in pounds with years 2017-2019 indicating no scallop landings in the Lease area, while Figures 3.6.1-3 and 3.6.1-5 indicate increasing revenue derived from scallops. Therefore, the DEIS conclusions about impacts to the mobile gear fisheries, such as "The relocation of fishing activity outside the Lease Area or Offshore Export Cable Route may increase conflict among fishermen as other areas are encroached. Competition is expected to be higher for less mobile species (e.g., lobster, crab, surf clam/ocean quahog, scallop)" (DEIS page 3-278) are not supported and must be revised based on the information presented in this comment letter.US Wind is available to discuss the information presented here with BOEM and NMFS to better quantify commercial fishing in the Lease area and the potential impacts.	Continued from above
FDMS_0805_002	Impacts to fisheries and habitats should be avoided. If avoidance is not possible, impacts should be minimized and mitigated to the fullest extent possible. We urge BOEM to adopt the recommendations provided by NOAA Fisheries for this project, including recommendations for data considerations, impacts analysis, and ways to avoid and minimize negative impacts to marine habitats, commercial and recreational fisheries, and fishery species.	Thank you for your comment. BOEM tries to avoid impacts to fisheries and habitats as best as possible and has developed mitigation measures to minimize potential impacts. Several of the mitigation measures suggested in the BOEM Final EIS overlap with the recommendations provided by NOAA Fisheries and RODA.
FDMS_0805_005	All permanent vertical project structures, including turbines, offshore substations, and meteorological towers (if used), should be arranged in a uniform grid layout to reduce navigation safety risks. The spacing and orientation of the grid should allow for continued use of the area by commercial and recreational fisheries, with minimal impacts to existing fishing practices and transit patterns. All project cables should be submerged to 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). The DEIS notes that US Wind plans to bury cables 3.3 to 6.6 feet. Although the Councils have not endorsed a specific cable burial depth, we are concerned that depths less than 6 feet may not be sufficient to reduce conflicts with other ocean uses. When cables cannot be buried to sufficient depth, external armoring should use natural materials, or materials that mimic natural habitats. These materials should not be obtained from existing marine habitats and must not be toxic. These recommendations also apply to scour protection placed around foundations. The analysis should thoroughly consider impacts to commercial and recreational fisheries that operate within the area of the proposed turbine and offshore substation array, as well as the offshore export cable route. Different fisheries (e.g., different target species, different gear types, different individuals) may be impacted by these different project components and different mitigation measures may be relevant. Therefore, the turbine/substation array and export cable route should be analyzed separately. Thorough consideration should also be given to seafood dealers, processors, distributors, bait and tackle shops, marinas, and other shoreside support services. The EIS should not assume that fisheries, especially commercial fisheries, will adapt to offshore wind energy development by switching gear types and/or target species. In many cases, this is not feasible given the high cost, potentially lower prices, and different permits that would be required. Such adaptation would only occur over the longer term and may require fishery management changes. It should not be assumed that fisheries management will adapt in any particular way as fisheries management must achieve a number of varied objectives and offshore wind energy development is just one consideration.	Thank you for your comment. The potential impacts to commercial and for-hire recreational fisheries are discussed throughout the Final EIS. Grid layout, cable burial depth, and cable routes have been chosen based on many factors, not just potential impacts to commercial and for-hire recreational fisheries.

O.7.11 Cultural Resources

Table O.7-14. Responses Substantive – Cultural Resources

Comment No	Comment	Response
FDMS_0085_001	What did each of the tribal nations who were consulted say about the US Wind project and offshore development in general? Why were the Nanticoke and Lenni Lenape not on the list of tribes whom were contacted?	Appendix J of the Final EIS includes details on consultation with federally recognized Tribal Nations (hereafter referred to as Tribal Nations) and Consulting Parties including the Memorandum of Agreement detailing stipulations, mitigations, and measures created through consultation with Tribal Nations through Section 106 and Government to Government consultation. BOEM has engaged in, currently engages in, and will continue to consult with Tribal Nations. Consultation has included and will continue to include cultural resource identification, assessment of effects, and resolution of adverse effects on historic properties. The Nanticoke Indian Association and Lenape Indian Tribe of Delaware were invited to be Section 106 consulting parties. As both are state recognized tribes, they are not included on the list of Federally Recognized Tribes included in the Final EIS.
FDMS_0095_001	The National Congress of American Indians (NCAI) has said that it “strongly urges the Department of the Interior and the Bureau of Ocean Energy Management to halt all scoping and permitting for offshore wind projects until completion of a comprehensive and transparent procedure adequately protecting tribal environmental and sovereign interests is developed and implemented.”, Can BOEM please elaborate on how they are acknowledging and honoring the Tribal Nations they have consulted with.	BOEM recognizes its government-to-government obligation to consult with Tribal Nations that may attach religious and cultural significance to historic properties that may be affected by a proposed undertaking. BOEM consults in government-to-government and technical meetings with Tribal Nation Leadership, Tribal Historic Preservation Officers (THPOs), and BOEM staff regarding potential effects to sites of religious and cultural significance to Tribal Nations including the development of mitigation measures as detailed in Appendix J - Memorandum of Agreement.
FDMS_0887_001	Concerned about the many shipwrecks and other historic artifacts located on the ocean floor off of the Atlantic coast. the historic justification, and number of shipwrecks that took place, should be considered to offer validity to this structure and its purpose. “With the exception of tales of pirates patrolling the waters of Little Assawoman Bay throughout the late 1600s into the mid-1700s, human habitation on Fenwick Island was quite limited. By the mid-1800s, increasing numbers of shipwrecks near the shoals to the east of Fenwick Island garnered the attention of the United States Lighthouse Board" Although the Fenwick Island Lighthouse was eventually relocated further west of.US Rt.1, due to erosion from storms, The United States Congress authorized the construction of a new lighthouse on Fenwick Island in 1856, and in 1858, the government purchased a ten-acre tract of high land to build an 87-foot-tall lighthouse and a two-story keeper’s dwelling. Two families lived in the keeper’s house in relative isolation throughout the late 1800s.Improvements on the island were mostly limited to a bridge to the mainland constructed in 1880 and new Keeper’s house in 1881. Fenwick Island Lighthouse, 1891.Please explain why the Fenwick Lighthouse was not or has not been included or considered in the Historic Preservation sites of North Ocean City Maryland and Fenwick Island, Delaware? Concern for Lack of acknowledgement with location mapping regarding Fenwick Island’s location to the Maryland border. “On March 23, 1680, Lord Baltimore granted an area of land known as “Fishing Harbor” to Col. William Stevens, who later conveyed the land to Thomas Fenwick in 1692.Though Thomas Fenwick lived in Sussex County for quite some time, he never resided on the island. It is believed that Fenwick Island’s name hails from William Fasset. Between 1750 and 1751, the Trans–Peninsular line was laid out by surveyors to denote the boundary between land claimed by the Penn family to the north and land claimed by the Calvert family of Maryland to the south. The first survey stone was set on a tract of land later purchased for the Fenwick Island Lighthouse and is considered the “oldest standing manmade object on the coast between the Indian River and Ocean City.” Please explain, given Fenwick Island, Delaware’s geographic location to Ocean City, Maryland, and the wind leases, why no consideration was given during these studies.	US Wind has committed to avoiding the 15 potential submerged historic properties identified in the Lease Area and along Offshore Export Cable Route during construction, O&M, and decommissioning activities, as detailed in section 3.6.2.5. of the Final EIS. Additionally, Appendix J of the Final EIS details US Wind's marine post-review discovery plan in the event of an unanticipated discovery. Appendix II-13 of the Construction and Operation Plan (Offshore Project Components Historic Resources Visual Effects Analysis) assessed the effect of the Proposed Project on the Fenwick Island Lighthouse Complex and found that there would be no effect to the historic property as the resource's visibility to the ocean and Project area is partially obstructed by contemporary construction from the late 20th and early 21st century in Ocean City, Maryland. BOEM concurred with this finding. Appendix H, Section H.3.1 of the Final EIS details that "The Assateague-Fenwick barrier island, which includes the developed areas of Ocean City, Maryland and Fenwick Island, Delaware, as well as Assateague Island State Park and Assateague Island National Seashore, is a dominant geographic feature" highlighting the location of Fenwick Island along the Maryland border.

Comment No	Comment	Response
FDMS_0887_004	Please provide clarification on this and what state and federal Historic Trusts were consulted to create the APE?	BOEM actively consulted with the State Historic Preservation Offices of Maryland, Delaware, New Jersey, and Virginia. BOEM Guidelines for Providing Archaeological and Historical Property Information Pursuant to 30 CFR Part 585 define the APE as: • The depth and breadth of the seabed potentially affected by any bottom-disturbing activities, constituting the marine archaeological resources portion of the APE; • The depth and breadth of terrestrial areas potentially affected by any ground disturbing activities, constituting the terrestrial archaeological portion of the APE; • The viewshed from which renewable energy structures, whether offshore or onshore, would be visible, constituting the viewshed portion of the APE; and • Any temporary or permanent construction or staging areas, both onshore and offshore The Lease Area, inter-array cables, Offshore Export Cable Route, and terrestrial facilities, make up the footprint of the Proposed Action. The terrestrial archaeological resources portion of the APE (terrestrial APE), the marine archaeological resources portion of the APE (marine APE), and the APE for visual effects analysis (visual APE) are defined based on these Proposed Action component footprints. The 43-mile visual APE for the Offshore Area of Potential Effect is the maximum theoretical distance from which a wind turbine generator could potentially be visible when accounting for the height of the turbine and curvature of the earth in optimal viewing conditions (i.e., an absence of haze, fog, or sea spray).
FDMS_0892_013	F.BOEM Must Comply with Section 106 of the National Historic Preservation Act (more detailed text within the document).According to the DEIS, BOEM has met with the Chickahominy Indian Tribe, the Delaware Nation, and the Shinnecock Indian Nation48 and has reached out to the following federal tribes for consultation: the Absentee Shawnee Tribe of Oklahoma, the Chickahominy Indian Tribe – Eastern Division, the Chickahominy Indian Tribe, the Delaware Nation, the Delaware Tribe of Indians, the Eastern Shawnee Tribe of Oklahoma, the Mashpee Wampanoag Tribe, the Mashantucket (Western) Pequot Tribal Nation, the Monacan Indian Nation, the Nansemond Indian Nation, the Narragansett Indian Tribe, the Pamunkey Indian Tribe, the Rappahannock Indian Tribe, the Shinnecock Indian Nation, the Tuscarora Nation, the Upper Mattaponi Indian Tribe, and the Wampanoag Tribe of Gay Head (Aquinnah).49 We urge BOEM to also consult with state Tribes and go beyond consultation duties to follow the principles of Free, Prior, and Informed Consent to ensure that meaningful input from and engagement with Tribes is achieved prior to the approval of this Project.	BOEM recognizes its obligation to consult with Federally Recognized Tribal Nations that may attach religious and cultural significance to historic properties that may be affected by a proposed undertaking. BOEM has been and will be consulting in government-to-government and technical meetings with Tribal Leadership, Tribal Historic Preservation Officers (THPOs), and other Tribal representatives regarding potential effects to sites of religious and cultural significance to Tribal Nations including the development of mitigation measures. BOEM initiated National Historic Preservation Act Section 106 consultations with potential consulting parties via email and hard copy letters sent in June 2022.These letters invited potential consulting parties to participate in the National Historic Preservation Act, Section 106 review of the Maryland Wind Project and notified the potential consulting parties that BOEM intended to substitute NEPA documents for NHPA Section 106 documentation per the regulations at 36 CFR § 800.8.BOEM sent approximately 67 invitation letters to potential consulting parties including, but not limited to, the Advisory Council on Historic Preservation; the Maryland State Historic Preservation Office, Delaware State Historic Preservation Office, New Jersey State Historic Preservation Office, Virginia State Historic Preservation Office, federally recognized Native American Tribes; state recognized Tribal organizations; and local museums, historic preservation organizations and historical societies. Federally recognized tribes consulted on the Project include: Absentee Shawnee Tribe of Indians of Oklahoma, Chickahominy Indian Tribe, Chickahominy Indian Tribe – Eastern Division, Delaware Nation, Delaware Tribe of Indians, Eastern Shawnee Tribe of Oklahoma, Mashantucket (Western) Pequot Tribal Nation, Mashpee Wampanoag Tribe, Monacan Indian Nation, Nansemond Indian Nation, Pamunkey Indian Tribe, Rappahannock Indian Tribe, Shinnecock Indian Nation, Tuscarora Nation, Upper Mattaponi Indian Tribe, and Wampanoag Tribe of Gay Head (Aquinnah).State recognized tribes consulted on the Project include Lenape Indian Tribe of Delaware and Nanticoke Indian Association.

Comment No	Comment	Response
MAILIN_0005_171	The overall methodology presented in the Maryland Offshore Wind Project Appendix B Offshore Components Historic Resources Visual Effects Analysis (HRVEA) for defining the survey area from the viewshed analysis was not clearly defined. There needs to be clarification if the Area of Potential Effects (APE) and survey plan were developed in consultation with the Maryland Historic Trust (MHT).(a) A survey plan was submitted in March 2023, but from the other timelines given in the HRVEA report, it appears survey work was done prior to having an approved plan by MHT.(b) Ultimately, only historic resources listed in or eligible for the National Register and identified through the supportive cultural resources investigations were covered in the DEIS, so itis critical these studies are appropriately performed to their respective state standards.	The updated onshore historic property assessments (COP Volume II, Appendices I3 & I4), can be found on BOEM's Maryland Offshore Wind project website at: Maryland Offshore Wind Construction and Operations Plan for Commercial Lease OCS-A 0490.The development of the APE and the survey plan was completed through US Wind's consultation with State Historic Preservation Offices, including MHT.BOEM remains in consultation with MHT regarding the Project.
MAILIN_0005_172	From the data presented in the HRVEA and DEIS, it is not possible to determine whether BOEM was able to "make a reasonable and good faith effort to carry our appropriate identification efforts" (36 CRF § 800.4 [b]) in the Section 106 process. There are gaps in the data presented in the HRVEA report with the identification of historic resources for survey. (a) For example, it's not clear if the resources located within the Oceanside Midtown Survey District were ultimately investigated and evaluated for National Register eligibility. A review of the survey report to MHT should clarify this matter.	As part of the submission of a Construction and Operations Plan (COP), BOEM requires the Lessee to provide detailed information regarding the nature and location of historic properties that may be affected by the proposed undertaking. BOEM's Guidelines for Providing Archaeological and Historic Property Information Pursuant to 30 CFR Part 585 provides guidance to Lessees for effective methods to identify historic properties in the Area of Potential Effects (APE) to ensure that a reasonable and good faith effort is made pursuant to 36 CFR Part 800.4(b).The Guidelines require that the identification efforts are tailored to the specific undertaking, including incorporating standards and guidelines from State Historic Preservation Offices when historic property identification is taking place onshore or in state water. The Guidelines are available on BOEM's website: Guidelines for Providing Archaeological and Historic Property Information Pursuant to 30 CFR Part 585 Prior to conducting surveys in the visual APE for the Maryland Offshore Wind Project, the Lessee submitted a survey plan for aboveground historic properties, which was reviewed by BOEM and the Maryland Historical Trust (MHT) to ensure that the historic property identification met BOEM's Guidelines, applicable guidelines from MHT, and represented a reasonable and good faith effort to identify historic properties. The methodology for identifying historic properties included archival research conducted prior to field survey to identify and previously inventoried properties within the defined survey area. The field survey evaluated previously unidentified built structures older than 45 years and within the MHT approved survey area. The Maryland Intensive-Level Architectural Survey includes survey forms for all surveyed properties within the survey area in Ocean City. The Maryland Intensive-Level Architectural Survey was prepared consistent with the survey plan reviewed by BOEM and MHT. BOEM finds that it is a reasonable and good faith effort to identify historic properties in the visual APE, including within Mid-Town. MHT provided comments on the Maryland Intensive-Level Architectural Survey during the previous comment period, which BOEM has responded to, including revising the survey and Historic Resources Visual Effects Analysis as necessary.
MAILIN_0005_199	Discussion of tribal consultation is limited. (a) Please provide specifics on your consultation with local tribes (b) What is the status of your communications with each of those tribes listed? (c) A map showing the location of tribal territories and sites would be helpful.	Appendix J of the Final EIS includes details on consultation with Tribes and Consulting Parties including the Memorandum of Agreement detailing stipulations, mitigations, and measures created through consultation with federally recognized Tribes through Section 106 and Government-to-Government consultation. BOEM has engaged in, currently engages in, and will continue to consult with Tribal Nations. Consultation has included and will continue to include cultural resource identification, assessment of effects, and resolution of adverse effects on historic properties. Part of BOEM's responsibility to its Tribal Partners is acknowledging and respecting the Tribes' requests for confidentiality, particularly related to sites of religious and cultural significance and their locations.
MAILIN_0005_220	"As part of its ongoing stakeholder engagement, US Wind is actively working with the Narragansett Indian Tribe, the Shinnecock Indian Nation, and the Lenape Tribe of Delaware as well as thirteen additional Tribes with potential cultural linkage to the Project area in order to better understand how the Proposed Action may impact the natural and physical environmental resources, as well as the social and cultural resources, used by these communities." This would be a good place to list all of those tribes in a table rather than referring to another document.	All Tribal Nations contacted by US Wind are now included in the text of this section. Additionally, further citations have been added to direct readers to areas where they can find more in-depth details on Tribal consultation conducted by BOEM and Tribal coordination conducted by US Wind.

O.7.12 Demographics, Employment, and Economics

Table O.7-15. Responses Substantive – Demographics Employment and economics

Comment No	Comment	Response
FDMS_0031_001	Maryland Offshore Wind Construction and Operations Plan for Commercial Lease OCS-A 0490 is incomplete and not able to be fully viewed by the public so that the public can be fully informed about the economic impact of this project and be able to comment on this very important topic. Volume II, Appendix L., Socioeconomics, L.1 Economic Assessment Study has been listed as confidential and not available for review. This is unacceptable. Demographics, employment, and economics is listed in Table 4.1-1 outlining the Potential Unavoidable Adverse Impacts of the Proposed Action. By not having this information available for review, transparency regarding the adverse economic impacts as a result of this project is unknown. This information must be made publicly available in order to be considered when making this decision. Just in Ocean City Maryland alone, which is the area that will have the most impact economically, environmentally, and visually from the offshore wind farm (referenced as "Major Impact" in the report), there are 6,900 full-time residents which equates to 3,723 households. According to the 2020 US Census, 94% of these residents hold a High School diploma and have a median household income of $58,563.00 per year with 10% living in poverty compared to $91,431 in Maryland. Important to note is that there are 8 million visitors to Ocean City Maryland a year that support the local economy. In order to sustain this level of tourism, there are 30,000 residential property owners that do not live in Ocean City Maryland but own property along with 7,500 hotel rooms. All of the hotels and residences that are oceanfront or ocean block will be negatively impacted financially by the offshore wind farm. Because of this, tourism will decrease, residential properties will lose value and owners will sell. Ocean City will no longer be a popular tourist destination and those 6,900 residents, that are way below the median household income for Maryland overall, will feel the brunt of this decision more than anyone else for generations to come. It is nearly impossible to move a location out of poverty or low wages which this project, over the 35 years plus decommission time, will cause in Ocean City. It is important for the public to be able to view the Economic Assessment Study to fully understand the adverse impact to residents and property given the billions in dollars tourism generates for the city and the state as well as the support it provides to the residents and community. This decision cannot move forward without full transparency and the opportunity to understand the long-term economic impact on this and the surrounding communities.	COP Volume II, Appendix L analyzes the economic activity that would be generated by the project and has been marked confidential because the methodological details contain confidential business information. However, the results of the analysis in Appendix L are provided in Section 3.6.3.5. Appendix L does not assess any adverse economic impacts that could arise from the proposed action. BOEM qualitatively analyzes the potential adverse economic impacts of the proposed action throughout the EIS. The EIS acknowledges that there could be adverse impacts associated with the visibility of the wind turbines. BOEM has cited the available research regarding these potential impacts and acknowledges any limitations of the available research. This research, along with information regarding the proposed project and the affected area, provides a sufficient basis to estimate impacts.
FDMS_0068_001	We represent the Sea Colony Recreational Association, a 2,200-unit community with more than 5,000 owners. It is imperative that the resort nature and aesthetic value of our resort communities be preserved. Therefore, we encourage minimizing the visual view off the coast of Bethany Beach, DE for offshore wind turbines to be at least 30 miles from the coast. This is to not destroy ocean views and negatively impact our tourist industry which drives the local and state economy. A new study is needed to determine potential economic costs of lost Tourism and Recreation. No Final EIS should be issued for any project until that study is available. BOEM states in 3.6.8 regarding recreation and tourism, "Coastal Delaware and Maryland, as well as nearby areas of Virginia and New Jersey coasts, have a wide range of visual characteristics, with communities and landscapes ranging from large cities to small towns, suburbs, rural areas, and wildlife preserves. As a result of the proximity of the Atlantic Ocean, as well as the views associated with the shoreline, the coastal areas of these four states have been extensively developed for water-based recreation and tourism. The scenic quality of the coastal environment is important to the identity, attraction, and economic health of many of the coastal communities. Additionally, the visual qualities of coastal cities, towns, and parks, which incorporate marine activities, beaches, ocean and bay views, and the ability to view birds and marine life, are important community characteristics." All the currently available studies on the impact of visible turbines on tourism are out-of-date as the turbine size has increased dramatically for this project. Existing studies used turbine heights of 579' to 600'. The proposed project uses 938' and 1050' turbines (14MW to 18MW).We strongly recommend a new study be conducted that focuses on the economic impact of taller turbines on tourism similar to the NC State study.	The Lessee can only propose WTG sites within their lease area, which extends approximately 23 nautical miles (27 statute miles) from shore at the farthest point. Analyses of turbine installation outside of the identified lease area does not meet BOEM's Purpose and Need. Under the no action alternative (Alternative A), BOEM would disapprove the COP and the Project described in the COP would not be built in the lease area. BOEM acknowledges the commenter's points in the EIS and considered them when developing the impact conclusions related to recreation and tourism. However, a new survey-based study would not be able to resolve the inherent incremental uncertainty regarding impacts that arises at this stage of the project. BOEM used the best available information in the EIS.

Comment No	Comment	Response
FDMS_0078_010	BOEM failed to reference a 2017 visual preference study conducted by North Carolina State University that evaluated the impact of offshore wind facilities on vacation rental prices. The study by Lutzeyer et al.(2017), "The Amenity Costs of Offshore Wind Farms: Evidence from a Choice Experiment (https://www.aminer.org/pub/5c8c9f8a4895d9cbc6134d87/the-amenity-costs-of-offshorewind-farms-evidence-from-a-choice-experiment) was quite a contrast to the UD study. The Lutzeyer study worked with beach home rental companies and surveyed only people who had recently rented a house on or near the beach. The study found 38 percent of beach renters would likely not come back to a beach with daytime visible turbines regardless of the distance, as shown in the study quoted below with visualizations showing turbines from 5 miles to 18 miles from shore (not the 8 mile limit stated in the DEIS).In addition, others would return only with a rental discount depending on the distance. Overall, the willingness to accept estimates for the Never View class implies that these respondents would likely exit the local rental market if turbines were present rather than make intensive margin tradeoffs among rental price and characteristics of the viewshed. The Lutzeyer study also showed nighttime visualizations of red flashing aircraft warning lights, and respondents stated even higher rates of objection, with 54 percent not likely to return to a beach with nighttime visible turbines. The visualizations showed 5 to 7 MW turbines about the same size as the UD study. Again, this study confirms visible turbines in the proposed project will have a major impact on tourism and should be shown as such. Also not referenced by BOEM in the DEIS is a 2015 BOEM study about a viewshed analysis it did for the New York Outer Continental Shelf Area (Renewable Energy Viewshed Analysis and Visual Simulation for the New York Outer Continental Shelf Call Area: Compendium Report OCS Study, BOEM 2015- 044) (https://www.boem.gov/sites/default/files/renewable-energy-program/StateActivities/NY/Visual-Simulations/Compendium-Report.pdf).It simulated the visual impact of one hundred and fifty-two 6.2 MW wind turbines from 16 observation points in New York and New Jersey. The simulation most relevant to LBI is the Jones Beach observation point because the turbine array was roughly parallel to that shore. The closest point of the turbine array to Jones Beach was 15 miles, the same distance as the Proposed Project. The study ranked the visible impact on a scale from 1 to 6. The visual impact from Jones Beach scored a 6, its highest rating. A 6 rating was defined as; "Dominates the view because the study subject fills most of the field for views in its general direction. Strong contrast in form, line, color, texture, luminance, or motion may contribute to view dominance". Since the height of a 6.2 MW turbine is two-thirds that of the proposed project turbines, that visual impact would be equivalent to the project turbines at 23 miles. So, the proposed project would still register a major visual impact based on the BOEM study. We note, based on this study, officials in New York and BOEM determined that the proposed offshore wind turbine lease area off the Hamptons is too close and ruins the serene ocean viewshed, and created a 20 mile exclusion zone (https://www.governor.ny.gov/sites/default/files/atoms/files/NYS_BOEM_NY_Bight_Call_Comments.pdf).They also noted it is a threat to navigation, fishing, and endangered marine mammals. The Fairway lease area sat as close as 12 miles off the Long Island coast near the Hamptons. This, then, begs the question: Why is an exclusion zone OK for the Hamptons but not Delaware and Maryland Beaches? All the currently available studies on the impact of visible turbines on tourism are out-of-date as the turbine size has increased dramatically. Existing studies used turbine heights of 579' to 600'. The proposed project uses 938' and 1050' turbines (14MW to 18MW).A new study is needed that focuses on the economic impact of taller turbines on tourism, similar to the NC State study. We note BOEM paid the University of Delaware only $350, 000 for its study, a small price considering hundreds of billions of dollars may be invested in planned offshore wind projects. The Delaware and Maryland beach economies are estimated to total $5 billion a year, so trip losses of 24% to 54% might cost $1.2 to $2.7 billion a year or $24 to $54 billion over 20 years. The beach might look like they did during COVID lockdowns. As federal taxpayers, state residents will pay $1.3 billion for federal tax credits for turbine construction. In addition, Maryland electric customers will pay $5.2 billion in premiums over 20 years or more if US Wind applies for added guaranteed premiums. The University of Delaware study also admits property values will fall but provides no estimates of how much.	The Final EIS cites the Lutzeyer study in Section 3.6.8.3, under the Impact Producing Factor for Lighting (in the same paragraph as a citation for the University of Delaware study). Relevant sections of Section 3.6.8 have been updated to also cite the Lutzeyer findings relevant to daytime effects. As stated in Section 3.6.8.5 and in multiple other locations throughout the Final EIS, the Project has committed to voluntarily implementing an Aircraft Detection Lighting System (ADLS) that only activates aviation hazard lighting when aircraft approach the wind farm. This was estimated to occur during approximately 0.1 percent of annual nighttime hours. Section 3.6.9 and Appendix H of the Final EIS describe the Project's visual impacts and conclude that the Project alone and in combination with other offshore wind projects would have major visual impacts in substantial portions of the analysis area, including coastal areas. The Lessee can only propose WTG sites within their lease area, which extends approximately 23 nautical miles (27 statute miles) from shore at the farthest point. Analyses of turbine installation outside of the identified lease area does not meet BOEM's Purpose and Need. Under the no action alternative (Alternative A), BOEM would disapprove the COP and the Project described in the COP would not be built in the lease area. The New York exclusion zone referenced by the commenter does not apply to areas offshore of Maryland and Delaware. The Final EIS acknowledges that there could be adverse impacts associated with the visibility of the wind turbines. BOEM has cited the available research regarding these potential impacts and acknowledges any limitations of the available research. This research, along with information regarding the proposed project and the affected area, provides a sufficient basis to estimate impacts.

Comment No	Comment	Response
FDMS_0083_001	My concerns and questions about this Wind Turbine project are thus: 1. If this is a Maryland funded project why is it being built in Delaware? 2. In 2009 there was an article in the Wallstreet Journal about a wind farm in West Texas: It was bankrolled by Chinese banks and through a U.S. company they installed hundreds of wind turbines made in CHINA. China controls over 60% of the international windmill export market, mostly from technology stolen from U.S. and Western companies. I DO NOT want Chinese made windmills installed in this project.	The lease that makes up the Maryland Offshore Wind project was executed in December of 2014 after a nearly four-year period of analysis by BOEM with input from both the States of Maryland and Delaware. In 2009 and 2010, the States of Delaware and Maryland, respectively, created Renewable Energy Task Forces to analyze the offshore renewable leasing opportunities for their respective state. At the time, the two states pursued the process separately, resulting in separate efforts to lease offshore Maryland. This resulted in the Project's lease area. After the lease was executed, the Lessee, US Wind, identified the Delmarva Power and Light (DPL) Substation adjacent to the NRG Indian River Power Plant near Millsboro, Delaware, as the preferred interconnection point to the regional electric grid. This point of interconnection leads to the Lessee's proposal of cable landfall locations in the State of Delaware, which are analyzed in the Final EIS. WTG manufacturing locations are not within the scope of analysis for this Final EIS nor is it within BOEM's authority.
MAILIN_0005_192	The DEIS only presents demographic and economic data for Worcester County and does not present information for Ocean City, MD. The presentation of data at the county level obscures local sensitivities. Within Worcester County, Ocean City may be particularly sensitive to impacts on tourism because it is entirely coastal and highly dependent on tourism. Please conduct further analysis of Worcester County, including presenting data on the coastal and tourism-based local economies such as Ocean City. No record of decision or alternative selection should be made until BOEM completes this analysis.	The EIS includes data on the ocean economy in the demographics/employment/economics section (Tables in Section 3.6.3).
MAILIN_0005_201	Figure 3.6.3-1. Demographics, employment, and economics geographic analysis area appears to show radii surrounding the potential port locations. What is the extent of the radii? The study area should be based on the potential for impacts.	The radii on the relevant figure in Section 3.6.3 (and other figures in the Draft EIS) were intended to be symbolic representations of port-area impacts. To avoid confusion, these radii have been removed from figures in the Final EIS.
MAILIN_0005_202	Table 3.6.3.2 The table appears to be missing footnote 2 regarding the 2020 Unemployment Rate presented in the table. What is the source of the unemployment rate presented? Is it an annual average? Is it seasonally adjusted? The US Bureau of Labor Statistics Local Area Unemployment Statistics provides the annual average unemployment rate by County up to 2022.Can the most recent unemployment rate data be used, especially because 2020 was an anomalous year for employment due to the COVID-19 shutdowns? Can any information about seasonal fluctuations in employment be provided?	The data tables in Section 3.6.3 have been updated to use the most recent available data and to address these questions. The footnotes for the relevant table in Section 3.6.3 have been updated to indicate that unemployment is the annual average based on the proportion of the total population 16 years and older that are in the labor force. The annual average is consistent with other BOEM NEPA documents prepared for offshore wind projects and is thus retained in this table.
MAILIN_0005_203	Jobs/income/labor force data cited in several tables is from 2020.The DEIS should present an additional year as 2020 was anomalous due to the impacts of COVID-19 shutdowns on the economy, particularly the tourism economy. Presentation of data for 2020 undercounts employment.	The Final EIS has been updated to use the most recent available data.
MAILIN_0005_204	[1] Table 3.6.3-3. Housing data, 2020 (a) The table appears to be missing footnote 1 regarding the housing data presented in the table. [2] (b) Please define "non-seasonal vacancy rate" as presented in the table. The DEIS is presenting extremely high "non-seasonal vacancy rates." Based on the numbers in the table, it appears that the "non-seasonal vacancy rate" presented is the percentage of vacant units that are non-seasonal vacant units. This is not the commonly understood meaning of a vacancy rate. The vacancy rate is the percentage of total units that are unoccupied. The reader will likely assume that the non-seasonal vacancy rate is the percentage of total housing units that are long-term (non-seasonally) vacant.	Thank you for your comment. [1] The footnotes have been corrected. [2] The comment correctly interprets the "non-seasonal vacancy rate" concept. The intent of this measure (which has been used in other published offshore wind NEPA documents) is to help the reader understand the degree to which overall vacancy rates are affected by seasonal units--which are especially common in coastal areas. The relevant table in Section 3.6.3 in the Final EIS has been revised to include revised headings and explanatory footnotes to clarify this information. This distinction also assists in assessing how Project-related demand for housing or lodging could affect the housing market in the analysis area.
MAILIN_0005_205	The text discussion of the Ocean Economy data for each area references 2019 data, whereas the tables show 2020 data. The text and numbers in the text do not match the tables. Please present the 2019 data in tables for the reader in addition to the 2020 data. Please provide a discussion of how the 2019 and 2020 data relate or differ.	The Final EIS has been updated to include 2019 and 2020 Ocean Economy data.

Comment No	Comment	Response
MAILIN_0005_206	The discussion of impacts of presence of structures for the Proposed Project is brief and provides the reader with very little information about the location and extent of potential impacts. “Views of WTGs could have impacts on businesses serving the recreation and tourism industry. The presence of offshore wind structures could affect shore-based activities, surface water activities, wildlife and sightseeing activities, diving/snorkeling, and recreational boating transit routes." Where will these impacts occur within the analysis area? What areas within the analysis area are sensitive to impacts on recreation and tourism? Please quantify the magnitude of these impacts. “Presence of structures would have both beneficial impacts. Such as by providing sightseeing opportunities and fish aggregation that benefit recreational businesses, and adverse effects, such as by causing fishing gear loss, navigational hazards. And viewshed impacts that could affect business operations and income. In the context of reasonably foreseeable environmental trends, the Proposed Action would contribute an undetectable increment to the combined impacts on demographics, employment, and economics from other ongoing and planned activities including offshore wind, which would be long term and moderate due to impacts on commercial and for-hire recreational fishing, for-hire recreational boating, and associated businesses." Please quantify the potential beneficial impacts and compare them to the negative impacts. Please indicate where the beneficial impacts would occur as compared to where the negative impacts would occur. If the benefits would not occur in the same place or to the same population as the negative impacts, then the beneficial impacts will not mitigate or offset the negative impacts for the affected populations.	The EIS acknowledges that there could be adverse impacts associated with the visibility of the wind turbines. BOEM has cited the available research regarding these potential impacts and acknowledges any limitations of the available research. This research, along with information regarding the proposed Project and the affected area, provides a sufficient basis to estimate impacts. Available data do not support the economic impacts at a smaller geographic scale.
TRANS-19_0017_002	The other concern I have is repeated articles all over of the problems that Orsted's having, where they're trying to go back and renege on the contracts that were signed so that the people funding the project wouldn't get any rebates and get reduced electrical charges.	The Lessee has reached agreements with the State of Maryland regarding the wholesale electricity prices associated with the MarWin and Momentum Wind project phases. The resulting effects on retail electricity prices will depend on the prices of alternate sources of electricity in the future, along with other factors. The Maryland Public Service Commission can provide more information regarding the potential effect of the project on retail electricity prices.
TRANS-19_0018_003	Separately, we should be more clear about the jobs that would be impacted. Many local fishing people oppose the project due to the impact to the fishing industry and the thousands of jobs across the seaboard within this industry. An impact of which, has not been addressed, or assessed, and is very unknown at this time. Again, I advocate for Alternative A, and to halt the project until additional impact studies and research are completed.	Section 3.6.1 of the Final EIS discusses the impacts of the Project on commercial fishing and for-hire recreational fishing (including impacts from the Project alone and cumulative impacts of the Project combined with other Atlantic offshore wind projects).
TRANS-24_0005_001	I'm a resident of Worcester County and the city manager for Ocean City, Maryland. Ocean City will have extensive comments on this draft environment impact statement which we believe falls well short of meeting even the most minimal requirements required by law. For the purpose of this evening, I will concentrate on two sections of the report; visual impacts and socioeconomic impacts. Although by BOEM's own admission, the visual rendering provided by US Wind do not conform with your own standards and are too small to show the true impact of the project. BOEM still finds that even using these flawed representations, the project will have a major impact on the developed features including Ocean City. BOEM finds that in appendix H for intensely developed beachfront areas such as Ocean City, ocean views are highly prized and sought in beachfront communities, and then finds, quote, the project would be clearly distinctive and would detract from the character of the open ocean horizon. In your socioeconomic appendix J, BOEM states that, quote, the scenic quality of the coastal environment is important to the identity, attraction and economic health of the coastal communities, yet BOEM makes no efforts to quantify what the economic impacts to Worcester County tourism will be as a result of this major disruption to our review shed. BOEM ultimately classifies it as a minor to minor beneficial without citing a single data point or a statistic to support that determination, a determination which defies BOEM's own statements.	BOEM has cited the available research regarding the potential adverse economic impacts of the project. BOEM used this research, data on the affected area, and the specifics of the proposed action to develop impact ratings associated with these adverse impacts.
TRANS-24_0005_002	US Wind claims they will support 117 permanent jobs over the life of the project. BOEM notes that ocean tourism supports 6,182 jobs in Worcester County alone and a half billion dollars in GDP.BOEM goes on to state that these figures both reflect how tourism and recreation are vital to the county's total GDP and the county's total employment. When will BOEM provide estimates of how many of those dollars and jobs might be lost as a result of this project? Simply stating as you do on page 3-440, that there is, quote, limited available research to determine these impacts is no excuse. Commission the necessary independent research studies to get the facts and stop any approvals for this project until you have them. When the data shows that this project will destroy more jobs than it creates, make the right decision and deny approval	The commenter is correct that tourism and recreation are substantial portions of the local economy. However, at this stage, it would be too speculative to estimate the exact number of jobs displaced due to the proposed action. BOEM used the available research, data on the affected area, and the specifics of the proposed action to qualitatively describe the potential adverse impacts on recreation and tourism.

Comment No	Comment	Response
TRANS-26_0002_001	Since I am here, I will do my two major ones. The first one is the study of the University of Delaware with impact on, like, tourism I would say, basically the question was asked if tourists are likely to return back to the beach where they saw those turbines, and that's an outdated study. It's a number of years ago, and it was for much smaller turbines. So my question is, if the use that is going to be done and basically the visual impact assessed is not done at the moment, and it's supposed to be part of the environmental draft, a thousand pages, but the visual impact is not there. And the one that is there is outdated and doesn't serve the purpose. So that's one.	The Final EIS considered the commenter's input regarding the growth of turbine sizes when determining the impact rating for recreation and tourism, as well as employment and economics.
TRANS-26_0002_002	As far as I understand, there's no regulation or state laws or anything about that because it's also new. So how is that going to be addressed because if the company that sells the whole project, probably it's written on their website that they are going to kind of build its energy and ETV, whatever, will they transfer this type of project or they will sell it. Who is going to be responsible for the decommission- if there's no regulation or law in place? And what will be the course of the ownership of these companies? Because US Wind is owned by the Italian company. The Italian company is created by another Italian holding. So if US Wind just loans this, what is the course on the Italian companies is going to be? I think those are the two main things.	BSEE is charged with oversight of facility decommissioning. A Lessee is required to decommission their facility within 2 years following termination of the lease pursuant to 30 CFR 285.902. A Lessee's decommissioning application must be submitted to BSEE prior to decommissioning. The decommissioning application will either be approved, approved with conditions, or disapproved. The EIS analyzes the potential impacts of the Proposed Action and a range of alternatives. The ownership of companies is outside of the scope of NEPA.
TRANS-26_0002_002	I live in the area, and I've come to the beaches here for 30, 40 years, from Assateague Island all the way up to Rehoboth Beach. And 90 percent of that will be affected by the visual impact of these massive towers going up. And in the May session, they had professors from the University of Delaware and the University of Rhode Island. And they both said that they've done studies of three wind turbines off the coast of Block Island, and there they said there was no problem with tourism, and the tourists like it. This is not three wind towers. It's many, many dozens. Has anybody done a study to show the effect on tourism, property values for the area, and what that might mean for people who enjoy this seascape? My sense is, from talking to many neighbors, that people don't like it. The rhetorical question I have is, is there any way to try to talk to our elected representatives to see if more studies can be done and more input from the public?	The Final EIS acknowledges that there could be adverse impacts associated with the visibility of the wind turbines. BOEM has cited the available research regarding these potential impacts and acknowledges any limitations of the available research. This research, along with information regarding the proposed project and the affected area, provides a sufficient basis to estimate impacts.
TRANS-30_0041_002	Secondly, global offshore windmill projects are facing rising costs, leading to the cancellation of numerous projects. Despite substantial subsidies, inflation has driven up the costs of building these steel towers to such a degree that companies have abandoned projects mid-build. To bail out these failing companies, which require major electricity rate increases, this places an undue burden on the average and lower income families in America who are already struggling with rising costs of living.	The commenter is correct about the recent issues facing the offshore wind industry in general. However, the MarWind and Momentum Wind OREC agreements that were reached in prior years remain in place.

Comment No	Comment	Response
TRANS-30_0044_001	When this lease area was established in 2013, turbine sizes were three to six megawatts. BOEM stated at a 2010 public task force meeting I attended that turbines further than 10 miles out would not be visible from shore. Based on that assurance, Ocean City did not oppose the lease area. The very limited studies that have been done regarding the impact of visible offshore wind turbines on tourism and property values have all used five to six megawatt turbines as the standard. Things have changed dramatically since 2013.The 18-megawatt turbines being proposed by US Wind in this lease area are almost twice the size of those envisioned in 2013but are still located as close as 11-and-a-half miles from the Ocean City shoreline and are now clearly visible. I have asked our visual impact expert how close a six-megawatt turbine would have to be to have the same visual impact as an 18-megawatt turbine at 11-and-a-half miles. The answer is seven miles from shore. BOEM cites two studies regarding the economic impact of offshore wind on tourism, a study from North Carolina State University, and a study completed by BOEM by the University of Delaware. The NC State study concluded that 55 percent of ocean vacation renters would not return if turbines were visible. Fifty-five percent. The study also concluded that if six-megawatt turbines were located just eight miles from shore, in order to keep the remaining 45 percent of renters from going elsewhere, property owners would have to discount their rents by an average of $1,000 per week. Given these results, BOEM should make every effort to determine what the potential impact of this project on Ocean City property values will be, and the DEIS fails to do that. BOEMs own UDEL commissioned study states that with six-megawatt turbines located seven-and-a-half miles offshore, average trip loss for Maryland would be percent. The study further notes that at that distance, 38 percent of respondents would have a worst beach experience. Given BOEMs own study conclusions, BOEM should make every effort to determine the potential negative economic impacts of this project. The DEIS fails to do that. Given the above, the DEIS conclusion that the potential negative economic impacts of this project are, quote, "undetectable, " as stated on page F167, we're finding that these impacts cannot be quantified due to, quote, "limited available research, " as stated on page 3- 440, is simply outrageous. Just like these windmills off our coast, the data is staring us right in the face and it's not a pretty sight. Please select Alternative A.	The Final EIS considers the commenter's input regarding the growth of turbine sizes when determining the impact rating for recreation and tourism, as well as employment and economics. BOEM acknowledges the commenter's points in the EIS and considered them when developing the impact conclusions related to recreation and tourism.

O.7.13 Electromagnetic Fields (EMF)

Table O.7-16. Responses Substantive – Electromagnetic fields

Comment No	Comment	Response
FDMS_0067_001	With all of the cables between the wind turbines and the substations that is a lot of sea floor being disturbed and with the AC cables a lot of magnetic fields being generated. Has anyone analyzed magnetic fields over such a large area and its effect on marine life. The maps showing the high voltages cables can't be accurate. How many cable runs or circuits are going from the wind farm to the Landfall, one or four? If it is one, they will probably tie the substations together at the lower voltage and only have one of the substations with a transformer to step up the voltage to 230 kV. If it four, they will want to still want to tie the substations together. What is at the Landfall site? I assume it is a GIS switching station because they will want to isolate the ocean cables from the land cables. So there will be some sort of building. Is that something the locals want to see? Also since the cables are 230kV and around 13 miles in length, there will be a lot of charging current and they will need reactors to counter it. Reactors make noise at 120 Hz and in that area the noise will travel a good distance. Did they consider the noise and its effects on the local residents? How many land cables are running from the Landfall Site to Indian River? You can't tell from the maps. I assume it is not the same construction as the ocean cables, three cables in conduit, because they will probably use a cable laying ship for the ocean cables, but I don't think you will be able to get the ship in the Indian River Bay. So what will be the cable configuration for the land cables and how many circuits? What is the installation method and how will that affect the bay? What are the magnet field issues in the bay?	Section 2.1.2 of the Final EIS provides information on the Proposed Action and the components.

Comment No	Comment	Response
FDMS_0070_002	Not only would a different offshore lease area benefit Ocean City, but it would also significantly improve the safety of offshore marine traffic by moving the lease area away from vital shipping and barge lanes. More importantly, it would move the project out of the Shuster Horseshoe Crab Sanctuary. This sanctuary was established to protect the spawning grounds of the Atlantic Horseshoe Crab. Why is the lowly horseshoe crab so important? As you may have recently read and seen on the news, the blood from the Atlantic Horseshoe Crab is used to test the safety of vaccines. The Shuster sanctuary is considered so vital that no one is allowed to catch a horseshoe crab in that area. Yet not a single study has looked at the impact of offshore wind turbines or their high voltage cables on the horseshoe crab."	The Lessee can only propose WTG sites within their lease area, which extends approximately 23 nautical miles (27 statute miles) from shore at the farthest point. Analyses of turbine installation outside of the identified lease area does not meet BOEM's Purpose and Need. Under the no action alternative (Alternative A), BOEM would disapprove the COP and the Project described in the COP would not be built in the lease area. Due to the importance of the horseshoe crabs to the Mid-Atlantic, US Wind conducted a site-specific study of potential EMF impacts. The modeling study of five representative cable configurations found that the electric field produced would be below the reported detection thresholds for even electrosensitive marine organisms (Exponent 2023). Section 3.5.2.5 of the Final EIS summarizes the results. They state that when operating at peak loading, the maximum level of the magnetic field produced from the Offshore Export Cable Route cables (both offshore and through Indian River Bay) was calculated as 148 mg (14.8 µT) at the seabed, and quickly decreased to 12 mg (1.2 µT) just 3 feet (1 meter) above the seafloor (Exponent 2023).These values are 3.4 and 42 times lower respectively than EMF levels which have shown no impact (Exponent 2023).The maximum EMF levels produced by the inter-array cables at the target burial depth of 3.3 feet (1 meter) was calculated as 49 mg (4.9 µT).At a distance of 10 feet (3 meters) horizontally from all cable types, the EMF decreased to less than 1 mg (0.1 µT) (Exponent 2023).
FDMS_0075_001	I am the Founder of Save The Horseshoe Crab. We have many concerns about building offshore wind complexes within the Horseshoe Crab Sanctuary which was created in 2001 to protect the crabs from harvesting and bycatch. This area is home to the largest population of horseshoe crabs in the world. The protein Limulus Amebocyte Lysate found in their blood is very valuable and used to detect endotoxins in everything from pharmaceuticals to artificial hip replacements and all vaccines including Covid. The US Wind project is partially located within the southern boundary of this MPA. Sediment plumes created during excavation for the turbine foundations could remain suspended in the water column for weeks to months. Many toxic substances will be unearthed beneath the sea floor making the turbidity increase and sunlight decrease for the benthic species found here including the prey that horseshoe crabs consume. Large concrete scour protection around each base will create another type of sediment plume from water rushing past the turbines. These sediment plumes have been shown to persist indefinitely spreading for hundreds of miles in the North Sea where offshore wind is abundant. Our largest concern is the effect the EMF from undersea export cables to land will have on the crabs. In a study with Brown Crabs in Europe it showed that the crabs lingered around the cables being attracted to the EMF. This prevented the crabs from seeking out prey and mates during spawning. Also noted was the blood chemistry of the crabs was altered from prolonged exposure to these unnatural fields. If this should occur with horseshoe crabs their life saving blue blood may be altered rendering it ineffective in detecting endotoxins in the medical/pharmaceutical industry. In a study conducted by BOEM in 2011, you also mentioned concerns of the effect EMF would have on the horseshoe crabs. With such a vitally important species a thorough study should be performed to assess their behavior and any potential biological changes to their blue blood. We have a quote from your study that reads "Little research has been done to determine if most of the invertebrate species listed in Table 4.3-1 (including horseshoe crabs) have a capability of sensing magnetic or electric fields. Each is regionally significant either ecologically (horseshoe crab) or economically (American lobster, spiny lobster, Dungeness crab, red king crab) and undergoes onshore-offshore movements seasonally and could potentially be impeded by a barrier such as EMFs from an undersea power cable. If it is determined that any of these species has a sensory capability, then they should be experimentally exposed to EMFs to determine their sensitivity thresholds relative to EMF levels from undersea cables and behavioral response." Studies in the past have shown that exposure to EMF from offshore wind undersea cables does cause deformities in crustaceans. To the best of our knowledge no said studies were performed to date. These experiments can be performed in an aquaculture setting on a large scale to mimic their natural habitat. In closing we believe this large-scale project can and will affect the horseshoe crab population found in the protected habitat. To move forward without proper research could be disastrous to the medical/pharmaceutical field's ability to protect us from endotoxin contaminants. The American Horseshoe Crab has unwillingly provided us with so much, it is our responsibility to make sure they will survive for another 450 million years.	The Carl N. Shuster Jr. Horseshoe Crab Reserve is discussed in Section 3.5.2.1 in the Final EIS. Negligible to short-term, minor impacts expected for horseshoe crabs. The results of the Indian River Bay Sediment Transport assessment indicated that most of the fluidized sediments lost to the water column are predicted to quickly settle back to the bay floor. Suspended sediment concentrations are predicted to be less than 200 mg/L at distances greater than 4,600 feet (1,400 meters) from the cables. All suspended sediment concentrations greater than 50 mg/L above ambient conditions are predicted to dissipate in less than 12 hours after the passage of the jet plow. Suspended sediment plumes greater than 10 mg/L are predicted to disappear within 24 hours after the completion of jetting operations. Text has been added to Section 3.5.2.5 to address the resuspension of contaminants. Both surface and subsurface samples have similar PCB levels. The authors concluded that the quality of the sediments will be generally the same after dredging as before dredging with regard to total PCBs. Section 3.5.2.1. Stated that PCBs were also detected, however, in concentrations low enough that toxicity to aquatic life is not expected (Cargill and Pratt 2020). Due to the importance of the horseshoe crabs to the Mid-Atlantic, US Wind conducted a site-specific study of potential EMF impacts. The modeling study of five representative cable configurations found that the electric field produced would be below the reported detection thresholds for even electrosensitive marine organisms (Exponent 2023). Section 3.5.2.5 of the Final EIS summarizes the results. They state that when operating at peak loading, the maximum level of the magnetic field produced from the Offshore Export Cable Route cables (both offshore and through Indian River Bay) was calculated as 148 mg (14.8 µT) at the seabed, and quickly decreased to 12 mg (1.2 µT) just 3 feet (1 meter) above the seafloor (Exponent 2023).These values are 3.4 and 42 times lower respectively than EMF levels which have shown no impact (Exponent 2023).The maximum EMF levels produced by the inter-array cables at the target burial depth of 3.3 feet (1 meter) was calculated as 49 mg (4.9 µT). At a distance of 10 feet (3 meters) horizontally from all cable types, the EMF decreased to less than 1 mg (0.1 µT) (Exponent 2023).

Comment No	Comment	Response
FDMS_0771_005	As noted above, transmission cables from the Block Island offshore wind project became exposed several years ago despite the burial of 6’ or more, including on a recreational beach.US Wind states that their high voltage electric cables with 1,100 mW of capacity will be buried only 3.3 to 9.8 feet (1 to 3 meters). How can BOEM be confident that voltage from these cables poses no direct harm to humans and marine life swimming near these beaches? Or that the installation of those cables using towed or self-driving jet plow will not render the waters off the beach unsuitable for swimming? Possible associated tidal erosion could make beaches more susceptible to storm damage, resulting in future expenses for nearby homeowners in beach replenishment and repairs to homes.	Maryland Offshore Wind conducted an Electromagnetic Field (EMF) Assessment for both the onshore and offshore sections of their cable routes, the results of which are presented in the COP (Volume 2 Section 7.2.2.).Results of the study suggest that cable burial depth of 1 meter is far below the reference level limit for human exposure of 2,000 milligauss (ICNIRP Guidelines for Limiting Exposure to Electromagnetic Fields (1 Hz to 100 kHz).Health Phys 99:818-836, 2010).Cable burial depths of at least 1 meter are proposed and recommended in the COP (Volume 2 Appendix K7). Furthermore, the COP (Volume 1 Section 6.1.5) provides the anticipated cable inspection schedule following installation. Cables are also anticipated to be monitored with distributed temperature sensing equipment, which provides real-time information on changes in the temperature of the cable. Changes in cable temperature could be the result of scouring of overlying sediments and exposure of the cable.
FDMS_0887_	We are concerned about safety of these lines affecting human and animal/marine health. Please further explain the excavation and installation processes, the testing to ensure electromagnetic safety, as well as the implementation of repairs and decommissioning of these transmission lines.	Section 3.6.8.3 of the Final EIS details impacts from EMFs and cable heat on recreation and tourism and human health. EMF levels are anticipated to be well below the human health reference levels. Section 3.5.6.5 contains information on marine mammals, EMF, and offshore cable installation concluding that areas with detectable EMF would be small, extending only a few feet from the cable. As cables will be buried at a depth of 1 to 2 meters and installed with appropriate cable shielding and scour protection, EMF exposure will be limited, and any exposure would be below levels associated with measurable biological effects. Section 2.1.2 details the Proposed Action and provides information on the cable installation process and decommissioning.
MAILIN_0005_006	The DEIS acknowledges that EMF and cable heat impacts on benthic resources are largely unknown, but consideration should be given to different sensitivities of benthic organisms as well as possible effects on species like Lobster that have been verified.	Due to the importance of the horseshoe crabs to the Mid-Atlantic, US Wind conducted a site-specific study of potential EMF impacts. The modeling study of five representative cable configurations found that the electric field produced would be below the reported detection thresholds for even electrosensitive marine organisms (Exponent 2023). Section 3.5.2.5 of the Final EIS summarizes the results. They state that when operating at peak loading, the maximum level of the magnetic field produced from the Offshore Export Cable Route cables (both offshore and through Indian River Bay) was calculated as 148 mg (14.8 µT) at the seabed, and quickly decreased to 12 mg (1.2 µT) just 3 feet (1 meter) above the seafloor (Exponent 2023).These values are 3.4 and 42 times lower respectively than EMF levels which have shown no impact (Exponent 2023).The maximum EMF levels produced by the inter-array cables at the target burial depth of 3.3 feet (1 meter) was calculated as 49 mg (4.9 µT).At a distance of 10 feet (3 meters) horizontally from all cable types, the EMF decreased to less than 1 mg (0.1 µT) (Exponent 2023). Text was added to Section 3.5.2.5 addressing cable heat during O&M phases.

Comment No	Comment	Response
TRANS-24_0003_002	There are five endangered species in the area. These include sturgeon, the white tipped shark, scalloped hammerhead, and the endangered giant manta ray. Sturgeon is a big one. Fishermen are regulated because of sturgeon. If BOEM's project negatively impacts sturgeon and causes a decline in population, will this in turn cause stricter regulations on the fishing industry as fishermen were once blamed? Electromagnetic fields alter the migration of flounder and other commercially and recreationally important species. How will BOEM compensate for this? The EMF is likely to alter horseshoe crab migrations as well. The EIS says that overall there would be offshore wind construction for six to 12 years. That's unacceptable. We can't move every project forward. BOEM says, oh, we don't have the science on such and such like invertebrates. Well, then BOEM should only approve one small project and study it instead of approving all these large projects at lighting speed. And then after 12 years of nonstop construction say, oops, we hurt the ocean. It's irresponsible behavior. There is science that says altering the hydrodynamic process actually mimics climate change in the area of the wind farm, increasing water temperatures, et cetera. How can we support a project that is actually causing what they say they are fixing? BOEM should deconflict all project leases from the migratory route of the endangered north Atlantic white whale. It's unacceptable that BOEM sited a string of leases in the migration corridor of this critically endangered species. Since BOEM didn't do its due diligence at the siting stage to avoid such impacts, it must do so now. Smart from the start. The BOEM process whereby the Maryland lease and many others were sited that decided to speed up offshore wind leasing by conducting analysis at onset of the process is coming back to bite BOEM now. BOEM must disapprove the project that adversely impacts marine life.	EMF and hydrodynamic impacts are assessed within each resource section in Section 3. The lease that makes up the Maryland Offshore Wind project was executed in December of 2014 after a nearly four-year period of analysis by BOEM with input from both the States of Maryland and Delaware. In 2009 and 2010, the States of Delaware and Maryland, respectively, created a Renewable Energy Task Forces to analyze the offshore renewable leasing opportunities for their respective state.
TRANS-24_0004_002	Our largest concern is the effect that the electromagnetic field from under sea export cables to land will have on the crabs. In a study with brown crabs in Europe, it showed that the crabs lingered around cables, being attracted to the EMF. This prevented the crabs from seeking out prey or mates during spawning. Also noted was the blood chemistry of the crab was altered from prolonged exposure to these unnatural fields. If this should occur with horseshoe crabs, their lifesaving blue blood may be altered showing them ineffective at detecting endotoxins in the medical, slash, pharmaceutical industry. In a study conducted by BOEM in 2011, you also mentioned concerns of the effect EMF would have on the horseshoe crabs. With such a vitally important species, a thorough study should be performed to assess their behavior and any potential biological changes to their blue blood. We have a quote from your study that reads, little research has been done to determine if most of the invertebrate species listed in table 4.3-1, including horseshoe crabs, has the capability of sensing magnetic or electric fields. Each if regionally significant, either ecologically, the horseshoe crab, or economically, the American lobster, spiny lobster, Dungeness crab, red king crab, and undergoes onshore offshore movement seasonally and could potentially be impeded by a barrier such as EMFs.	Due to the importance of the horseshoe crabs and shellfish to the Mid-Atlantic, US Wind conducted a site-specific study of potential EMF impacts. The modeling study found that the electric field produced would be below the reported detection thresholds for electrosensitive marine organisms (Exponent 2023). Five representative cable configurations were modeled to represent the three portions of the cabling for the Project. The inter-array cables were modeled both at the target burial depth of 3.3 feet and where cable protection of 1-foot protective covering would occur. Similar configurations were modeled for the offshore export cables, adding a minimum of 100 ft separation of the cables. Within Indian River Bay, the configuration modeled the four cables separated by 33 feet and buried to 3.3 feet beneath the seafloor. As Section 3.5.2.5 Stated, when operating at peak loading, the maximum level of the magnetic field produced from the Offshore Export Cable Route cables (both offshore and through Indian River Bay) was calculated as 148 mg (14.8 µT) at the seabed, and quickly decreased to 12 mg (1.2 µT) just 3 feet (1 meter) above the seafloor (Exponent 2023).These values are 3.4 and 42 times lower respectively than EMF levels which have shown no impact (Exponent 2023).The maximum EMF levels produced by the inter-array cables at the target burial depth of 3.3 feet (1 meter) was calculated as 49 mg (4.9 µT).At a distance of 10 feet (3 meters) horizontally from all cable types, the EMF decreased to less than 1 mg (0.1 µT) (Exponent 2023).

O.7.14 Environmental Justice

Table O.7-17. Responses Substantive – Environmental justice

Comment No	Comment	Response
FDMS_0296_002	Also I have read that the wind turbines can affect people with epilepsy with their shadow flickering. Why aren't health issues being taking into consideration?	Karanikas, et al. (2021) finds that proximity to WTGs is a determining factor for physical effects, and specifically that adverse effects only occur within 300 meters (984 feet) of the WTG.EJ communities are located much farther than 300 meters from the Lease Area; therefore, shadow flicker would not have health impacts on any onshore populations. Working conditions for offshore workers are regulated by OSHA and are therefore beyond the scope of this analysis and outside of BOEM's regulatory authority. Potential health impacts from the Proposed Action are addressed in the Final EIS sections that discuss air emissions (Sections 3.6.4.5 and 3.6.4.5.2) and GHG (Sections 3.4.1.5, 3.4.1.5, and 3.4.1.5).

Comment No	Comment	Response
HANDIN-24_0019_001	Many studies have and are being conducted but there is no conclusive evidence that wind energy is safer environmentally over fossil fuel, indeed a great deal of fossil fuel will be used to build wind farms. Why are wind turbines removed from the California hill? why was wind turbines removed at Chesapeake college?	Offshore Wind's lifecycle emissions, when harmonized with other generation technologies, comes out as one of the most efficient commercial scale generator technologies. The emissions from construction and materials will relatively quickly be offset by the emissions avoided by the facility's energy generation. See NREL's harmonized life cycle assessment of various electricity generating technologies at the link Life Cycle Assessment Harmonization. Specific to the Project, Final EIS Section 3.4.1.5 states that the Proposed Action would offset all greenhouse gas and criteria pollutants generated by its construction, lifetime operations, and eventual decommissioning within 4 years of the start of operations, although most pollutants (including CO2) would be offset in less than one year. Relative to the existing grid mix for electricity generation, this project would offset substantial volumes of carbon emissions each year, as shown in the Final EIS. It is important to note that both projects referenced in the comment are land-based wind projects that are outside the scope of this Final EIS.
MAILIN_0005_207	[1] The DEIS analysis of environmental justice is difficult for the reader to follow. It is unclear which definitions of environmental justice (EJ), underserved, or overburdened communities are being used to identify environmental justice communities for this analysis. The reader can neither understand which communities are EJ communities, nor can they understand how those communities may experience impacts in comparison to the general population. [2] Please provide clear figures that show the locations that the analyst has identified as environmental justice communities and the state or federal criteria used to identify these areas as environmental justice communities. Please clearly identify in a table the anticipated impacts for these EJ communities.	Thank you for your comment. Section 3.6.4 has been revised to provide more information about EJ definitions, mapping, and their implications for identifying EJ communities. This section has also been revised to provide more detailed data and findings regarding EJ communities in and near Sparrows Point (Baltimore), MD and Ocean City, MD due to the substantial use of port facilities in these locations during construction and operations (respectively).
MAILIN_0005_208	The DEIS does not identify a comparison geography or geographies for the determination of disproportionate impacts. An environmental justice analysis should not simply determine if environmental justice communities would experience impacts, it should determine if the environmental impacts experienced by an environmental justice community are disproportionately high and adverse as compared to an appropriate comparison geography. Please identify comparison geographies and explain why those comparison geographies were chosen.	Final EIS Section 3.6.4 has been revised to more clearly indicate that states are the "reference population" for EJ analyses and to explain that state-level percentiles were used because they are more indicative of local demographics and nuances than national percentiles.
MAILIN_0005_209	[1] The figures provided do not illustrate for the reader the geographic analysis area, the study area boundary (buffer around the analysis area?), the geographic unit of analysis, the year of the data, nor do they identify which areas the analyst has determined are environmental justice areas. For example, Figure 3.6.4-1 is titled "Environmental justice communities near Sparrow's Point Maryland." What does "near" mean? Is the geographic analysis area the COP of Sparrow's Point? If so, the outline of that geography should be included on the map. [2] The legend states "Environmental Justice Score (Percent Distribution)." Environmental Justice score is never defined for the reader. The entire geography shown in the figure is shaded according to the EJ Score, but the criteria for an EJ community using this score is not defined and the geographies that meet these criteria are not identified. What percentile of an EJ score is the threshold for an EJ community? What is the geographic unit of analysis? [3] The DEIS states that the analyst used Census Block Groups as the unit of analysis, but the Maryland Department of Environment (MDE) EJ Screen tool cited in the figure uses Census Tracts. The EJ analysis should use one consistent unit of geographic analysis. The smaller the geographic unit of analysis, the more likely it is to pick up on small EJ communities and differences within cities or neighborhoods. The USEPA uses Census Block Groups.	[1] BOEM does not use a predefined radius or buffer to determine a particular distance from ports or infrastructure to include in the geographic analysis area; all EJ communities potentially impacted should be included. The geographic analysis area includes the counties adjacent to the Lease Area, as well as counties containing primary ports. This analysis area is large enough to identify any communities potentially impacted by the Proposed Action. [2 and 3] Section 3.6.4 have been revised to provide more information about EJ definitions, mapping, and their implications for identifying EJ communities. This section has also been revised to provide more detailed data and findings regarding EJ communities in and near Sparrows Point (Baltimore), MD and Ocean City, MD due to the substantial use of port facilities in these locations during construction and operations (respectively).

Comment No	Comment	Response
MAILIN_0005_210	The DEIS is missing the definition of underserved and overburdened communities as defined by the Maryland Department of Environment. According to the Maryland Department of the Environment Environmental Justice and Implementation Plan Environmental Justice Policy and Implementation Plan 2022.pdf Cmaryland.gov): "State law defines an underserved community as any Census tract in which, according to the most recent U.S. Census Bureau survey, at least 25% of the residents qualify as low-income; at least 50% of the residents identify as nonwhite; or at least 15% of the residents have limited English proficiency. State law defines an overburdened community as any Census tract in which three or more of the 21 environmental health indicators are above the 75th percentile statewide as identified in Chapter 38 of 2022." For the portion of the geographic analysis area that is in Maryland, please indicate if the above definition was used and if the above definition aligns with or is more inclusive than the federal definition. If it was not used, then please indicate what was used, how that compares with the above definition and why it is relevant for use in the analysis of this project. If the analyst is using the Maryland state criteria on the Census tract level, Census Tract 9500 in Ocean City (among other Census Tracts) meets the poverty threshold and should be considered an EJ community.	Section 3.6.4 has been revised to provide more information about EJ definitions, mapping, and their implications for identifying EJ communities. This section has also been revised to provide more detailed data and findings regarding EJ communities in and near Sparrows Point (Baltimore), MD and Ocean City, MD due to the substantial use of port facilities in these locations during construction and operations (respectively).
MAILIN_0005_211	The DEIS does not explain how the environmental justice communities in Delaware were identified. Was the DelDOT Equity Analysis Tool used? Are both moderate and significant environmental justice neighborhoods as defined by DelDOT considered environmental justice communities? Is DelDOT's definition of an environmental justice neighborhood more or less inclusive than the USEPA criteria that the DEIS cites?	Final EIS Section 3.6.4.1 states that DelDOT definitions were used and provides those definitions (along with EJ definitions from USEPA and other state agencies used in the EIS).Because each state uses different definitions and parameters, a one-to-one comparison is not feasible (and could yield inaccurate results).It is possible that an area that meets USEPA criteria for consideration as an Environmental Justice community may not meet DelDOT criteria, and vice-versa.
MAILIN_0005_212	Figure 3.6.4-1 Please provide the year of the source data for the MD EJ Screen or the date on which the data was accessed. The data in Figure 3.6.4-1 and Figure 3.6.4-1 does not match the data shown in the MD EJ Screen tool as of October 2023.Because the year of the data is not shown, the validity of the data cannot be confirmed	The Final EIS has been updated to provide year for all EJ data and to include the most recent demographic data available (2022, in the case of the MD EJ Screen data).
MAILIN_0005_213	Please analyze Block Groups 240479500004 and 240479500002 in Ocean City for environmental justice impacts. According to the USEPA EJ Screen, Block Group 240479500004 is 67 percent low-income, which puts it in the 96th percentile for the state. This block group is also 47 percent people of color. Block Group 240479500002 is 47 percent low-income which puts it in the 88th percentile for the state. According to the DEIS, these block groups should be considered EJ communities. The DEIS states that the following is the criteria used to identify EJ communities "Because Virginia, Maryland, and Delaware do not provide specific thresholds, this analysis defines an environmental justice population in those states as a block group that either (1) meets USEPA's "50 percent" criterion for race, or (2) is in the 80th percentile or higher for minority or low income status as compared to the respective state population." Block Groups 240479500004 and 240479500002 in Ocean City are in the 80th percentile or higher for low-income status as compared to Maryland, and thus should be analyzed as EJ communities. No record of decision or alternative selection should be made until BOEM completes this analysis.	Section 3.6.4 has been revised to provide more information about EJ definitions, mapping, and their implications for identifying EJ communities. This section has also been revised to provide more detailed data and findings regarding EJ communities in and near Sparrows Point (Baltimore), MD and Ocean City, MD due to the substantial use of port facilities in these locations during construction and operations (respectively).
MAILIN_0005_214	The DEIS states that wind development would result in regional reductions in greenhouse gas emissions due to offshore wind offsetting fossil fuel energy production, which would benefit environmental justice communities. However, the fossil fuel generating plants that may be decommissioned or utilized less have not been identified and the DEIS presents no evidence that these facilities would be located near the same communities that would experience adverse air quality impacts from the proposed project. Though there may be regional reductions in greenhouse gas emissions, there would be local adverse impacts on air quality for environmental justice communities surrounding ports. The regional reduction in emissions does not mitigate the local impacts. To fully document potential impacts, it is important to explain where within the geographic analysis area beneficial and adverse impacts would be realized.	When potential benefits are analyzed for proposed projects, any potential avoided emissions are based on the current power generation mix for that region. If a nonrenewable energy source is decommissioned and taken offline or not utilized to full capacity, then that energy source has decreased and less emissions are being avoided. BOEM identifies the geographical airshed areas and analyzes the potential benefits and impacts within the Final EIS.
MAILIN_0005_215	Because the location and extent of port utilization is not known, the DEIS cannot adequately assess the potential for environmental justice impacts near ports. The DEIS should include a reasonable worst-case scenario for port utilization at each port.	Final EIS section 3.6.4.5 discusses port utilization and environmental justice impacts for each of the proposed ports and concluded that air quality impacts would be negligible in a best-case scenario to minor in a worst case scenario, based on specific port usage for future projects.

Comment No	Comment	Response
MAILIN_0005_216	According to the DEIS, "Baltimore, Maryland, and Portsmouth and Cape Charles, Virginia, each had Pollution and Sources variables relating to air quality in the 80th percentile and above." These pre-existing environmental justice conditions related to air quality should be considered in the determination of disproportionate impacts	Final EIS section 3.6.4 analyzes the air emissions effects from the Proposed Project through an environmental justice lens (based on the Air Quality analysis in Section 3.4.1). This EJ-focused analysis identifies the disproportionate and adverse impacts of port-area emissions (including Baltimore, Portsmouth, and Cape Charles) during construction and operations, as well as the long-term beneficial impacts of displacing emissions from fossil fuel generation.
MAILIN_0005_219	Gentrification is a significant issue for Ocean City as the DEIS states: "Mapping for gentrification indices show medium high to high levels of housing disruption and retiree migration in coastal communities near ports in Sparrows Point (Port of Baltimore) and Ocean City, Maryland; Lewes, Delaware; Cape Charles, Virginia; and Port Norris, New Jersey. Urban sprawl across the same area exhibits low to medium pressure, except for higher pressure near Sparrows Point. Overall, mapping identifies higher gentrification pressure near ports in Sparrows Point (Port of Baltimore) and Ocean City, Maryland; Lewes, Delaware; Cape Charles, Virginia; and Port Norris, New Jersey, compared to other nearby coastal areas." Please provide further information and discussion of this issue. Please provide the results of the NOAA gentrification indicators.	NOAA gentrification indicators are on a scale of "N/A" to "High". The results of the NOAA gentrification indicators are included in Section 3.6.4.1.
TRANS-30_0051_001	I have a Doctor of Science degree in epidemiology, which is the science of diseases in populations, with an emphasis in environmental health. I'm retired from a federal career as an epidemiologist. I support the development of wind generated energy. Offshore is a great location. My focus is on the public health impacts of various sources of energy. Scientists have learned over the past several decades that fossil fuels have very, very bad health impacts for all ages, from prenatal to elderly. The effects are mainly on our lungs, hearts, and brains. As a society, we no longer need to put up with these bad health effects to have industrial transportation and home energy. Renewable sources, including wind, have much less public health impacts. During the transition to renewable sources, Environmental Impact Statements, or EISs, should include analysis that compare the public health adverse impacts of fossil fuel versus renewable energy sources. Essentially, fossil fuel projects to provide the same level of energy production would be a second type of, quote, "no action" alternative for the EIS, as mentioned earlier this evening by Delegate Charkoudian. Epidemiologists, preferably with Doctoral of Epidemiology degrees and with environmental health expertise are good choices for generating the reviews and analyses of these relative public health impacts. The Maryland Legislature set goals for the state to reduce greenhouse gasses. Conversion from fossil fuel use to renewables, including wind, is a necessary step to meeting those goals.	Offshore Wind's lifecycle emissions, when harmonized with other generation technologies, comes out as one of the most efficient commercial scale generator technologies. The emissions from construction and materials will relatively quickly be offset by the emissions avoided by the facility's energy generation. See NREL's harmonized life cycle assessment of various electricity generating technologies at the link: (Life Cycle Assessment Harmonization). Specific to the Project, Final EIS Section 3.4.1.5 states that the Proposed Action would offset all greenhouse gas and criteria pollutants generated by its construction, lifetime operations, and eventual decommissioning within 4 years of the start of operations, although most pollutants (including CO2) would be offset in less than one year. Relative to the existing grid mix for electricity generation, this project would offset substantial volumes of carbon emissions each year, as shown in the relevant table in Section 3.4.1 of the Final EIS. The relevant tables in Section 3.4.1 summarize the co-benefits risk assessment results (COBRA) for the estimate of health effects from reasonably foreseeable offshore wind power and for the Proposed Action. These assessments find that offshore wind power (including the Proposed Action alone and in combination with other offshore wind projects) will result in avoided mortality and positive monetized health benefits due to avoided emissions associated with fossil fuel generation.

O.7.15 Finfish, Invertebrates, and Essential Fish Habitat

Table O.7-18. Responses Substantive – Finshish, invertebrates, and essential fish habitat

Comment No	Comment	Response
MAILIN_0005_060	The DEIS relies on Guida et al 2017 for assessment of benthic resources in the lease area. It is a reliable and comprehensive study, but covers all the WEAs, not just those in the mid-Atlantic. "This study characterizes the 1) abiotic components, 2) biotic components and 3) abiotic-biotic relations (between habitat and fauna) that will support ecosystem-level assessments and cumulative impact analyses for all eight WEAs." for benthic habitat. If more area specific studies area available, they should be incorporated into the DEIS.	The characterization of benthic resources in the Final EIS is based on the readily available resource information, BOEM assessments and research studies, published literature and information presented by US Wind in the COP.
MAILIN_0005_063	The conclusion is drawn that noise from construction and installation of all 3,088 WTGs would result in "local to temporary impacts to fish and invertebrates". However, an explanation as to how the conclusion was reached is not provided. A connection to the sound levels, duration of elevated sound, species, and cumulative impacts from the project itself is needed prior to reaching this conclusion otherwise the reader cannot see that it is supported by evidence.	Thank you for your comment. Offshore wind development along the Atlantic coast is expected to result in approximately 3,081 offshore structures over the next seven years. The explanation about the impact determination from noise is provided in Section 3.5.5.3.
MAILIN_0005_064	The fact that WTGs may create new habitat at their base (structure) is not, in and of itself, evidence that marine life would not be affected. Reference to documented evidence indicating what fish species would utilize this new habitat should be provided.	Section 3.5.5.5 of the Final EIS provides a discussion of the impacts to finfish, invertebrates and EFH associated with the presence of structures during the O&M phase

Comment No	Comment	Response
MAILIN_0005_068	The DEIS notes that: "Overall, the duration of pile-driving activities would be relatively short term (up to 2 hours per day for the WTG foundations; 8 hours per day for the OSS foundations; and 6 hours per day for the Met Tower Foundations)". The conclusion is drawn that impacts will not result given the construction activity is temporary and localized. For the reader to understand the full extent of impacts and to inform the conclusions reached, the total number of hours of noise per activity per level should be included for the entire project and not just for each construction activity type. A table summarizing these totals could be included to better show the full extent of potential impacts. When discussing cumulative impacts, the following is included, "The expected minor incremental impact from pile-driving under the Proposed Action combined with offshore wind activities would result in increased underwater noise levels during construction starting in 2022 and continuing through 2030." The DEIS should discuss the potential long-term impacts of multiple projects being constructed over eight years	To the best of our ability, the long-term impacts of multiple projects are addressed in the cumulative assessment. More information is provided in Appendix B. Currently, the approach for acoustic impact assessment does not quantify the total number of hours of noise per activity type as you suggest. The approach typically looks at ranges to isopleths (acoustic thresholds) of concern. In the future we may move to a different approach more along the lines of what you are suggesting.
MAILIN_0005_074	The DEIS states: "Approximately 96 percent of these impacts would occur as a result of structures associated with OTHER offshore wind development and not the Proposed Action, as the Proposed Action would account for approximately four percent of the new offshore structures on the OCS." This is inconsistent with the intent of a NEPA cumulative impact analysis as it concludes because the proposed action is only 4% of the wind leases, it is insignificant. Looking at this project in isolation and not considering the cumulative impacts resulting from the other 96% of the wind leases is counter to a cumulative impact assessment. This section of the DEIS should be revised to fully consider impacts associated with the development of all wind leases.	The Final EIS language in Section 3.5.5.5. relative to the impacts of the presence of structures during operations and maintenance on finfish, invertebrates and EFH has been revised to focus on the Proposed Action.
MAILIN_0005_077	The Proposed Project will affect the decades-long history of scientific surveys and fisheries data collection in the region. This will require time to redesign surveys, reconcile old and new data, and revise models. These models are used to determine fish stocks and set fishing quotas, licenses, etc. Potential revisions to quotas and licenses could directly impact local fishing businesses. Additionally, this effort will be complicated and may also affect regulatory frameworks. The EIS should document these issues.	Section 3.6.7 of the Final EIS describes the potential impacts on Scientific Research and Surveys including fisheries management and ecosystem monitoring surveys associated with the Proposed Action.
FDMS_0592_002	P.3-83-3-84. It is noteworthy that South Atlantic Bight fishes have moved into the southern MAB, particularly sciaenids (drum family) but also species such as chub mackerel and blueline tilefish, which are “new” species that the Mid-Atlantic Fishery Management Council must manage. Many SAB species are reef associated and could capitalize on increased structure associated with the wind project. P.3-84. There is little on the summer community of fishes even though construction activities will likely be centered during this season. Available resources for such information include the NJ trawl survey (e.g., Stoeckle et al.2021.ICES J.Mar.Sci.78: 293-304) and past research adjacent to the project area (Woodland et al.2012.Estuarine, Coastal and Shelf Sci.99: 61-73; Woodland and Secor 2013. Limnol. Oceanogr.58: 966-976. p.3-87, first paragraph. This section has a general intent, but we think including swordfish is confusing – they would not occur in the shallow project area. p.3-91. This is a comprehensive treatment of Atlantic sturgeon within the project area. p.3-93. Although not protected under ESA, several shark species are protected from harvest by NMFS owing to their conservation status. These include bigeye thresher, white sharks, and sand tiger sharks which likely use MAB shelf waters as nursery habitats. Atlantic angel shark also receive protection. Telemetry and trawl surveys all show the incidence of these species in near shelf waters off MD and DE. p.3-127.The assumption of primitive hearing structures in Atlantic sturgeon and reduced sensitivity to pile driving is likely incorrect. Please review the recent paper Popper and Calfee. 2023. Sound and Sturgeon. J. of Acoustical Soc.America.154:2021-2035.	Thank you for your comment. The migration of SAB oriented species into the MAB is documented and outlined in Section 3.5.5.1. Literature supporting this northern migration listed in the Final EIS include Pinsky et al.2013, Andres 2016, and Baudron et al.2020. Text outlining the seasonal change in species composition has been updated in Section 3.5.5.1. Comments concerning swordfish are noted, but as they are a managed species, and may occur in the deeper project area, no changes were made in the Final EIS. Comments related to the protected species of sharks have been noted. Reference has been reviewed and incorporated as appropriate in Section 3.5.5.5.

O.7.16 General NEPA

Table O.7-19. Responses Substantive – General NEPA

Comment No	Comment	Response
FDMS_0431_001	RE: (Authority: 43 U.S.C.1337.Source: 88 FR 6430, Jan.31, 2023) In the general provision's statue, (§ 585.100) BOEM has been granted the legal authority to proceed with renewable energy production on the OCS. The authority for this part also derives from Section 8 of the Outer Continental Shelf Lands Act (OCS Lands Act) (43 U.S.C.1337).The Secretary of the Interior is delegated to the Bureau of Ocean Energy Management (BOEM) the authority to manage the development of energy on the Outer Continental Shelf (OCS) from sources other than oil and gas, including renewable energy, through the issuance of leases, easements, and rights-of-way for activities that produce or support the production, transportation, or transmission of energy. Rule § 585.101, and under provisions of § 585.102 BOEM has the authority to: (a) Establish procedures for issuance and administration of leases, right-of-way (ROW) grants, and right-of-use and easement (RUE) grants for renewable energy production on the OCS.(b) Ensure that renewable energy activities on the OCS are conducted in a safe and environmentally sound manner, in conformance with the requirements of subsection 8(p) of the OCS Lands Act, and other applicable laws and regulations.(d) This part will not convey access rights for oil, gas, or other minerals.(c) BOEM will ensure that any activities authorized in this part are carried out in a manner that provides for: (1) Safety; (2) Protection of the environment; (3) Prevention of waste; (4) Conservation of the natural resources of the OCS; (5) Coordination with relevant Federal agencies (including, in particular, those agencies involved in planning activities that are undertaken to avoid conflicts among users and to maximize the economic and ecological benefits of the OCS, including multifaceted spatial planning efforts); (6) Protection of National security interests of the United States. However, the programmable EIS (PEIS), presented for public comment with omitted essential compliance information, negates the due process of NEPA and effective shareholder input into the Federal Register. Appendix E: Analysis of Incomplete and Unavailable Information.https://www.boem.gov/sites/default/files/documents/renewable-energy/state-activities/%20MDOffshore-Wind-DEIS_AppE_AnalysisIncompUnavailInfo.pdf.Under 40 CFR § 1502.9 Draft, final, and supplemental EIS procedures, the following detail is relevant and applicable to lessee, US Wind. Failure to comply could have legal ramifications and require a procedural remedy. (b) Draft environmental impact statements. Agencies shall prepare draft environmental impact statements in accordance with the scope decided upon in the scoping process. The lead agency shall work with the cooperating agencies and shall obtain comments as required in. To the fullest extent practicable, the draft statement must meet the requirements established for final statements in section 102(2)(C) of NEPA as interpreted in the regulations in this subchapter. If a draft statement is so inadequate as to preclude meaningful analysis, the agency shall prepare and publish a supplemental draft of the appropriate portion. At appropriate points in the draft statement, the agency shall discuss all major points of view on the environmental impacts of the alternatives including the proposed action. Additionally, § 585.102 established a legal format for OCS activities delegated to BOEM and under the auspices of rule, requires that US WIND as lessee, provide an PEIS with complete data sets for relevant federal agencies including NOAA. The failure of US WIND to provide such information renders BOEM liable for any non-conforming permits, which is a likelihood given the paucity of data for compliance. Included in this concern are the established precedents such as Section 7 of the Endangered Species Act (ESA; 16 U.S.C.§§1531 et seq.) requires federal agencies (often referred to as action agencies) to ensure that actions they undertake, authorize, or fund are not likely to jeopardize threatened or endangered species (i.e., listed species) or adversely modify designated critical habitat of listed species. To satisfy this mandate, Section 7 generally requires action agencies to consult with the U.S. Fish and Wildlife Service (FWS) or the National Marine Fisheries Service (NMFS) (together, the Services) when their proposed actions may affect listed species or critical habitat. Actions subject to Section 7 may include infrastructure projects that are undertaken by action agencies or by nonfederal entities with federal authorization or funding. These factual concerns as outlined, strongly suggest a revision of this document with a supplemental format, with yet another comment period before publication of a final EIS (FEIS).	Thank you for your comment. At this time a supplemental Draft EIS will not be released but your concerns are noted. BOEM applied acceptable scientific methodologies to inform the analysis in light of this incomplete or unavailable information. For example, conclusive information on many impacts of the offshore wind industry may not be available for years, and certainly not within the contemplated timeframe of this NEPA process. However, if this information is essential for a reasoned decision, subject matter experts have used the scientifically credible information available and generally accepted scientific methodologies to evaluate impacts on the resources while this information is unavailable.

Comment No	Comment	Response
FDMS_0767_001	RODA and its members have submitted hundreds of comment letters to BOEM and its cooperating federal and state agencies outlining significant concerns associated with offshore wind energy (OSW) development in this project region alone. As most of the issues outlined in those letters have not been addressed to date, we incorporate all past correspondence by reference and do not repeat the entirety of the consistent, clear, and reasonable requests our members have previously raised.(The latest comprehensive letter pertained to the Atlantic Shores project; the entire letter is applicable to preparation of a DEIS for the Maryland Offshore Wind project owned and is therefore incorporated here by reference.) BOEM touts a transparent public participation process. For a number of fishing industry members who showed up at the in-person public hearings in Maryland and Delaware, this was clearly false. The public was not allowed to provide public comment in a public format, and while information on posters did indicate these in-person public meetings were in fact open houses, the Federal Register Notice referred to all meetings at "BOEM's public hearings". The EPA's environmental review processes, including development, supplementation, adoption, and revision of National Environmental Policy Act (NEPA) documents, describes public participation, including subsection (a)(5) which highlights the need to "ensure meaningful public participation throughout the NEPA process."3 RODA and our members have said time and time again that in-person hearings and meetings are important venues for the fishing industry, and the public at large, to engage. BOEM can and should continue to conduct virtual hearings, but hiding behind the facade of bygone Covid protocols rather than listening to the public input is unjustifiable.	Regulations require BOEM to analyze US Wind's proposal to build a commercial-scale wind energy facility on the Renewable Energy Lease Number OCS-A 0490. The purpose and need in the EIS reflect the requirements per those regulations, whereas BOEM's purpose, as stated in Section 1.2, is to determine whether to approve, approve with modifications, or disapprove the Maryland Offshore Wind COP, to fulfill BOEM's duties under the lease.
FDMS_0767_002	A Programmatic Approach is Superior to a Piecemeal One RODA, other fishing industry representatives, marine scientists, fishery management councils, the environmental community, and others have consistently requested, and continue to request, BOEM take a regionally cumulative approach to offshore wind planning and leasing. 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. BOEM, as the agency hiring consultants to draft Environmental Impact Statements for offshore wind projects, has implemented an inadequate cumulative impacts strategy. It is unclear how BOEM decides which projects are included in an EIS. For the earliest projects (Vineyard Wind 1, South Fork, and Ocean Wind 1) BOEM's NEPA review focused on a single proposed project with a Power Purchase Agreement (PPA) in place. For the Maryland Offshore Wind Project, the EIS has been prepared for buildout of lease area OCS-0490.	The Final EIS presents 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. BOEM's regulations require BOEM to analyze U.S. Wind's proposal to build a commercial-scale wind energy facility on the Renewable Energy Lease Number OCS-A 0490.The purpose and need in the EIS reflect the requirement per those regulations, whereas BOEM's purpose as stated in Section 1.2 is to determine whether to approve, approve with modifications or disapprove U.S. Wind's COP, to fulfill BOEM's duties under the lease. As outlined in Section 1.4, this EIS ties to and incorporates by reference a number of programmatic assessments on wind energy development in the BOEM regions. In support of the NEPA process, BOEM also develops white papers to provide detailed discussions of topics raised. These papers are summarized and iteratively incorporated into BOEM's offshore renewable energy NEPA documents as available. Completed BOEM white papers are available here: NEPA and the Office of Renewable Energy Programs | Bureau of Ocean Energy Management (boem.gov).
FDMS_0767_003	Sequencing of Site Assessment, COP Approval and NEPA Initiation 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 or could be improved with more information. 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. A rushed process does equal a better process.	As described in COP Appendix II-D-4, U.S. Wind conducted site-specific geophysical, geotechnical, and benthic surveys across the Lease Area and a large proportion of the submarine export cable siting corridors from July to August 2021.Refinement of the Lessee's design within the range of the PDE parameters of the COP is consistent with BOEM's use of a PDE approach for completing the environmental review for a COP EIS. The EIS alternatives modify or narrow the design for specific aspects of the PDE. Therefore, the analysis of the action alternatives focuses on impacts of the alternatives that differ from those of the Proposed Action.

Comment No	Comment	Response
FDMS_0767_014	Further clarification for project decommissioning is needed. We are encouraged that a bond is to be held by the U.S. government to cover the costs of decommissioning. Disclosure of the bond amount should be made public along with the estimated costs of decommissioning to allow the public to comment on any concerns over who might be forced to cover any uncovered expenses in the event the bond is insufficient. Additional information on how the turbines will be disposed of after decommissioning should be included in future documents. It also should be made clear to the public that decommissioning does not mean the wind energy area will be restored to its prior condition. Large amounts of materials required for OSW projects will likely remain in the ocean, e.g., scour protection materials and cables. This represents the permanent conversion of soft sediment areas to those with hard structure. The DEIS identifies this conversion as a benefit as this is believed to create habitat, however, insufficient discussion of the impacts on species naturally occurring in the Project area is provided. It is unclear whether this newly created habitat will give other species a competitive advantage over species that prefer, or rely, on soft bottom for their life cycle. 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.	The EIS assesses impacts that could result from construction, O&M, and conceptual decommissioning of the proposed Projects using reliable existing data and resources in accordance with 40 CFR 1502.23. Section 2.1.2.3 of the EIS describes decommissioning activities and that, per BOEM regulations, U.S. Wind would be required to remove all cables and clear the seafloor of all obstructions created by the proposed Projects. U.S. Wind would need to obtain separate and subsequent approval from BOEM to retire in place any portion of the proposed Projects. Approval of such activities would require compliance under NEPA and other federal statutes and implementing regulations. The conceptual decommissioning plan, as proposed by U.S. Wind is analyzed in the EIS. Prior to implementation of any activities associated with decommissioning, BOEM would require U.S. Wind to submit a decommissioning application for technical and environmental review. As noted by the commenter, in accordance with 30 CFR § 585.516, U.S. Wind is required to provide BOEM a supplemental bond, a decommissioning bond, or other financial assurance to ensure that Lessee obligations can be fulfilled prior to approval of the COP and prior to authorization to commence construction. Additional information on the effect of converting soft bottom habitat has been added to Final EIS Section 3.5.2.5 under the cable emplacement and maintenance and presence of structures IPFs.
FDMS_0857_001	The DEIS, as currently written, is legally inadequate, and its defects cannot be cured by simply making “fixes” in the Final EIS. Instead, BOEM must prepare a new DEIS that addresses the deficiencies identified herein and then re-release that document for another round of public review and comment. The DEIS will lead directly to a flawed Letter of Authorization (LOA) for Incidental Take of the critically endangered North Atlantic Right Whale (NARW).The critically endangered NARW is generally considered the most imperiled marine mammal native to North America Indeed, the total NARW population rests at approximately 330 individuals, and that number is dropping due to constant human-caused mortality, low calving rates, highly extended calving intervals, loss of prey species and access to foraging habitat, low and diminishing physical fitness, lack of genetic diversity, and extreme low abundance of reproductive females. Most whale experts agree that unless human caused mortalities are immediately curtailed to zero, the NARW will become extinct in the next 30 to 60 years. For these reasons, it is imperative that BOEM, through the DEIS, examine closely, carefully, and comprehensively the US Wind project’s potential to adversely affect NARW and exacerbate existing threats to the species. Unfortunately, the DEIS fails this basic task, leaving many impacts undisclosed, unstudied, and unmitigated. DEIS Underestimates Project Impacts on Radar. A new study is needed to determine the potential economic costs of lost Tourism and Recreation. No Final EIS should be issued for any project until that study is available. BOEM states in 3.6.8 regarding recreation and tourism, “Coastal Delaware and Maryland, as well as nearby areas of Virginia and New Jersey coasts, have a wide range of visual characteristics, with communities and landscapes ranging from large cities to small towns, suburbs, rural areas, and wildlife preserves. As a result of the proximity of the Atlantic Ocean, as well as the views associated with the shoreline, the coastal areas of these four states have been extensively developed for water-based recreation and tourism. The scenic quality of the coastal environment is important to the identity, attraction, and economic health of many of the coastal communities. Additionally, the visual qualities of coastal cities, towns, and parks, which incorporate marine activities, beaches, ocean and bay views, and the ability to view birds and marine life, are important community characteristics.” While public comment sessions were scheduled and held public comment was not allowed This is a lack of due process	Thank you for your comment. The Final EIS does not affect the MMPA Letter of Authorization (LOA) issuance. The Applicant has submitted to NMFS an application for an LOA authorization. That is a separate process from the NEPA process. The Final EIS is consistent with the information provided in the LOA application and the measures required by the final MMPA Letter of Authorization (LOA) for Incidental Take Regulations would be incorporated into COP approval, and BOEM and/or BSEE will monitor compliance with these measures. Section 3.6.8 of the Final EIS includes an analysis of the potential impacts to Tourism and Recreation, and Section 3.6.9 includes the potential impacts to Visual Resources. These sections are supported by detailed studies included in the COP and BOEM determined that the COP studies and the analyses of these resources are sufficient and properly assess the potential impacts. The impacts for Tourism and Recreation were deemed to be negligible to moderate with minor beneficial impacts.

Comment No	Comment	Response
FDMS_0892_002	Process: • Publish the analysis used to determine that quiet foundations are technologically and economically unfeasible, and consequently not carried forward in the alternatives analysis. • Standardize the process for evaluating cumulative impacts across projects as important inconsistencies reduce the relevance and application of the analysis across the region and for individual projects. • If construction schedules are delayed (due to lack of a power purchase agreement for the third project, or for other reasons) and significant new information relevant to environmental concerns becomes available, assess whether supplemental review will be needed.	BOEM's Process for Identifying Alternatives for Environmental Reviews of Offshore Wind Construction and Operations Plans, pursuant to NEPA, published June 22, 2022, is available at this link: Process for Identifying Alternatives for Environmental Reviews of Offshore Wind Construction and Operations Plans pursuant to the National Environmental Policy Act (NEPA) (boem.gov). Screening criteria listed in the document linked above allow for BOEM to dismiss an alternative from further analysis if it is "technically infeasible or impractical, meaning implementation of the alternative is unlikely given past and current practice, technology (e.g., experimental turbine design or foundation type), and/or site conditions (e.g., presence of boulders) as determined and documented by BOEM's technical experts." As indicated in the relevant table in Section 2 of the Final EIS, there are no foundation types that are technically and economically feasible because of the site-specific sediment characteristics and proven technology available. Clarification regarding BOEM's methodology for assessing impacts has been provided in Section 1.6 of the Final EIS, which is consistently applied across all projects. The Final EIS presents 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 alternative. 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. If significant project delays occur, BOEM will evaluate if significant new relevant information is available and will determine if additional analysis would be required.
FDMS_0892_006	Under NEPA, BOEM must make every attempt to obtain and disclose data necessary to its analysis in order to provide a "full and fair discussion of significant environmental impacts."19 The simple assertion that no information or inadequate information exists will not suffice. Unless the costs of obtaining the information are unreasonable, NEPA requires that it be obtained.20 Agencies are further required to identify their methodologies, indicate when necessary information is incomplete or unavailable, acknowledge scientific disagreement and data gaps, and evaluate indeterminate adverse impacts based upon approaches or methods "generally accepted in the scientific community."21 Such requirements become acutely important in cases where, as here, so much about an activity's impacts depend on newly emerging science. Finally, NEPA does not permit agencies to "ignore available information that undermines their environmental impact conclusions."22 This duty also applies to the evaluation of reasonable alternatives.	BOEM is aware of their requirements under NEPA and Appendix E of the Final EIS includes a discussion regarding unavailable and incomplete information. During the scoping process, comments were received and considered regarding alternatives and the viable alternatives are evaluated in the Final EIS.
FDMS_0892_010	C. The Draft EIS's Analysis of Impacts (more detailed text within the document) 1. Inconsistencies with Cumulative Impact Determinations relative to other wind projects. we find significant variability in the cumulative impacts by resource. For environmental justice, the cumulative effects of the No Action Alternative are "moderate; minor beneficial." These are not aligned with the analysis in the Final EIS for the adjacent Ocean Wind 1 project, which found cumulative effects of the No Action Alternative to be "moderate" on environmental justice. Similarly, cumulative impacts of the No Action Alternative on sea turtles are considered "negligible to minor; minor beneficial" in Atlantic Shores South's Draft EIS but "minor" for the No Action Alternative for Ocean Wind 1. 2. Inconsistencies with Alternative Impact Determinations where Action Alternatives are lower than No Action… For Coastal Habitats and Fauna, BOEM determined that the No Action Alternative would be "negligible to moderate," but all other alternatives were designated as "negligible to minor." It is unclear from the DEIS why the No Action Alternative would have a higher impact designation than any of the project alternatives. Similarly, we note that the impact determination for Wetlands and Other Waters of the US has a higher impact determination for the No Action Alternative than all other action alternatives except Alternative C. If this is not, in fact, an error, BOEM needs to clarify its rationale for these impact determinations. 3. Inconsistencies with Geographic Analysis Areas relative to other wind projects for bats and birds. For example, the geographic analysis areas for birds and bats vary from 0.5 mi inland (Sunrise Wind for birds and bats, Southcoast Wind for birds), 5 mi inland (Atlantic Shores South and Southcoast Wind for bats and several other DEIS for both birds and bats including Ocean Wind 1), to 100 mi inland (Vineyard Wind 1 for both birds and bats).For this project, the geographic analysis area is 5 mi inland and 100 mi offshore for birds and bats.	Thank you for your comments. 1. Cumulative impact determinations are not expected to be consistent across all offshore wind projects for every resource for two reasons. For some resources, the geographic analysis areas are project specific and do not overlap and the analysis of impacts are entirely separate from one another. Secondly, while each EIS may contain the same list of planned offshore winds projects, the geographic analysis area for some resources does not include the same projects. However, some inconsistencies for resources with large geographic analysis areas (i.e. sea turtles) were corrected in the Final EIS. 2. Impact determinations for all resources have been reviewed for consistency and edits have been made where inconsistencies existed. 3. The rationale for the geographic extent of the analysis area for each resource is explained in the introduction to each Section 3 resource section. In general, resources with more localized impacts (i.e., benthic resources) have a smaller geographic analysis area (GAA), while the GAA for species that are highly mobile (i.e., bats, birds, marine mammals, sea turtles, and finfish) is broader to include the movement range of species that could be affected. Geographic analysis is based on the geographic extent of potential Project impacts, either direct or interdependent or interrelated activities/effects, rather than the entire range of species that overlap with Project areas.

Comment No	Comment	Response
FDMS_0901_001	The comment period needs to be extended until the public has the opportunity to view all of the confidential and redacted documents. I put in an expedited FOIA request for all documents and was denied. The earliest they can respond is late December which isn't acceptable especially since the Economic Assessment Study has not been released. This is critical information that the public has a right to review, analyze, determine its validity and refute if necessary. Due to the lack of transparency, this draft report and the comment period should be invalidated, and a new process should start once the public has access to all critical documents in order to make an informed comment for consideration.	The comment period provided, 45 days, was the standard NEPA requirement for review. The documents that are deemed confidential include proprietary or confidential information. The results of the Economic Assessment Study, and any other confidential documents, are included in the Final EIS and were available for comment.
MAILIN_0005_233	It is noted that efforts are being made to align with state policies. It would be advantageous for the EIS to specify which policies are particularly relevant and how the project aligns with these. This clarity would assist in understanding the project's compliance at a granular level.	State permits and consultations are listed and described in Appendix A, *Required Environmental Permits and Consultations* of the Final EIS.
MAILIN_0005_234	Given the project's presence in both Maryland and Delaware waters, an explanation of the coordination between these two jurisdictions would be beneficial. A brief description of how the project navigates any differences in state requirements would be helpful.	State permits and consultations are listed and described in Appendix A, *Required Environmental Permits and Consultations* of the Final EIS.
MAILIN_0005_235	Details regarding the consultations undertaken with relevant state agencies would contribute to the EIS's thoroughness. It would be constructive to see records of these consultations, including any initial feedback from the state bodies.	State permits and consultations are listed and described in Appendix A, *Required Environmental Permits and Consultations* of the Final EIS.
MAILIN_0005_236	The mention of a stay of review suggests significant project planning considerations. The EIS might include the rationale behind this stay and its expected impact on project timelines and stakeholder expectations.	The Federal process timetable can be found on the Permitting Dashboard: Permitting Dashboard Project.
MAILIN_0005_237	While specific regulatory references are included, a more detailed discussion on how the project will meet these regulatory criteria and secure the necessary state concurrence could enhance the reader's understanding.	The EIS analysis assumes compliance with all other federal and state permit requirements under other statutes when evaluating impacts. The applicant is responsible, as part of their BOEM approval, if granted, to obtain the other necessary federal and State authorizations.
MAILIN_0005_238	An integrated timeline detailing submissions, state reviews, and anticipated approvals would provide clear expectations for project progress and regulatory compliance.	The Federal process timetable can be found on the Permitting Dashboard: Permitting Dashboard's informational project. State permits and consultations are listed and described in Appendix A, Required Environmental Permits and Consultations of the Final EIS.
MAILIN_0005_239	Outlining a strategy to obtain state concurrence, including engagement and negotiation approaches, would indicate foresight and preparedness. The steps following state concurrence, leading to BOEM's final decision, would also be important to include.	The applicant is responsible as part of their BOEM approval, if granted, to obtain the other necessary federal and state authorizations.

O.7.17 Land Use and Coastal Infrastructure

Table O.7-20. Responses Substantive – Land Use and Coastal Infrastructure

Comment No	Comment	Response
TRANS-24_0003_001	As a taxpayer in Worcester County, I have many questions. One. What is the emergency response plan when we have our next storm or hurricane and there is breakage and leakage from these wind turbines? US Wind admitted the following industries would be disrupted; our commercial fishing industry and for hire recreational fishing and boat businesses due to offshore wind facility. Orsted admitted this will reduce our local tourism revenue. They can't accurately say by how much. You're proposing the largest turbines ever built at over 900 feet tall, yet they are not tested or proven to withstand normal storms let alone hurricane winds. In Germany and Australia and other parts of the world, we have seen wind turbines collapsing, the blades breaking and falling off when the trees were barely moving in much less wind than hurricane winds.	Final EIS Section 2.3 addresses the engineering specifications of the WTGs and OSS to withstand weather events, including hurricane-level events. This section has been updated to cite the engineering requirements met by the WTG and OSS design for a 500-year hurricane event (IEC61400-3).Section 2.3 also notes that structural failure of a WTG (e.g., loss of a blade, tower collapse), while highly unlikely, would result in temporary hazards to navigation for all vessels, similar to the construction and installation impacts described in Section 3.Final EIS Section 3.6.6.5 concludes that the impacts on navigation and vessel traffic from construction, and from later repair or remediation activities, would be moderate, localized, short term, and intermittent.

Comment No	Comment	Response
FDMS_0791_003	US Wind requests that the impacts of Alternatives C1 and C2 to land use and coastal infrastructure (DEIS Section 3.6.5) be included in the Final EIS. Section 5.18.1.2 of US Wind's USACE Section 10/404 Permit Application submitted August 30, 2023, and provided to BOEM September 1, 2023, includes information that could inform expanded detail in the FEIS.	Final EIS Section 3.6.5.6 has been revised to incorporate material from Section 5.18.1.2 of US Wind's USACE Section 10/404 Permit Application dated August 2023.

O.7.18 Marine Mammals

Table O.7-21. Responses Substantive – Marine Mammals

Comment No	Comment	Response
FDMS_0010_001	The Draft Environmental Impact Statement (DEIS) Executive Summary makes it clear it is intended to be the principal EIS for the Letter of Authorization (LOA) issued by National Marine Fisheries Service (NMFS) under the Marine Mammal Protection Act (MMPA). The central purpose of the LOA is to authorize the incidental harassment of marine mammals that will be adversely impacted by project noise. That there will be such a LOA is certain because US Wind applied for one six months ago. That this application is not mentioned in the DEIS is a major omission. The application proposes the harassment of over 6,000 marine mammals, listed by species. A significant number of these harassments are of endangered species, including the extremely endangered North Atlantic Right Whale. This multitude of harassments is arguably the greatest environmental impact that will be manifested by the Maryland Wind project. These harassments should be a central focus of the DEIS, but amazingly they are never mentioned. In fact, the word "harassment" never even occurs substantively, as it is only found three times in a "definition" section. Thus, there is no assessment of harassment or its impacts -- an incredible omission. If the projected harassments are never discussed and weighed, then this DEIS cannot be the EIS for the LOA. If this is to be the LOA EIS, then it will have to be extensively reworked and expanded. This cannot be done until the LOA is issued, at which time the actual authorized harassment numbers will be available for assessment. Even if this is not the LOA EIS, the projected numerous harassments must be analyzed and their impact assessed to comply with the National Environmental Policy Act (NEPA). Here several issues arise which are presented briefly below. Harassment is itself an adverse impact. This is because harassment can easily lead to far worse impacts, up to and including the death of the animal. The Bureau of Ocean Energy Management (BOEM) seems to concur, explaining in the following statement that harassment can cause harm. It refers to "pile driving" in particular, but the argument it contains holds for all harassments. "It is possible that pile driving could displace animals into areas with lower habitat quality or higher risk of vessel collision or fisheries interaction. Multiple construction activities within the same calendar year could potentially affect migration, foraging, calving, and individual fitness. The magnitude of impacts would depend upon the locations, duration, and timing of concurrent construction. Such impacts could be long term, of high intensity, and of high exposure level. Generally, the more frequently an individual's normal behaviors are disrupted or the longer the duration of the disruption, the greater the potential for biologically significant consequences to individual fitness. The potential for biologically significant effects is expected to increase with the number of pile-driving events to which an individual is exposed." Empire Wind DEIS v.1, Page 3.15-14, PDF page 372 We maintain the Maryland Wind DEIS is inadequate and needs to be revised for the following reasons: 1. The Maryland Wind DEIS does not analyze and assess harassment induced impacts, and this is a major omission. The DEIS projects there will be a likely increase in boat and ship accident frequency as a consequence of the project, finding it roughly doubles. (See Table 3.6.6-5 and related text.) A similar analysis must be made to assess similar adverse impacts, such as increased ship strikes on whales. Harassing whales into heavy traffic ship lanes is a likely feature of the Maryland Wind project. And since ship strikes are a major cause of whale mortality and smaller marine mammals, then each of the impacts described in the Empire Wind quote above needs to be carefully assessed, species by species. 2. With pile driving there is a major omission in the DEIS: alternative energy sources. The alternative of nuclear power or even floating wind instead of using monopile foundations is not considered. Given that pile driving is projected to be the leading cause of harassment, other forms of energy alternatives might offer better mitigation and should be considered. Moreover, BOEM just let five leases off California specifically for floating wind, demonstrating the technology is feasible. Dominion Energy's latest Integrated Resource Plan includes adding a number of modular nuclear reactors so that technology is also feasible. The present DEIS only includes a "no action" alternative so it mistakenly omits other viable alternatives.	The LOA is mentioned and referred to in the discussion of impacts to marine mammals (Final EIS Section 3.5.6). In addition, the assessment of underwater noise in the Final EIS uses propagation modeling and noise exposure estimates presented in the Maryland Offshore Wind Project LOA Application (updated 31 March 2023). "Harassment" and specifically harassment due to underwater noise is a regulatory term used to describe the point at which an animal would receive enough acoustic energy that there could be an effect, not that there would be an effect. Requested takes by harassment do not equate to the number of animals that would have an effect from exposure to noise at regulatory harassment levels; it is an estimate of the number of animals potentially exposed to a certain noise level. Any effects vary by type and severity which can range from no effect to measurable effects such as PTS or behavior modification. Therefore, the discussion for the EIS centers around the effect, not by incidence of "harassment". All of the effects that constitute harassment are discussed and analyzed in Section 3.5.6 of the Maryland Offshore Wind Final EIS for marine mammals based on best available science. This assessment covers all phases of the proposed Project (i.e., the proposed Project's entire "life cycle"), including construction, operations and maintenance, and decommissioning. The noise exposure estimates from the Project's LOA application are used in the assessment of impacts on marine mammals, including all forms of harassment. Cumulative impacts are considered for each resource, including marine mammals, for activities generating impact-producing factors (IPFs) in each resources' geographic analysis area. In addition to an impact determination for each IPFs for each alternative, there is also an impact level determined for impacts from each alternative when combined with ongoing non-offshore wind and offshore wind (i.e., the No Action Alternative) and planned non offshore wind and offshore wind activities (i.e. the Cumulative No Action Alternative).There is a consideration of IPFs and an accounting of their intensity from the other source activities which is then considered as an overall impact level according to BOEM's defined levels. Together, the impact of the alternative plus ongoing activities plus planned activities is the cumulative impact assessment and is presented in each alternative's "conclusions" section. To ensure we are considering the contribution of all offshore wind activities currently proposed or being contemplated, we have a cumulative scenario table that tracks the known maximum case of those activities, relative to the impact-producing factors produced by the parameters and the geographic scope of impacts from the proposed project. All other cumulative activities generating the impact-producing factors considered in the resource sections are described and characterized along with other offshore wind activities in Appendix D – Planned Activities Scenario.

Comment No	Comment	Response
FDMS_0010_001 (cont'd)	3. There is also a major unresolved issue with sonar harassment, the actual noise level. Recent measurements by the Save Right Whales Coalition (SRWC) discovered that sonar survey sound levels were markedly higher than those being used to estimate harassment numbers. They were so much higher that a revised harassment projection might include five times as many harassments for sonar work. SRWC notified National Oceanic and Atmospheric Administration (NOAA) Administrator Dr. Richard Spinrad of these troublesome findings on September 8, 2023, well before the release of this DEIS. That notification and related materials are at https://saverightwhales.org/. This issue must be resolved for the sonar used at Maryland Wind, so that the correct harassment numbers are used for impact assessment. 4. A huge omission is the lack of assessment of harassment from operational noise. Neither the NMFS LOA application nor this DEIS address this issue. They seem to assume that operational noise is harmless. However, Dr. Bob Stern, the former director of the Office of Environmental Compliance at the U.S. Department of Energy, presented a paper at the 2022 meeting of the North Atlantic Right Whale Consortium to the effect that large scale operational noise was likely to create widespread harassment. The scale in question is that planned for Maryland Wind. This operational noise issue needs to be investigated and resolved in a revised DEIS. 5. The major issue of cumulative impact is not addressed. This project is just one of many presently proposed to be built and operated simultaneously. The cumulative harassment impacts could be very large and must be assessed under NEPA for the Maryland Wind project. NMFS has deemed that harassment authorizations are limited to 30% of the stock population. At present the simultaneous cumulative harassment requests exceed several hundred percent of the severely endangered North Atlantic Right Whale population. Such an impact needs to be cut back to 30% or less. 6. Life cycle harassment impact is a major omission. The LOA is only for five years, while this EIS covers the impacts over the entire project life cycle. Thus, a separate harassment impact estimate, by species, will be needed for that longer period, especially given the harassment potential of operational noise	The methodology and assessment used by SRWC does not represent the best available science and there are flaws in the measurement and analysis methodology (e.g., unknown distances between source and receiver; application of continuous rather than intermittent acoustic thresholds).The peer-reviewed publication from Ruppel et al., 2022, and BOEM CMA's Sound Source List (BOEM 2023-16) fully describe the source and propagation characteristics of the site investigation survey equipment and represent the best information for these sources. Additionally, source levels reported by the manufacturer typically only consider the near-field component of the sound produced by these equipment types which behaves differently than the far-field component of sound that would actually be experienced by marine mammals. Additionally, the operational settings of the equipment (e.g., power setting in Joules, ping rate, beamwidth) all contribute to the distances to the thresholds. Therefore, these source levels reported were deemed appropriate in the take assessment presented in the Applicant's LOA application and the proposed ITR published by NMFS on 1/2/2024. Potential effects of noise resulting from WTG operations for the lifespan of the Project are fully discussed in Section 3.5.6.3 of the EIS for all foreseeable future offshore wind projects, and effects specific to WTG from the Proposed Action are discussed in Section 3.5.6.5. These sections use the best-available published scientific information available to date to determine the potential for effects on all marine mammals.
FDMS_0892_003	Marine Mammals and Sea Turtles: • Use the best available science and primary sources when determining which species occur in the Project Area and with what frequency. BOEM must incorporate the recently updated population estimate of approximately 356 individuals for the critically endangered North Atlantic right whale. • Revise the sound exposure analysis for marine mammals and sea turtles and include all information necessary to inform BOEM's impact analysis in the DEIS. • Require a mandatory, year-round 10-knot speed restriction on all vessels associated with the Projects at all times.9 • Extend the time period of the prohibition on impact pile driving to November 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.	BOEM uses the best available science (i.e., peer-reviewed scientific publications, scientific working group technical reports, etc.) in its assessment of species occurrences. The current population estimate for the North Atlantic right whale is 338 individuals and is based on the most recent National Marine Fisheries Service (NMFS) Stock Assessment Report (SAR). This information is verified in the Final EIS. Thank you for your comment, these mitigation measures are included in Appendix G of the Final EIS and carried through the analysis for applicable resources in Section 3.
FDMS_0892_014	II. Impacts to Marine Mammals and Sea Turtles (more detailed text within the document) As WTGs, OSS, and foundation components may be supplied and transported to Maryland from the Gulf of Mexico, 54 an additional three marine mammal species, including the endangered Rice's whale, should be considered in this analysis, but were not included. As has been done with other Atlantic Coast offshore wind projects in which supplies may be shipped from the Gulf of Mexico, 55 BOEM should expand the geographic analysis area for marine mammals and sea turtles to include the Gulf of Mexico to account for the risk of impact from vessel transit to and from supply ports and the Project. Impacts from the potential 5 round trips through the Gulf of Mexico or Europe are not accounted for, so the three Gulf of Mexico endangered species are not included in the analysis.56 If there is any possibility that the vessel transits would occur within Rice's whale core habitat, 57 then BOEM must include Rice's whale in the impact analysis. (54 MDOSW DEIS at 3-193 55 Atlantic Shores DEIS at 3.5.6-1; Empire Wind DEIS at 3.15-1. 56 MDOSW DEIS at 3-194. 57 See https://www.fisheries.noaa.gov/resource/map/rices-whale-core-distribution-area-map-gis-data.).	Due to the limited number of potential vessel transits originating from the Gulf of Mexico, BOEM has decided not to expand the marine mammal GAA to include the Gulf of Mexico for the EIS analysis. However, these vessel transits, if they were to occur, are considered in the NMFS BA.

Comment No	Comment	Response
FDMS_0892_016	Relative Occurrence in the Project Area (more detailed text within the document) While we appreciate BOEM's addition of definitions, these definitions still lack clarity. We advise that BOEM should further define the terms "low," "moderate, " or "large" numbers as well as "irregular" vs "regular" basis. Specifically, we ask BOM to also clarify a range in terms of number of sightings per time period that is used to define "rare" versus "uncommon" and "regular" versus "common." We recommend that BOEM use occurrence designations that are based on known habitat associations, confirmed sightings, and the potential for occurrence regardless of how abundant or common a species is. BOEM's categorization of seasonal occurrence of marine mammal and sea turtle species is unclear and confusing and lacks a coherent explanation. The new Roberts et al.models65 were released in June 2022.(65 Roberts, J.J., B.D. Best, L. Mannocci, E. Fujioka, P.N .Halpin, D.L. Palka, L.P. Garrison, K.D. Mullin, T.V. Cole, C.B. Khan, and W.A.McLellan.2016.Habitat-based cetacean density models for the U.S. Atlantic and Gulf of Mexico. Scientific Reports 6:22615.All of the models were most recently revised and released in spring 2022.https://seamap.env.duke.edu/models/Duke/EC/. The Impact Determination for North Atlantic Right Whales Requires Revision. BOEM has determined through its impact analysis that impacts will be "negligible to major" for the North Atlantic right whale. The analysis for the No Action Alternative for the NARW would be "minor" for alternative impacts, and "major" for cumulative impacts. This is inconsistent with EIS determinations for other projects, in which the No Action Alternative is determined to be "negligible to major" or "major" when considering baseline conditions.74 (74 E.g. CVOW-C DEIS at ES-13 and Atlantic Shores DEIS at ES-15.)	The methodology and data sources (including Roberts 2022) used by BOEM to assess relative and seasonal occurrences is described in Section 3.5.6.1. Given the variety of data types, sources, and resolutions used for these assessments, further delineation of terms used would lead to inaccurate inferences. Instead, colloquial terms are widely used. Specific definitions where needed are provided. The impact determination for the No Action Alternative has been reviewed and updated to negligible to major for the North Atlantic right whale, and major when considering baseline conditions.
FDMS_0892_018	Habitat Avoidance and Behavioral Impacts Should Be Better Accounted For (more detailed text within the document) Within the DEIS, BOEM asserts that pile-driving activities will likely exceed permanent threshold shift (PTS) and temporary threshold shift (TTS) for all marine mammal functional hearing groups.75 Nevertheless, BOEM assumes that marine mammals will avoid the noise caused by pile driving and will therefore be less exposed to underwater noise to the degree that they would not experience PTS and TTS.76 We do not believe there is enough evidence to support this assumption and note that while noise may, in some circumstances, be a deterrent that may cause avoidance behavior, other aspects of the offshore wind development (e.g., potential prey aggregation) could also attract species to the area. We note that behavioral impacts resulting from noise exposure can be significant and the best available scientific information on this matter is not incorporated into the DEIS. see references below: (77 Van der Hoop, J., Nousek-McGregor, A.E., Nowacek, D.P., Parks, S.E., Tyack, P., and Madsen, P, "Foraging rates of ram filtering North Atlantic right whales," Functional Ecology, vol.33, pp.1290-1306 (2019). 78 Id. 79 See, e.g., Christiansen, F., Dawson, S.M., Durban, J.W., Fearnbach, H., Miller, C.A., Bejder, L., Uhart, M., Sironi, M., Corkeron, P., Rayment, W., Leunissen, E., Haria, E., Ward, R., Warick, H.A., Kerr, I., Lynn, M.S., Pettis, H.M., & Moore, M.J., "Population comparison of right whale body condition reveals poor state of the North Atlantic right whale, " Marine Ecology Progress Series, vol.640, pp.1-16 (2020).Stewart, J.D., Durban, J.W., Knowlton, A.R., Lynn, M.S., Fearnback, H., Barbaro, J., Perryman, W.L., Miller, C.A., and Moore, M.J., "Decreasing body lengths in North Atlantic right whales, " Current Biology, published online (3 June 2021).Available at: https://www.cell.com/current-biology/fulltext/S0960-9822(21)00614-X; Stewart, Joshua D., et al. "Larger females have more calves: influence of maternal body length on fecundity in North Atlantic right whales." Marine Ecology Progress Series 689 (2022): 179-189. 80 Wingfield JE, O'Brien M, Lyubchich V, Roberts JJ, Halpin PN, Rice AN, et al.(2017) Year-round spatiotemporal distribution of harbour porpoises within and around the Maryland wind energy area. PLoS ONE 12(5): e0176653.https://doi.org/10.1371/journal.pone.0176653).	BOEM agrees that a theoretical review of deterrence (Schakner and Blumstein, 2013) referenced within the Final EIS should not be used to make the conclusion that all or most marine mammals will avoid noise producing activities. Impact analysis of noise on marine mammals does not consider aversive responses to noise as a potential mechanism by which auditory impacts may be mitigated.

Comment No	Comment	Response
FDMS_0892_019	Vessel Strike Avoidance Measures Are Insufficient (more detailed text within the document). The dire conservation status of the North Atlantic right whale means that even a single vessel strike poses an unacceptable risk as it will have population-level consequences.82.we urge BOEM to require a mandatory 10-knot speed restriction for all project-associated vessels at all times, except in limited circumstances where the best available scientific information demonstrates that whales do not use an area. Project proponents may develop, in consultation with BOEM and NOAA Fisheries, an “Adaptive Plan” that modifies these vessel speed restrictions. However, the adaptive monitoring methods that inform the Adaptive Plan must be proven effective using vessels traveling 10 knots or less and following a scientific study design. If the resulting Adaptive Plan is scientifically proven (i.e., via peer-reviewed scientific study) to be equally or more effective than a 10-knot speed restriction, the Adaptive Plan could be used as an alternative to a 10-knot speed restriction. (82 The potential biological removal (PBR) level—or the number of North Atlantic right whales that can be killed or seriously injured each year as a result of human causes—is only 0.7 individuals. NMFS, “North Atlantic right whale (Eubalaena glacialis): Western Atlantic Stock” (May 2022), at 17.https://media.fisheries.noaa.gov/2022-08/N%20Atl%20Right%20Whale-West%20Atl%20Stock_SAR%202021.pdf.)	Thank you for your comment. At this time, BOEM is not considering a 10-knot speed restriction year-round for all vessels.
FDMS_0892_020	Seasonal Restrictions on Pile Driving Must Be Based on Best Available Scientific Information (more detailed text within the document) .US Wind proposes a four-month seasonal restriction on impact pile driving from December 1 to April 30 to minimize impacts to North Atlantic right whales.88 However, these dates do not reflect the best available scientific information, which indicates that North Atlantic right whales occur in the Mid-Atlantic year-round.89 The new scientific study by Murray et al.(2022)90 and the work of Zoidis et al.(2021)91 provide important new information on the distribution and seasonality of North Atlantic right whales and should be factored into analyses. Based on those findings, we recommend BOEM extend the time period of the proposed seasonal restriction to November 1 through April 30 to reflect the period of highest detections of vocal activity, sightings, and abundance estimates of North Atlantic right whales. (88 MDOSW DEIS at 3-66 89 Whitt, A.D., K. Dudzinski, and J.R.Laliberté.2013.North Atlantic right whale distribution and seasonal occurrence in nearshore waters off New Jersey, USA, and implications for management. Endangered Species Research 20:50-69. 90 Murray, Anita, et al." Acoustic presence and vocal activity of North Atlantic right whales in the New York Bight: Implications for protecting a critically endangered species in a human-dominated environment, " supra. 91 Davis GE, et al. Exploring movement patterns and changing distributions of baleen whales in the western North Atlantic using a decade of passive acoustic data. Glob Chang Biol.2020 Sep;26(9):4812-4840.doi:10.1111/gcb.15191.Epub 2020 Jul 12.PMID: 32450009; PMCID: PMC7496396.https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7496396/. It is therefore imperative that BOEM fully account for the consequences of any proposed North Atlantic right whale seasonal restriction on other protected species and evaluate alternative risk reduction strategies that are sufficiently protective of multiple species.	Thank you for your comment. Mitigation measures considered in the analysis are described for each resource throughout Chapter 3. Additional mitigation measures that may be adopted are described in Appendix G.
FDMS_0892_022	HRG Survey Programmatic Letter of Concurrence BMPs (more detailed text within the document) We have profound concerns regarding the recent informal consultation for marine site characterization activities for offshore wind energy development off the U.S. Atlantic Coast107 and its failure to rely on the best available scientific data, particularly with respect to the critically endangered North Atlantic right whale. BOEM must update the analyses now in order to comply with the ESA on this and all future Atlantic coast leases. (107 Letter from Jennifer Anderson, Assistant Reg’l Adm’r for Protected Res., Nat’l Marine Fisheries Serv. (NMFS), to James F. Bennett, Program Manager, Off. Renewable Energy Programs, Bureau of Ocean Energy Mgmt.(BOEM) (June 29, 2021), https://www.boem.gov/sites/default/files/documents/renewable-energy/Final-NLAA-OSW-Programmatic.pdf [hereinafter “Concurrence Letter”]; BOEM, BIOLOGICAL ASSESSMENT, DATA COLLECTION AND SITE SURVEY ACTIVITIES FOR RENEWABLE ENERGY ON THE ATLANTIC OUTER CONTINENTAL SHELF (Oct.2018, updated Feb.2021), https://www.boem.gov/sites/default/files/documents/renewable-energy/OREP-Data-Collection-BA-Final.pdf [hereinafter “2021 BA”].). we urge the agency to incorporate the mitigation measures found in Attachment 1 into upcoming environmental analyses and lease terms.	Thank you for your comment. The mitigation measures in Attachment 1 of Anderson 2021 are applicable for site assessment and site characterization, which occur prior to analysis of a COP. Mitigation measures analyzed for the PDE described in the COP are in Appendix G of the Final EIS.

Comment No	Comment	Response
FDMS_0892_035	Section 1. Mitigation recommendations during site assessment and characterization (more details in the full document) - Prohibit site assessment and site characterization activities during times of highest risk (North Atlantic right whales only) - Require diel restrictions on site assessment and characterization activities - Require clearance zone and exclusion zone distances prior to activities known to injure or harass large whales (large whales only) - Require shutdown of activities if a large whale is detected visually or acoustically (large whales only) - Require robust monitoring protocols during pre-clearance and when site assessment and characterization activities are underway - Require mandatory vessel speed restrictions - Implement other vessel-related measures (including training, thermal detection systems, and slow down and avoidance measures) - Require underwater noise reduction to the fullest extent feasible - Require mandatory reporting of all North Atlantic right whale, other large whale species, and sea turtle detections Section 2: Mitigation recommendations for pile-driven foundations - Prohibit pile driving during times of highest risk (North Atlantic right whales only) - Restrict pile driving activity at night and during periods of low visibility (all large whale species and sea turtles) - Require underwater noise reduction levels based on best commercially available technology (all large whale species) - Require the following clearance zone distances prior to pile driving and exclusion zone distances during pile driving (for a minimum of 10-12 dB noise reduction (see subsection (iii)); North Atlantic right whales only) - Require shutdown of activities if a large whale is detected visually or acoustically (for a minimum of 10-12 dB noise reduction (see subsection (iii)); North Atlantic right whales only) - Require robust near real-time monitoring protocols during pre-clearance and when pile driving activity is underway (all large whale species) - Require mandatory vessel speed restrictions (all large whale species and sea turtles) - Implement other vessel-related measures (all large whale species and sea turtles) - Require mandatory reporting of all North Atlantic right whale, other large whale species, and sea turtle detections Section 3: Mitigation recommendations for gravity-based and suction bucket foundations - Require clearance zone and exclusion zone distances that will eliminate Level A take and minimize behavioral harassment (large whale species only) - Require shutdown of activities if a large whale is detected visually or acoustically (large whale species only) - Require robust near real-time monitoring protocols during clearance and installation - Implement other vessel-related measures (including training, thermal detection systems, and slow down and avoidance measures) - Require mandatory reporting of all North Atlantic right whale, other large whale species, and sea turtle detections	Thank you for your comment. Mitigation measures considered in the analysis are described for each resource throughout Chapter 3. Additional mitigation measures that may be adopted are described in Appendix G, including mitigation measures are developed with NMFS for the ESA Section 7 consultation.
MAILIN_0005_014	The body of the DEIS does not provide the public with adequate presentation of the data in some cases to support certain conclusions. For example, in the noise discussion, a detailed table of threshold criteria for various species is provided but the table does not include sound levels and duration for construction and operation of the project requiring the reader to locate the data to make comparisons. The body of the DEIS, wherever possible, should include all the information required for the reader to understand the existing conditions, the assessment and identification of impacts, and the conclusions made.	The relevant table in Section 3.5.6 of the Final EIS provides the modeled ranges to both the PTS and behavioral disturbance thresholds for marine mammals which provides the spatial extent of potential effects around each pile that would only be present during active pile driving activities. In the text in Section 3.5.6.5 preceding the relevant table in Section 3.5.6.5 anticipated daily duration of pile driving activities for each pile type is provided, and a full schedule of foundation installation for all proposed foundations is provided in Section 2.1.2.1 of the EIS so the reader can see the anticipated timing of pile driving activities. Additionally, the text references the full modeling report in COP Appendix H1 (US Wind 2023) as well as the Applicant's LOA application (TRC 2023a) which provides additional detail on the assumptions for modeling and timing of pile driving activities that the reader can review for additional information. A table with exposure numbers from the LOA has been added to Appendix B of the Final EIS.
MAILIN_0005_081	The coastal form of the common bottlenose dolphin has just been reclassified as a separate species, Tursiops erebennus, Tamanend bottlenose dolphin. Refer to the SMM Taxonomy website. This change should be reflected on Table 3.5.6-1 and throughout the EIS.	Thank you for your comment. The bottlenose stock and species designation is discussed within the Final EIS in accordance with the most recent National Marine Fisheries (NMFS) stock assessment report (SAR), Hayes et al. (2023), which uses *Tursiops truncatus* only. No edits have been made to the Final EIS.

Comment No	Comment	Response
MAILIN_0005_086	Please note that there are now considered to be two species of bottlenose dolphins in the western North Atlantic, so please distinguish between them as much as possible when discussing impacts.	The bottlenose stock and species designation is discussed within the Final EIS in accordance with the most recent National Marine Fisheries (NMFS) stock assessment report (SAR), Hayes et al. (2023), which uses *Tursiops truncatus* only. No edits have been made to the Final EIS.
MAILIN_0005_101	The DEIS states "At close distances to impulsive sounds, physiological effects to and animal are likely, including TTS and PTS. "However, this is also the case for non-impulsive sound. This could be resolved by some restructuring of the acoustics introduction as it applies to impulsive/non-impulsive and TTS/PTS. It would be helpful to indicate what types of sounds are considered non-impulsive for the Proposed Project unless the assumption is that everything not listed as impulsive would be non-impulsive. This is of interest since the tables of Appendix B include referrals to those sounds.	The following statement has been reviewed and edited: "At close distances to impulsive sounds, physiological effects to an animal are likely, including TTS and PTS, although these effects are also possible after exposure to non-impulsive sounds if the duration of exposure is long enough". The reader is correct that the sources listed at the beginning of this sentence are the ones associated with offshore wind that ARE impulsive. The beginning of this paragraph has been edited to state: "Impulsive sounds associated with offshore wind development include explosions, sparkers, boomers, and impact pile-driving; it is generally accepted that impulsive source have a greater likelihood of causing hearing damage than non-impulsive sources."
MAILIN_0005_104	The DEIS states "Pile driving noise is characterized as impulsive". It is important to distinguish between "impact" pile driving, which is categorized as impulsive, and "vibratory" pile driving, which is non-impulsive. It is recommended that the language in Section B.2.3.1 be revised to distinguish between "impact" and "vibratory" pile driving (perhaps using additional sub headers might aid in that).	This sentence has been clarified to state, "Impact pile driving noise is characterized as impulsive."
MAILIN_0005_110	The DEIS includes information pertaining to measurements made in California (actually, off the California coast). There is also data available from cutting operations off Scotland that should be examined and included in the DEIS. Refer to: Fernandez-Betelu, Oihane and Graham, Isla M. and Malcher, Freya and Webster, Emily and Cheong, Sei-Him and Wang, Lian and Iorio-Merlo, Virginia and Robinson, Stephen and Thompson, Paul M., Characterizing Underwater Noise and Changes in Harbour Porpoise Behavior During the Decommissioning of and Oil and Gas Platform. Available at SSRN: https://ssm.com/abstract=4603453 or http://dx.doi.org/10.2139/ssm.4603453.	Appendix B provides a description of decommissioning noise.
MAILIN_0005_113	Moving the wind farm further offshore (and presumably into deeper waters) may mean that species that prefer more offshore waters (such as the Atlantic spotted dolphin, Stenella frontalis and Risso's dolphins Grampus griseus) would be more affected. However, this is a slight change, and it keeps the wind farm on the continental shelf, so a significant change in overall impacts on most marine mammals would not be expected. However, as the NARW migration appears to occur mainly in relatively coastal waters, moving the wind farm offshore would presumably push it into an area that has a lower density of migrating whales. This would mean lowering the impact on that species, which is very desirable. The Northeast Ocean Data website was used to overlay NARW densities with the project area <https://www.northeastoceandata.org/irwQrvHB >, and this showed that moving the feasible, moving the wind farm significantly further offshore (e.g., 15-25 miles) would likely be more beneficial to the NARW. From the perspective of marine mammal impacts, moving the wind farm significantly further offshore, will almost certainly decrease impacts on the Endangered NARW. Though it might possibly increase impacts on some other species that prefer deeper waters, none of those species are seriously endangered.	Thank you for your comment. Lease areas are developed through consultation with the BOEM State Task Forces, stakeholder feedback, and public comments with the intent of protecting ecologically sensitive areas and minimizing user conflicts while making available appropriate areas for wind development. The Maryland Offshore Wind Lease Area has already been through this process, taking the factors that you mention into account, with the result analyzed within the Final EIS.

Comment No	Comment	Response
MAILIN_0005_221	Although the use of an air bubble barrier continues to be popular, the reported effectiveness of air bubble curtains in attenuating sound varies considerably. In some cases, the bubbles can be swept away from the pile in high current scenarios, limiting the sound attenuation achieved (Caltrans 2020). Caltrans (California Department of Transportation) 2020.Technical Guidance for the Assessment of the Hydroacoustic Effects of Pile Driving on Fish. Division of Environmental Analysis, Sacramento, CA. October 2020.	The reported scenarios discussed in Caltrans (2020) are specific to inshore and nearshore bridge and pier projects which occur in shallower waters (~10 meters water depth) and vastly different bathymetric features than those expected to occur in the US Wind Project Lease Area where pile driving would occur. Data from Bellmann et al.(2020) which compiles measurements from European wind farms indicates that bubble curtains can reduce sound levels during offshore pile driving by as much as 10 to 15 dB, and recent measurements for the CVOW pilot project offshore Virginia indicate reductions in noise between 8 and 20 dB for pile driving noise at frequencies above 200 Hz (Amaral et al.2020).Additionally, the Incidental Take Regulation proposed by NMFS (Incidental Take Authorization: Maryland Offshore Wind Project) includes at least 10 dB noise reduction as a part of the proposed project which were considered when calculating the potential takes of marine mammals. This information is provided in Appendix B Section B.2.3.1 of the EIS for reference and was used as the basis for estimating the efficacy of bubble curtains when assessment potential impacts of the US Wind Project.
MAILIN_0005_225	The DEIS should add the following statement regarding multibeam echosounders (MBES) regarding section: B.2.1 Geophysical and Geotechnical Surveys “Considering the extremely narrow directivity at the along-track directions and the moving MBES source during a survey, it is reasonable to expect that a stationary receiver (i.e., animals) would be exposed to acoustic energy from a single pulse during the entire survey. As a result of the above, the maximum noise levels across the water column along the range at the cross-track direction are significantly higher than the maximum levels at the along-track direction, with the level comparison.“	Thank you for your comment. The text in Appendix B is correct. The suggested text in the comment is difficult to comprehend and potentially incorrect. Therefore, BOEM has not amended the text in the Final EIS appendix.
MAILIN_0005_229	The DEIS (Section B.3.3 Thresholds for Explosives) should add the following table for Behavioral Disturbance Onset (multiple detonations). For multiple detonations, the threshold applied for behavioral effects is the same TTS threshold minus 5 dB (see table below). Table 1: Behavioral Disturbance Onset (Multiple Detonations) for Underwater Explosives (NMFS 2018, 2023a) Marine mammal hearing groups/Behavioral Disturbance Onset Weighted SEL24hr, (dB re 1µPa2·S) Low-frequency cetaceans (LF)/163 High-frequency cetaceans (HF)/165 Very-high-frequency cetaceans (VHF)/135 Sirenians (SI)/170 Phocid carnivores in water (PCW)/165 Other marine carnivores in water (OCW)/183	BOEM disagrees with this suggestion. To keep the document shorter and simpler, we instead incorporate a reference to the TTS table which is found earlier in the document (Table B-1). The reader can do the 5 dB subtraction. In section B.3.3, the new sentence should read: “For multiple detonations, the threshold applied for behavioral effects is that same TTS threshold (see table B-1) minus 5 dB.”

Comment No	Comment	Response
FDMS_0592_004	1) p.3-137.Sei whales also occur in the Offshore Project Area in the Fall (Roberts et al.2016 and Acoustic Detections available at http://dcs.whoi.edu/mdoc0521/mdoc0521_mdoc.shtml) 2) p.3-140.A directed study funded by BOEM, MD DNR and MD MEA is not referenced and presents rich details on the incidence of odontocetes and baleen whales – Bailey et al.2018 https://espis.boem.gov/final%20reports/BOEM_2019-018.pdf).A series of peer-reviewed journal papers were produced from that work focused on dolphin and porpoise use of the project area, which should be featured and synthesized in this section. These can be found at https://tailwinds.umces.edu/pubs/ 3) p.3-141.The region is not only a migratory corridor for North Atlantic right whales. Feeding behavior has also been observed in the Mid-Atlantic region (Whitt et al.2013, Endangered Species Research).At the 2023 North Atlantic Right Whale Symposium, evidence of courtship and other complex behaviors were shown from drone footage off southern Del MarVa, indicating that critical habitat designations may need to be extended into the southern Mid-Atlantic Bight. 4) p.3-143, second paragraph. The use of acoustic studies as an ancillary rather than primary source of information is idiosyncratic. Acoustic data (Bailey et al.2018) represents extensive spatial and temporal coverage that cannot be achieved through direct observation and should be considered as a primary source in understanding marine mammal movements in the project region. Strongly suggest restructuring this paragraph using acoustic observations as primary source material. 5) p.3-144, second paragraph. It is stated that blue whale calls were not detected acoustically, but they were not investigated during the passive acoustic monitoring study in the project area (Bailey et al.2018).It is therefore not evidence of their absence, but potentially a lack of study .The recordings, which are archived at NOAA NCEI, could be analyzed specifically for blue whale calls. 6) p.3-145, first paragraph. Although highest abundances of minke whales are in the winter and spring, it should be noted that these were still relatively low abundances and detections. 7) p.3-145, mid-second paragraph. Bailey et al.2018 did not specifically discuss or classify Atlantic spotted dolphins and pantropical spotted dolphins so should be removed as a reference for that sentence. 8) p.3-145, lower-second paragraph. Bailey et al.2018 did not classify Atlantic white-sided dolphin calls in their acoustic study so this should not specifically be used as evidence of their absence. 9) p.3-146, first paragraph. It is incorrect that harbor porpoises are uncommon in the waters off Maryland. There were regular acoustic detections of harbor porpoises, and feeding buzzes indicating foraging, in and around the project area off Maryland during the winter and spring, which is described in Wingfield et al.2017 (PLoS ONE, 12: e0176653) and Bailey et al.2018. 10) p.3-153.Relevant paper on storm effects on dolphin foraging – Fandel et al.2020.Scientific Reports 10:19247 should be cited.	1) The occurrence for sei whales has been updated as follows: "The species is most likely to occur in the Offshore Project area during the spring, followed by winter, though irregular sightings in other seasons may also occur (Roberts et al.2016)." This change has also been updated in the relevant table in Section 3.5.6 of the Final EIS. 2) Reference to the Bailey et al (2018) study is now included in the description of studies in and near the offshore Project area. 3) The description of NARW behaviors in mid-Atlantic waters has been edited to include non-traveling (i.e., potential feeding, complex social behaviors). 4) This paragraph has been re-structured to highlight the presence documented by acoustic surveys 5) The reference to acoustic detections for blue whales has been removed. 6) This statement has been edited to indicate still relatively low abundances and detections for minke whales, even during periods of highest occurrences. 7) Reference to Bailey et al. (2018) removed for Atlantic spotted and pantropical dolphins. 8) Reference to Bailey et al. (2018) removed for Atlantic white-sided dolphins 9) This statement has been revised to indicate regular occurrence by harbor porpoises in and near the Project area during the winter and spring, citing Wingfield et al. (2017) and Bailey et al. (2020). This change has also been updated in the relevant table in Section 3.5.6 of the Final EIS. 10) The reference to Fandel et al (2020) has been added to Section 3.5.6.3.
FDMS_0592_006	p.3-192.Vessel noise occurs within an already loud soundscape where vessel noise contributes to a higher sound level than other US Shelf regions. This point is also made based on transit data reported on p.3-194, 3-365 and Figure 3.6.6-2, which showed MarWin receives a substantial amount of commercial shipping traffic. One could argue that effects would be marginally less in this region than elsewhere. Soundscape information for the project area is reported in Bailey et al.2018. p.3-194.Estimates of transit rate impacts seem incomplete. Why not evaluate expected increase in transit traffic owing to construction against baseline transit rates reported in the first paragraph? Otherwise, it's difficult to otherwise evaluate the assertion on p.3-195 that "The contribution of the Proposed Action would be relatively small when compared to the number of vessel trips associated with ongoing and planned non-offshore activities and offshore wind activities." Assertion similarly made on p.3-201. p.3-195."inclementy contribute" is awkward and vague. Suggest other wording.	Thank you for your comments, text has been updated as appropriate in the Final EIS.

Comment No	Comment	Response
FDMS_0791_009	Inaccurate inclusion of mobile gear in the Lease area is referenced in numerous other sections of the DEIS as it relates to potential impacts (e.g., DEIS page 3-274) and loss of mobile gear, potentially snared on the WTG and OSS foundations or scour protection, which is noted as having the greatest potential for entanglement. However, on page 3-203, increased entanglement risk for the North Atlantic right whale is suggested as "due to increased fishing activity or a shift to fixed gear types". As demonstrated above, fixed gear is the predominant fishing gear used in the Lease area already, and presumably the entanglement risk would be present under the No Action Alternative (Alternative A). Additionally, US Wind's work with UMCES to demonstrate ropeless pots in the commercial fishing study (COP Volume II Section 17.5.2.1) has the potential to mitigate some of the entanglement risk from commercial fishing gear in the Lease area as fishers adopt the new and more protective techniques. The baseline information for the Lease area should be corrected in these sections to correctly reflect fishing gear used in the Lease area where impacts from the Proposed Action are considered as additive to existing impacts from commercial fishing in the Lease area.	The description of the fisheries monitoring surveys under the Proposed Action, including the mitigation measures that will be implemented, is now updated in Section 3.5.6.5. Additionally, baseline fishing activity is addressed in Section 3.6.1.

O.7.19 Mitigation and Monitoring

Table O.7-22. Responses Substantive – Mitigation and Monitoring

Comment No	Comment	Response
FDMS_0287_002	One turbine blade must be painted a different color than the others to minimize bird strikes as numerous studies show this avoidance technique to be effective. Lights on turbines should only activate when airplanes or boats are within a dangerous distance to turbines.	Thank you for your comment. Per the Applicant proposed measures in Appendix G, US Wind will use an FAA-recommended paint color that is not pure white (RAL 90). The WTG paint color will be determined in consultation with BOEM, FAA, and USCG. In addition, US Wind commits to use ADLS if commercially feasible and approved by BOEM in consultation with FAA, USCG and other agencies. Use of ADLS would reduce nighttime obstruction lighting by 99% compared to not using ADLS.
FDMS_0767_007	Fisheries Alternatives and Mitigation Measures in the NEPA Analysis Fisheries mitigation refers to siting and project design principles specifically adopted to reduce impacts to fishing. It is not satisfied through compliance with standard mandatory health and safety regulations, although these are important. BOEM has effectively pitted one industry against the other. On the one hand you have a historic, sustainably operated industry integral to our nation's food supply with environmental impacts that are well known and well understood and rates favorably in terms of the carbon footprint to produce a pound of protein. On the other you have a new industry with great promise, but unknown impacts. The fishing industry acknowledges the need to reduce our reliance on activities which will negatively impact our climate. But we cannot, nor should we, prioritize one industry over another. As we, and others, have consistently communicated, siting of OSW projects should be a collaborative effort with the primary goal of avoiding impacts. Unfortunately, that has not been an approach utilized and we are being forced to choose between feeding the nation and renewable energy. Early efforts focused on avoiding impacts could have better framed mitigation conversations. Unfortunately, mitigation to the commercial fishing industry is focusing on compensation. Mitigation is not synonymous with compensation. Compensation Fund and Financial Support for Adaptation RODA has submitted extensive comments on BOEM's Draft Guidance for Fisheries Mitigation, including recommendations for equitable development and execution of compensatory mitigation. We will not reiterate them here, but BOEM must incorporate these transparent, fair, and science-based recommendations for any future possible project approval, including the Maryland Offshore Wind Project. A five year post-construction period, alone, to claim losses is wholly insufficient. While BOEM's fisheries mitigation guidance is still under development, US Wind must work with fishermen, shoreside businesses, economists and scientists to propose alternative compensation frameworks as an alternative for analysis and potential incorporation into Terms and Conditions, if BOEM approves this project. Compensation should not be limited to landings values but also include value-added multiplier effects and shoreside and supporting infrastructure losses.(http://rodafisheries.org/wp-content/uploads/2022/08/220822_BOEM-Fisheries-Mitigation.pdf)	Thank you for your comment. Fisheries mitigation will be addressed through various routes including ongoing research, compensation, and protection measures for sensitive species in this Lease Area. BOEM has worked closely with NMFS on the EFH Assessment and this EIS to identify sensitive species and habitats.

Comment No	Comment	Response
FDMS_0892_011	D.BOEM Must Ensure Monitoring and Adaptive Management (more detailed text within the document). BOEM must closely monitor the impacts of offshore wind construction and operations to guide adaptive management and future development.it is imperative that BOEM require robust, long-term monitoring (ideally coordinated regionally) to understand the impacts of offshore wind development on natural resources and that this monitoring data be made available to stakeholders and the public. We urge BOEM to continue to participate in and fund the Regional Wildlife Science Collaborative for Offshore Wind (RWSC) to support its science plan development42 and to implement the monitoring and research activities identified in the science plan. We urge BOEM to use the recommendations herein to require protective measures as U.S. Wind implements the proposed action alternative and to allow practices to evolve as monitoring informs impact assessments. We also highlight that several common monitoring plans have not been included in the mitigation and monitoring commitments and requirements for US Wind, including an anchoring plan, Bird and Bat Survey Plan, and Benthic Monitoring Plan. We are concerned that without these plans, US Wind may not be making adequate commitments to robust monitoring compared to other projects. BOEM should either require US Wind to create these plans, or explain why they are not necessary for this project.	Thank you for the comment. BOEM has engaged in, currently engages in, and will continue to engage in monitoring of the potential impacts of offshore wind construction and operations on marine wildlife and the ocean ecosystem to guide its adaptive management and future development. BOEM has engaged in, currently engages in, and will continue to engage in collaboration with stakeholders to share information from monitoring and other research. BOEM describes mitigation and monitoring measures in Appendix G
FDMS_0892_021	Commencement of Impact Pile Driving During Periods of Darkness or Poor Visibility Must Be Prohibited (more detailed text within the document) 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, though US Wind determined that quiet foundation types are not technologically and economically feasible. 92 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. BOEM should adjust its mitigation measures enumerated in Appendix G to explicitly state that pile driving cannot be initiated during poor visibility conditions. We encourage BOEM to work closely with 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.96 (96 Lee, Juliette and Brandon Southall. “Practical Approaches for Reducing Ocean Noise Associated with Offshore Renewable Energy Development.” Global Alliance for Managing Ocean Noise, Workshop Report.2022.). 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. Given these developments, BOEM should require the developer to implement the best commercially available combined NAS technology to achieve the greatest level of noise reduction and attenuation possible, in line with the mitigation hierarchy. The noise reduction requirement should apply to all aspects of pile driving operations, including pile strikes, compressors, and operations vessels engaged in construction. Field measurements must be conducted on the first pile installed and data must be collected from a random sample of piles throughout the construction period. We do not support field testing using unmitigated piles. Sound source validation reports of field measurements must be evaluated by both BOEM and NOAA Fisheries prior to additional piles being installed and must be made publicly available. 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 the 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. As discussed in Section 2.2 Alternatives Considered but Not Analyzed in Detail, BOEM considered a range of alternatives during the EIS development process that emerged from scoping, interagency coordination, government-to-government consultation, and internal BOEM deliberations. The use of alternative foundation types, including suction bucket foundations and floating wind turbine foundation types to reduce impacts on marine mammals, sea turtles, and fish from pile driving associated with monopile and jacket foundations, are not feasible within the Lease Area. Rationale for eliminating these alternatives can be found in the relevant table in Section 2 of the Final EIS. Regarding poor visibility or nighttime pile driving, NMFS ITA would require sufficient demonstration of the effectiveness of proposed monitoring and mitigation protocols in the form of an Alternative Monitoring Plan prior to initiating any nighttime pile driving.
FDMS_0892_023	A Marine Debris and Entanglement Mitigation Plan is Required Entanglement in abandoned fishing gear contributes significantly to mortality and serious injury of marine mammals and sea turtles, particularly the NARW. In fact, the mortality due to fishing gear entanglement may actually be higher than estimated due to cryptic mortality.109 US Wind should commit to removing marine debris caught on project structures, as has been done by other developers, 110 and we encourage BOEM and the developer to create a marine debris mitigation plan in addition to the included requirement111 that vessel operators, employees, and contractors complete marine debris awareness training, as required by the National Marine Fisheries Service Biological Assessment.112 (109 Pace, R.M., Williams, R., Kraus, S.D., Knowlton, A.R., Pettis, H.M (2021).Cryptic mortality of North Atlantic right whales. Conservation Science and Practice 3:2. 110 Atlantic Shores DEIS, Appendix G Mitigation and Monitoring at G-11, G-16, and G-18. 111MDOSW DEIS, Appendix G Mitigation and Monitoring, Table G-2 at G-28. 112AS DEIS, Appendix G, Table G-1 at G-52)	Appendix G includes a measure requiring monitoring and adaptive mitigation of lost fishing gear around WTG foundations.

Comment No	Comment	Response
FDMS_0892_034	We present two sets of mitigation recommendations for the construction period: one set for pile-driven foundations that includes seasonal restrictions, a prohibition on pile driving at night, requirements for noise reduction technologies, and large monitoring zones (section 2), and a more limited set for quieter gravity-based and suction bucket foundations (section 3). Noise: Quieter foundation technologies such as gravity-based or suction bucket (or "caisson") foundations eliminate the need for pile driving and thus one of the most impactful offshore wind activities on whales and other marine life. We urge the use of quieter foundations during offshore wind energy project installation and stress the importance of providing full consideration to selecting these options as the preferred alternative. If pile driving must occur, effective noise reduction and attenuation technologies are commercially available (8) and near real-time monitoring technologies that can be used to trigger mitigation measures are being tested or are already being used by other sectors.(9) Pending further study, we also recommend the use of direct drive turbines as opposed to turbines with a gear box, as direct drive turbines may emit lower noise levels (10) and reduce the risk of behavioral disturbance or habitat displacement of North Atlantic right whales and other species during the operation phase of development.(11) (8 See, e.g., "AdBm Noise Mitigation System." AdBm Technologies. https://adbmtech.com/. 9 See, e.g., Coutinho, R.W. and Boukerche, A. (2021)."North Atlantic Right Whales Preservation: A New Challenge for Internet of Underwater Things and Smart Ocean-Based Systems." IEEE Instrumentation & Measurement Magazine, 24(3), 61-67; Kowarski, K.A., Gaudet, B.J., Cole, A.J., Maxner, E.E., Turner, S.P., Martin, S.B., Johnson, H.D. and Moloney, J.E.(2020)."Near real-time marine mammal monitoring from gliders: Practical challenges, system development, and management implications." The Journal of the Acoustical Society of America, 148(3), 1215-1230; Johnson, H., Morrison, D. and Taggart, C.(2021)."Whale Map: a tool to collate and display whale survey results in near real-time." Journal of Open Source Software, 6(62), 3094; Vickers, W., Milner, B., Risch, D., & Lee, R. (2021)."Robust North Atlantic right whale detection using deep learning models for denoising." Journal of the Acoustical Society of America, 149, 3797. 10 Stöber, U. and Thomsen, F. (2021)."How could operation sound from future offshore wind turbines impacts marine life?" The Journal of the Acoustical Society of America, 149, 1791. 11 While gravity-based and suction bucket foundations avoid the impacts of pile driving noise, their installation is not necessarily noise free, and the potential use of dynamic positioning systems and other noise related to installation vessels may still lead to some level of behavioral disturbance. As gravity-based and suction bucket foundations are new technologies in the U.S., it will be important to monitor the levels of noise emitted during installation at the source and model the level of potential noise exposure to large whales and other marine mammals, to inform the most appropriate mitigation approaches for future offshore wind energy projects for which these foundation types are used.)	Measures required in NMFS's final Letter of Authorization governing incidental take of marine mammals and BOEM's proposed measures that are adopted based on ESA consultation with NMFS will be incorporated into the terms and conditions of COP approval. These measures include noise mitigation strategies, clearance, and shutdown zones, and time-of-year restrictions as defined in US Wind's Letter of Authorization application and Appendix G of the Final EIS.
MAILIN_0005_038	The EIS does not plan for recommendations for monitoring and mitigating displacement impacts, other than the before/after construction survey. Consideration of compensatory mitigation (i.e., estimating potential impact and losses and then making up for those using other conservation measures, e.g., artificial nests of kittiwakes provided by Vattenfall, habitat restoration, etc.).	Thank you for your comment. Impacts to birds are discussed in Section 3.5.3, Birds, in Appendix F. Additionally, USFWS developed mitigation recommendations based on the Biological Assessment developed for this Project. These mitigations can be found in Table G-2 of Appendix G.
MAILIN_0005_163	The statement, "Vessel operators and crew must maintain a vigilant watch for marine mammals and sea turtles." is focused on marine mammals, specifically, the NARW with no further referral to turtles. Suggest either creating a separate line of mitigation measure under sea turtles talking about movements of vessels near turtles or, instead, adding verbiage regarding detection distances for sea turtles when on vessels. This information does appear in the last mitigation measure on p G-32. So perhaps cross-referring the reader to additional measures that might be applicable to their resource would be helpful.	Thank you, the text has been edited.

Comment No	Comment	Response
FDMS_0592_005	p.3-127.We could find nothing in the DEIS or COP indicating that US Wind will be utilizing trawl and gill net surveys in their monitoring and mitigation measures. If this gear is not utilized then material in the last paragraph is not relevant. p.3-185.Gear utilization is a recurring impact factor, but here it's stated that there are no monitoring plans at this time. This is not true given Tail Winds monitoring, which targets bioacoustics monitoring of cetaceans and fishery monitoring of black sea bass (see https://tailwinds.umces.edu/).We are reducing/eliminating entanglement risk by using ropeless gear only for our black sea bass monitoring project. We are unaware of other monitoring plans that US Wind will undertake that would use entangling gears such as trawls or gill nets, but if such are to be undertaken, they ought to be specified in the DEIS. Otherwise, their mention is moot. (see also listing of Gear Utilization risks in Mitigation and Monitoring, App. G). p.3-190.Mitigation measures also include ongoing near-real time acoustic monitoring for NARW incidence (see https://tailwinds.umces.edu/rtwb/) as well as past detailed seasonal analysis of NARW incidence in the region (Bailey et al.2018). Similar mitigation measures would apply to section 3.5.6.5.4.p.3-203	Thank you for your comment. Text regarding trawl and gill net surveys has been removed.
FDMS_0592_007	p.G-3.Support efforts to encourage monitoring that leads to integrated assessment of regional impacts of multiple wind projects. p.G-9.Row 3-4.The UMCES study is designed to evaluate construction and presence of monopile (turbine) structures. It is not currently designed to evaluate cable emplacement. P.G-9.Row 5.EMF effects with regard to fisheries might emphasize empirical studies, particularly on horseshoe crabs, which are likely sensitive to EMF fields and support very important commercial fishing. p.G-12.Row 11.The monitoring equipment are hydrophone receivers designed to detect high frequency fish acoustic tags (rather than nanotags). p.G-14.Row 3.The UMCES Tail Winds project is providing extensive spatial coverage of the wind energy area, monitoring whale and dolphin incidence through PAM with ongoing analysis on vessel traffic impacts. Further, past and planned near real-time whale buoy (RTWB) deployments can inform NOAA and developers on the presence of NARW and other whales on a near-continuous basis (see https://tailwinds.umces.edu/rtwb/). p.G-14.Row 8.The Metocean Buoy includes acoustic recorders that are focused on detecting odontocete cetacean calls. p.G-27 Row 3.We have moved to ropeless gear in the UMCES Tail Winds survey work so these markings will no longer apply. All pots have UMCES Tail Winds tags to identify their source. p.G-27, Row 5.To our knowledge no trawl surveys are planned.	Text has been updated where appropriate.
FDMS_0805_004	Noises produced during surveys, construction, and operation should be minimized as they can negatively impact a variety of marine species. The Councils are generally supportive of time of year restrictions to reduce potential impacts to fisheries, to sensitive life stages of fishery species, and to submerged aquatic vegetation and other structured habitats throughout the project area and cable route. BOEM should work closely with NOAA Fisheries to determine the most beneficial time of year restrictions for each project. Compensatory mitigation funds are essential for addressing the negative impacts of offshore wind energy projects on fisheries. These funds should be used for gear and vessel damage or loss as well as reductions in profits due to offshore wind energy development. We support the use of regional, rather than state-specific compensation funds for fisheries impacts. Terms and conditions should specify that developers are responsible for the safe disposal of unexploded ordinances (UXO) exposed due to survey and construction activities. 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. Mariner notification may be sufficient when UXOs are detected via surveys but are not exposed, given disposal may present greater risks.	Mitigation measures are provided in Appendix G.

O.7.20 Navigation and Vessel Traffic

Table O.7-23. Responses Substantive – Navigation and Vessel Traffic

Comment No	Comment	Response
FDMS_0078_003	BOEM states in 3.6.6, "The presence of the wind turbines would affect US Coast Guard's (USCG) ability to conduct standardized search patterns. Depending on weather conditions such as low visibility, sea state, strong winds, etc., Some USCG vessels may choose not to enter the Lease Area because of heightened risks caused by the presence of the wind turbines. USCG aviation assets conducting Search and Rescue (SAR) missions over the Lease Area would need to maneuver around wind turbines. The layout and density of Proposed Action structures could complicate SAR activities during operations and lead to abandoned SAR missions and resultant increased fatalities. BOEM anticipates the Proposed Action would have moderate impacts on navigation and vessel traffic in the analysis area. Impacts on non-Project vessels would include changes in navigation routes, delays in ports, degraded communication and radar signals, and increased difficulty of offshore SAR or surveillance missions within the Lease Area, all of which would increase navigational safety risks." We pointed out earlier this year in the Ocean Wind 1 DEIS that these same risks were categorized as major. There is no explanation of why the adverse impact was downgraded in this DEIS. The impact on US Coast Guard Search & Rescue ability needs to be reclassified as major.	The U.S. Coast Guard describes the ideal spacing for USCG assets to conduct SAR operations within a windfarm as 1.0NM between turbines (See NVIC 02-23 Guidance on the Coast Guard's Roles and Responsibilities for Offshore Renewable Energy Installations [OREI] on the Outer Continental Shelf).Based on this guidance, along with the other studies cited in Section 3.6.6, the overall impact rating for SAR in the Final EIS remains moderate.

Comment No	Comment	Response
FDMS_0078_011	Following is a summary of the key issues of radar interference by offshore wind turbines. There are major unknowns exacerbated by the fact the largest installed turbines are only about 600' tall, while the turbine proposed for US Wind ranges between 938' and 1,050' with equivalently larger blade diameters. Study titles are underlined with quotation marks for direct quotes. United States Coast Guard, Port Access Route Study: Northern New York Bight https://nap.nationalacademies.org/read/26430/chapter/2 a. "Conducting this study, three recurring themes were raised that were determined to fall outside the scope of this study. Specifically, potential Offshore Renewable Energy Installations (OREI) impacts on Coast Guard Search and Rescue (SAR) b. Operations, the impacts of Wind Turbine Generators on the efficacy of marine vessel radar, and potential impacts to vessels fishing in Wind Energy Areas." Wind Turbine Generator (WTG) Impacts to Marine Vessel Radar (MVR) (2022)6 a. "WTGs are large structures predominantly constructed of steel. As a result, they generally have significant electromagnetic reflectivity and the capacity to interfere with radar systems in their vicinity. Additionally, the rotating blades can return large and numerous Doppler-shifted reflections as the blades move relative to a receiving radar system. The installation of WTGs towering hundreds of meters above the sea surface 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. Upcoming COPs include WTGs with hub heights and rotor diameters approaching 175 m and 250 m, respectively." b ."Due to their size, structure, and proposed placement offshore, the maritime community expressed concern that WTGs may cast radar shadows, obfuscating smaller vessels exiting wind facilities in the vicinity of deep draft vessels in Traffic Separation Schemes. Other possible forms of radar interference that may preclude safe navigation within an offshore wind facility such as radar clutter and mirror effects (false signaling). WTGs may produce strong reflected, multiple, and side lobe echoes that can mask or complicate the identification of real targets. A loss of contact with smaller vessels due to the various forms of MVR interference could complicate MTS operations and is therefore particularly consequential when conducting maritime surface SAR operations in and adjacent to an offshore wind farm." c. "MVRs are not optimized to operate in the complex environments of a fully populated, continental shelf wind farm. There is no simple MVR modification resulting in a robust WTG operating mode. Additionally, in contrast to investments by developers and operators of air traffic control and military radar systems, compelling WTG mitigation techniques for MVR have not been substantially investigated, implemented, matured, or deployed." d. "Conclusion 1: Wind turbines in the maritime environment affect marine vessel radar in a situation-dependent manner, with the most common impact being a substantial increase in strong, reflected energy cluttering the operator's display, leading to complications in navigation decision-making." "Finding 5.2: WTGs lead to interference in MVR, including strong stationary returns from the wind turbine tower, the potential for a strong blade flash return for certain geometries, and Doppler spread clutter generated along the radial extent of the WTG blade, which could obfuscate smaller watercraft or stationary objects such as buoys. Additionally, own vessel platform multipath is a significant challenge for returns from WTGs, leading to ambiguous detections and a potentially confusing operator picture." "Finding 5.3: When conducting maritime surface SAR operations in and adjacent to an offshore wind farm, use of MVR could be challenging because wind turbines can cause significant interference and shadowing that suppress the detection of small contacts." "Finding 5.4: There is no currently available "WTG mode" for MVRs, and operator control of detection threshold to mitigate strong returns will frequently lead to the unintended consequence of suppressing detections of small targets." "Finding 5.5: There is a paucity of field-collected data to understand and evaluate the impacts of WTGs on currently deployed MVR models and support the comprehensive development of ameliorating methods. Similarly, the impact of anomalous propagation and returns from range ambiguous regions on MVR is poorly understood due to lack of experimental data." "Finding 6.1: In contrast to investments by developers and operators of air traffic control and military radar systems, compelling WTG mitigation techniques for MVR have not been substantially investigated, implemented, matured, or deployed." The following figures consist of actual radar screens with false images (Figure 1.3 in pdf)	The relevant findings of the National Academies study listed by the commenter are cited in Final EIS Sections 3.6.6 and 3.6.7, along with other relevant studies. The discussion of the impact producing factor for the Presence of Structures during operations (Section 3.6.6.5) finds a moderate (not minor) impact on navigation and vessel traffic, due to impacts on marine vessel radar (MVR) and other navigational complexity.

Comment No	Comment	Response
FDMS_0328_003	Wind Turbines Affect Radar. A Onshore wind turbines affect radar with potential impact on air traffic control, national security, weather forecasting, and ship radar leading to navigational errors and accidents. Offshore wind farms interfere with ship radar and navigation: https://www.nationalacademies.org/news/2022/02/offshore-wind-farms-can-%20interfere-with-ship-radar-and-navigation-says-new-%20report?fbclid=IwAR0TOrLV2PIMvP9w8CD5KXts0HhOrCwuPdhYDUnaxX1rYobj%20Qb9MV-Bov68 Wind power infrastructure hindering Japan defense radar: https://english.kyodonews.net/news/2022/06/c34f7cb8e5c9-wind-power- infrastructure-hindering-japan-defense-radars-sources.html MV Times Report by Rich Saltzberg: https://www.mvtimes.com/2019/08/21/wind-turbines-radar-mix-poorly/?fbclid=IwAR0_0lGhSlQxUHL3KGG8Cpq_iQ6AiNhdUwLbpb3cpGxuCA97dfTU1kv3HHM	Section 3.6.6 of the Final EIS discusses the impacts of offshore wind turbines on marine vessel radar, while Section 3.6.7 discusses the impacts on aviation and on military and national security. The conclusions of the documents cited in this comment are consistent with the sources used for the Final EIS.
FDMS_0605_001	There are several routing measures which regulate vessel traffic and help ships avoid navigational hazards near the Lease Area. The closest proposed structure in the Lease Area is 0.4 nautical miles from the Traffic Separation Scheme within the approach to the Delaware Bay, which regulates vessel traffic in and out of Delaware Bay.(1) The TSS within the approach to Delaware Bay consists of an Eastern Approach, a Southeastern Approach, a Two-way Traffic Route, and a Precautionary Area.(2) Due to the unique maneuvering characteristics of large vessels, the U.S. Coast Guard considers 2 nautical mile buffer zones on the parallel outer or seaward boundary and a 5 nautical mile buffer zone around the entry/exit termination of a TSS to be the “minimum distances” necessary for a large vessel over 1,000 feet to maneuver during an emergency. These recommended navigational safe distances are set forth by the U.S. Coast Guard’s Marine Planning Guidelines. The highest density of vessel traffic in the NSRA region consists of the vessels entering and leaving the Delaware Bay, with 8,942 total transits in 2019. (3) Furthermore, “Traffic near the Lease Area predominantly consists of large commercial deep-draft vessel transits.”(4) These conditions elevate the importance of navigational safety precautions around the lease area. Containerships and roll-on/roll-off ships that call at U.S. ports often range from 800 feet to well over 1, 000 feet long, displace more than 100, 000 tons, have a turning radius of more than 1 nautical mile, and require more than 2 nautical miles to come to a complete stop. During an emergency, it is important for vessels to have space to maneuver so collision and/or allision can be avoided. The impacts on navigation and vessel traffic based on known factors are determined as adverse, and the cumulative impacts of future development will likely exacerbate these issues. This Draft Environmental Impact Statement (EIS) indicates that the proposed action would have adverse impacts on navigation and vessel traffic. These impacts are described as moderate, long term, regional, and continuous.(5) Moderate adverse impacts are defined in the EIS as unavoidable, with vessel traffic having to adjust to account for disruptions due to impacts of the project.(6) Specifically, these impacts are identified as, “increased vessel traffic in and near the Lease Area and on the approach to ports used by the Proposed Action, as well as obstructions to navigation caused by the Proposed Action activities.” (7) In addition, this report identified adverse impacts on the effectiveness of marine radar and other navigation tools, as well as changes to navigational patterns. (8) These cumulative impacts are significant for navigational safety and environmental protection concerns, and do not fully describe the extent to which navigational safety and vessel traffic may be impacted. Vessel traffic will funnel into increasingly dense areas as ongoing and planned offshore wind activities continue. There are likely to be more activities in the future as well that are not yet planned or ongoing. Navigation and vessel traffic must be a foremost priority when planning WEAs so these cumulative effects do not disrupt vessel traffic or prevent safe maneuvering in emergency scenarios.	A buffer of 1NM is already included in the fairway design, for navigation contingencies, making an additional 2NM redundant. A precautionary area at the end of the approach is also included to account for traffic convergence from several directions. Offshore wind development is considered during the planning of the Marine Transportation System: The recommended navigational safe distances set forth by U.S. Coast Guard Marine Planning Guidelines are guidelines the U.S. Coast Guard takes into consideration during the planning of the Marine Transportation System (COMDTINST 16003.2B).The final determination for the Offshore Delaware Bay to New Jersey Connector Fairway is described in USCG’s Consolidated Port Approaches Port Access Route Studies (CPAPARS), 2023 and in the Federal Register (ANPRM-85 FR 37034). Section 3.6.6.1 of the Final EIS describes the impacts of other offshore wind projects on navigation and vessel traffic, while Section 3.6.6.5 also describes the impacts of the Project combined with those cumulative projects. The other offshore wind projects evaluated in the Final EIS Appendix D – ‘Planned Activities Scenario’ include "reasonably foreseeable" projects, pursuant to guidelines in 43 CFR 46.30.

Comment No	Comment	Response
FDMS_0767_010	Automatic Identification System (AIS) Protecting safety at sea is paramount and should never be an optional mitigation measure. We are supportive of putting AIS on every single turbine to help with navigational safety. In 2020, RODA conducted a survey asking fishermen about aids to navigation in wind arrays through the now inactive Joint Industry Task Force. There was strong support for AIS on turbines, particularly on all turbines in early projects. Understanding if cluttering and interference pose an issue could be assessed once AIS is implemented and measures could be taken to adjust accordingly.(Summary of recommendations available here: https://rodafisheries.org/wp-content/uploads/2020/07/200723-FINAL-JITF-Navigational-Aids-recommendations.pdf.	Thank you for your comment.
FDMS_0771_006	BOEM brings to light serious safety concerns with its finding at §3.6.6 that "The presence of the wind turbines would affect US Coast Guard's (USCG) ability to conduct standardized search patterns. Depending on weather conditions such as low visibility, sea state, strong winds, etc., Some USCG vessels may choose not to enter the Lease Area because of heightened risks caused by the presence of the wind turbines. USCG aviation assets conducting Search and Rescue (SAR) missions over the Lease Area would need to maneuver around wind turbines. The layout and density of Proposed Action structures could complicate SAR activities during operations and lead to abandoned SAR missions and resultant increased fatalities." (p.3-388, emphasis added). This is extremely concerning and constitutes a major adverse impact.	The impact rating does not need to be adjusted from moderate to major. The U.S. Coast Guard describes the ideal spacing for USCG assets to conduct SAR operations within a windfarm as 1.0NM between turbines (See NVIC 02-23 Guidance on the Coast Guard's Roles and Responsibilities for Offshore Renewable Energy Installations (OREI) on the Outer Continental Shelf). BOEM considers this, and results from additional studies, during the review of any project design and layout.
MAILIN_0005_178	It is expected that there will be an impact on commercial shipping companies as they are required to comply with adjusted lanes and approaches around the Proposed Project. The EIS should document and quantify the impact(s) associated with the needed adjustments and if these adjustments would require shipping vessel traffic to travel closer to the shoreline. If it is determined that vessel traffic will be routed closer to the shoreline, then an assessment of the visual impact of this change must be incorporated into the EIS.	Section 3.6.6.5 describes the Project's impacts on commercial shipping and Section 3.6.9.5 provides impacts on visual resources.
TRANS-24_0003_001	I'm against this. I'm in favor of the documentation that's already been submitted by Ayres, Jenkins, Gordy and Almand, submitted to the Maryland Offshore Wind EIS.I find the statements in here to be true including the safety of how difficult it's going to be to navigate through 121 windmill towers in the fog or anything like that. Some of these are real popular inshore fishing grounds that we've used for years. Last year out of Ocean City just in the local tournaments, there were 6,512 boats that went through the inlet that would have to travel through these. That doesn't include the daily recreational people that go and charter people that go. So that's putting pretty close to 10,000 boats in that limited area on any given day. The map that they submitted takes -- our method and our mapping plans go right through where you guys are building that will shut down or delay us getting there for hours and hours costing more in fees and expense to the people that are chartering them to at least six different areas that are outlined on the map and submitted in this document.	Thank you for your comment. Section 3.6.6 of the Final EIS discusses the Project's impacts on navigation and vessel traffic.

O.7.21 Other Uses (marine minerals, military use, aviation, research and surveys, and Search and Rescue)

Table O.7-24. Responses Substantive – Other uses

Comment No	Comment	Response
FDMS_0078_005	BOEM States, "The presence of stationary structures associated with offshore wind energy projects could prevent or impede continued NOAA scientific research surveys using current vessel capacities and monitoring protocols or reduce opportunities for other NOAA scientific research studies in the area. Coordinators of large-vessel survey operations or operations deploying mobile survey gear have determined that activities within offshore wind facilities would not be within current safety and operational limits. In addition, changes in required flight altitudes due to the proposed wind turbine height would affect aerial survey design and protocols. Overall, the impact would be major for scientific surveys, and mitigation plans are needed for how critical science surveys will be completed.	The impact for scientific research and surveys is classified as major in the excerpt from Section 3.6.7.3 of the Final EIS noted in the comment. Mitigation measures are described in Appendix G. US Wind has committed to work with federal agencies on survey mitigation efforts, including sponsoring efforts to examine statistical analyses, how to incorporate existing methodologies (e.g., Northeast Monitoring and Assessment Program protocols), and other data analysis and integration tools. Currently, the LEssee has provided a number of baseline surveys to address fisheries resources including Essential Fish Habitat, fish species, as well as invertebrate studies. The Essential Fish Habitat and Protected Fish Species Assessment (appendix E of the COP) identifies EFH, species and habit areas of special concern and threatened or endangered fish species in the Offshore Project Area. The NEPA process allows for the full evaluation of potential impacts to these resources from the proposed action as well as alternatives considered in the EIS. In addition, the EIS considers potential cumulative activities in the region and their timing.
FDMS_0078_008	This project has been approved by Maryland, however, there is no specification land filled material such as turbine blades that will be placed in Maryland. During decommissioning land filled material such as turbine blades must be placed in Maryland. Clearly, the proposed project has serious major impacts on historic uses of the outer continental shelf. Some compensating actions are offered, such as reimbursement for lost fishing gear. However, a December 14, 2020 letter, page 12, from the Department of the Interior Solicitor to Interior Secretary David Bernhardt states: "It is important to observe that any compensation system established by a lease to make users of the lease area whole financially does not negate interference – indeed, the creation of such a system presumes interference. As such, any proposed compensation process should not be viewed as 'curing' any 8(p)(4(I) interference since the statute does not provide for such a cure." The letter also discusses the Secretary's duty to prevent interference with reasonable historic uses in federal waters, such as fishing, navigation, and the viewshed, by denying offshore wind projects in accordance with the Outer Continental Shelf Lands Act Subsection 8(p). We note this is in contrast with a new Solicitor General's opinion quoted in the DEIS: As stated in M-Opinion 37067, "...subsection 8(p)(4) of OCSLA imposes a general duty on the Secretary to act in a manner providing for the subsection's enumerated goals. The subsection does not require the Secretary to ensure that the goals are achieved to a particular degree, and she retains wide discretion to determine the appropriate balance between two or more goals that conflict or are otherwise in tension." Major impacts to historic ocean uses cannot be overlooked at the discretion of the Secretary. These contrasting opinions are the kind of legal debates to be settled in lawsuits filed against BOEM. Military Aviation and Installation Assurance Siting Clearinghouse coordinated within the Department of Defense (DOD) a review of the New York Bight Offshore Call Areas. "Encroachment is often irreversible, and as the New York Bight continues to see increased density of offshore wind energy development, few areas will remain free and clear to support DON training activities. Therefore, the DOD requests BOEM defer leasing all remaining unleased portions of W-107B/C as well as lease blocks in W-107A within 30 nautical miles of the New Jersey coastline if BOEM moves forward with leasing in the Hudson South Call Area. Any vertical obstructions in these areas would foreclose the DON's ability to safely conduct training missions in the region such as low-level rotary wing aircraft operations." Comments from Sea freeze, LTD. On Vineyard Wind Supplement to Draft Environmental Impact Statement. On pages 67 to 73, Sea freeze explained how offshore wind projects affect/interfere with military exclusion & restriction zones.	Thank you for your comment.

Comment No	Comment	Response
FDMS_0114_010	The presence of stationary structures will interfere with scientific surveys, such as determining seafood take limits, and no alternatives have been developed. Each offshore wind turbine and substation carries many gallons of lubricating oil and diesel oil. The total stored offshore is 508,078 gallons. A massive hurricane could threaten a major spill. The oil response plan seems inadequate to handle a major release and needs to be improved. This project has been approved by Maryland; however, there is no specification land filled material such as turbine blades that will be placed in Maryland. The presence of turbines seriously impacts civilian and military radar, jeopardizing safety and national defense. Lease areas need to be moved 40 miles further out to sea.	As discussed in Section 3.6.7.5, *Conclusions*, impacts on radar systems are anticipated to be minor.
FDMS_0767_011	Federal Fisheries Surveys and Management Fisheries management relies on fishery dependent and independent data collection to understand and track populations over time and to set sustainable quotas. Disruptions to survey methodology and data collection, without adequate time and analyses for adjustment, will be detrimental to our understanding of fish stocks and ultimately may lead to reduced quotas for the fishing industry RODA acknowledges that BOEM and NMFS have recently published the final federal survey mitigation strategy but is concerned that the active surveys will be negatively impacted by offshore wind projects, should adapted survey methods not be implemented immediately. A finding of major impacts to scientific research and surveys (p.ES-13) cannot be downplayed and there appears no proposed mitigation measure to address impacts to existing fisheries monitoring and surveys in the Appendix G: Mitigation and Monitoring. This does 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. US Wind Assessment Surveys To date, RODA is not aware of any plans for a project to coordinate cooperative research and monitoring plans with developers of geographically relevant lease areas, including Maryland Offshore Wind, Atlantic Shores South and Ocean Wind 1.The environmental impacts of Maryland Offshore Wind will be cumulative to those of other projects for multiple fish stocks (and oceanographic processes) and these must be coordinated to maximize the utility of any data that is collected. Developers should be required to utilize the same peer-reviewed methodology across the region. For data to be relevant to impact assessments, it is important that at least two years of preconstruction baseline data be collected. Additionally, surveys need to be conducted for the lifetime of the project.US Wind should work with fisheries scientists, experts and members of the industry to determine appropriate frequency and methodology at various phases - preconstruction, construction, operations and decommissioning.	The impact for scientific research and surveys is classified as major in the Final EIS. Mitigation measures are described in Appendix G. US Wind has committed to work with federal agencies on survey mitigation efforts, including sponsoring efforts to examine statistical analyses, how to incorporate existing methodologies (e.g., Northeast Monitoring and Assessment Program protocols), and other data analysis and integration tools. Currently, the Lessee has provided a number of baseline surveys to address fisheries resources including Essential Fish Habitat, fish species, as well as invertebrate studies. The Essential Fish Habitat and Protected Fish Species Assessment (appendix E of the COP) identifies EFH, species and habit areas of special concern and threatened or endangered fish species in the Offshore Project Area. The NEPA process allows for the full evaluation of potential impacts to these resources from the proposed action as well as alternatives considered in the EIS. In addition, the EIS considers potential cumulative activities in the region and their timing.

Comment No	Comment	Response
FDMS_0869_001	The proposed Wind Facility destroys laminar flow air and worse, creates hazardous wake turbulence which could pose a risk of injury or death to ultralight pilots in the airspace off the Maryland coast. As an ultralight pilot and instructor, I am deeply concerned for the future of an incredible resource the beach/ offshore area currently offers ultralight pilots who use the National Airspace along the coastline. The ocean offers a rare and precious source of laminar flow air. I did not find mention in the Impact Statements of laminar flow air in the context of an existing resource. Smooth, safe, air is a resource which will be threatened by US Wind's proposed project. The wake turbulence created by US Wind's massive turbines may continue for up to 20 miles, possibly much farther (1). This replaces the smooth "glassy" airflow which allows non-fixed wing aircraft to fly safely any time of the day and replaces it with potentially deadly air conditions with no end. How can turbulent air be deadly? While fixed wing aircraft experience turbulence as an uncomfortable bumpy sensation - a rough ride of sorts - a soft wing like a paraglider can collapse in wake turbulence. A canopy collapse is potentially unrecoverable which could lead the pilot to crash into the ocean resulting in injury, death or drowning (2-3). I did read, as part of the airspace analysis documentation, that if one VFR flight a day is affected by the wind project it must be reviewed as a potential hazard. I fly my ultralight aircraft by VFR in the affected area and I fly regularly below altitudes of 500'. I am sorely afraid that one of the safest places to practice my chosen variety of aviation will irreversibly change into one of the most dangerous places to fly. I believe there exists potential for more than one ultralight flight per day to be affected by the wind project, especially considering the rapid growth currently being enjoyed by ultralight aviation. I believe that the hazards posed to ultralight aviation by the US Wind installation demand greater research and certainly should be documented explicitly in the environmental analysis literature. A mitigation to this hazard seems straightforward; the wind project should be moved further away from the shoreline so that wake turbulence may dissipate and laminar airflow arriving at the shoreline may be restored before reaching low flying ultralights along the coast. (Attachment of image showing the wind wake from the wind farms.) (1) Wake turbulence continues for 20 miles or more: https://www.saurenergy.com/solar-energy-blog/how-wakes-impact-wind-energy-efficiency-a-comprehensive-explanation#:~:text=However%2C%20the%20losses%20may%20even,reach%20entirely%20different%20wind%20plants. (2) YouTube Video showing the effects of wake turbulence and paraglider collapse (attn.4 min. mark) https://youtu.be/iHqN7PQraMs?si=wd3aoJ6O0VabzULL (3) Taken from analysis page by New Zealand Aviation Security Service https://www.aviation.govt.nz/safety/safety-advice/helicopter-safety/wake-turbulence/	While the wake effect of an offshore wind turbine is detectable in models for several kilometers, the strength of these wake effects is much weaker than that coming from a powered aircraft such as a helicopter. This is why offshore wind turbines are able to be spaced out five to seven rotor lengths from one another and still be able to generate power. Likewise, wind wake effects on aircraft are not expected to be perceptible outside of 5 rotor lengths behind the rotor. Consistent with this layout consideration, a study modeling wind wake effects of wind turbines on small aircraft found no significant disturbance to a light aircraft beyond 5 rotor lengths beyond the wind turbine rotor (Wind Turbine Wake Encounter Study). This information has been added to Section 3.6.7.3. Some wind farm operators use helicopters within the array during operations and maintenance.
MAILIN_0005_173	The DEIS states: "Although the proposed wind turbines will not be within line-of-sight of these radar sites, radar effects are still possible beyond line-of-sight due to the propagation of HF electromagnetic waves over the ocean surface." The document should describe what radar effects are and fully assess how that may impact communications and defense related radar. No record of decision or alternative selection should be made until BOEM completes further study to fully assess the impacts of this project on communications and defense related radar.	Text added to Section 3.6.7.1, *Description of the Affected Environment and Future Baseline Conditions*; text reading "radar effects" was changed to "impacts to radar". Impacts to radar systems are further discussed in Sections 3.6.7.3, 3.6.7.5, 3.6.7.6, 3.6.7.7, and 3.6.7.8.
MAILIN_0005_179	The DEIS should assess in more detail the effects on radar and fully assess how that may impact navigation and defense related radar. The National Academies of Science report (Wind Turbine Generator Impacts to Marine Vessel Radar, 2022) indicates that there may be interference with marine vessel radar, which is a critical instrument for navigation, collision avoidance, and use in search and rescue missions, with secondary uses including activities like detecting reflectors on fishing nets or birds to indicate the presence of target species. More scientific study is needed to determine the cumulative effects of wind turbines located in or planned for the U.S. Outer Continental Shelf and especially in the areas surrounding the Proposed Project, given that this area is larger, wider, and laid out in a different configuration than windfarms in Europe and other areas an which previous studies have been based. No record of decision or alternative selection should be made until BOEM completes further study to adequately determine the impacts of the project on marine vessel radars.	Text added to Section 3.6.7.5, *Offshore and Inshore Activities and Facilities*, stating that in May 2023, US Wind received determinations of No Hazard from the Federal Aviation Administration (FAA) for the wind turbine generators effective as of July 1, 2023 (COP Volume I Table 8-1).A component of the FAA process is review of the proposed structures by the Department of Defense for interference with radar and military operations which can result, in the case of offshore wind projects, in a formal Mitigation Agreement with DOD.DOD declined to pursue a Mitigation Agreement with US Wind following issuance of the Determinations of No Hazard (see COP Volume II, Section 16.6).Should the situation change, US Wind would enter into an agreement with DOD, however, at this time there is not a need for an agreement to mitigate radar interference.

Comment No	Comment	Response
FDMS_0791_010	Military Radar Interference/DOD Mitigation Agreement US Wind in May 2023 received Determinations of No Hazard from the Federal Aviation Administration (FAA) for the wind turbine generators effective as of July 1, 2023 (COP Volume I Table 8-1).A component of the FAA process is review of the proposed structures by the Department of Defense for interference with radar and military operations which can result, in the case of offshore wind projects, in a formal Mitigation Agreement with DOD. Mitigation Agreements may include elements such as those in the mitigation measure on page G-30 in Appendix G.DOD declined to pursue a Mitigation Agreement with US Wind following issuance of the Determinations of No Hazard (see COP Volume II, Section 16.6).Should the situation change, US Wind would enter into an agreement with DOD, however, at this time there is not a need for an agreement to mitigate radar interference. The DEIS should be updated to reflect this information as included in the COP.	Text added to Section 3.6.7.5, Offshore and Inshore Activities and Facilities to include this information.

O.7.22 Project Design Envelope

Table O.7-25. Responses Substantive – Project Design Envelope

Comment No	Comment	Response
FDMS_0070_001	I attended the virtual public hearing session on October 19, 2023 conducted by BOEM of the proposed wind farm in Ocean City, Maryland. As an owner at English Towers, 10000 Coastal Highway, and a Maryland taxpayer, I'd like to understand what can be done to have more rural sites considered, for implementation and/or additional offshore leases obtained, to support moving further out, beyond view, from our shores. While I support our green energy goals I DO NOT support the current proposal which sacrifices our natural view and resources when other more responsible options exist as noted from the Ocean City.gov website: “There is a simple solution to this problem which would allow the development of clean offshore wind energy for Maryland without destroying our beautiful ocean views. The solution is for the turbines to be moved farther east. The location of these projects is determined by the Federal Bureau of Ocean Energy Management (BOEM) through a leasing process. Right now, only one lease area exists off the coast of Maryland. It starts less than 13 miles from Ocean City and extends out to approximately 21 miles from our shore. A new federal lease area could easily be established further offshore. Virginia Beach and the Outer Banks both have lease areas starting 25 miles offshore, and Virginia Beach already has two turbines located 27 miles from shore. There is no reason that a Maryland project could not be moved out just as far.	The Lessee can only propose WTG sites within their lease area, which extends approximately 23 nautical miles (27 statute miles) from shore at the farthest point. Analyses of turbine installation outside of the identified lease area does not meet BOEM’s Purpose and Need. Under the no action alternative (Alternative A), BOEM would disapprove the COP and the Project described in the COP would not be built in the lease area.
FDMS_0100_001	Could BOEM please elaborate on the distribution of energy, will all the electricity generated from the WTGs be going to Maryland? If it will also be going to Delaware, how will that affect the energy rates of citizens paying for electricity?	The Lessee has entered into electricity offtake contracts for MarWin and Momentum Wind that set the wholesale prices (and thus the rates paid by customers) for the electricity generated by these project phases. The Maryland Public Service Commission can provide additional information regarding these offtake agreements.

Comment No	Comment	Response
FDMS_0114_002	Construction and Operations Plan, Volume I. Project Information, refers to Order No.88192, Case No.9431, Public Service Commission, State of Maryland (May 11, 2017), p.3 (the project approval by Public Service Commission of Maryland), which indicates Siemens SWT-4.0-130 4 MW and 6 MW wind turbine generator (WTG) on p.6.However, the Construction and Operations Plan, Volume I. Project Information, p.ES2, proposes nameplate capacity of wind turbine generators of 18 MW, which is 4.5 and 3 times more than the 4 MW and 6 MW WTG nameplate capacity specified in Order No.88192, Case No.9431, Public Service Commission, State of Maryland (May 11, 2017).Therefore, the key design paraments are not "within its permit application" required, in particular, by Draft Guidance Regarding the Use of a Project Design Envelope in a Construction and Operations Plan (BOEM 2018), p.1. **The Construction and Operations Plan and the DEIS, based on this Construction and Operations Plan, are based on inconsistent parameters and thus, not legitimate.** The key design parameters such as nameplate capacity of the project, and a number of wind turbine generators (WTG) within OCS-A 0490 (the Lease) are inconsistent in Construction and Operations Plan, Volume I. Project Information: • 2 GW of nameplate capacity within the Lease is indicated on p.ES1.However, further in the text on pp ES1 and ES2, 2.128 GW are proposed: 121 WTG of 18 MW nameplate capacity each • 121 WTGs are proposed in the Lease area under the project design envelope (PDE) on pp ES-1 and ES-2. However, on the next p.ES-3, a number of WTGs is 114 on Figure ES-1 These inconsistency in the nameplate capacity of the project and the number of WTGs raises questions regarding the quality of and the basis for **the COP and the DEIS, which both need to be redone**. The word 'Approximately' is used 54 times in Construction and Operations Plan, Volume I. Project Information, for almost all the key design parameters of the project but "a reasonable range of project designs in a COP" is not provided for most key design parameters as required by Draft Guidance Regarding the Use of a Project Design Envelope in a Construction and Operations Plan (BOEM 2018), p.1.In addition, this level of technical contingency is not consistent with the best practice in developing project design documents for wind energy projects worldwide. Moreover, most key design parameters do not provide "maximum design scenarios" required by Draft Guidance Regarding the Use of a Project Design Envelope in a Construction and Operations Plan (BOEM 2018). The Construction and Operations Plan, and the DEIS do not provide "a reasonable range of project designs" and "maximum design scenarios" for most key design parameters, **these documents are incomplete and full of outdated assumptions without basis.**	BOEM allows lessees flexibility for selection and purchase of project components by allowing the use of a PDE approach. Under the PDE approach, the Lessee may identify a "maximum design scenario" that BOEM then uses to analyze the impact on each resource in the EIS. Consistent with this PDE approach, Chapter 2 and Appendix C of the EIS identify the maximum WTG specifications for design parameters such as WTG number, height, rotor diameter, diameter of monopile foundation, etc. The WTG PDE parameters specify the size of the WTG but do not specify the MW nameplate capacity of the WTG.
FDMS_0114_006	No decommissioning/restoration activities for offshore wind, critical to the Environmental Impact Assessment, are identified in the DEIS. There is also no legislative basis and/or regulations for decommissioning/restoration of offshore wind farms (which exist in European countries leading the wind farm development). Worldwide experience with offshore wind turbine operation under harsh weather conditions has revealed many problems with turbines, including turbine blades and bearings. So, the actual life of turbines can often be much less than the projected 20 years* and decommissioning is a huge factor in deciding on such projects. **Legislative basis and/or regulations for decommissioning/restoration of offshore wind farms are needed before the offshore wind project approval.** (* In June 2023, Siemens Gamesa Renewable Energy SA (the world largest wind turbine manufacturer and wind farm developer) reported quality issues of major turbine components in its newest turbine models including blades and bearings and troubles of repairing. For offshore wind, harsh weather conditions can also result in erosion of blades and bearings and corrosion of foundations or/and of the turbine.)	Pursuant to 30 CFR 285.902 the Lessee must decommission the facility within 2 years following termination or expiration of the lease. The construction and operations plan contains information on conceptual decommissioning. Impacts from decommissioning are included in the Final EIS analysis. Prior to the end of the life of the project, a detailed decommissioning plan would be submitted to BOEM for review. Additional NEPA review and consultations would be conducted on the decommissioning plan at this time. All facilities (including submarine cables) must be removed to 15 feet below the mudline unless otherwise authorized by BOEM.
FDMS_0767_008	Spacing of Turbines Array design and spacing between turbines are important determinants of commercial fishing operations within wind development areas. In order for most bottom-tending mobile commercial fisheries to operate after construction, a minimum spacing of 2 nm between turbines must be maintained, due to the specific way gear is deployed and hauled back, chain lengths, vessel maneuverability, and other conditions. Two nautical mile spacing was not analyzed in the DEIS because it would lead to a reduction in turbines and the project would not fulfill the terms of their existing procurement agreements. This means, US Wind should expect its facility to fully displace fisheries who need at least 2 nm to operate for the life of the project, and beyond if not all turbine structures are removed from the seafloor after decommissioning. Appropriate mitigation for this is paramount.	BOEM acknowledges that some commercial fishing vessels may choose to avoid the Lease Area during O&M of the Projects. Mitigation for loss of fishing access would be achieved primarily through a fisheries compensation program whose funding would be based on the revenue exposure for fisheries out of relevant ports. To mitigate gear damage or loss resulting from entanglement with Project structures, US Wind would implement a gear loss and damage compensation program that would extend through Project operations.US Wind would be required to remove or decommission all Project infrastructure and clear the seabed of all obstructions when these facilities reach the end of their 35-year designed service life.

Comment No	Comment	Response
FDMS_0892_007	A. BOEM Should Incorporate Alternatives Using Quiet Foundations We are disappointed that BOEM did not consider alternatives with quiet foundations for the project, which could involve up to 121 monopiles. Instead, BOEM accepted US Wind's conclusion that "foundations other than monopiles for WTGs and jackets and monopiles for OSSs (e.g., gravity-based foundations, suction bucket, suction caisson, screw piling) are not technically and economically feasible because of site-specific sediment characteristics and proven technology available."23 Quiet foundations can greatly mitigate potential harm to marine mammals from noise and should be considered for all projects. Additionally, the technological availability of this alternative will increase only when demand for it increases. As such, BOEM should signal to all developers a preference for quiet foundations and provide comprehensive guidance encouraging and incentivizing the use of quiet foundations. Ideally this information would be provided prior to COP development so developers can include these considerations into their procurement decisions. BOEM should provide the evaluation of the feasibility of various turbine technologies and foundations, particularly if the COP states various technologies are infeasible without providing evidence for public review. For US Wind, and all offshore wind projects, BOEM should provide the analysis it uses to determine the feasibility of various turbine technologies to the public. (23 MDOSW DEIS, Table 2.6 at 2-32.)	Thank you for your comment. As discussed in Section 2.2 Alternatives Considered but Not Analyzed in Detail, BOEM considered a range of alternatives during the EIS development process that emerged from scoping, interagency coordination, government-to-government consultation, and internal BOEM deliberations. The use of alternative foundation types, including suction bucket foundations and floating wind turbine foundation types to reduce impacts on marine mammals, sea turtles, and fish from pile driving associated with monopile and jacket foundations, are not feasible within the Lease Area. Rationale for eliminating these alternatives can be found in the relevant table in Section 2 of the Final EIS. "Quiet" foundation design types like the monopod suction caisson, suction caisson jacket, and gravity base structure foundations were evaluated during Project development. These options were eliminated in favor of the monopile foundation due to their larger footprints (leading to more extensive seabed and navigation impacts), unsuitability for site-specific conditions, and supply chain issues.
MAILIN_0005_035	The DEIS notes that before/after survey plans are for two (2) years prior and six (6) years after project installation. In general, given the dynamic nature of the ocean environment, two years of data collected before the installation of the project would not provide enough data for a robust comparison to data collected during operation. To disentangle potential causal impacts of the windfarm from natural and climate-change induced variability, more than two years of data should be collected prior to the initiation of the project.	Thank you for your comment. BOEM uses the best available science to analyze potential impacts and has engaged in, currently engages in, and will continue to engage in monitoring of the potential impacts of offshore wind construction and operations on marine wildlife and the ocean ecosystem to guide its adaptive management and future development.
FDMS_0864_002	With the Offshore Maryland Wind Project, we have concerns about offshore export cable burial depth. The project's Construction and Operations Plan (COP) says that these cables will be buried between 3.3 and 9.8 feet. It is typical for undersea cables to be buried at least 15 feet when crossing navigation channels. This practice should extend to navigation safety fairways as they will be the most highly concentrated traffic areas along our coasts. If a vessel must drop anchor in an emergency situation, vessel operators want to eliminate the likelihood of damaging a power cable. Burying the cables at least 15 feet is the best practice to avoid such a scenario. BOEM should require the project developer to bury the offshore export cables 15 feet where they cross the navigation safety fairway.	Mitigation measures regarding cable burial depths are described in Appendix G of the Final EIS.

O.7.23 Purpose and Need

Table O.7-26. Responses Substantive – Purpose and need

Comment No	Comment	Response
FDMS_0114_009	Each offshore wind turbine and substation carries many gallons of lubricating oil and diesel oil. The total stored offshore is 508,078 gallons. A massive hurricane could threaten a major spill. The oil response plan seems inadequate to handle a major release and needs to be improved. US Wind, Renexia S.p.A, the owner of US Wind, and Toto Holding Company, the owner of Renexia S.p.A, have no experience in the construction of such large-scale offshore wind farms and installation/operation of such large wind turbines. The only offshore wind farm experience of Renexia S.p.A (as well as, US Wind and/or Toto Holding) is the installation of 10 turbines in the Mediterranean Sea, each with a capacity of 3 MW, which is 6 times smaller in power (and much smaller in size) than each of the hundreds of turbines proposed by their project in the Atlantic Ocean, off the shores of Maryland and Delaware. Considering that the offshore wind technology is unmature, unsustainable and environmentally dangerous and US Wind is unexperienced, there is a very high probability (risk) of the offshore project engineering, procurement and construction failure, which will lead to catastrophic consequences for economy and environment of Maryland and Delaware and marine life in the Atlantic Ocean.	BOEM works closely with the Bureau of Safety and Environmental Enforcement (BSEE), and well as the United States Coast Guard (USCG) throughout the Environmental and Technical Reviews of all construction and operations plans. For any project that may be approved, BOEM, the USCG and BSEE will require in those terms and conditions of COP approval that the Lessee prepare three plans. First is an Emergency Response Plan which focuses on how the Lessee will interact with the USCG in any emergencies, including monitoring and communication protocols, staffing, and standard operating procedures). Second is an Oil Spill Response Plan, which requires Lessee to consider the worst-case discharge from their project and develop a plan to mitigate and clean up any spills. Finally, there is the safety management system, which focuses on personnel safety. All three of these plans are subject to review and approval by BOEM, BSEE, and the USCG as appropriate.

Comment No	Comment	Response
FDMS_0767_004	Addressing the Purpose and Need BOEM must clarify what is driving the purpose and need for the proposed action, and consequently the framing of the NEPA analysis. As stated in previous RODA letters, the purpose and need of the proposed action should be to fulfill the agency's purpose and need, not solely that of a project applicant's objectives - including PPAs.11 Yet, the DEIS fails to provide a clear justification to develop the full 2.2 GW project even though only 44% of the Project's power has been procured. At a minimum, BOEM must provide clear, consistent and data-driven rationale for the purpose and need for offshore energy projects. It is a disservice to the marine environment, and industries reliant on the ocean to permit development without addressing this, and other, fundamental questions.	BOEM's regulations require BOEM to analyze US Wind's proposal to build a commercial-scale wind energy facility on the Renewable Energy Lease Number OCS-A 0490. The purpose and need in the EIS reflect the requirement per those regulations, whereas BOEM's purpose as stated in Section 1.2 is to determine whether to approve, approve with modifications or disapprove US Wind's COP, is needed to fulfill BOEM's duties under the lease.
FDMS_0892_008	B. Handling of Significant New Information During Long Construction Schedules (more detailed text within the document) Only 1,108 MW of the power for Maryland Offshore Wind has a power purchaser and the Projects appear to be phased, including: (1) MarWin, a wind farm of approximately 300 MW for which US Wind was awarded offshore renewable energy credits (ORECs) in 2017 by the State of Maryland; (2) Momentum Wind, consisting of approximately 808 MW for which the State of Maryland awarded additional ORECs in 2021; and (3) future development of approximately 600 to 800 MW of the remainder of the Lease Area to fulfill ongoing, government-sponsored demands for offshore wind energy.24 It is not clear how this will affect the timing or evaluation of the project. Specifically, the DEIS notes that MarWin is projected to have commercial operations by 2025, with Momentum Wind and any future build out operational by 2026 and 2027.25 The COP contemplates up to four construction campaigns.26.It is critical that BOEM ensures that significant new information or changed circumstances that might occur as a result of unforeseen delays are properly considered, but we feel it is unwise to create alternatives that may add unnecessary steps. (24 1-325 Appx C, Table C-1.26 COP at 8, Fig.1.2)	BOEM's regulations require BOEM to analyze US Wind's proposal to build a commercial-scale wind energy facility on the Renewable Energy Lease Number OCS-A 0490.The purpose and need in the EIS reflect the requirement per those regulations, whereas BOEM's purpose as stated in Section 1.2 is to determine whether to approve, approve with modifications or disapprove US Wind's COP, is needed to fulfill BOEM's duties under the lease.

O.7.24 Recreation and Tourism

Table O.7-27. Responses Substantive – Recreation and tourism

Comment No	Comment	Response
FDMS_0078_009	A new study is needed to determine the potential economic costs of lost Tourism and Recreation. No Final EIS should be issued for any project until that study is available. BOEM states in 3.6.8 regarding recreation and tourism, “Coastal Delaware and Maryland, as well as nearby areas of Virginia and New Jersey coasts, have a wide range of visual characteristics, with communities and landscapes ranging from large cities to small towns, suburbs, rural areas, and wildlife preserves. As a result of the proximity of the Atlantic Ocean, as well as the views associated with the shoreline, the coastal areas of these four states have been extensively developed for water-based recreation and tourism. The scenic quality of the coastal environment is important to the identity, attraction, and economic health of many of the coastal communities. Additionally, the visual qualities of coastal cities, towns, and parks, which incorporate marine activities, beaches, ocean and bay views, and the ability to view birds and marine life, are important community characteristics.” Despite finding visual impacts will be major, “BOEM anticipates the overall impacts associated with the Proposed Action when combined with the impacts from ongoing and planned activities including offshore wind would be moderate. The main drivers for this impact rating are the visual impacts associated with the presence of structures and lighting; impacts on fishing and other recreational activity from noise, vessel traffic, and cable emplacement during construction.” An important assumption in this finding is other nearby offshore wind projects will still be built, so the US Wind projects will simply have only a minor additional impact. However, of 19 Gigawatts of offshore wind projects in BOEM’s approval queue, 75% have claimed approved guaranteed premium prices are inadequate to obtain financing, with 30% already canceled despite $124 million in fines to exit the contracts. In particular, Ørsted, developer of the nearby Skipjack, Garden State, and Ocean Wind projects, has delayed construction until 2026 and announced they may leave the US market with a decision expected by the end of 2023. BOEM is relying on a University of Delaware Study (Parsons and Firestone) to suggest minimal impact on the tourism and recreation industries. The University of Delaware study (https://www.semanticscholar.org/paper/Atlantic-Offshore-Wind-Energy-Development%3A-Values-Parsons-Firestone/91b0ede146b8701cb44d72c58f09b29533df3cdf) did its survey by showing panning photomontages on a computer screen of 579’ tall turbines, respondents were also provided instructions on the distance to the screen from which they should view the images and were asked to view the project at three distances offshore – near, medium and far. After each distance was viewed, respondents were asked whether the presence of the wind power project would have affected their beach experience/enjoyment -- making it worse, somewhat worse, neither worse nor better, somewhat better, or better. If they responded worse or somewhat worse, they were then asked a certainty-response question. They used the response to this question to construct certainty-adjusted data. Note no such certainty adjustment was used for those who favored wind turbines. Results from nighttime views were never released. The survey group also included about 35% of respondents who never actually visited the beach. In March 2021, one of the authors (Parsons) stated in a Delaware Today Magazine interview (https://delawaretoday.com/lifestyle/skipjack-wind-farm/) that the study is no longer applicable because turbines used today are so much larger. However, even with the study's problems, it has some use. The Table below shows a Trip loss of 14% with turbines visible at 10 miles, as proposed for the US Wind project. The impact of taller towers can be approximated by assuming the towers are 1.61 times closer (the ratio of 579’ tall towers to 938’ tall towers).That suggests the proposed US Wind project would be equivalent to about 5 miles off the coast, and trip loss might be 24%.The proposed project should then be considered to have a major impact on tourism.	The Final EIS considered the commenter's input when determining the impact rating for recreation and tourism, as well as employment and economics. A new survey-based study would not be able to resolve the inherent incremental uncertainty regarding impacts that arise at this stage of the project. BOEM used the best available information in the EIS. BOEM considered the impacts of the proposed project on recreation/tourism both in isolation and in the context of potential future projects. BOEM has elaborated on the commenter's points in the Final EIS. Sections 3.6.3, 3.6.8.3, and 3.6.8.5 of the Final EIS have been revised to incorporate this information.
FDMS_0096_001	Can BOEM show research on wave refraction from the WTGs and how it will affect the surf culture in Ocean City, MD and the Delaware coastline that thrives and depends on the economic value of surfing?	Predicted hydrodynamic effects on wind-driven waves and currents as well as direct impacts on ocean currents from offshore wind structure foundations are described in Final EIS Sections 3.5.2. and 3.5.5 under the presence of structures IPF. Effects on waves have not been specifically modeled for the BOEM has relied on the best available scientific information to predict hydrodynamic effects around offshore wind energy areas due to the presence of WTG foundations.
FDMS_0149_001	Erecting giant industrial turbines off our coast will decrease tourism, impacting local businesses and driving down property values. Many property owners, myself included, rely upon rental income to sustain investment properties. In Europe, Orsted called for a “no sailing zone” around the turbines after debris from turbines crashed into the ocean.	Thank you for your comment. BOEM has cited the available research regarding the potential adverse economic impacts of the project. BOEM used this research, data on the affected area, and the specifics of the proposed action to develop impact ratings associated with these adverse impacts.

Comment No	Comment	Response
FDMS_0429_003	C. Change in the Human Relationship to the Ocean Will Be Major If the Visual Impacts of Alternatives B, C, D, and E are major in Table ES-1, how can the effect on Recreation and Tourism be rated as Moderate or Minor Beneficial? It again defies common sense. Anyone who lives here will testify that the human relationship to the ocean in Sussex County will be forever altered by the project. Some may conclude that wind energy is worth the trade off but they will not deny that our pristine ocean will never be what it is today or what it can remain without this project. The DEIS should properly reflect this change as a topic for evaluation and rate it as having major impact.	The findings related to visual impacts in Section 3.6.9 apply only to the effects on seascape/landscape and visual resources, i.e., demonstrable change in existing scenery and change in how people feel about views of that scenery. While there is a link between visual impacts and recreation/ tourism, a major visual impact does not automatically indicate a major impact on recreation and tourism. Sections 3.6.8.3 and 3.6.8.5.2 of the Final EIS provide information on anticipated impacts of planned offshore wind projects on recreation and tourism.
FDMS_0535_001	No windmills Option A - University of Delaware survey sites a 20% impact to tourism based on BOEM figures at 12.5 Miles and 574 ft high. Your project is 9 miles offshore, 936 ft high and will easily affect the Ocean City business area by 30% based on study, and lower property values for businesses and residents. Possibly more since your project is bigger. This is called external obsolescence in the real estate industry. This external impact on an area is not curable.	BOEM analyzes the role of turbine height as it relates to recreation and tourism in Section 3.6.8. of the EIS. Sections 3.6.8.3 and 3.6.8.5 of the Final EIS have been revised to note proposed turbine height as compared to turbine height in cited studies.
FDMS_0680_001	Alternative D is the only option to approve should this project move forward. The further off the coast and out of site lines this project can be placed will have less of an impact on homeowners and the tourism industry in Ocean City. No one can deny that turbines will ruin the beautiful ocean view and daily sunrises forever, therefore wind turbines should be placed no closer than 15-18 miles off the coast. Research has proven that this project if built 8-10 miles off the coastline will devastate the Ocean City economy permanently. https://news.ncsu.edu/2016/04/taylor-coast-2016/?fbclid=IwAR359wl1XwZz42up8C3z_z1SatTNiPQyWl7_yVVpKROTXB2tjHcYcbjM1P4_aem_Ab9R30raTv9GIkAdMCJqsBNKiL8iPk2uUo8FysDE52icKdSEwyjDp0R2AuV-WYwDsIU.	Section 3.6.3 in Appendix F of the Final EIS discusses the findings of the North Carolina State study (Lutzeyer et al.2017) referenced in the comment and compares the impacts of Alternative B and Alternative D on demographics, employment, and economics. Section 3.6.8 cites the same study and compares the impacts of Alternative B and Alternative D on recreation and tourism.
FDMS_0771_007	[1] THE PROJECT WILL HAVE KNOWN ADVERSE EFFECTS AND UNKNOWN, POTENTIALLY ADVERSE, EFFECTS ON SOCIOECONOMIC, CULTURAL, SCENIC AND VISUAL RESOURCES, PARTICULARLY FOR DELAWARE. There is no question that the Project will have a major adverse impact of the “human environment” enjoyed by Delaware residents, boaters, fisherman and beachgoers, both during the construction phase, involving vertical and horizontal drilling and heavy work, coupled with the subsequent and perpetual visual/scenic pollution due to the extremely close (for a wind farm) proximity of the Lease Area to shore, along with the unusually excessive height (938+ feet) which US Wind proposes for the turbines (see above). [2] US Wind will need ample lighting on the turbines for the safety of both aircraft and vessels.US Wind claims the aircraft lights would be “motion activated” rather than permanently lit at night, yet this sounds very risky. It is far more likely that, if approved at all in other respects, the FAA would require constant lighting, resulting in constant visual detriment to viewers on shore and permanent disruption of the natural beauty of the area, both day and night. [3] The construction phase of the proposed 3Rs Road Delaware landfall (and even the alternative Towers Road (DE) landfall) would have an adverse effect on residents of nearby communities and users of the State Park facilities, even if work is suspended during the summer season. The area is used all year and some residents are year-round. Again, it should be emphasized that these detriments will be suffered exclusively by Delaware residents, for the benefit of a public-private Maryland project. [4] US Wind’s claims that the project would bring any significant economic benefits to Delaware in terms of employment or tourism are unsupported by evidence, and seem very unlikely. Construction employment would be temporary at best. The economic detriment of persons not wanting to vacation in a heavy construction zone, and subsequently on beaches with permanently impaired views from turbines seems certain and will create a permanent blow to tourism and quality of life. BOEM should not issue a final EIS until a new study is conducted to determine the potential economic costs of lost tourism and recreation.	[1] Thank you for your comment. [2] The FAA has approved, and the applicant has committed to voluntarily implementing the Aircraft Detection Lighting System (ADLS) described in Section 3.6.8 and throughout the Final EIS. The Final EIS considered the commenter's input when determining the impact rating for recreation and tourism, as well as employment and economics. A new survey-based study would not be able to resolve the inherent incremental uncertainty regarding impacts that arise at this stage of the project. BOEM used the best available information in the EIS. [3] Section 3.6.8.5 of the Final EIS describes the Project's impacts on recreation and tourism at 3R's Beach. Section 3.6.8.6 addresses alternative onshore cable routes, including the Towers Road site. [4] BOEM acknowledges the commenter's points in the EIS and considered them when developing the impact conclusions related to recreation and tourism. However, a new survey-based study would not be able to resolve the inherent incremental uncertainty regarding impacts that arises at this stage of the project. BOEM used the best available information in the EIS.

Comment No	Comment	Response
FDMS_0819_002	[1] US Wind has not done an economic study to specifically identify the impact that the now 18MW turbines would have on either the tourism economy or the Real Estate values in Ocean City. Why has this not been done? Why has there not been a survey done that included oceanfront property owners or visitors that actually purchased or rented vacation properties on our oceanfront? Why has there not been a study done to determine if potential real estate investors, or recreational visitors, would avoid Ocean City and seek out other beachfront destinations where turbines were not the dominant feature of the ocean scape? None of these concerns have been addressed. [2] There was a broad, unsubstantiated assumption made that “some users would seek out the project as a tourism attraction” yet there was no evidence, or examples, included to back up this statement. There is also no evidence, or study, included to show how this would offset any losses projected from today’s already vibrant tourism industry. Why has this study not been done? [3] Why does this have to happen? Turbines off the coast of Virginia and North Carolina are 25 miles off shore. The State of Maryland has passed both the Power Act and the Clean Energy Act that will both require additional wind farms that will be located in lease areas further off shore. Obviously, this can be done. The current lease area for the US Wind project was established by BOEM when the turbines were 6MW’s and 574 ft tall. The turbines now proposed by US Wind are 18MW’s and 938 ft tall. Why hasn’t this disparity been taken into consideration in the draft Environmental Impact Statement when BOEM is already in the process of identifying lease areas further off the Maryland Coast? Shouldn’t this significant change in the size of today’s turbines play a role in determining where all lease areas should be located today? Isn’t distance the missing factor in this equation?	[1] BOEM acknowledges the commenter's points in the EIS and considered them when developing the impact conclusions related to recreation and tourism. However, a new survey-based study would not be able to resolve the inherent incremental uncertainty regarding impacts that arises at this stage of the project. BOEM used the best available information in the EIS. [2] Section 3.6.8.3 of the Final EIS has been updated to include additional information on WTGs as potential attractions based upon studies cited in the Final EIS. [3] The Lessee can only propose WTG sites within their lease area, which extends approximately 23 nautical miles (27 statute miles) from shore at the farthest point. Analyses of turbine installation outside of the identified lease area does not meet BOEM’s Purpose and Need. Under the no action alternative (Alternative A), BOEM would disapprove the COP and the Project described in the COP would not be built in the lease area.
FDMS_0831_001	Against off ocean city Md wind mills! The NC study shows 54 percent of vacation goers would NOT rent at a beach were turbines could be seen. We can’t allow 1/2 or more of MD tourism go to NJ or VA. Don’t wreck our tourism, beauty and economy. https://news.ncsu.edu/2016/04/taylor-coast-2016/?fbclid=IwAR1jzFMyR0mVEkXWOfJXXetyd2fWIGzAKDLU41AxgLmpGsfiB-DGaiploFk_aem_AWSeINLyp21DiCna8itgNz29S12dRI-bXWWM5hm0S0HBydSiMgcONKfTChRJY6r-Ro0&mibextid=Zxz2cZ	The article cited refers to research published in 2017 by the North Carolina State University, Center for Environmental and Resource Economic Policy. The 2017 paper is discussed in Final EIS Section 3.6.8.3 (cited as Lutzeyer et al.2017). Final EIS Sections 3.6.8 has been updated to include additional detail on the findings from this study.
FDMS_0855_005	[1] Delaware & Maryland coasts have a wide range of visual characteristics, with communities and landscapes ranging from cities to small towns, suburbs, rural areas, and wildlife refuges and parks. These coastal areas have been extensively developed for water-based recreation and tourism. The scenic value weighs in heavily to the identity, attraction, and economic potential of the coastal communities. BOEM has funded studies to assess the change to the economic value of selected areas in Delaware with the introduction of medium-sized turbines. This study (https://www.semanticscholar.org/paper/Atlantic-Offshore-Wind-Energy-Development%3A-ValuesParsons--Firestone/91b0ede146b8701cb44d72c58f09b29533df3cdf) showed tourism trips may be reduced by 24% or more, resulting in billions in economic losses and lower property values. However, the DEIS did not reference a 2017 visual preference study conducted by NC State University (Lutzeyer et al.2017) that evaluated the impact of offshore wind facilities on vacation rental prices where 38% of beach renters would likely not come back to a beach with daytime visible turbines regardless of the distance in the viewshed. This Lutzeyer et al.2017 study confirms visible turbines in the proposed project will have a major impact on tourism and these data should not be ignored. [2] Per DT Stevenson, Caesar Rodney Inst.(CR Inst), 10/23/23 comment, I agree with the CR Inst. that a new study is needed that focuses on the economic impact of taller turbines on tourism similar to the NC State study. A probable significant economic impact to these 2 state coastlines warrants serious consideration to weigh in this prominent effect and seriously reconsider the US Wind project in total.	[1] The Final EIS cites the 2017 study (Lutzeyer et al.2017) in Section 3.6.8.3. The Final EIS includes additional details on the findings from this study in Section 3.6.8.3 and 3.6.8.5. [2] BOEM acknowledges the commenter's points in the EIS and considered them when developing the impact conclusions related to recreation and tourism. However, a new survey-based study would not be able to resolve the inherent incremental uncertainty regarding impacts that arises at this stage of the project. BOEM used the best available information in the EIS.
FDMS_0887_002	Concerned about the effect on the historic uses of our beach community. Transmission lines running under the ocean and beaches is not compatible with historic uses: watching the sunrise, swimming, bodysurfing, boarding, hunting, beachcombing, boating, surf fishing, bonfires, weddings, parasailing, sunbathing, treasure hunting, star gazing, yoga and other beach activities are historically the use of the beaches.	Section 3.6.8 of the Final EIS details impacts to recreation and tourism from the Proposed Project which range from negligible to moderate adverse and minor beneficial depending on the resource and activity.US Wind has committed to measures to minimize impacts on recreation and tourism, which include developing a construction schedule to minimize activities at the landfall during the peak summer recreation and tourism season. Section 3.6.9 of the Final EIS details visual impacts, and specifically states that the Project’s cables would be buried and invisible; the only physical presence (after construction) would be a manhole in the 3Rs parking lot.

Comment No	Comment	Response
HANDIN-24_0019_002	Collateral damage, history has shown how tragic collateral damage has been done to people and our earth in the name of progress. The placement of hundred of high wind turbines will result in a drop in the tourism so important to the Maryland/Virginia coast. Also the fishing and boating industry will see a decline in economic force so important to this area. These independent industries are a direct result of visitors and resident feeling that although man has changed our everyday environment; the beach, the ocean, the horizon has existed untouched for eons	The potential adverse impacts to recreation and tourism are described in Section 3.6.8 of the EIS Potential adverse impacts to recreational fishing and boating are described in Section 3.6.8.3 and 3.6.8.5 of the EIS.
MAILIN_0005_174	The DEIS states: "BOEM conducted a qualitative analysis of impacts on recreational fisheries for the construction phases of offshore wind development in the Atlantic OCS region. Results showed the construction phase is expected to have a slightly negative to neutral impact on recreational fishing due to both direct exclusion of fishing activities and displacement of mobile target species by the construction noise (Kirkpatrick et al.2017). The impact of noise on recreation and tourism during construction would be adverse (i.e., intense and disruptive), but short term and localized." Additional details on this study should be included as part of the EIS narrative to assist the reader with understanding its approach and the conclusions drawn.	Section 3.6.8.3 of the Final EIS has been updated to include additional information on recreational fishery impacts from the cited study (Kirkpatrick et al.2017).
MAILIN_0005_175	The DEIS states: "If the purpose of the viewer's sightseeing excursion is to observe the mass and scale of the WTGs' offshore presence, then the increasing visual dominance would benefit the recreation/tourism experience as the viewer navigates toward the WTGs. However, if experiencing a vast pristine ocean condition is important to the viewer, then the increasing visual dominance may detract from the viewer's recreation/tourism experience." Refer to comments in sections below regarding the need to provide evidence that people would travel to the area for the purpose of sightseeing the windfarm.	Section 3.6.8.3 of the Final EIS has been updated to include additional information on WTGs as potential attractions based upon the studies cited in the Final EIS (Parsons and Firestone 2018 and Kirkpatrick 2017).
MAILIN_0005_176	"As a conservative measure, assuming that the change in tourism behavior due to visible WTGs is noticeable, and in consideration of potential increases in navigational complexity and navigational safety concerns within the Lease Area, Proposed Action O&M would have a long term, continuous, and moderate impact, as well as minor beneficial impacts on recreation and tourism." There appears to be no meaningful evidence that the visual presence of the turbines will attract tourism. This conclusion should be revisited and revised as appropriate.	Section 3.6.8.3 of the Final EIS has been updated to include additional information on WTGs as potential attractions based upon the studies cited in the Final EIS (Parsons and Firestone 2018 and Kirkpatrick 2017).
MAILIN_0005_191	The DEIS does not adequately evaluate the potential impacts of lighting and presence of structures on the economy and the tourism and recreation industry. For example, the Parsons and Firestone 2018 report cited in the DEIS states that wind projects located 15 miles offshore would result in 6.14 percent trip loss and wind projects located 10 miles offshore would result in 13.57 percent trip loss. It is important to note that the Parsons and Firestone 2018 report and its findings of impacts were based on the installation of 6 megawatt (MW) turbines with a height of 574 feet to the tip of blade. The Proposed Project calls for installing 18 MW turbines 938 feet tall to the tip of blade. Not with standing differences caused by atmospheric conditions and the curvature of the earth with increased distance, if a 6MW turbine were located 15 miles from a viewpoint, an 18 MW turbine would need to be located 24 miles from the coast for it to appear of a similar size from that same location .Alternately, an 18MW turbine placed at 11.5 miles from a viewpoint would equate to a 6MW turbine at about 7.0 mile from that same point. And an 18MW turbine at 14 miles distant would be roughly the same as a 6MW turbine located approximately 8.6 miles from the same viewpoint. Both distances noted above for the 6MW turbine are closer than the closest distance (10 miles) used in the Parsons and Firestone 2018 report to assess trip loss. As a result, the trip losses calculated in that report are expected to be less than those resulting from the Proposed Project. The DEIS should therefore provide a calculation of the trip loss specifically for the Proposed Project. To accurately capture impacts associated with the view of the proposed wind farm, the indirect economic impact of that trip loss should then be included in the EIS. No record of decision or alternative selection should be made until BOEM performs the necessary studies to accurately determine what trip Joss will be based on this specific project (quantity. size, and location of turbines) and what the direct and indirect economic impacts would be from that trip loss.	The Final EIS considered the commenter's input when determining the impact rating for recreation and tourism, as well as employment and economics. A new survey-based study would not be able to resolve the inherent incremental uncertainty regarding impacts that arise at this stage of the project. Similarly, using other methods to adjust the findings in the Parsons and Firestone report would provide a false sense of precision with which the impacts can be estimated at this time. BOEM used the best available information when estimating the potential impacts of the project on tourism and recreation, as well as employment and economics.

Comment No	Comment	Response
MAILIN_0005_193	ICF and BOEM developed a scorecard to identify areas on the Atlantic seacoast that are most likely to experience impacts to tourism and recreational economies from offshore wind development. The scorecard criteria are: Ocean recreation/tourism accounts for a large percentage of the location's tourism economy; Ocean recreation/tourism accounts for a large percentage of the location's marine economy; Tourism accounts for a large percentage of the location's economy; The location has a large number of establishments related to coastal/water recreation; The location has a high percentage of natural or historic/cultural areas; The location has significant development along the coast. Worcester County ranked in the Top 70 geographies on the Atlantic Coast for sensitivity to offshore wind development. ICF also identified Ocean City as a hotspot. "Hotspots are locations within a county with unique economic, social, or physical characteristics that distinguish them from the county to which they belong. Hotspots allowed us to assess local-level sensitivity to wind facility development, which might not be accurately represented, if captured at all, in the county-level analysis." Please provide an updated analysis of potential impacts on tourism and recreational economies using the ICF criteria. Source: 5228.pdf (boem.gov). No record of decision or alternative selection should be made until BOEM completes this analysis.	BOEM has added the findings of this study to the Final EIS. The Final EIS already includes various updated data regarding the scale of tourism and recreation in coastal areas. BOEM considered this data when estimating the impacts of the proposed action on recreation and tourism. It is not necessary to initiate a new BOEM study replicating the prior study in order to reasonably estimate impacts
MAILIN_0005_200	Regarding tourism generated by visitors travelling to the beach to view the windfarm: (a) Please provide documented evidence supporting the claim made that the project's development will increase eco-tourism from individuals looking to view the wind farm. (b) Please provide specific examples of projects in which there has been an increase in tourism from individuals looking to view the wind farm. Please also provide an estimate of the longevity of any increase in tourism due to interest in the wind farm. The Parsons and Firestone 2018 report cited in the DEIS estimates potential trip gain to a particular beach with a wind project (switching from a beach without a wind project to a beach with one) at 2.6 percent. Trip gains would be neutral for a region but positive or negative for certain beaches. The report states that trip gain would diminish as more wind projects are added to a region. The report also estimates "curiosity trips, " which would be special trips to a beach to see a wind project but notes that curiosity trips would diminish after the first wind project in a region. Curiosity trips are also limited as most visitors' curiosity will be sated after one trip.	Section 3.6.8.3 of the Final EIS has been updated to include additional information on WTGs as potential attractions based upon the studies cited in the Final EIS (Parsons and Firestone 2018 and Kirkpatrick 2017).
TRANS-24_0023_001	I have a home in Arnold, Maryland, and I have one here in Ocean Pines, Maryland. I'm the former president of the Assateague Coastal Trust, and I served for over two years as their president. I was six years on their board. The Ocean Pines Association is over -- I don't know if you're familiar with it -- and that's 8,500 homes. And I was on the Environmental Committee for ten years. I was the chairman for five. I wanted to talk to you because I'm shocked when I came here today. I've spoken to three people, and find that they have no knowledge of the North Carolina State University study on the economic impact of wind turbines on coastal tourism. That study was published in the spring of 2016.People that I've spoken to are kind of shocked about the fact that they didn't know this information, or they should be. Maybe that's wishful thinking. In essence, that study, which was conducted by the economics department, not by the environmental departments of these other studies like Delaware. These are people who really want to understand what the economics of it was. They didn't have their thumb on the scale with an environmental approach. They went and spent $20,000 to print up a thousand perfect renditions of the wind turbines. They sent them out to 1,000 people. To get that mailing you had to have been a visitor on the North Carolina shore for the last five years. So it really qualified it. 784 responded to reply. The primary conclusion was, the biggest group, that 54.6 percent of them said that they would never return to the North Carolina shore, never return if they can see any wind turbines. Regardless of the discount, they were offered a discount to come back because it was an economic study. So they wanted to see where the economic buttons were. And the fact that the people here in this room, the management is not aware of the study is shockingly absurd, and what faith I had in government is really going away. I mean, that people here-	The Final EIS cites the 2017 Lutzeyer study in Section 3.6.8.3. Additional details from the Lutzeyer study have been added to the Final EIS in Section 3.6.8.3.

Comment No	Comment	Response
MAILIN_0036_001	The draft DEIS does not fully evaluate the likely significant negative impact the proposed project will have on Ocean City's economy and its tourism and recreation industry. The DEIS acknowledges that the proposed project with have "long term, localized and major" impacts on Ocean City, yet the DEIS fails to quantify in any way the economic impacts to Ocean City's tourism as a result of the major disruption of Ocean City's historic viewshed. BOEM should not make any record of decision or alternative selection until it completes the critical analysis of the impact that US Wind's proposed project will have on Ocean City's economy and tourism industry. The DEIS relies on a University of Delaware study from 2018 for the contention that WTGs that are visible more than 15 miles from the viewer will have negligible impacts on businesses dependent on tourism and recreation activity. (DEIS 3-354). The study, titled "Atlantic Offshore Wind Energy Development: Values and Implications for Recreation and Tourism," was funded by BOEM. The study found that "the closer the wind power project was to shore, the greater the share of persons reporting that their experienced would be worsened." The study found that the primary reason given for the worsening of a beach experience was a visual disruption of the seascape. The DEIS also-relies on a North Carolina State University visual preference study from 2017 regarding the impact of offshore wind facilities on vacation rental prices.1 (DEIS 3-427). The DEIS omits that this study found that 54% of visitors who rented the same house for at least five years would not rent it again if there were visible offshore wind turbines, no matter the discount on the rental price. The study further found that negative effects of wind farms are primarily attributable to proximity of the fan to shore (perceived size of the turbines), not the number of turbines. The closer the turbines are to shore the more of a detrimental effect Ocean City expects the project to have on tourism and Ocean City's economy. But the DEIS fails to take into account that the simulations shown in these studies depicted turbines that were significantly smaller than those being proposed by US Wind. In the University of Delaware study, the simulations shown to those surveyed were just 6 MW turbines, with a height of 574 feet to the tip of blade, which are 40% smaller than the 18 MW, 938 feet tall turbines proposed by US Wind. The University of Delaware study states that the wind projects located 15 miles offshore would result in 6.14% trip loss and those 10 miles offshore would result in 13.57% trip loss. However, this was based on the installation of 6 M\V turbines. An 18 MW turbine would need to be located 24 miles from the coast to appear to be a similar size to a 6 MW turbine located 15 miles from shore. The trip losses reflected in the University of Delaware survey are therefore likely much less than what would be expected with US Wind's project. Ocean City requests that this be taken into account in the DEIS. The DEIS should include an evaluation of the potential impacts on Ocean City's economy and tourism and recreation industry based on the proposed size, quantity, and location of US Winds turbines, including, but not limited to, the likely trip loss and the direct and economic impact of such a decline in tourism. Additionally; BOEM should perform the necessary studies and analyses to properly quantify and evaluate the impact that US Wind's project will have on property values in Ocean City. The public should be permitted the opportunity to comment on this evaluation of the trip losses, property values, and economic impact.	The Final EIS considered the commenter's input when determining the impact rating for recreation and tourism, as well as employment and economics. The Final EIS has been revised to include some of the information provided by this comment; however, a new survey-based study would not be able to resolve the inherent incremental uncertainty regarding impacts that arises at this stage of the project. Similarly, using other methods to quantify the adverse impacts associated with the project would overstate the precision with which those impacts can be estimated.

O.7.25 Visual Resources

Table O.7-28. Responses Substantive – Visual Resources

Comment No	Comment	Response
FDMS_0015_001	First I am in favor of alternative clean energy sources, however the proposed impact of placement of a wind farm offshore ocean city is of concern related to visual impacts that I don't think have been taken into consideration Specifically I viewed the simulation video of turbine visibility but it was related to ground level or beach viewing but didn't consider that many OC owners or rental units are located in the north end high rises which would likely experience a significant increase in viewable blade area and support posts. As such this impact should be evaluated as well to be fair ! Second if the array is to provide power to the Delaware/ utilities power line connections/ substations, why is 90 % of the wind farm below the MD/ Del state line so the main visual impact would be on the Maryland resort/ vacation housing vs impacting equally the Delaware Resorts ? . Was it considered if moved further north, the wind farm could be moved another 1/2 - 1 mile further off shore reducing visual impact further, without need to increase power lines lengths (cost savings related to moving further out) from land to the turbines. Ex if can be moved 4 miles north (seafloor acceptable) and one mile further out it would save about 3 miles of connection lines to the turbines which should be a significant cost savings as well as decreased environmental impact from mining metals to construct those lead lines and materials used to insulate 3 miles length etc.	Photo simulations are tools to help assess visual impacts. The visual impact to views seen from Key Observation Points (KOP) 6 and 18 were determined to be major, which would be the same result from elevated viewing locations near these KOPs. The orientation and geographic extent of an elevated view would indeed be greater from an elevated position (as stated in Section H.5.2.3 of Final EIS Appendix H). It is often difficult to gain permission to access private property to collect data and conduct the visual-impact assessments. This typically requires multiple visits to the private property and owners are often resistant, although special arrangements have been worked out in extenuating circumstances. Key observation points (KOP) and simulations are typically from places with unrestricted public access. The lease that makes up the Maryland Offshore Wind project was executed in December of 2014 after a nearly four-year period of analysis by the Bureau of Ocean Energy Management with input from both the States of Maryland and Delaware. In 2009 and 2010, the States of Delaware and Maryland, respectively, created Renewable Energy Task Forces to analyze the offshore renewable leasing opportunities for their respective state. At the time, the two states pursued the process separately, resulting in separate efforts to lease offshore Maryland. This resulted in the lease area that makes up the Maryland Offshore Wind project. After the lease was executed, the Lessee, US Wind, identified the Delmarva Power and Light (DPL) Substation adjacent to the NRG Indian River Power Plant near Millsboro, Delaware, as the preferred interconnection point to the regional electric grid. This point of interconnection leads to the Lessee's proposal of cable landfall locations in the State of Delaware, which analyzed in the Final EIS. The Lessee can only propose WTG sites within their lease area, which extends approximately 23 nautical miles (27 statute miles) from shore at the farthest point. Analyses of turbine installation outside of the identified lease area does not meet BOEM's Purpose and Need. Under the no action alternative (Alternative A), BOEM would disapprove the COP and the Project described in the COP would not be built in the lease area.
FDMS_0078_004	BOEM states in 3.6.9, "The daytime presence of offshore wind turbines, as well as their nighttime lighting, would change the perception of ocean scenes from natural and undeveloped to a developed wind energy environment and would be an unavoidable presence in views from the coastline. Say goodbye to the local and national treasure of pristine ocean views. The impact would be major. To mitigate the nighttime viewshed impact of aircraft warning lights, US Wind states on page 23 of Volume 2 of its COP it will use Aircraft Detection Lighting Systems (ADLS) if "commercially feasible." These systems only turn on the aviation warning lights if aircraft are in the area.US Wind does not define the terms or conditions of what would make the systems commercially feasible. Without a solid commitment to using ADLS, the EIS should assume the system will not be used and define the nighttime impact on the viewshed as major and/or specify the use of ADLS as mandatory.	Thank you for your comment. Section 3.6.9 of the Final EIS provides an assessment of the Project's visual impact and identifies major impacts for coastal areas. As stated in Section 3.6.9 and in multiple other locations throughout the Final EIS, the Project has committed to voluntarily implementing an Aircraft Detection Lighting System (ADLS) that only activates aviation hazard lighting when aircraft approach the wind farm. This was estimated to occur during approximately 0.1 percent of annual nighttime hours.
FDMS_0088_001	The current documents show several KOP, Key Observation Points. However, the town of Fenwick Island, Delaware has no KOP to represent the viewshed impact. Unlike the other KOP areas, Fenwick Island's coastline has no commercial entities along the beach, no hotels, restaurants, etc. It is solely residential. The viewshed impact will directly affect residential property owners, yet their view has not been studied or included in the impact documents. Please consider adding a KOP within the town of Fenwick Island. It is approximately from mile 0 to mile 1.25 once you cross the state line from Maryland to Delaware.	Thank you for your comment. KOPs are selected and photo simulations are prepared to assist as a tool to evaluate visual impacts. A common practice is to use photo simulations to help determine impacts at other locations that are similar in orientation to the proposed offshore wind energy project. The southern end of Fenwick Island at the state boundary between Delaware and Maryland is approximately 3.5 miles north of KOP 6 (84th Street Beach), for which a photo-simulation was produced. The KOP 6 photo simulation represents a similar level of visual change to the offshore view that would be experienced in this proximity of Fenwick Island. The closest wind turbine to the shoreline in this area of Fenwick Island is approximately the same distance away as the closest wind turbine in the KOP 6 photo simulation. The extent to which the wind turbines occupy the ocean horizon towards the north end of the view as seen from this area of Fenwick Island would be less than what is shown in the KOP 6 simulation and would gradually diminish as viewers move further to the north.

Comment No	Comment	Response
FDMS_0099_001	Could you also supply an image of what the turbines will look like at night from shore along with how deep the lights will be seen below the oceans surface?	Nighttime simulations have been prepared, posted on BOEM's project website, and added to the Final EIS, Appendix H.
FDMS_0114_004	[1] Existing surveys on public reaction to turbines used to determine economic impacts were done using visualizations of 579' to 600' tall turbines. The current project may use turbines 938' to 1,050' tall. Therefore, the Construction and Operations Plan and the DEIS failed to meet Draft Guidance Regarding the Use of a Project Design Envelope in a Construction and Operations Plan (BOEM 2018), p.5, and did not present different "maximum design scenarios" for the visual impacts of the largest turbine proposed by the project provides*. **New studies must be done before approvals are granted.** (* Draft Guidance Regarding the Use of a Project Design Envelope in a Construction and Operations Plan (BOEM, January 12, 2018), p.5, states: "Note that there could be multiple "maximum design scenarios" for certain resources. For example, the size of turbines would affect the density of turbines in the wind facility and the distance those turbines are visible from shore. Accordingly, there could be two different "maximum design scenarios" for visual impacts of the project. A larger turbine would be more visible from a greater distance; therefore, the larger turbines present the "maximum design scenario" in that respect. However, because of the greater turbine density required for smaller turbines, more turbines could be visible from shore, presenting a different kind of "maximum design scenario." Therefore, it may be necessary for a Lessee to prepare a visual assessment for each end of its range of potential turbine sizes.") [2] The DEIS Visual Impact Assessment states that "the visual effects of the turbines will be partially mitigated by environmental and atmospheric factors." This DEIS statement makes no sense considering that Ocean City averages 204 days of sunny days. [3] The project will undoubtedly have a major visual impact, and the first line of turbines ranging 938' to 1,050' tall must be located in 40+ miles from the shore*. **Current visual impact assessment for turbines ranging 938' to 1,050' tall must be done.** (* Germany has built several wind farms 50-70 miles offshore. China (world leader in building wind farms (2.5 times more operating wind power capacity than the US) is building wind farms at a distance of 47-115 miles from the coast. Even Renexia S.p.A, the owner of US Wind Farms, is trying to get permits for the MedWin offshore wind farm at 50 miles off the Trapani shore (Sicily, Italy).Why in the US it is proposed to install hundreds of 1050 ft high turbines at a distance of 10 miles from the coast just because someone thoughtlessly and unprofessionally decided this 10 years ago?)	[1] The Final EIS evaluates the visual impacts of the largest (tallest) WTGs that could be built within the PDE included in the applicant's COP, at each buildable position within the Lease Area (except for the positions designated for offshore substations). These analyses represent the maximum visual impacts of the Project; any smaller WTG would have incrementally smaller impacts. There is no alternative for this Project that involves a larger number of shorter WTGs. [2] The Final EIS has been revised to clarify how environmental and atmospheric factors affect impacts. BOEM notes that factors such as haze can significantly reduce visibility at distance, even on sunny days. [3] The Lessee can only propose WTG sites within their lease area, which extends approximately 23 nautical miles (27 statute miles) from shore at the farthest point. Analyses of turbine installation outside of the identified lease area does not meet BOEM's Purpose and Need. Under the no action alternative (Alternative A), BOEM would disapprove the COP and the Project described in the COP would not be built in the lease area.
FDMS_0383_002	At the May 31st meeting in Bethany Beach Delaware, Ron Larson from US Wind stated the wind turbines will not cause light pollution because they will be equipped with an artificial detection lighting system. As of that meeting the FAA has not approved that system. Is it approved now and what guarantees it will be used so the so the entire East Coast won't see flashing ref lights all day and night? It the turbines are higher than 699 feet they require more lights. How many more lights? FAA jurisdiction is 12 nautical miles and they recommend lights to be led which is standard in the industry. These proposed turbines are going to be placed at 10 nautical miles so lights will be present 12 nautical miles and in per the FAA guidelines. How will the Oceanfront property owners be compensated for their loss of property value and rental income. What guarantees you will use the artificial detection lighting system and how will we be compensated if you do not?	BOEM did not host a public meeting in Bethany Beach during May, 2023. All opinions on impacts are speculative until BOEM completes their Environmental Impact Statement. BOEM's assessment of visual impacts are described in Appendix H Assessment of Seascape, Landscape, and Visual Impacts (SLVIA), and Section 3 Section 3.6.9 of the Final EIS. Photo simulations were produced as a tool to assist with the SLVIA, as well as to communicate the approximated size and scale of visual change to the public, and for use in project alternatives development, and project decision-making. The simulations may be viewed or downloaded at State Activities Maryland Offshore Wind . As stated in Section 3.6.9 and in multiple other locations throughout the Final EIS, the Project has committed to voluntarily implementing an Aircraft Detection Lighting System (ADLS) that only activates aviation hazard lighting when aircraft approach the wind farm. This was estimated to occur during approximately 0.1 percent of annual nighttime hours.

Comment No	Comment	Response
FDMS_0579_002	BOEM should require US Wind to move its wind turbines at least 30 miles offshore, or limit the height of its turbines, to ensure that the wind turbines are not visible from the shore. BOEM states in 3.6.9, “The daytime presence of offshore wind turbines, as well as their nighttime lighting, would change the perception of ocean scenes from natural and undeveloped to a developed wind energy environment and would be an unavoidable presence in views from the coastline.” Tower Shores owners bought their homes to be near the ocean and pristine ocean views. The impact of these projects will be detrimental to our enjoyment of our private beach and our property values. To mitigate the nighttime viewshed impact of aircraft warning lights, US Wind states on page 23 of Volume 2 of its COP it will use Aircraft Detection Lighting Systems (ADLS) if “commercially feasible.” These systems only turn on the aviation warning lights if aircraft are in the area.US Wind does not define the terms or conditions of what would make the systems commercially feasible. Without a solid commitment to using ADLS, the EIS should assume the system will not be used and define the nighttime impact on the viewshed as major and/or specify the use of ADLS as mandatory. Regarding the height of the turbines, when the lease area was first proposed, the height of the wind turbines was estimated to be 300-400’.A few years ago, US Wind formally proposed using 600’ tall turbines. More recently, US Wind raised that height to 853’ tall. Now, its proposal states the turbines will be at least 938’ tall. Worse, we do not know if this is the end of the height increases.US Wind says in its proposal that it will move to even bigger turbines if available, and another project (Kitty Hawk, NC) is already using 1,042’ tall turbines. Each increase in height diminishes the visual beauty of the Atlantic Ocean that so many of us, homeowners, renters, and visitors, enjoy, and can impact tourism and the economic value to our community in Delaware. BOEM has participated in other wind turbine projects being pushed further offshore (Kitty Hawk, Hampton, and Virginia), and it should do so again here. As US Wind has unilaterally decided to double, and perhaps triple, the height of its turbines, they should likewise have to move to a new lease area further from shore to lessen the visible impact on the beach communities.	Thank you for your comment. Appendix H of the Final EIS provides a detailed analysis of the visual impacts to the seascape, landscape, and to viewers and views from key observation points (KOP). Photo simulations were produced from 12 different KOPs. In addition, a video simulation showing variation in visibility through the course of the day and into the night, one of the 12 KOPs, and cumulative effects simulations from 4 of the 12 KOPs were produced. The analysis and simulations may be viewed at State Activities Maryland Offshore Wind Final EIS Sections 3.6.3 (Demographics, Employment, and Economics) and 3.6.8 (Recreation and Tourism) discuss the economic and tourism impacts raised by the commenter. As stated in Section 3.6.9 and in multiple other locations throughout the Final EIS, the Project has committed to voluntarily implementing an Aircraft Detection Lighting System (ADLS) that only activates aviation hazard lighting when aircraft approach the wind farm. This was estimated to occur during approximately 0.1 percent of annual nighttime hours. The Lessee can only propose WTG sites within their lease area, which extends approximately 23 nautical miles (27 statute miles) from shore at the farthest point. Under the no action alternative (Alternative A), BOEM would disapprove the COP and the Project described in the COP would not be built in the lease area.
FDMS_0771_003	[1] THE PROJECT’S PROPOSAL FOR UP TO 121 TURBINES IN EXCESS OF 930 FEET TALL, ONLY 15 MILES FROM SHORE IS NOT APPROPRIATE IN THIS VALUABLE AND UNIQUE NATURAL AND RECREATIONAL AREA, NOR IS SUCH HEIGHT STANDARD FOR SUCH PROJECTS. When the lease area was first proposed, the height of the wind turbines was estimated to be 300-400’. A few years ago, US Wind formally proposed using 600’ tall turbines. More recently, US Wind raised that height to 853’ tall. Now, its proposal requests approval that the turbines may be at least 938’ tall.US Wind says in its proposal that it will move to even bigger turbines if available. [2] Each increase in height and proximity to shore diminishes the visual beauty of the Atlantic Ocean that so many of us, homeowners, renters and visitors, enjoy, and will negatively impact tourism and the economic value to our community in Delaware. [3] The requested distance and height are out of line for similar projects. Other wind turbine projects being pushed much further offshore (Kitty Hawk, Hampton, and Virginia). While US Wind may be contractually bound by the lease area, since it has unilaterally decided to double the height of its turbines, the Project should—if not outright rejected—be ordered as a condition, to limit its turbine placement to that part of the lease area furthest from shore, or—preferably--the Project should have to await creation of a new lease area further from shore in order to lessen the visible impact on the area. In addition, the maximum height of the turbines should be capped well below the 900+ foot level sought by US Wind, potentially at the originally proposed 600’. [4] While not directly before BOEM at present, it is known that Orsted/Skipjack plans to shortly introduce another major Wind Project, even larger than US Wind’s, which will directly face the Delaware beaches and further impact views, visibility and property values. These two projects taken together have the potential to create a wind farm “blight” area along the most valuable, ecologically sensitive and beautiful parts of the Atlantic coastline, which is unique and irreplaceable.	[1] The Final EIS evaluates the visual impacts of the largest (tallest) WTGs that could be built within the PDE included in the applicant's COP, at each buildable position within the Lease Area (except for the positions designated for offshore substations). Any proposal to use taller WTGs would require a COP amendment and a revised NEPA analysis, including opportunities for public review and comment. [2] Final EIS Sections 3.6.3 (Demographics, Employment, and Economics) and 3.6.8 (Recreation and Tourism) discuss the impacts raised by the commenter. [3] The Lessee can only propose WTG sites within their lease area, which extends approximately 23 nautical miles (27 statute miles) from shore at the farthest point. Analyses of turbine installation outside of the identified lease area does not meet BOEM’s Purpose and Need. Under the no action alternative (Alternative A), BOEM would disapprove the COP and the Project described in the COP would not be built in the lease area. [4] Final EIS Section 3.6.9 and Appendix H provide an assessment of the Project's visual impacts, as well as the cumulative impacts of the Project in combination with other proposed offshore wind projects. Photo-simulations of cumulative effects may be downloaded from the BOEM project website under the Visual Impact Assessment tab at Renewable Energy Maryland Offshore Wind.
FDMS_0887_003	Concerned about our historic beach sunrise which will be impacted by the construction of the series of towering turbines and substations along the horizon. We in Fenwick Island feel very strongly about the importance of preserving the unobstructed view of the sunrise and moonrise over the Atlantic Ocean. Please explain how the cultural, historic, and aesthetic value of an unobstructed sunrise over the Atlantic Ocean is being considered within the Visual Area of Potential Effects.	Section 3.6.9 and Appendix H of the Final EIS evaluate the daytime and nighttime impacts that the visible Proposed Action structures would have on the seascape, landscape, and open ocean character and viewer experience. These sections found that ocean-facing views along the Maryland and Delaware shorelines would experience major adverse visual impacts. Appendix H of the Final EIS evaluates the daytime and nighttime impacts that the visible Proposed Action structures would have on the seascape, landscape, and open ocean character and viewer experience.

Comment No	Comment	Response
HANDIN-26_0006_001	At a presentation by US wind in May 2023 at Bethany Beach, the presenters display visual impacts that clearly showed the turbines would be visible on at sunrise and sunset. Now BOEM show the visual impacts being constant throughout the day. Who is correct? There is a substantial credibility gap in public information here? Viewshed Impact - Assateague Island, OCMD, Fenwick Island, Bethany Beach and DSSP would have much cluttered views of the seascape under the current plan. Has enough study been done on viewshed impacts on residents and tourists and property values	BOEM did not host a public meeting in Bethany Beach during May, 2023. BOEM's assessment of visual impacts are described in Appendix H Assessment of Seascape, Landscape, and Visual Impacts (SLVIA), and Section 3 Section 3.6.9 of the Final EIS. Photo simulations were produced to assist with the SLVIA and may be viewed or downloaded at Renewable Energy Maryland Offshore Wind. Visibility of the wind turbines will vary through the course of the day from sunrise to sunset and into the nighttime hours depending on the orientation of the viewer (distance, angle of view, elevation, etc.) and environmental influences (atmospheric conditions, sun angle, wind direction/blade orientation, etc.). BOEM has cited relevant studies and has used the best available information to estimate these economic impacts.
HANDIN-26_0010_002	Why is there no **KOP** for Fenwick Island. We are primarily residential community with extensive beach use? Please Consider	KOPs are selected and photo simulations are prepared to assist as a tool to evaluate visual impacts. A common practice is to use photo simulations to help determine impacts at other locations that are similar in orientation to the proposed offshore wind energy project. The southern end of Fenwick Island at the state boundary between Delaware and Maryland is approximately 3.5 miles north of KOP 6 (84th Street Beach), for which a photo-simulation was produced. The KOP 6 photo simulation represents a similar level of visual change to the offshore view that would be experienced in this proximity of Fenwick Island. The closest wind turbine to the shoreline in this area of Fenwick Island is approximately the same distance away as the closest wind turbine in the KOP 6 photo simulation. The extent to which the wind turbines occupy the ocean horizon towards the north end of the view as seen from this area of Fenwick Island would be less than what is shown in the KOP 6 simulation and would gradually diminish as viewers move further to the north.
MAILIN_0005_180	Given the Assessment of Seascape, Landscape, and Visual Impacts of Offshore Wind Developments on the Outer Continental Shelf of the United States (Sullivan, 2021) was developed for the purpose of providing the methodology to use when assessing visual impacts, the DEIS should identify more specifically the degree to which it has been able to apply the methodology prepared by Sullivan (2021) based on the information provided in the COP VIA and whether or not the limitations of the different process followed has a bearing on the findings of the DEIS.	Appendix H of the Final EIS was developed in accordance with BOEM 2021-032 Assessment of Seascape, Landscape, and Visual Impacts of Offshore Wind Energy Developments on the Outer Continental Shelf of the United States (SLVIA). The SLVIA had not been released until after the authoring of COP VIA began. While the format of the COP VIA deviates from the SLVIA Guidance, it was determined that the information needed to prepare the Final EIS SLVIA (Appendix H) was available in the COP. The Final EIS includes an independent assessment of visual impact using the data collected for the COP VIA.As a result, some impact levels in the Final EIS SLVIA are different from those in the COP VIA.
MAILIN_0005_181	The DEIS should be consistent with and draw on the methodology and assessment included in Appendix H of the DEIS which follows the Sullivan 2021 methodology to a greater extent than is set out in the DEIS, which appears to be derived more from the VIA.	The analyses in Section 3.6.9 of the Final EIS draw from and summarize the more detailed findings in Appendix H, all of which are based on the Sullivan 2021 methodology.
MAILIN_0005_182	Appendix A: Visual Simulations of the VIA has not been published. Appendix H of the DEIS provides some Visual Simulations but not all of those referenced in Appendix A of the VIA and not those associated with Alternative D, or the KOP noted as being from a hypothetical location in the Atlantic Ocean, as reviewed in Appendix H.As a key resource and reference material for the DEIS and VIA, Appendix A of the VIA should be provided to allow the reader to easily reference the material and fully understand the information presented in the DEIS.	All visual simulations for the Project are available on BOEM's Project-specific web page (Renewable Energy Maryland Offshore Wind), under the Visual Impact Assessment tab.

Comment No	Comment	Response
MAILIN_0005_183	Notably the KOPs (6 and 18) located in Ocean City are at beach and boardwalk level and not from elevated locations, which are prevalent along the Ocean City coastline. These elevated locations generally consist of hotels and their pool/recreational decks, which have been located to maximize ocean views and as such are of substantial importance for the economy of Ocean City. There is also the five story U.S. Coast Guard Tower. Sullivan (2021) notes on page 41 that "Photo simulations must depict important views. The views depicted in photo simulations must include views important to stakeholders, based on stakeholder consultation." Whilst it is not necessarily standard practice to have KOPs located in commercial/private buildings, the difference that an elevated location along the Ocean City coast makes to the views of the Proposed Development should be recognized and more explicitly described and illustrated. Analysis carried out by the reviewer has ascertained that if the tallest buildings allow visibility from an elevation of approximately 1 00m above sea level then almost all the turbines and all the Offshore Substation Platforms would be seen to their full extent. The turbines would generally be seen within and surrounded by the ocean rather than being visible on or partially beyond the horizon. It is requested that some form of visualization be presented to illustrate visibility from a higher vantage point as represented by one of the tall hotels along the Ocean City coast, as it is considered that this would be more extreme than is demonstrated by KOPs 6 or 18.This could be a computer simulation of the view from a taller building along the Ocean City coast or a visual simulation based on photography taken at a suitably high vantage point. No record of decision or alternative selection should be made until BOEM receives and allows the public to comment on these simulations.	Photo simulations are tools to help assess visual impacts. The visual impact to views seen from Key Observation Points (KOP) 6 and 18 were determined to be major, which would be the same result from elevated viewing locations near these KOPs. The orientation and geographic extent of an elevated view would indeed be greater from an elevated position (as stated in Section H.5.2.3 of Final EIS Appendix H). It is often difficult to gain permission to access private property to collect data and conduct visual impact assessments. This typically requires multiple visits to the private property and owners are often resistant, although special arrangements have been worked out in extenuating circumstances. Key observation points (KOP) and simulations are typically from places with unrestricted public access.
MAILIN_0005_184	The findings of the visual impacts on the KOPs, which are used to represent more widespread visual impacts should be included in the DEIS in written summary along with how these then relate to the wider visual study area of the landward area. For example, in the case of Ocean City the KOPs indicate that there would be major visual impacts along the beaches, boardwalks and commercial/residential development along its roughly nine mile coastline with some of these impacts extending slightly inland (particularly between approximately 15th Street and 35th Street, where there are tall buildings, channeled views along streets and views over the Ocean City coastal development in the approach to Ocean City from roads/bridges. In addition, there would be visibility of the turbines, including nacelles, over the coastal development of Ocean City from the roads/bridges approaching Ocean City over Isle of Wight Bay from the west. Such juxtaposition of rotating turbines blades seen above the coastal development should be recognized within the VIA.	Final EIS Appendix H has been updated to include additional detail in the description of the extent of major impacts, as well as a map showing the theoretical extent of visibility of WTG features. Section 3.6.9 necessarily summarizes the more detailed analysis in Appendix H.
MAILIN_0005_185	Section H.5.5. Conclusions are considered vague, identifying only that there would be a range of impacts across the study area from negligible to major across identified LSZs and minor to major for KOPs. This does not identify the geographical extent to which major or other impact levels would arise within the visual study area following the assessment of individual LSZs and representative KOPs. A useful summary would include the identification of the extent of the coastal LSZs and KOPs where Major and Moderate impacts have been identified.	Final EIS Appendix H has been updated to include additional detail in the description of the extent of major impacts, as well as a map showing the theoretical extent of visibility of WTG features. Section H.5.5 is a concluding summary of the substantially more detailed information provided in the body of Appendix H.

Comment No	Comment	Response
MAILIN_0005_186	The visual simulations presented in Appendix H for the KOPs are not considered to suitably represent the likely impact of the wind farm on these views. It is suggested in the DEIS that for each of the KOPs the 'Panorama view with simulation' images are printed (or viewed digitally at the correct scale) by viewing at a distance of seven (7) inches. Such distance is considered impractical and uncomfortable with the images themselves lacking suitable detail. Therefore, for the majority of people, these images will under-represent the actual impact on the views as they are likely to view the images from a more comfortable viewing distance (greater than 7 inches). Please provide images with suitable detail that can be viewed from a greater distance, to allow the reader the ability to fully understand the visual impacts. No record of decision or alternative selection should be made until BOEM receives and a/lows the public to comment on these corrected simulations.	Visual simulations are available on BOEM's website at Renewable Energy Maryland Offshore Wind and in Appendix H of the EIS. Photo simulations are presented in two formats: panoramic photo format, which approximates the human-field-of-view and single frame photo format taken with a 50 mm lens on a 35 mm full-frame camera, which represents the “normal” camera lens field-of-view. The panoramic photo format approximates the 124° human field-of-view and illustrates the horizontal breadth a person may see when standing at the location and looking in the direction the photo was taken. This photo informs the viewer how much horizontal span of view would be occupied by the project without moving the head from side to side. However, the panoramic photo simulation does not properly illustrate the vertical size and scale of the wind turbines and other offshore facilities associated with the wind energy development project. The single frame photo taken with a 50 mm lens on a 35 mm full-frame camera approximates the size and scale of the project’s offshore wind turbines and other associated offshore facilities at the photo-point location. However, the horizontal field-of-view in the single frame is considerably less than the 124° human field-of-view. BOEM recommends viewing both sets of photos in unison to fully understand the overall horizontal and vertical size and scale of the project represented in the photo simulations."
MAILIN_0005_187	For each KOP there are also larger scale single frame images that have a more comfortable viewing distance and a greater level of detail due to the larger image presented. However, these views do not include the full horizontal extent of the wind farm and therefore also under-represent the actual impact on the views. For KOP 6, over ¼ of the wind farm is missing from the single frame views. For KOP 18, on sheet 5, approximately 1/3 of the wind farm is missing and on sheet 6 approximately 1/5 of the wind farm is missing. Please provide images with suitable detail that can be viewed from a greater and more comfortable distance, to allow the reader the ability to fully understand the cumulative visual impacts of the project. No record of decision or alternative selection should be made until BOEM receives and allows the public to comment on these corrected simulations.	Photo simulations are presented in two formats: panoramic photo format, which approximates the human-field-of-view and single frame photo format taken with a 50 mm lens on a 35 mm full-frame camera, which represents the “normal” camera lens field-of-view. Each format set has a purpose. The panoramic photo format approximates the 124° human field-of-view and illustrates the horizontal breadth a person may see when standing at the location and looking in the direction the photo was taken. This photo informs the viewer how much horizontal span of view would be occupied by the project without moving the head from side to side. However, the panoramic photo simulation does not properly illustrate the vertical size and scale of the wind turbines and other offshore facilities associated with the wind energy development project. The single frame photo taken with a 50 mm lens on a 35 mm full-frame camera approximates the size and scale of the project’s offshore wind turbines and other associated offshore facilities at the photo-point location. However, the horizontal field-of-view in the single frame is considerably less than the 124° human field-of-view. BOEM recommends viewing both sets of photos in unison to fully understand the overall horizontal and vertical size and scale of the project represented in the photo simulations.
MAILIN_0005_188	Visual simulations should be provided for the KOPs to illustrate Alternative D.	Alternative D impacts are simulated from KOP 6: 84th Street Beach and KOP 18: Ocean City Boardwalk. Both are located in Ocean City, MD.

Comment No	Comment	Response
TRANS-26_0002_001	I have two major comments about the visual impact. One, I was in a presentation at St. Martha's Episcopal Church in Bethany Bay in May this year. And it was put out by US Wind to show visual impacts. And clearly they had visuals that show that wind turbines would only be seen at sunrise and sunset depending on the angle of the sun. BOEM is showing that the visual impacts will be basically 100 percent during the daytime, from Assateague Island all the way up to Delaware Seashore State Park. There's a complete credibility gap there that I have a big problem with because one official organizations says it wouldn't be an impact, the other one says there would be significant impacts during daylight hours. So I have a question as to how can you have one public information session in May being different from this one? And I know this is more official, but still, that's a big problem. Who do you believe? Is the public being misled?	BOEM did not host a public meeting in Bethany Beach during May, 2023. All opinions on impacts are speculative until BOEM completes their Environmental Impact Statement. BOEM's assessment of visual impacts are described in Appendix H Assessment of Seascape, Landscape, and Visual Impacts (SLVIA), and Section 3 Section 3.6.9 of the Final EIS. Photo simulations were produced as a tool to assist with the SLVIA, as well as to communicate the approximated size and scale of visual change to the public, and for use in project alternatives development, and project decision-making. The simulations may be viewed or downloaded at Renewable Energy Maryland Offshore Wind. Visibility of the wind turbines will vary through the course of the day from sunrise to sunset and into the nighttime hours depending on the orientation of the viewer (distance, angle of view, elevation, etc.) and environmental influences (atmospheric conditions, sun angle, wind direction/blade orientation, etc.).
MAILIN_0036_002	[1] The DEIS appears to rely more heavily on the COP Visual Impact Assessment, rather than drawing on the methodology and assessment set forth in Appendix H of the DEIS. The DEIS should be revised to more closely follow the methodology set forth in Assessment of Seascape, Landscape, and Visual Impacts of Offshore Wind Developments on the Outer Continental Shelf of the United States (Sullivan 2021). [2] As to the two key observation points (KOP~) in Appendix H that are located in Ocean City, KOPs 6 and 18 are at the beach and boardwalk level, rather than from elevated locations. The views of the proposed development from the elevated locations along the Ocean City coast should be considered and should be discussed and illustrated. Ocean City visitors or property owners who are looking out at the ocean from the upper stories of the many oceanfront high-rise buildings in Ocean City will see even more of the turbines, as well as the electrical service platforms. The visual effects of the project will be even greater for viewers in the upper floors of taller buildings in Ocean City. getting progressively greater as elevation increases. Ocean City requests that a visualization be presented to illustrate visibility from a higher vantage point, such as from one of the taller hotels in Ocean City. As set forth in the written comments submitted by Mr. McGean, it is requested that no record of decision or alternative selection be made until BOEM receives such simulations and allows public comment on the simulations. [3] Appendix H states that US Wind prepared simulations of Alternative D from only four of the KOPs. (H-21).We request that US Wind provide illustrations of Alternative D from the KOPs in Ocean City. [4] Ocean City's viewshed is an economic engine not just for the Town itself but also for the entire State of Maryland. The visual. Simulations from the KOPs located in Ocean City indicate major visual impacts from Ocean City's beaches, boardwalks, and commercial and residential developments, and from certain roads and bridges approaching Ocean City. These visual simulations fail to adequately represent the visual impact that the project will likely have and, instead, are under-representative of the actual impact. [5] The DEIS states that the visual simulations should be viewed at a distance of seven inches but doing so is largely impractical and uncomfortable. The DEIS should include images that have sufficient detail that can be viewed from a greater distance to allow the viewer to have a more realistic understanding of the extent of the visual impacts. The public should be permitted to comment on these revised simulations.	[1] BOEM conducts an independent Seascape, Landscape, and Visual Impact assessment.(SLVIA) apart from the COP Visual Impact Assessment (VIA), but using data, photo-simulations and other information provided in the COP VIA. The Final EIS Appendix H (the Cumulative SLVIA) is developed in accordance with BOEM's Publication 2021-032 Assessment of Seascape, Landscape, and Visual Impacts of Offshore Wind Energy Developments on the Outer Continental Shelf of the United States. Chapter 3.6.9 summarizes Appendix H while complying with the size and structure requirements for Environmental Impact Statements. [2] The visual impact to views seen from Key Observation Points (KOP) 6 and 18 were determined to be major, which would be the same result from elevated viewing locations near these KOPs. The orientation and geographic extent of an elevated view would indeed be greater from an elevated position (as stated in Section H.5.2.3 of Final EIS Appendix H). It is often difficult to gain permission to access private property to collect data and conduct visual impact assessments. This typically requires multiple visits to the private property and owners are often resistant, although special arrangements have been worked out in extenuating circumstances. Key observation points (KOP) and simulations are typically from places with unrestricted public access. [3] Alternative D impacts are simulated from KOP 6: 84th Street Beach and KOP 18: Ocean City Boardwalk. Both are located in Ocean City, MD. [4] Final EIS Sections 3.6.3 (Demographics, Employment, and Economics) and 3.6.8 (Recreation and Tourism) discuss the impacts raised by the commenter.

O.7.26 Sea Turtles

Table O.7-29. Responses Substantive – Sea Turtles

Comment No	Comment	Response
FDMS_0892_017	Abundance Estimates for Sea Turtles: In September of 2023, the Navy Undersea Warfare Center Division Newport, in coordination with the Marine-Life Data & Analysis Team (MDAT), the Northeast Ocean Data Portal, and the Mid-Atlantic Ocean Data Portal updated sea turtle density models.71 BOEM should incorporate these data to inform estimates for the Project Area.(71 Mid-Atlantic Ocean Data Portal https://portal-staging.midatlanticocean.org/news/sea-turtle-density-monthly-slider-models-four-species-in-atlantic-waters/ Sparks, Laura M. and Andrew DiMatteo (2023).Sea Turtle Distribution and Abundance on the East Coast of the United States. Technical Report prepared for Naval Undersea Warfare Center Division Newport. NUWC-NPT Technical Report 12,428; 1 June 2023.https://seamap.env.duke.edu/seamap-models-files/NUWC/Reports/TR_12428_FINAL_2023-06-01.pdf) The Impact Determination for Sea Turtles Requires Revision BOEM has determined through its impact analysis that impacts will be "negligible to minor" for sea turtles.72 The analysis for the No Action Alternative has an overall "minor" impact determination, which is not consistent with some other EIS determinations that describe their No Action Alternative/baseline conditions as having "moderate" impact.73 Notably, vessel strikes, gear entanglement/bycatch are significant impacts to these species and are part of baseline conditions.(73 E.g., Coastal Virginia Offshore Wind Commercial (CVOW-C) and New England Wind. See CVOW-C DEIS at S-15 and New England Wind DEIS at 3.8-16.)	The reports provided were reviewed and incorporated into the Final EIS as applicable, and the impact determinations were compared to those provided for other EISs in the region to determine that a revision to the impact determination was not warranted in the Final EIS was warranted.
FDMS_0892_024	Three sea turtle species, loggerhead, leatherback, and green turtles, are labeled as "common" in the Project Area.59 Again, the geographic analysis area does not include the areas that may be transited by vessels carrying supplies, and therefore does not consider the impacts of vessel trips on threatened and endangered sea turtles enroute.60 BOEM should expand the geographic analysis area for sea turtles and marine mammals to include potential transits from Europe and the Gulf of Mexico, as has been done in prior DEISs with similar expected supply routes. (60 MDOSW DEIS Appendix F: Impact-Producing Factor Tables and Assessment of Resources with Minor (or lower) Impacts at F-104.)	Due to the limited number of potential vessel transits originating from the Gulf of Mexico, BOEM has decided not to expand the marine mammal GAA to include the Gulf of Mexico for the EIS analysis. However, these vessel transits, if they were to occur, are considered in the NMFS BA.
MAILIN_0005_103	In Appendix B, B.1.Supplemental Information on Underwater Sound, a brief presentation of what is meant by TTS and PTS would be helpful to include for the reader's understanding and reference. This could better set the stage for the sea turtle section (Section B.5, p.22) which mentions TTS and PTS thresholds and eliminates the need for the reader to comb through the marine mammal section earlier in this appendix for an understanding of the concept. It is suggested that thought be given to restructuring of the presentation of information so that a reader only interested in sea turtle information does not need to read through the marine mammal section to understand the materials presented on sea turtles.	Thank you for your comment. Section B.1.3.3 introduces PTS and TTS.
MAILIN_0005_117	The impacts of geophysical surveys may be a bit underplayed. There is not a significant amount of information on these impacts related to all specific turtles, so, in the interest of being precautionary, it is suggested that the uncertainty be more represented. Furthermore, additional mitigation measures that may be appropriate for high-risk species should be considered and documented in the DEIS.	Geophysical survey equipment operating above 10 kHz acoustic frequencies can be considered de minimis for sea turtles as there is evidence that these species are not sensitive to acoustic energy at higher frequencies. Lower frequency HRG sources, like air guns, boomers, and sparkers, have the possibility to disturb sea turtles. BOEM is currently funding a study to better study turtle hearing and to determine behavioral responses of sea turtles to these devices.
MAILIN_0005_119	The DEIS states "At close distances to impulsive sounds, physiological effects to and animal are likely, including TTS and PTS." However, this is also the case for no impulsive sound. This could be resolved by some restructuring of the acoustics introduction as it applies to impulsive/non-impulsive and TTS/PTS. It would be helpful to indicate what types of sounds are considered non-impulsive for the Proposed Project unless the assumption is that everything not listed as impulsive would be non-impulsive. This is of interest since the tables of Appendix B include referrals to those sounds.	The following statement has been reviewed and edited: "At close distances to impulsive sounds, physiological effects to an animal are likely, including TTS and PTS, although these effects are also possible after exposure to non-impulsive sounds if the duration of exposure is long enough." The reader is correct that the sources listed at the beginning of this sentence are the ones associated with offshore wind that ARE impulsive. The beginning of this paragraph has been edited to state: "Impulsive sounds associated with offshore wind development include explosions, sparkers, boomers, and impact pile-driving; it is generally accepted that impulsive sources have a greater likelihood of causing hearing damage than non-impulsive sources."

Comment No	Comment	Response
MAILIN_0005_120	References for characteristics for impulsive noise are a bit confusing as presented, since Finneran 2016 is not the same as the ASA Society document cited. (ANSI S1 .13-2005, Measurement of Sound Pressure Levels In Air).The use of parentheses and the placement of references relative to the bulleted information should be reviewed and revised as necessary.	The Finneran (2016) reference has been removed and the ANSI reference is now presented after the list of impulsive characteristics.
MAILIN_0005_122	The DEIS states "Pile driving noise is characterized as impulsive." It is important to distinguish between "impact" pile driving, which is categorized as impulsive, and "vibratory" pile driving, which is non-impulsive. It is recommended that the language in Section B.2.3.1 be revised to distinguish between "impact" and "vibratory" pile driving (perhaps using additional sub headers might aid in that).	This sentence has been clarified to state, "Impact pile driving noise is characterized as impulsive."
MAILIN_0005_125	This section of the DEIS would benefit from the addition of introductory/background information for context. Much of that information can be found in the previous section on marine mammals. Either some information, as appropriate, could be copied over to the sea turtle section, or the reader could be referred to the marine mammal section for introductory/background/context information.	Appendix B provides background information on noise.
MAILIN_0005_126	There is not much detail presented on sea turtle hearing capabilities in the DEIS. For example, the cited references do not include the BOEM-funded study of leatherback hearing by Dow Piniak et al. (2012), but that information (and most of the other sea turtle hearing information) appears in the COP. Given the DEIS refers the reader to the COP for more in-depth information, it would be helpful to remind the reader where the information can be located in a few different places within the DEIS or include it in the document.	Appendix B provides background information on noise.
MAILIN_0005_133	The DEIS's sea turtle background analysis should include tagging and stranding data to better understand distribution and habitat usage in the Project Area.	Thank you for your comment. BOEM uses the best available science (i.e., peer-reviewed scientific publications, scientific working group technical reports, etc.) in its assessment of impacts of sea turtles' distribution and habitat usage in the Project Area.
MAILIN_0005_135	The text on geographic analysis for impacts to sea turtles is incomplete given sea turtle species range widely in migration and are dependent on life stage/cycle. For example, leatherback turtles have a range from the Caribbean to as far north as the Scotian Shelf. It is noted that the range of the ESA-listed North Atlantic right whale includes the important waters of the Scotian Shelf, but this area is not mentioned for leatherback turtles. Likewise, the Gulf of Mexico is not considered in the geographic analysis for the Kemp's ridley turtle that nests on beaches off southern Texas and northern Mexico after which they travel into the North Atlantic, including the mid-Atlantic Bight. As a result, it is not just the Northeast Shelf LME and Southeast Shelf LME that are the geographic range for sea turtle species. Please revise this section to cover all LMEs within which the noted species of sea turtles can be found.	Due to the limited number of potential vessel transits originating from the Gulf of Mexico, BOEM has decided not to expand the sea turtle GAA to include the Gulf of Mexico. These vessel transits, if they were to occur, are considered in the NMFS BA.
MAILIN_0005_141	Neither the DEIS nor the COP mention loggerhead occurrence/area usage of Delaware Bay. There is only a brief mention of Kemp's ridley using Delaware Bay. While Delaware Bay is just to the north of the proposed Project Area, it demonstrates sea turtle use of bays in this area. Refer to work by Braun-McNeil! J, Epperly SP (2004) Spatial and Temporal Distribution of Sea Turtles in the Western North Atlantic and the U.S. Gulf of Mexico from Marine Recreational Fishery Statistics Survey (MRFSS). MarFish Rev 64:50-56. Also, Spotila, J.R., P.T. Plotkin, and J.A. Keinath. Unpubl. In-water population survey of sea turtles of Delaware Bay. Final report to NMFS [cited in the previous reference]. There is vessel strike data for loggerhead, green, and Kemp's ridley turtles in Delaware Bay. There is also tagging data from a loggerhead turtle that moved to the mouth of Delaware Bay and strandings of loggerhead turtles on inshore Delaware beaches, including on the Indian River inlet. It is recommended that additional information be added to the DEIS to cover the possibility that ESA-listed turtles could make their way into Indian River Bay and be affected by Project activities. Also, since Indian River Bay is an estuary, it is important to fishes and invertebrates that are prey to sea turtles, in particular, loggerheads and Kemp's ridleys. Movement into this bay is not beyond the realm of possibility since even a North Atlantic right whale has wandered into the Indian River.	The report provided was reviewed and incorporated into Section 3.5.7 of Appendix F where appropriate. However, effects on fish and invertebrates are discussed in detail in Section 3.5.5 of the Final EIS, and effects on benthic species are discussed in detail in Section 3.5.2 of the Final EIS, so the reader is referred to these sections for additional information on these resources

Comment No	Comment	Response
MAILIN_0005_145	The DEIS should include the very recently published Navy-funded sea turtle density report for U.S. Atlantic (Sparks, LOM. and A. DiMatteo. 2023. Sea Turtle Distribution and Abundance on the East Coast of the United States. NUWC-NPT Technical Report 12,428). This research effort is important for understanding sea turtle occurrence in the Atlantic and discusses caveats of sea turtle data collected during surveys. It is generally accepted that loggerheads make up the greatest number of hard-shell turtle sightings in the area. However, as noted by in the Navy's turtle density report, it can be difficult to identify green and Kemp's ridleys during aerials surveys, given those species' smaller size and coloration similar to that of seawater.	This report was reviewed but no information was found that could meaningfully enhance the affected environment description for sea turtles into Section 3.5.7.1 of Appendix F of the Final EIS.
MAILIN_0005_146	Revisions to text and the information presented on the hawksbill turtle in Section 3.5.7 Sea Turtles, 3.5.7 .1 Description of the Affected Environment and Future Baseline Conditions, p.F-109 are suggested. One sentence refers to their occurrence as rare while the sentence right after calls them extralimital. Please revise for consistency. Additionally, the hawksbill turtle is the only species without a specific writeup. Please either add a species specific writeup for the hawks bill (easier for the reader) or refer the reader to the general turtle information section where some species-specific information is presented.	The occurrence of the hawksbill sea turtle has been reviewed and revised; the species is considered rare within the Project area. Additionally, a short write-up on the species is now provided in Section 3.5.7.1.
MAILIN_0005_151	For sea turtles, the analysis synopsis could be revised. As written, it is unclear if 'displacement' refers to a temporary or permanent displacement. In addition, this analysis should mirror some information from the marine mammal section, and include protective measures to avoid vessel strikes, etc. Sea turtles would benefit from protective measures that will be in place for marine mammals.	The conclusion in Section 3.5.7.3 of Appendix F was updated to mirror more closely language used for marine mammals to specify the reasoning for the impact determinations and more clearly summarize the sea turtle impact determinations.
MAILIN_0005_153	In the Cable Emplacement and Maintenance section, a discussion of the resuspension of pollutants during sediment disturbance should be included. Additionally, there is a referral to subaquatic vegetation (SAV) as food of green turtles. This is perhaps the first mention of sea turtle foraging habits/prey preferences in this DEIS. Impacts to prey and the resultant impacts to turtles should be more fully discussed. For example, scyphozoan jellies, which are important prey for leatherback turtles (Graham 2009) have benthic life history stages that may be impacted by the Project (as well as the other IPFs). Furthermore, the DEIS does not document the possibility of turtles bromating (partially burying themselves in the bottom to avoid cold temperatures) in the project area. Any direct impacts to the bottom habitat could result in a direct impact to a sea turtle bromating. The DEIS should be revised to include additional information on these noted topics.	Additional information about sea turtle foraging and prey has been added to Section 3.5.7.1 of Appendix F. Information about how seafloor disturbances for all IPFs may affect sea turtle brumation has also been incorporated into the Final EIS where appropriate.
MAILIN_0005_155	The DEIS discusses possible impacts of lighting associated with the project. The potential indirect effects of lighting on sea turtle prey are not presented in this analysis. Gitschlag et al. (1994) speculated that (for oil/gas platforms in the Gulf) artificial lighting could attract turtles by serving as a visual queue and a means to aggregate food items such as crabs. It would not be unreasonable to suggest a similar concern for this Proposed Action.	Thank you for your comment. Please refer to Section 3.5.5 of the Final EIS for additional information on the effects on fish and invertebrates and Section 3.5.2 of the Final EIS for additional information on effects on benthic species.
MAILIN_0005_157	The issue of stress in terms of how noise (or any IPF affecting turtles) might impact sea turtles should be included in the DEIS. Likewise, effects of stress on sea turtle prey should be presented.	Stress responses to noise in sea turtles are discussed in Section 3.5.7.3.1 of Appendix F and included by reference in Section 3.5.7.5 of Appendix F. Effects on fish and invertebrates are discussed in detail in Section 3.5.5 of the EIS, and effects on benthic species are discussed in detail in Section 3.5.2 of the EIS, so the reader is referred to these sections for additional information on these resources.
MAILIN_0005_159	The DEIS documentation of indirect effects, through prey species, should be further developed and/or linked to analyses in the finfish and benthic sections of the DEIS. For example, impacts to horseshoe crabs (e.g., HDD, EMF, etc.) would be a concern for loggerhead turtles who prey heavily on this species.	Thank you for your comment. Please refer to Section 3.5.5 of the Final EIS for additional information on the effects on fish and invertebrates and Section 3.5.2 of the Final EIS for additional information on effects on benthic species.
MAILIN_0005_168	The Project Area footprint is not completely clear. For example, for the nearshore component going into the Delaware Estuary, is the footprint considered the entire southern coast of the Estuary? The map shows just a cable corridor but not the swath of area considered to be influenced. Please confirm and revise accordingly.	The geographic analysis area for sea turtles includes Large Marine Ecosystems (LMEs) along the Northeast and Southeast Atlantic OCS that capture most habitats in the U.S. and movement for sea turtle species.
MAILIN_0005_169	The DEIS should address the incremental contribution of proposed action construction and operation noise-producing factors on sea turtles. Specifically, the concern for the cumulative contribution of wind farms in the U.S. Atlantic to the underwater soundscape as noted by Tougaard et al. (2020, How loud is the underwater noise from operating offshore wind turbines? Journal of the Acoustical Society of America 148:2885-2893). The cumulative effect for animals traveling across large areas and encountering multiple turbines and multiple wind farms should be further addressed in the DEIS.	Cumulative impacts are now discussed in a separate subsection for each resource.

O.7.27 Socio-Economic Resources - General

Table O.7-30. Responses Substantive – Socio economic resources

Comment No	Comment	Response
FDMS_0089_001	I was told by a representative of BOEM that there has been no study of property value impact of the project, and that type of study would be done after the project is built to ascertain actual behavior rather than projected attitudes of what prospective buyers might do as a result of the project. Comparable studies should be reviewed from projects done elsewhere in the world where tourism and beach recreation is a primary reason for living and owning property in such area. To embark on a project of this size and this potential impact without the due diligence of considering economic impact on the region's homeowners and property values is unconscionable. I would like to hear which other municipalities have experienced a project of this nature offshore which directly impacted their views of the open sea, and how this affected their property values, the way of life and quality of life for those residents .If no such municipality exists, it should serve as a cautionary alert that a project of this nature should not be deployed so close to shore. What must be done to reconsider the leased lands and move them to sites farther offshore where the viewshed is not an issue? Since 2014 when the lands were leased, the technology has changed considerably, such that the size of the turbines has increased and negatively impacted the viewshed. Why not move the leases closest to shore to a site farther out?	BOEM has cited the available research regarding the potential adverse economic impacts of the project. BOEM used this research, data on the affected area, and the specifics of the proposed action to develop impact ratings associated with these adverse impacts. The Lessee can only propose WTG sites within their lease area, which extends approximately 23 nautical miles (27 statute miles) from shore at the farthest point. Analyses of turbine installation outside of the identified lease area does not meet BOEM's Purpose and Need. Under the no action alternative (Alternative A), BOEM would disapprove the COP and the Project described in the COP would not be built in the lease area.
FDMS_0285_001	Offshore wind with no consumer protection for Electric client rare increase is not financial feasible. All feasibility studies need to be done by a independent user group, not affiliated with any government agency or their surrogates. No state or Federal tax credit will be given any Offshore Wind Companies.	The Lessee has reached agreements with the State of Maryland regarding the wholesale electricity prices associated with the MarWin and Momentum Wind project phases. The resulting effects on retail electricity prices will depend on the prices of alternate sources of electricity in the future, along with other factors. The Maryland Public Service Commission can provide more information regarding the potential effect of the project on retail electricity prices.

Comment No	Comment	Response
FDMS_0370_002	Can someone provide specific proof-of-performance case study examples of the impact of other, existing offshore wind projects on the energy grid, the environment, and the lives of the people in the community? How much energy will be distributed to Ocean City and mid shore communities since the transmission lines ruin into Indian River Park in Delaware? What percentage of the energy generated will actually go to the State of Maryland and how will it be distributed regionally? • What will the project deliver weekly/monthly/annually as a percentage of all energy for the state of Maryland? How much "dirty" energy will the project reduce? • What will the impact be on our energy bill? • What is the cost of the project and the expected ROI? Articles on how wind energy projects in other areas are upside down on costs. How will a project of this size pay for itself and what is the expected timeframe? Orsted just pulled out of two large projects in New Jersey last week. How will on-going maintenance and repairs of the turbines be funded? Who or what entity will be responsible for maintenance and repairs? If the project fails, what is the plan for decommissioning and removal? Reports list cases where failed turbines are left standing idle as graveyards because they are too expensive to remove so they are left as a scare on the landscape. We have learned that Maryland does not have a facility to receive and store the energy generated by the Ocean City turbines, so it will be sent to Delaware.	Thank you for your comment. The Lessee has reached agreements with the State of Maryland regarding the wholesale electricity prices associated with the MarWin and Momentum Wind project phases. The resulting effects on retail electricity prices will depend on the prices of alternate sources of electricity in the future, along with other factors. The Maryland Public Service Commission can provide more information regarding the potential effect of the project on retail electricity prices. Maintenance and repairs will be the responsibility of the applicant, with oversight by the Bureau of Safety and Environmental Enforcement (BSEE). The overwhelming share of costs for an offshore wind project are realized in the construction phase. The cost for operations and maintenance is relatively low compared to construction and will occur when the project is realizing revenue from the sale of offshore wind electricity. Offshore wind turbines receive preventive maintenance and checks throughout the operations period. BSEE is charged with oversight of facility decommissioning. A Lessee is required to decommission their facility within 2 years following termination of the lease pursuant to 30 CFR 285.902. BSEE regulations at 30 CFR 285.910 required that all facilities be removed to a depth of 15 feet below the mudline unless authorized by BSEE.A Lessee's decommissioning application must be submitted to BSEE prior to decommissioning. The decommissioning application will be approved, approved with conditions or disapproved. The contents of a decommissioning application submitted to BSEE are listed in BSEE's regulations at 30 CFR 285.906. The lease that makes up the Maryland Offshore Wind project was executed in December of 2014 after a nearly four-year period of analysis by the Bureau of Ocean Energy Management with input from both the States of Maryland and Delaware. In 2009 and 2010, the States of Delaware and Maryland, respectively, created Renewable Energy Task Forces to analyze the offshore renewable leasing opportunities for their respective state. At the time, the two states pursued the process separately, resulting in separate efforts to lease offshore Maryland. This resulted in the lease area that makes up the Maryland Offshore Wind project. After the lease was executed, the Lessee, US Wind, identified the Delmarva Power and Light (DPL) Substation adjacent to the NRG Indian River Power Plant near Millsboro, Delaware, as the preferred interconnection point to the regional electric grid.
FDMS_0395_001	[1] BOEM and the Administration should strongly consider the adverse economic impacts of allowing the installation of a wind farm that can be seen from the beaches, hotels, and condominiums of Ocean City, Maryland. According to the state of Maryland, Ocean City ranks as one of the top two tourist destinations in the state (Baltimore is the other one).Ocean City represents a significant portion of the $18.1 billion dollars visitors spent in 2018 (https://www.visitmaryland.org/sites/default/files/2021-09/Maryland_FY19_AnnualReport-Rev100220_V11.pdf).Each year, hundreds of thousands of Americans and tourists from other countries visit Ocean City and its miles of beaches to enjoy the ocean views and glorious sunrises. A wind farm whose towers can be seen from the beaches, hotels, and condominiums where visitors to Ocean City recreate and stay will ruin this critical economic viewshed. A 2016 North Carolina study confirms the concern that visible wind farms have an adverse economic impact on coastal tourist communities (https://www.cabi.org/leisuretourism/news/24912). [2] Any proposed wind farm should include stipulations that the towers and wind turbine blades cannot be seen from the beaches, hotels, and condominiums at Ocean City, Maryland.(Attachment: FISCAL YEAR 2019 TOURISM DEVELOPMENT BOARD ANNUAL REPORT)	[1] Section 3.6.8.3 (Lighting IPF) of the Final EIS references the 2017 North Carolina State University study described in the comment (Lutzeyer et al.2017). Section 3.6.8 describes the Project's impacts on recreation and tourism. [2] The Lessee can only propose WTG sites within their lease area, which extends approximately 23 nautical miles (27 statute miles) from shore at the farthest point. Analyses of turbine installation outside of the identified lease area does not meet BOEM's Purpose and Need. Under the no action alternative (Alternative A), BOEM would disapprove the COP and the Project described in the COP would not be built in the lease area.

Comment No	Comment	Response
HANDIN-24_0004_002	In your socioeconomic appendix J BOEM states that "the scenic quality of the coastal environment is important to the identity, attraction, and economic health of the coastal communities". Yet, BOEM makes no effort to quantify what the economic impacts to Worcester County Tourism will be as a result of this MAJOR disruption to our viewshed. BOEM ultimately classifies it as "minor to minor beneficial" without siting a single data point or statistic to support that determination. A determination which defies BOEM's own statements. To be sure BOEM happily regurgitates the supposed positive economic impacts of the wind farms supplied by US Wind. BOEM at least notes that the majority of this impact will be limited to the construction phase. Of course, the actual data that supports US Wind's claims is "confidential" so the public has no way to confirm it's accuracy.US Wind "claims" they will support a 117 permanent Jobs over the life of the project. BOEM notes that Ocean Tourism supports 6,182 jobs in Worcester County alone and a half billion dollars in GDP.BOEM goes on to state that these figures "reflect how tourism and recreation are vital to the County's total GDP and the County's total employment". When will BOEM provide estimates of how many of those dollars and jobs might be lost as a result of this project? Simply stating as you do on page 3-440 that there is "limited available research" to determine these impacts is no excuse. Commission the necessary independent research studies to get the facts and stop any approvals for this project until you have them. When that data shows that this project will destroy more jobs than it creates, make the right decision and deny approval.	The referenced text is from Volume II, Appendix J of the COP, not the Final EIS. The Final EIS acknowledges that there could be adverse impacts associated with the visibility of the wind turbines. BOEM has cited the available research regarding these potential impacts and acknowledges any limitations of the available research. This research, along with information regarding the proposed project and the affected area, provides a sufficient basis for the impact determinations included in Final EIS Section 3.6.3. That section provides a range of impacts on demographics, employment, and economics from the Project alone and in combination with other offshore wind projects, according to Project phase. BOEM's impact determinations are based on a holistic assessment of the situation. A new survey-based study would not be able to resolve the inherent incremental uncertainty regarding impacts that arise at this stage of the project. BOEM used the best available information in the EIS. COP sections marked “confidential” contain proprietary business information. BOEM agrees these sections may remain confidential to protect critical commercial business interests. Section 3.6.3 in Appendix F of the Final EIS summarizes the information in COP Volume II, Appendix L. A new survey-based study would not be able to resolve the inherent incremental uncertainty regarding impacts that arises at this stage of the project. Similarly, quantifying the number of jobs displaced due to the project would provide a false sense of precision with which those impacts can be estimated. BOEM used the best available information when estimating the impacts of the project on tourism and recreation.
HANDIN-24_0046_001	From all the research I have done and the info provided tonight there is no overall benefit. I would like to know overall cost both economically and environmentally? How log before we break even on production? Shipping cost? And maintenance before they're carbon neutral? What is the funding base of government input? What is the energy reduction per person? Where do the profits from the company go?	As stated in the Final EIS Section 3.4.1.5, the Project would offset all greenhouse gas and criteria pollutants generated by its construction, lifetime operations, and eventual decommissioning within 4 years of the start of operations, although most pollutants (including CO_2) would be offset in less than one year. The Lessee is responsible for all capital expenditures associated with the Project. Offshore wind projects rely on offtake agreements to obtain upfront financing for the capital costs of constructing the project. Costs associated with materials and labor for the proposed Project are not disclosed in the COP and cannot be analyzed in the EIS.
HANDIN-26_0010_001	Can you please provide studies relating to the property values if residential communities that may be affected by windfarm view.	The Final EIS acknowledges that there could be adverse impacts associated with the visibility of the wind turbines. BOEM has cited the available research regarding these potential impacts and acknowledges any limitations of the available research. This research, along with information regarding the proposed project and the affected area, provides a sufficient basis for the impact determinations included in Final EIS Section 3.6.3.
MAILIN_0005_189	The DEIS provides limited information about the economic benefits model and the assumptions used to arrive at the results/conclusions presented in the document. To fully evaluate the model's accuracy and understand the results, the information noted below is required. Please provide this information separately or point to its location in the DEIS and/or COP to allow the reader to easily reference the material and fully understand the information presented in the DEIS. (a) What industries were modeled in IMPLAN? (b) What was assumed for in-state expenditures as a percent of total expenditures? (c) It is best practice to present ongoing operational economic impacts as annual benefits. While the DEIS presents cumulative impacts over a 25-year period annual benefits are not included. For the reader's understanding, the annual average results should be presented. (d) Please separate direct benefits from indirect and induced benefits.(e) Has the economic impact study been updated to account for recent inflation? (f) What assumptions were made about the location of suppliers - were out of state and international purchases excluded from the model inputs? (g) Please provide additional discussion about where within Maryland the projected economic impacts will be realized. Where will the workforce for the Proposed Project come from? What percentage of jobs could likely be filled by Maryland residents? Where within Maryland will the majority of the workforce come from? (h) What job losses will occur due to the Proposed Project? Please estimate job loss, including the sectors in which losses are anticipated and the local areas that will experience job losses.	The Project-related job data in the relevant table in Section 3.3.3 has been revised to provide average, minimum, and maximum annual Project-related employment and economic inputs. COP Volume II, Appendix L analyzes the economic activity that would be generated by the project and has been marked confidential because the methodological details contain confidential business information. However, the results of the analysis in Appendix L are provided in Section 3.6.3.5. Appendix L does not assess any adverse economic impacts that could arise from the proposed action. BOEM qualitatively analyzes the potential adverse economic impacts of the proposed action throughout the EIS.

Comment No	Comment	Response
MAILIN_0005_190	The DEIS does not provide adequate information about the location of potential impacts within the socioeconomic study area. Given the study area spans several counties in several states, this information is needed to understand the full weight of the impacts in relation to each local area's economy and its potential sensitivities.	At this stage of the project, BOEM cannot precisely estimate economic impacts in particular areas. However, BOEM does provide data on the scale of different sectors of the economy in certain areas and qualitatively describes what will determine the scale of impacts.
MAILIN_0005_194	What will the overall economic and/or social impacts on Ocean City from the proposed project, other than fisheries, be? No record of decision or alternative selection should be made until BOEM completes this analysis.	Section 3.6.3.5 in Appendix F of the Final EIS describes the demographic, employment, and economic impacts of the Project.
MAILIN_0005_195	The DEIS states in appendix H that for intensely developed beach front areas such as Ocean City: "Ocean views are highly prized and sought in beachfront communities" and then finds "The Project would be clearly distinct and would detract from the character of the open ocean horizon". Chapter 3 of the DEIS notes that visual impacts will be "long term, localized and major' and lists the visual impacts to Ocean City as MAJOR in the accompanying table. Socioeconomic appendix J states that "the scenic quality of the coastal environment is important to the identity, attraction, and economic health of the coastal communities". However, the DEIS makes no effort to quantify what the economic impacts to Worcester County or Ocean City tourism will be as a result of this major disruption to the viewshed. The DEIS ultimately classifies it as "minor to minor beneficial" without any data to support that determination. No record of decision or alternative selection should be made until BOEM performs the necessary studies to properly quantify the impact of the project on the economic health of Ocean City.	The Final EIS acknowledges that there could be adverse impacts associated with the visibility of the wind turbines. BOEM has cited the available research regarding these potential impacts and acknowledges any limitations of the available research. This research, along with information regarding the proposed project and the affected area, provides a sufficient basis for the impact determinations included in Final EIS Section 3.6.3. That section provides a range of impacts on demographics, employment, and economics from the Project alone and in combination with other offshore wind projects, according to Project phase.
MAILIN_0005_196	The DEIS states that Ocean Tourism supports 6,182 jobs in Worcester County and $422,400 in GDP. The DEIS further states that those figures "reflect how tourism and recreation are vital to the County's total GDP and the County's total employment". The DEIS fails to quantify how many of jobs could be lost and what the effect on County GDP will be due to the impacts of the project. The DEIS notes that there is :limited available research" (page 3-440). Regarding this issue. No record of decision or alternative selection should be made until BOEM performs the necessary studies to properly quantify what job losses or reduction in County GDP would occur as a result of the project's impact on tourism.	The Final EIS considered the commenter's input when determining the impact rating for recreation and tourism, as well as employment and economics. A new survey-based study would not be able to resolve the inherent incremental uncertainty regarding impacts that arise at this stage of the project. BOEM used the best available information in the EIS.
MAILIN_0005_197	The DEIS cites 2 studies regarding the economic impact of offshore wind on tourism, A study from North Caroline State University and a Study completed for BOEM by the University of Delaware. The NC State study concluded that 55% of Ocean Vacation Renters would not return if turbines were visible. The study also concluded that if 6mw turbines were located 8 miles from shore, in order to keep the remaining 45% of renters from going elsewhere property owners would have to discount their rents by an average of $1,000 per week. Given these results, the DEIS should determine what the potential impact of this project on Ocean City property values will be. No record of decision or alternative selection should be made until BOEM performs the necessary studies to properly quantify the impact of the project on property values in Ocean City.	The Final EIS considered the commenter's input when determining the impact rating for recreation and tourism, as well as employment and economics. Final EIS Section 3.6.3 has been revised to include additional existing studies regarding the effects on offshore wind farms on property values. However, a new survey-based study would not be able to resolve the inherent incremental uncertainty regarding impacts that arises at this stage of the project. BOEM used the best available information in the EIS.
MAILIN_0005_198	[2] Appendix F of the DEIS states that the negative economic impacts of the project are "undetectable". Given that conclusion is contradicted by other statements in the DEIS (see comments above) that either indicate major potential negative economic impacts or at best state that the impact cannot be quantified due to "limited available research, this conclusion and statement should be removed from the document and research should be completed to determine the negative economic impacts of the project. [1] No record of decision or alternative selection should be made until BOEM performs the necessary studies to properly quantify the impact of the project on the economic health of Ocean City.	[1] The term "undetectable" is typically consistent with an impact rating of "negligible". Section 3.6.3.5.4 in Appendix F states that the impacts on demographics, economics, and employment from the Project alone and the Project combined with other cumulative activities would be minor (defined in the relevant table in Section 3.6.3 as impacts that "would not disrupt the normal or routine functions of the affected activity or geographic place"). [2] BOEM has cited the available research regarding the potential adverse economic impacts of the project. BOEM used this research, data on the affected area, and the specifics of the proposed action to develop impact ratings associated with these adverse impacts.
TRANS-19_0017_003	What assurances do we have that once these things are started that they're just, like in other countries and other areas where they just stop the project because they don't have the funds to continue building the projects?	BOEM requires the Lessee to provide decommissioning financial assurance in an amount determined by BOEM based on the complexity, number, and location of all facilities. The Lessee is required to provide financial assurance to cover the cost of decommissioning the project after operations are complete. The decommissioning cost estimate is determined by BOEM and covers the cost of BOEM contracting directly the decommissioning work.

Comment No	Comment	Response
MAILIN_0037_001	[1] As a dedicated members of the Coastal Association of Realtors (CAR) I am writing to express the collective concerns regarding the proposed offshore wind turbine project off the coast of Ocean City. While we all recognize the importance of transitioning to renewable energy sources and addressing environmental challenges, we believe it is crucial to consider the potential impact of such projects on our local real estate market. Our primary concerns revolve around the following key points that have not been answered in the environmental impact study done by the Bureau of Ocean Energy Management (BOEM): Aesthetic Impact, Property Values, Market Perception. We appreciate the importance of sustainable energy initiatives and encourage the pursuit of alternative solutions that strike a balance between environmental responsibility and the preservation of our local real estate market. [2] We agree with the position of the Town of Ocean City that energy production should be clean and unseen.	[1] Section 3.6.3.5 in Appendix F of the Final EIS describes the demographic, employment, and economic impacts of the Project. [2] The Lessee can only propose WTG sites within their lease area, which extends approximately 23nm (27 statute miles) from shore at the farthest point. Analyses of turbine installation outside of the identified lease area does not meet BOEM's Purpose and Need. Under the no action alternative (Alternative A), BOEM would disapprove the COP and the Project described in the COP would not be built in the lease area.
MAILIN_0038_001	[1] As a dedicated members of the Coastal Association of Realtors (CAR) I am writing to express the collective concerns regarding the proposed offshore wind turbine project off the coast of Ocean City. While we all recognize the importance of transitioning to renewable energy sources and addressing environmental challenges, we believe it is crucial to consider the potential impact of such projects on our local real estate market. Our primary concerns revolve around the following key points that have not been answered in the environmental impact study done by the Bureau of Ocean Energy Management (BOEM): Aesthetic Impact, Property Values, Market Perception. We appreciate the importance of sustainable energy initiatives and encourage the pursuit of alternative solutions that strike a balance between environmental responsibility and the preservation of our local real estate market. [2] We agree with the position of the Town of Ocean City that energy production should be clean and unseen.	[1] Section 3.6.3.5 in Appendix F of the Final EIS describes the demographic, employment, and economic impacts of the Project. [2] The Lessee can only propose WTG sites within their lease area, which extends approximately 23nm (27 statute miles) from shore at the farthest point. Analyses of turbine installation outside of the identified lease area does not meet BOEM's Purpose and Need. Under the no action alternative (Alternative A), BOEM would disapprove the COP and the Project described in the COP would not be built in the lease area.

O.7.28 Water Quality

Table O.7-31. Responses Substantive – Water Quality

Comment No	Comment	Response
FDMS_0836_002	There is a lack of information on the validity of the model relied upon to characterize sediment transport for the DEIS. The lack of an updated hydrodynamic model for the Inland Bays has been a recognized need for better understanding of particle transport and water quality since 2020. Given that no model yet exists to understand sediment transport in this estuary, there is a question as to the validity of the approach and the model used. • No model report has been made available. Without this, there is no way to determine the scientific rigor of the sediment transport model. • The model doesn't appear to be defined in the DEIS. This section should be revised to include this information. • Documentation of a sediment dispersion model was seemingly not included in the DEIS. This section should be revised to include this information. • Documentation of and or coupling of dispersion and hydrodynamic model was seemingly not included in the DEIS. This section should be revised to include this information. • Sediment sources were seemingly not defined in model. This section should be revised to include this information, including if they were for Vibratory locations only. • For the model used, the candidate selected generic model constants (for a different system) with no justification for why those are warranted. Section 5.0 - SUSPENDED SEDIMENT IMPACTS IN INDIAN RIVER BAY FROM JET PLOWING – The Hodge Water Resources (HWR) Memo states "Each of these estimates is made without an evaluation of variability. They are approximations that appropriately characterize individual mechanisms, but they may not completely capture how the mechanisms interact." This indicates that the sediment dispersion model described in the memo does not take into account hydrodynamic forcing. The applicant should update the model to include this. Subsection 5.2 - EVALUATION OF DURATION AND EXTENT OF SUSPENDED SEDIMENT PLUME - Note that the modeling in the memo is not a 3-D hydrodynamically coupled model which is the current best practice. As the memo notes, "It is not possible to accurately and precisely predict transverse mixing without the use of numerical models. The three-dimensional and temporal variability of currents in an estuary are two of the primary reasons that numerical models are typically employed to analyze the movement of a suspended sediment plume." We don't know that this was an inadequate model; there just wasn't enough information provided to judge the model nor information on how it ran (what percentage of the variation did it explain). There may be no adequate model. Perhaps most concerning about the quality of sediment transport modeling used to inform this DEIS is the conclusion reached by HWR: "It is also important to note that the analysis presented in this memorandum does not use numerical modeling techniques. Therefore, all the determinations made in this memorandum are estimates based on available information. The extent, duration, resolution, and location of the higher-impact corridor identified in this analysis would be different if more comprehensive analysis techniques (i.e., numerical modeling) were employed. The combination of uncertainty associated with the level of analysis presented in this memorandum and the uncertainty with regards to impact thresholds should be considered when evaluating the findings of this analysis." 2. The model does not account for wind. Subsection 3.2 - TIDAL BEHAVIOR – This section makes no mention of wind driven events in its discussion. Wind is one of the major tidal drivers for Indian River at Rosedale. The applicant should update the model to include wind-driven events.	Thank you for your comment. The Sediment Transport Model is provided in the COP Appendix II B1.

Comment No	Comment	Response
FDMS_0836_002 (cont'd)	3. The model does not account for sediment particle sizes common to the Indian River Bay. Section 4.0 - CHARACTERIZATION OF SEDIMENTS – This section states that "Sediments in the bays are typically fine to very fine (i.e., silts) and are mostly characterized as mud with the presence of sand. Mud will typically be composed of silts and clays with a high-water content." It is unclear if this definition includes flocculus that is the upper portion of much of the sediments in the upper parts of Indian River. • Subsection 4.1 - VIBRACORE SAMPLING ALONG CABLE ROUTE This section should be revised to include an explanation of why there is significant spacing of samples around VC-IRB-06 (which is likely one of the areas with fines in suspension). 4. The model does not account for short-term impacts, only longer-term effects. Subsection 3.1 - WATERSHED AND FRESHWATER FLOW – States "we are evaluating long-term average conditions rather than a hydrologic time series." This seems to contradict this statement from the memo: "The duration of the suspended sediment plume is likely to last between 5 and 24 hours. Maximum sustained concentrations within the suspended sediment plume will be on the order of 7,270 milligrams per liter (mg/L)." Section 6.0 - CONCLUSIONS – Is the memo saying that sediment predicted to be suspended for up to 24 hours will only move 300m? According to the memo, "Based on this analysis, we have identified a 108 m corridor where higher sediment impacts are likely to be experienced. The duration of higher suspended sediment concentrations is likely to be less than 5 hours based on the estimated settling time for silt-sized particles (4.2 hours). We have also estimated a 600 m corridor where lower impacts may occur (300 m from the proposed cable route on either side). The duration of the suspended sediment plume in this region is likely to last between 5 and 24 hours." 5. The model incompletely analyzes the role of freshwater inflows and mixing on sediment flushing rates. Subsection 3.4 - FLUSHING TIME • This section does not indicate whether flushing time calculation precludes any mixing between Rehoboth Bay and Indian River Bay. This section should be revised to include any hydrodynamic model evidence that suggests mixing between the two bays. • The interaction between tides and freshwater flow into the estuary is the primary driver of currents, but only in the context of surface water components for which almost all the freshwater flow into the bays is estimated (there is only one stream gauge monitoring flow into Indian River and Rehoboth Bays). This section should be revised to state whether groundwater is a large element of freshwater flows to the Bays and if so, whether it fluctuates over time. This section should also address whether fluctuations in groundwater flows would have any impact on the 2-D hydrodynamic model results. 6. The modelers use simplistic assumptions to determine the rate at which sediment is lost to the water column in their model. • The model uses a loss rate of 25%, which was developed during a study in New Hampshire (RPS, 2015) but specifically states that they found no published loss rates for silty/sandy sediment. The loss rate assumption will likely be a key component driving dispersion. The analysis would have been stronger if the modeler had tested different loss rates and presented results. According to the HWR memo, "…25% is a common assumed value for jet plowing in many types of sediments. The loss rate of 25% was used in the modeling of jet plowing in Little Bay, a tidal estuary, in New Hampshire (RPS, 2015). Subsequent monitoring of a test run of jet plowing indicated that the modeling results were consistent with observed conditions (Normandeau, 2019). While not definitive, this work supports the use of 25% as the loss rate in an estuary." • Model setup seems to be 'mean state of current', the report is unclear on how entrained sediment will behave for any specific set of tidal/wind circumstances. Per the HWR memo, "The maximum extents of the suspended sediment plume are shown in Figure 5-1. The timing of jet plowing with respect to tides may change the direction of the suspended sediment plume, but the total excursion from the cable is expected to be consistent with excursions shown in this report." The analysis would have benefited from a clear understanding of existing sediment concentrations along the proposed cable route so BOEM and other would have a clearer idea of the sediment load changes that will be caused by jet plowing.	Continued from above

Comment No	Comment	Response
TRANS-19_0018_001	I'm a homeowner of an oceanfront condo and taxpayer in Ocean City, Maryland. I would like to halt the project until additional impact studies are completed, and advocate for Alternative A. It's not clear whether the study includes research on the impact to the seabed and contaminates that would be released specifically. Those contaminates could add additional stress to the ecosystem, which adversely affects the fragile marine and coastal habitats. This has not been studied closely enough.	Thank you for your comment. Further analysis regarding sediment contaminants into the water column is provided in Appendix F Section 3.4.2.5 Discharges.

O.7.29 Wetlands and Waters of the U.S.

Table O.7-32. Responses Substantive – Wetlands and waters of the U.S.

Comment No	Comment	Response
FDMS_0791_004	Section 3.5.8.6 of the DEIS discusses potential disturbance of wetlands among Alternatives C1 and C2. However, the low-lying nature of the region, particularly north of Indian River Bay, and the need for multiple critical water crossings (see US Wind Request for Information Response dated January 13, 2023, and US Wind/TRC memorandum "Upland Cable Route Corridors and Onshore Electrical Infrastructure Construction Details" dated May 1, 2023) are not identified in the DEIS. The potential for wetlands impacts arising from the need for construction in the low-lying areas immediately adjacent to wetlands and water crossings during cable installation should be added in the alternatives impacts considerations in Section 3.5.8.6 of the DEIS. Section 5.5.2.3 of US Wind's USACE Section 10/404 Permit Application submitted August 30, 2023, and provided to BOEM September 1, 2023, includes information that could inform expanded detail in the FEIS.	The Final EIS has been updated to include the referenced information.

O.8 General Comment Summaries and Responses

O.8.1 Air Quality

Table O.8-1. General Responses – Air Quality

Comment No	Comment	Response
FDMS_0101_002	I would also recommend that this project be insulated from any future changes to anticipated climate temperature increases. Please study and evaluate this project to ensure that once built, it will continue to safely operate if a) sea level rates rise quickly, b) wind speeds increase swiftly, c) coastal storms of the highest intensity regularly bash our coasts. Historical weather models are no longer reliable. Significant climate changes have already occurred and with each year, reversal to the trends of the past becomes more and more unlikely All the reason I would urge the approval of this plan and more plans like it. Especially if they are proactively built to ensure that they will safely operate in the extreme conditions that appear to be coming.	The Bureau of Safety and Environmental Enforcement (BSEE) will be responsible for providing oversight of enforcement and compliance and review of the activities conducted under the approved COP. The frequency and extent of the review would be based on the significance of any changes in available information and on onshore or offshore conditions affecting, or affected by, the activities conducted under the COP.

Comment No	Comment	Response
FDMS_0137_001	REMARKS TO BOEM REGARDING THE DRAFT ENVIRONMENTAL IMPACT STATEMENT FOR US WIND'S OFFSHORE WIND PROJECTS FOR MARYLAND, OFF THE COAST OF DELAWARE Health and Off-Shore Wind October, 2023 Climate change and poor air quality has, and will continue to have, negative impacts on human health and financial well-being. The health burden from electricity generation worldwide in 2010 was estimated to be 460,000 excess deaths, including 17,000 in the United States. There are two reasons why burning coal, oil, and gas cause health and climate damage: • The direct impact of the smog and soot that comes from burning the fuels; • The contribution of carbon dioxide, methane, and also smog and soot, to increasing air and water temperatures, and changing the climate. Each year the American Lung Association publishes a report on the State of the Air. Anyone can put in their zip code and see what the air is like that they're breathing. Here's what the 2021 report said about Delaware: Smog Soot Orange Days (unhealthy air -lung and heart problems) • Kent C A 3 • N.C.FC 16 • Sussex C A 5 (these unhealthy conditions are just from air quality, and don't reflect the dangers caused by extreme heat – there were 10 of the latter days in 2021, and it's predicted there will be 50 such days by 2030) People at risk in Delaware, Statewide: • Pedi Asthma 15,000 • (second highest prevalence in U. S.) • Adult Asthma 76,000 • COPD 66,000 • CV Disease 73,000 • Poverty 106,000 • POC 374,000 COVID – 18% higher death rate in communities with higher soot levels – such as New Castle County. So, there are already health impacts from poor air quality and climate change, and there are many Delawareans at risk for problems. Health problems lead to financial problems- World-wide the cost of poor air quality is put at 3-5% of Gross Domestic Product, and studies show this holds too for the United States. That means, on the low end, it costs Delawareans at least $2000/person/per year for each adult and child. That comes from excessive visits to doctors, emergency care, and hospitalizations, medications, missed school attendance, and lost productivity and wages due to missed work, as well as from the increasing cost of health insurance for individuals, employers, and the state. If we replace just 1/3 of our electricity needs with wind and solar power, an amount consistent with current proposals for off-shore wind, we will save 10 lives per year, and about $60-70 million per year in excessive costs for health care. I urge BOEM to support the continued approval process for the two US Wind projects off the coast of Delaware. We owe it to our health. (Attached pdf of Buonocore_2016 to the comment)	Thank you for your comment.
FDMS_0892_012	E. The Significance of Climate and Air Quality Benefits from the Proposed Action We are pleased that BOEM has expanded its analysis of offshore wind's beneficial climate impacts to include the social cost of greenhouse gas (GHG) emissions. As the DEIS indicates, the Biden Administration issued interim guidance to instruct agencies on how to account for the climate impacts of projects. 44 This benefit analysis has demonstrated the potentially immense benefits of offshore wind, with a range of approximately $1.1 billion to $13 billion in projected benefits from the Projects. 45 We urge BOEM to continue to use the social cost of GHG analysis in future NEPA analyses and reiterate that this analysis highlights how beneficial responsible renewable energy projects can be.	Thank you for your comment.

Comment No	Comment	Response
HANDIN-24_0021_002	This wind farm imitative will not lower carbon emission, they will increase ocean water temperature and reduce ocean breezes, radar and rescue operations will be jeopardized	Thank you for your comment. Carbon emission reductions are calculated using the avoided emissions tool, which represents the dispatch of electricity and historical patterns of power generation. Data from EPA's Air Markets Program and National Emissions Inventory is analyzed including actual past generation patterns, heat input, and emissions data given regional demand levels. The tool can estimate the emissions impacts of onshore and offshore wind energy projects and calculate emissions impacts based on the hourly generation information in the regional data files. As stated in the Final EIS, due to WTG spacing and minimum blade tip clearance above the ocean surface, USCG marine assets could safely navigate and maneuver within the Lease Area. However, the presence of the WTGs would affect USCG's ability to conduct standardized/grided search patterns. As stated in the US Coast Guard Port Access Route Study for Areas Offshore of Massachusetts and Rhode Island (cited in the Final EIS), general mitigation and monitoring measures such as properly trained radar operators, properly installed and adjusted vessel equipment, marked wind turbines, and the use of AIS all would enable safe navigation with minimal loss of radar detection.

O.8.2 Alternatives - General

Table O.8-2. General Responses – Alternatives General

Comment No	Comment	Response
FDMS_0824_003	REGIONAL PLANNING We implore BOEM to continue to work with states, tribal governments, and stakeholders to implement the actions in the two approved Regional Ocean Plans, and to continue to update and utilize data on the ocean data portals (10 11) Regional Ocean Plans should continue to be recognized as key planning documents for informing the siting of potential offshore wind projects. The Northeast and Mid-Atlantic Ocean plans involved years of data collection and public process, coordinated under regional planning bodies. These planning efforts brought together relevant federal agencies, states, tribal governments, fishery management councils, stakeholder groups, and interested members of the public to develop a common vision for the future development and conservation of the ocean. A core element of regional ocean planning is the collection and analysis of geospatial information on ecological resources and human uses in the coastal and marine environment. These data sets can be accessed through the regional ocean data portals and are critical resources for BOEM and other agencies, as well as permit applicants to consider when evaluating siting of potential renewable energy generation developments. Data portals provide a transparent and common reference for all stakeholders potentially affected by offshore projects. (10 Mid-Atlantic Regional Planning Body. Mid-Atlantic Regional Ocean Action Plan. November 2016. Available at: http://www.boem.gov/sites/default/files/environmental-stewardship/Mid-Atlantic-Regional-Planning-Body/Mid-Atlantic-Regional-Ocean-Action-Plan.pdf. 11 Northeast Regional Planning Body. Northeast Ocean Plan. December 2016. Available at: https://neoceanplanning.org/wp-content/uploads/2018/01/Northeast-Ocean-Plan_Full.pdf.	Comment acknowledged. Implementation of regional ocean plans and maintenance of the ocean data portals are outside the scope of this project-level environmental review for the Maryland Offshore Wind COP.
HANDIN-26_0008_001	The feasibility of wind powered projects have proven to be less efficient than alternatives, namely nuclear power.	Thank you for your comment. Analysis of nuclear energy is not within the scope of this Project and would not be appropriate to analyze within this EIS.

Comment No	Comment	Response
MAILIN_0005_001	As mandated by the National Environmental Policy Act (NEPA), the Lead Agency sponsoring this project, which in this case is the Bureau of Ocean Energy Management (BOEM), should consider multiple viable project alternatives, including a No Action, for the Proposed Action. Once these alternatives are identified, a detailed review of potential impacts to the natural and built environment, including proposed mitigation measures where necessary, is required for each alternative. This review will determine whether the preferred alternative or another alternative addresses the project's purpose and need while minimizing impacts. Not until further study and a thorough review of all potential significant impacts regarding horseshoe crabs, seabirds, seabird collisions, finfish, visual, socio-economic, recreational activities and commercial fishing noted herein is conducted and mitigation is proposed where identified impacts cannot be avoided, can the Lead Agency decide which alternative, if any, should move forward into project implementation. The Record of Decision for this EIS is to document the decisions, alternatives, and mitigation for the project that will be authorized.	Thank you for your comment.
MAILIN_0005_010	From a resource perspective, Alternative A or C is a better option than the Preferred Alternative given it involves less risk of impairment and unforeseen consequences to benthos.	Thank you for your comment.
TRANS-30_0041_003	Lastly, the BOEM has failed to adequately consider alternative clean sources of energy that can be built in place of these steel monstrosities. Nuclear power, for instance, offers a safe and green alternative, with superior performance, reliability standards, and often they exceed 90 percent compared to relatively low 36 for wind energy. Wind energy's inconsistency due to its weather dependence can lead to energy supply issues such as brownouts. Moreover, the massive unrecyclable blades used in wind turbines generate significantly more waste compared to nuclear power. So, in conclusion, I urge you to reject the plan to expand the offshore wind energy in Maryland waters. The current projects are having adverse effects on wildlife, proving to be financial burdens, and failing to consider alternative energy sources adequately. It is imperative that we prioritize sustainable and responsible energy solutions that do not compromise the environment or burden the American people.	Thank you for your comment. In accordance with the Department of the Interior's (DOI) regulations implementing NEPA at 43 CFR 46.415(b), an EIS shall document the examination of the range of alternatives (paragraph 46.420(c)). The range of alternatives includes those reasonable alternatives (paragraph 46.420(b)) that meet the purpose and need of the proposed action, and address one or more significant issues (43 CFR 46.415(b)) related to the proposed action.

O.8.3 Alternative A - No Action

Table O.8-3. General Responses – Alternative A - No Action

Comment No	Comment	Response
FDMS_0016_001	I am writing in support of Option A. No windmills in our oceans.	Thank you for your comment.
FDMS_0026_001	I fully support Option A. These windmills will kill our ocean. They need to be stopped!	Thank you for your comment.
FDMS_0027_001	Option A: take no action	Thank you for your comment.

Comment No	Comment	Response
FDMS_0029_001	As outlined in the Maryland Offshore Wind DEIS, there are 4 identified Irreversible Impacts and 8 identified Irretrievable Impacts from moving forward with this project as planned. (Note, Merriam-Webster's definition of irreversible is not able to be undone or reversed; irretrievable is defined as impossible to regain or recover). Irreversible Impacts include permanently altering Bats, Birds, Cultural Resources, Land Use and Coastal Infrastructure. Irretrievable Impacts which are impossible to reverse include Marine Mammals, Sea Turtles, Commercial Fisheries for Hire, Recreation Fishing, Cultural Resources, Environmental Justice, Land Use and Coastal Infrastructure, Navigation and Vessel Traffic and Visual Resources. For sea life, the report states. "high severity for behavioral effects, injured, killed or eliminated." Really? Is it acceptable to completely eliminate species of sea life for a wind farm? The report specifically states, "Due to the lack of information available, the effects (irreversible and irretrievable) are possible." Since there is a lack of information, what else is possible? What else do we not understand and can foresee as a consequence of this action? Will the MD Offshore Wind Farm become like the environmental injustice that occurred when fracking started throughout the United States several decades ago? Let's applaud the Maryland General Assembly for being the first state in America with actual gas reserves available to ban fracking because of the long-term, irreversible, and irretrievable damage it could cause to our environment. Offshore Wind Farms have just as catastrophic consequences if not worse because of the unknowns. Don't rush to do something to meet a politician or a political body's short-term vision for the future. Chose A – Not Action Alternative. There are just too many irreversible and irretrievable impacts.	Thank you for your comment.
FDMS_0035_001	The Outer Continental Shelf Lands Act defines the Outer Continental Shelf ("OCS") as all submerged lands lying seaward of state coastal waters (i.e., generally 3 miles offshore) that are under United States jurisdiction. 43 U.S.C. § 1331(a). Subsection 8(p) of OCSLA authorizes the Secretary to "grant a lease, easement, or right-of-way on the [OCS]" for certain activities, including those to "produce or support production, transportation, or transmission of energy from sources other than oil and gas." 43 U.S.C. § 1337(p)(1)(C). The Secretary of the Interior must consider certain factors before acting under subsection 8(p). Specifically: [t]he Secretary shall ensure that any activity under [subsection 8(p)] is carried out in a manner that provides for— (A) safety; (B) protection of the environment; (C) prevention of waste; (D) conservation of the natural resources of the outer Continental Shelf; (E) coordination with relevant Federal agencies; (F) protection of national security interests of the United States; (G) protection of correlative rights in the outer Continental Shelf; (H) a fair return to the United States for any lease, easement, or right-of-way under this subsection; (I) prevention of interference with reasonable uses (as determined by the Secretary) of the exclusive economic zone, the high seas, and the territorial seas; (J) consideration of— (i) the location of, and any schedule relating to, a lease, easement, or right-of way for an area of the outer Continental Shelf; and 3 (ii) any other use of the sea or seabed, including use for a fishery, a sealine, a potential site of a deepwater port, or navigation; (K) public notice and comment on any proposal submitted for a lease, easement, or right-of-way under this subsection; and (L) oversight, inspection, research, monitoring, and enforcement relating to a lease, easement, or right-of-way under this subsection. This subsection 8(p)(4) of OCSLA imposes a general duty on the Secretary to act in a manner providing for the subsection's enumerated goals. The subsection does not require the Secretary to ensure that the goals are achieved to a particular degree, and she retains wide discretion to determine the appropriate balance between two or more goals that conflict or are otherwise in tension. This is unfortunate. Given the magnitude of this project and the long-term irreversible impact to the environment and to the economy, the Secretary of the Interior who has publicly stated her support for environmental justice and environmental conservation, must take into account safety and protection of the environment when considering moving forward with this particular project. Given the irreversible and irretrievable impacts outlined in the report along with the statement that there is an overall "lack of information available regarding the effects" of this wind farm, it is unacceptable to approve this project as it stands. Its also unacceptable that the full report isn't publicly available to review as a very important part of the study, called the Economic Assessment Study is inaccessible and noted as confidential. Therefore, the Secretary must side with environmental justice and choose Plan A.	Thank you for your comment.
FDMS_0064_001	In a rush to push this project to public comment, a full analysis of the cost to the taxpayer for an offshore wind farm of this magnitude up through decommission has been significantly underestimated and understated. Offshore wind farms are incredibly expensive and given the fact that there were two different consultants from the Maryland Public Service Commission that stated that the same amount of onshore wind and solar could be built for a quarter to one-third of the cost of this project must be responded to before this project is approved. An independent analysis of the costs of all three renewable energy sources must be conducted and provided to the public. Therefore, the option to move forward with is A at this time.	Thank you for your comment.

Comment No	Comment	Response
FDMS_0125_001	I strongly oppose the wind farm project and support Alternative A. As a resident of Ocean City I am concerned about and quite baffled why the visual and environmental impacts are considered moderate. Ocean City is a major tourist location where people come to enjoy the beaches that look out over open ocean. In other words the wind farm will be a form of “aesthetic pollution” negatively affecting tourism and resulting in a disastrous reduction in rental and property values. Limited studies on the visual impact were not done with the proposed 18 megawatt turbines. With the size of these wind turbines they will be seen from the beaches. Just as when an open vista on land is developed, once it is gone, it is gone. Although Ocean City has changed over the last century, the one constant in Ocean City has been the beautiful view from the beach. The economic impact of the reduction in tourism and property values will be massive. Once tourism doesn’t return, what will be left – the wind farm. 1. I strongly disagree with another previous commenter that stated that there will be little or no impact on marine and avian life. From everything that I have read just as there hasn’t been enough study on the economic impact, there has been less on the environmental impact. The underwater mapping already has had a disastrous effect on wildlife (whale deaths have increase 140% since the beginning of the mapping), and the construction of this windfarm will have even more disastrous impact on private fishing, as well as the livelihood of our commercial marine fishermen, as well as marine mammals such as whales. Once the wildlife is gone off the shore of Ocean City, what will be left – the wind farm. 2. Many of the commenters were not from Ocean City. Ocean City and Worcester Couty residents will be the only ones impacted. How much of the supplied energy even benefit MD? 3. Even BOEM’s own study claims that there will be NO impact on the temperature of the earth. 4. If, and only if the wind farm must be developed, I am extremely disappointed with the lack of an alternative to relocate the wind farm north offshore of a lesser populated area such as DE. As the main underwater supply in shores in DE I question why the farm isn’t located further north closer to Indian River and why are they so close to the heavily populated Ocean City shore. Could this be political in nature, like trying to avoid Rehoboth Beach? I want to be on the record that I support Alternative A.	Thank you for your comment.
FDMS_0143_001	I support Alternative A, the "No Action Alternative", where BOEM would not approve the COP. I am strongly against all of the other alternatives. While renewable energy is a noble goal, this project is not worth the cost and would have a negligible impact on Global Warming overall. Wind Turbines are an eyesore on land and they will be an eyesore offshore. I've seen the renderings of what a 1,000 foot high wind turbine will look like offshore and it will have a dramatic impact on the visual landscape. As the studies by NC State that were referenced in the public hearing on 10/30 by the Ocean City Town Manager show, wind turbines will have a negative impact on tourism and therefore property values. I'm also concerned about the impact to marine life and the disruption to whale and other marine habitat. Lastly, I have not seen any evidence that projects like this will actually be economically viable and there's a likelihood that taxpayers will be on the hook for far more than originally intended. As shown in the Wall Street Journal in an article by Allysia Finley on October 30, 2023, "American companies are also pleading for government help. Large offshore wind developers in September importuned New York’s Public Service Commission to increase contractual payments by an average of 48% to cover their costs. Regulators rejected their requests. Now developers are mulling whether to cancel the projects if they can’t coax more corporate welfare out of the Biden administration. Denmark’s Orsted, the world’s top offshore wind developer, and U. S. governors in the Northeast are lobbying the White House to boost subsidies in the Inflation Reduction Act to cover 50% of wind project costs. Taxpayers and electricity customers will inevitably have to pay more to support wind energy, Orsted CEO Mads Nipper said last month. “And if they don’t, neither we nor any of our colleagues are going to build more offshore,” he warned. “It’s very simple.” Other wind executives are handing down similar ultimatums. One of the largest U.K. power generators, RWE, told the British government last week that its payments to wind developers would have to rise 70% if it wanted more projects built. " Please vote for Alternative A.	Thank you for your comment.

Comment No	Comment	Response
FDMS_0164_001	I am a homeowner and full time resident of Ocean City, MD. As a full time resident and tax payer of the town Ocean City and state of Maryland, I am not in support of this project. Therefor, I request the Maryland Off Shore Wind Project move forms with Alternative Action Option A which is the "No Action" Alternative which means this off-shore wind project is not approved. Moving forward with this project will be detrimental to the personal pockets of tax payers and consumers of energy in the region. Renewable energy has proven to be a net cost increase for those areas that have already implemented it. This is due to increased maintenance, decreased efficiency, and increased instability in the electrical grid. If the this wind project could in anyway be showed to decrease overall energy costs, BOEM would have made that fact the fore front of their platform. Instead, they skirt that question, speaking in generalities and point out government subsidies being provided at the moment now, but not guaranteed in the long term. BOEM's goal is to move forward regardless of this and then once the true cost increases are incurred the tax payer and rate payer will be on the hook with no recourse.	Thank you for your comment.
FDMS_0166_001	Approve Alternative A - the No Action Alternative, BOEM would not approve the COP; the Project construction and installation, O&M, and conceptual decommissioning would not occur; and no additional permits or authorizations for the Project would be required. Any potential environmental and socioeconomic impacts, including benefits, associated with the Project as described under the Proposed Action (Alternative B) would not occur. However, all other existing or reasonably foreseeable future impact-producing activities would continue. The ongoing effects of the No Action Alternative serve as the baseline against which all action alternatives are evaluated. Under the No Action Alternative, impacts on marine mammals incidental to construction activities would not occur. Therefore, NMFS would not issue the requested authorization under the MMPA to US Wind. Given the lack of transparency, the number of documents not available for public review along with the disastrous impact to our beautiful coast, mammals, birds and other sea life including permanently altering whales' migration routes is enough to halt this project. Just off the coast of Ocean City, there are breeding and migration patterns that will be adversely impacted by the drilling, installation and boat activity as a result of the off shore wind project that will permanently alter this part of the ocean. It is incumbent upon this body to fully research through an unbiased and non-political lens the consequences of this large project as there are irretrievable is defined as impossible to regain or recover irreversible impacts that have been cited in the report. This is why Alternative A is the only solution. https://wwfwhales.org/news-stories/protecting-blue-corridors-report.	Thank you for your comment.
FDMS_0169_001	I am a homeowner of an oceanfront condo and taxpayer in Ocean City, MD. Please note my public comment for ALTERNATIVE A to halt the project. I do not want to see this project move forward. It’s not clear whether the study includes research on the impact to the seabed and contaminants that would be released. Those contaminants could add additional stress to the ecosystem. The effects of the fragile marine and costal habitats has not been studied closely enough. I have concerns about the distance from the shore being too close at 10 nautical miles, however, Alternative D suggests moving the wind farm further to 15 nautical miles also poses concerns as it requires longer subsea cables to interconnect the facility and components to each other and the sea floor which may increase the electromagnetic fields in the water column and interact with the marine ecosystem. As these wind farms expand in size and increase in distance from the shore there is an increase in marine noise and vibration from turbines and the mounting structure and anchoring systems, as well as the emission of electromagnetic fields. Separately, we should be more clear about the jobs that would be created and the jobs that would be impacted. Many local fishing people oppose the project due to the impact to the fishing industry and adverse effects on spawning grounds. The fishing industry creates thousands of jobs across the seaboard. This project has an impact on the fishing industry which has not been fully or thoroughly assessed at this time. The effects on marine life are widely documented, specifically for fish and whale species. Sea life has to travel further to escape the vibrations of the turbines and end up dying and losing their calves due to long distances traveled from their routine paths. We cannot ignore the devastating effects this project would have on the oceans. These effects have been widely undisclosed during the BOEM presentations. I advocate for Alternative A and to halt the project. This is NOT a partisan issue. This isn't about the left or the right, it's about protecting and preserving our oceans - it's about stopping big money from benefitting in this project, with little to no regard to the consequences. OPTION ALTERNATIVE A IS THE ONLY OPTION FOR OCEAN CITY and the Eastern Seaboard.	Thank you for your comment.

Comment No	Comment	Response
FDMS_0170_001	I'm against any turbine industrial wind system in our oceans. Don't destroy or impact our last untouched and biggest natural resource. Option A - no windmills is the only choice.	Thank you for your comment.
FDMS_0171_001	I support Option A - NO WIND TURBINES	Thank you for your comment.
FDMS_0172_001	Option A - no windmills is the only choice. This construction of these turbines alone will cause more pollution than they will help. There has been no discussion or research on the steel mill that has been acquired to manufacture these towers. Do you think the steel mill will be 100% environmentally pollutant free, answer is No. Look at the industrial waste these plants cause, the mills throughout Pennsylvania are environmental wastelands. The turbines are constructed with layers very toxic resins. The toxins and corrosive fluorocarbons released in the production of these turbines causes more damage than good. Plus the turbines release more toxins once the bake and heat up in the sun. The towers work on hydraulics so the structure is filled with petroleum base oils that eventually and typically of leak which will enter our ocean destroying marine life and causing sludge to our beaches.	Thank you for your comment.
FDMS_0176_001	It is incumbent for this group to approve Alternative Plan A until all of the FOIA requests for access to all confidential documents in the study are released. The lack of transparency around key issues such as oil spill response plan and mitigation, the safety management system and the Economic Assessment Study that are marked confidential and not shared with the public are critical pieces of information to inform this decision.	Thank you for your comment.
FDMS_0275_001	Will I be reimbursed for the diminishment in my property value due to this project's negative impact on the ocean view from my condo? I'm for Alternative A - NO wind turbines. Alternatively, locate them further offshore where they don't impact our ocean views.	Thank you for your comment.
FDMS_0276_001	Will I be reimbursed for the diminishment in my property value due to this project's negative impact on the ocean view from my condo? I'm for Alternative A - NO wind turbines. Alternatively, locate them further offshore where they don't impact our ocean views.	Thank you for your comment.
FDMS_0277_001	Will I be reimbursed for the diminishment in my property value due to this project's negative impact on the ocean view from my condo? I'm for Alternative A - NO wind turbines. Alternatively, locate them further offshore where they don't impact our ocean views.	Thank you for your comment.
FDMS_0278_001	Will I be reimbursed for the diminishment in my property value due to this project's negative impact on the ocean view from my condo? I'm for Alternative A - NO wind turbines. Alternatively, locate them further offshore where they don't impact our ocean views.	Thank you for your comment.

Comment No	Comment	Response
FDMS_0280_001	I own two condos, ocean front in OCMD. So a helpful taxpayer. There are many reasons and I will list them here. 1. They will be ugly looking! 2. The loss of revenue due to the ugliness of an ocean front view will not only drop the value, but the renting as well, hurting OC in its pocketbook. 3. The windmills grew in size and moved closer. The reason for this is the electric it makes it loses around 25% of it as it travels to the shoreline. Do we know the effects of ocean life with the electricity? And what happens if it happens to release electricity in the water? Anyone know? 4. Dolphins find food based on their sonar ability, is this going to confuse them and cause them to beach themselves? Do you know? 5. How cute will those blinking lights look as you gaze out over the ocean? Not too nice I believe. 6. Each windmill and I hear they are doing 120 of them, will take up 12 thousand cubic feet. 7. So tell me, where will that displaced water go? It will of course end up on our shoreline. 8. We have a white Marlin tournament here in OC every year bringing in thousands of people with names like Michael Jordan fishing. What are the windmills going to do to those fish? Do you know? 9. Do you really believe that people will not care about the look off the balcony, when instead of seeing dolphins, they see windmills? Do you not understand that OCMD is a tourist town and as such depends on its Ocean to bring in the people year after year? Do you think they won't instead go to Virginia or NJ? 10. Have you all considered the value of property dropping due to an altered view? 11. What are you going to do with the carbon fiber blades when they go bad? Have you seen we have no way to get rid of them? Look at Texas, I believe they started a dump for them as they have no idea what to do with them. The time has come to start thinking about the beauty of our Ocean and the animals within it. It is not our earth to destroy, in order to make electricity. Please wake up and enjoy our beautiful town. I'll finish with this. Most windmills are not making enough money and the companies are going broke and they want the government to bail them out. Be aware, this will end up costing us more than our view. Vote A	Thank you for your comment.
FDMS_0294_001	Alternative A no action. This project will mar the beautiful ocean view owners of condos in Ocean City Maryland now have. It will also affect tourism to our area.	Thank you for your comment.
FDMS_0295_001	Alternative A. No Action Alternative. Having the Huge turbines so close to shore negatively affects the pristine Ocean view at Ocean City beaches as well as having detrimental affects on Marine life (unexplained injuries and deaths to whales and dolphins) and possible damage to horseshoe crabs. The high cost for building and maintenance of the turbines and inability to recycle damaged blades further requires reassessment of this project. Other Coastal areas in Virginia and North Carolina have viable wind farms 25-26 miles from shore instead of the 10 - 13 miles wanted here	Thank you for your comment.
FDMS_0297_001	Alternative A NO ACTION ALTERNATIVE	Thank you for your comment.
FDMS_0301_002	I vote for Alternative A No Action Alternative	Thank you for your comment.
FDMS_0304_001	I want Alternative A No Action Alternative!!! The turbines are too tall & too close! I don’t want them at all!! They will destroy the skyline view, reduce property values, hurt the tourist industry in Ocean City and Delaware as tourists will flock to sea lines w/o the turbine view, interfere with the marine life & fishing industry, and are just not needed.	Thank you for your comment.
FDMS_0305_001	Vote for Alternative A- no action	Thank you for your comment.

Comment No	Comment	Response
FDMS_0306_001	Alternative A no action alternative	Thank you for your comment.
FDMS_0307_001	Alternative A no action alternative	Thank you for your comment.
FDMS_0311_001	I am a homeowner and full time resident of Ocean City, MD. As a full time resident and tax payer of the town Ocean City and state of Maryland, I am not in support of this project. Therefore, I request the Maryland Off Shore Wind Project move forward with Alternative Action Option A which is the "No Action" Alternative which means this off-shore wind project is not approved. Moving forward with this project will be detrimental to tax payers and consumers of energy in the region as renewable energy has proven to be a net cost increase due to increased maintenance, decreased efficiency, and increased instability in the electrical grid. If the this wind project could in anyway be shown to decrease overall energy costs, BOEM would have made that fact the fore front of their platform. Instead, they skirt that question, speaking in generalities and point out government subsidies being provided at the moment now, but not guaranteed in the long term. BOEM's goal is to move forward regardless of this and then once the true cost increases are incurred the tax payer and rate payer will be on the hook with no recourse. The affect on Sea Life and Humanity will be unfathomable. This is just something we cannot afford to lose. It has already been proven that deteriorated windmills are neglected because maintenance, replacement and repair costs are prohibitive, leaving non- working windmills polluting the waters.	Thank you for your comment.
FDMS_0312_001	I chose Alternative A - no action alternative. More studies need to be done on how this affects native life. Nobody wants the local fish and dolphins to leave this area. This is why we purchased property by the ocean in the first place!! This will drastically affect property values and the rental prices - not to mention the businesses that will dry up when people no longer come to visit to have to look at the eyesore of a view. This must be stopped. There are plenty of other places to place these monstrosities where there aren't any residents that need to look at them each and every day. There's no reason to put them in the heart of a busy vacation spot.	Thank you for your comment.
FDMS_0314_001	I want Alternative A no action alternative.	Thank you for your comment.
FDMS_0320_001	Alternative A is the only option!!! No off shore wind turbines. I'm voting this option as a full time resident of Ocean City and I am concerned about inefficiency and expense of these turbines. I do not want to see them on this beautiful skyline either.	Thank you for your comment.

Comment No	Comment	Response
FDMS_0328_001	See attached file recommending Alternative A: No Action. No offshore wind turbines should be constructed offshore Maryland. I. Low Power Production A. U.S. East Coast offshore wind turbines are expected to produce power only 42% of the time. Compare to nuclear power plants which produce power approximately 95% of the time. Worst yet, offshore wind generates the least amount of power in the summer when most needed! II. Global Air Pollution A. U.S. Wind accounts for air emissions near the wind farms but ignores the air pollution far away in the production and shipment of needed materials and products from foreign places with little or no air quality laws. III. Child Labor/Slave Labor/Forced Labor A. Cobalt is a necessary component in offshore wind projects. The Congo is the largest producer of cobalt where it is mined under appalling condition using child labor which the State Dept has acknowledged! US State Dept Acknowledges Forced and Child Labor in the Clean Energy Transition "Poverty-driven child labor remains prevalent" in the mining of cobalt: https://www.state.gov/wp-content/uploads/2022/07/Forced-Labor-and-the-Clean- Energy-Transition-Finding-A-Responsible-Way-Forward.pdf B. In China, where most raw materials and green energy products are produced, mining is conducted using forced or slave labor. C. In Ecuador, where balsa wood is harvested to be used in turbine blades, workers have reportedly been subjected to substandard labor conditions, including payment being made with alcohol or drugs. Evidence of Forced Labor/Poor Labor Conditions in Production of Wind Turbines: https://www.theguardian.com/environment/2022/nov/29/evidence-grows-of- forced-labour-and-slavery-in-production-of-solar-panels-wind-turbines IV. Dangerous High Voltage Cables Coming Ashore A. There is no guarantee that hazardous high voltage cables will stay submerged. Sand shifts. A 34,500 volt block island cable was exposed 1 year after installation. Exposed High Voltage Cable at Block Island Beach: https://www.wpri.com/news/exposed-high-voltage-line-at-block-island-beach-has- residents-unnerved/ V. Decommissioning/Recycling Wind Turbines A. Wind turbine blades are made of fiberglass composites and cannot be easily recycled. These massive blades must be replaced every 20 years, and sometimes more often if they break or need upgrades. Promises are made to recycle; but the reality is that most decommissioned blades end up in landfills. New landfills will be needed to trash the thousands of huge blades coming up for decommissioning. Thousands of Old Wind Turbine Blades Pile Up in West Texas: https://www.texasmonthly.com/news-politics/sweetwater-wind-turbine-blades- dump. VI. Negative Visual Impact A. Viewshed: We will see the offshore wind turbines as ugly wind factories by day and flashing red lights by night unless the 853 ft wind turbines are 38 nautical miles from shore. Calculate distance to horizon based on current wind turbine height of 853' and 9' above sea level on boardwalk: (square root of 9=3) × 1.17 = 3.51 (square root of 853=29.2062) x 1.17 = 34.17 3.51 + 34.17 = 37.68 nautical miles VII. Dangerous Working Conditions A. Wind Energy is risky business that results in high insurance rates. According to OSHA wind energy workers are exposed to hazards that can result in fatalities and serious injuries. Many incidents involve falls, severe burns from electrical shocks and arc flashes, fires, and crushing injuries. OSHA Wind Energy Hazards: https://www.osha.gov/green-jobs/wind-energy/electrical#:~:text=Workers%20in%20wind%20farms%20are, can%20caus e%20injury%20and%20death. As the foregoing comments demonstrate, Alternative A: No Action is recommended. No offshore wind turbine factories should be constructed offshore Maryland. Under the recommended No Action Alternative, BOEM would not approve the COP. Project construction and installation, O&M, and decommissioning would not occur, and no additional permits or authorizations for the Project would be required.	Thank you for your comment.

Comment No	Comment	Response
FDMS_0331_001	I recommend Alternative A: No Action. No wind turbines should be constructed offshore Maryland	Thank you for your comment.
FDMS_0332_001	I recommend Alternative A: No Action. No wind turbines should be constructed offshore Maryland	Thank you for your comment.
FDMS_0333_001	I recommend NO ACTION. No wind turbines should be constructed offshore Maryland	Thank you for your comment.
FDMS_0334_001	I recommend Alternative A: No Action. No wind turbines should be constructed offshore Maryland.	Thank you for your comment.
FDMS_0335_001	I recommend alternative A: No action. No wind turbines should be constructed off Maryland.	Thank you for your comment.
FDMS_0336_001	I recommend alternative A: No action. No wind turbines should be constructed off Maryland.	Thank you for your comment.
FDMS_0338_001	I recommend Alternative A: No Action. No wind turbines should be constructed offshore Maryland.	Thank you for your comment.
FDMS_0341_001	I recommend Alternative A - no action. These projects are not cost effective nor are they green. They make for excellent targets for terrorists and will destroy so much marine life and impair our commercial fishermen. NO ACTION	Thank you for your comment.
FDMS_0344_001	Want Alternative A No Action Alternative	Thank you for your comment.
FDMS_0347_001	I recommend Alternative A: No Action. No wind turbines should be constructed offshore Maryland. No wind turbines should be constructed anywhere in any ocean!!!	Thank you for your comment.
FDMS_0359_001	I recommend Alternative A. No action. No wind turbines should be constructed offshore Maryland.	Thank you for your comment.
FDMS_0361_001	Alternative A No Action Alternative	Thank you for your comment.
FDMS_0363_001	I am a homeowner and full-time resident of Ocean City, Md I believe their increased long term Maintenance and cost increases will cause the tax payer hardship. I am not in support of this project. Therefore, I request the Md offshore wind project move forward with Alternative Action Option A Which is “No Action” Which means this off shore Wind project is Not Approved.	Thank you for your comment.
FDMS_0364_001	“I recommend Alternative A: No Action. No wind turbines should be constructed offshore Maryland.”	Thank you for your comment.
FDMS_0378_001	I recommend Alternative A: No Action. No wind turbines should be constructed offshore Maryland.	Thank you for your comment.
FDMS_0380_001	No action	Thank you for your comment.
FDMS_0384_002	Off shore wind farms are dangerous and will permanently and irreversibly alter our oceans and sea life forever. Alternative A must be chosen in order to protect our planet.	Thank you for your comment.
FDMS_0398_001	“I recommend Alternative A: No Action. No wind turbines should be constructed offshore Maryland.”	Thank you for your comment.

Comment No	Comment	Response
FDMS_0424_001	We are property owners in Delaware and frequent the Delaware seashore state park, including 3Rs beach. We are opposed to the Wind Energy Facility and recommend Alternative A: No Action. Below are our primary reasons as well as feedback on BOEMs study: The industry itself seems to have neither the technological capability nor financial stability to execute the proposed plans. Numerous publicly available media reports in recent months have highlighted financial troubles, with Orsted recently announcing their plans to stop proposed windfarms off the coast of NJ. Additionally, there have been reports of the turbine motors failing and the buried cables becoming exposed. Embarking on such an ambitious project, with over 100 wind turbines, of a size and scale where there is no existing corollary, is not reasonable. The real effects on marine and avian wildlife of both the construction and operation of this proposal cannot be known with certainty. All claims are based on assumptions, which should be tested before moving forward and the overall approach needs to be re-examined. There should be consideration of a smaller pilot-scale project as a first step. The BOEM report assesses the impact of the proposal (Alternative B) across several variables that will affect the local population, including economic considerations. We found this assessment to be lacking in depth. Assessing impact without also evaluating likelihood and risk/mitigation of the worst case across each variable does not provide full disclosure of potential impact or actions that may need to be taken if the impact assessed turns out to be wrong. Simply stated, each declared impact could in fact be wrong, because the underlying assumptions were wrong (or missed). The likelihood of the stated outcome should be transparent to the public, along with the risk of the predicted outcome being incorrect. Given the potential impact to citizen's livelihoods and the environment, mitigations for the worst-case scenario need to be thought through, disclosed, and documented in advance. The report assessed landfall at the DE seashore, 3Rs beach. It defies logic as to why a US Government agency would accept industrialization of a park when there are numerous areas along the DE/MD coast that are already industrialized. The landfall location is not appropriate and should be moved to an area that will not impact the environment or forever alter current and future citizens ability to enjoy a natural environment. In summary, we are both supportive of alternative energy solutions, however the scale of this proposal is not appropriate for the area or the current state of the industry and technology. As already stated, it should be scaled back, a pilot program should be employed to test assumptions and allow the technology to develop. Pushing the windfarm through and having it fail outright (economically) or having the impacts be more severe than assumed in the report, will set the effort to move to green energy back, likely decades. The best path forward is a thoughtful, staged approach. Again, we recommend Alternative A: No action.	Thank you for your comment.
FDMS_0432_001	I recommend Alternative A. No action no windmills turbines constructed offshore Maryland or Delaware. I feel research should be done in constructed turbines in rural areas.	Thank you for your comment.
FDMS_0532_001	No Windmills Alternate A, Steel used in turbine construction embodies typically about 35 gigajoules per metric ton. To make the steel required for wind turbines that might operate by 2030, you'd need fossil fuels equivalent to more than 600 million metric tons of coal. Why cause more pollution and ruin our Last Natural resource the Ocean. “A two-megawatt windmill is made up of 260 tons of steel that required 300 tons of iron ore and 170 tons of coking coal, all mined, transported and produced by hydrocarbons. “A windmill could spin until it falls apart and never generate as much energy as was invested in building it.” Have Boem researched any of this multiplied by 114 windmills, not to mention the toxins in the sprayed on resin to the blades?	Thank you for your comment.
FDMS_0533_001	No Windmills option A is the only way to save the Ocean. Wind turbines do have an environmental cost. That is why they need the bubble wrapping around the drill at construction "to lower the impact damage done to the ocean floor". The drilling alone will impact the ocean environment. Water clarity to fish and beaches will not benefit.	Thank you for your comment.
FDMS_0552_001	ALTERNATIVE A, NO ACTION ALTERNATIVE. My family and I live in a ocean front condominium in Ocean City, Maryland. This windmill farm project would absolutely destroy our quality of a pleasant and beautiful life by looking at the windmills so close to our shoreline on a daily basis. Also, and most importantly, having to see the FLASHING RED LIGHTS all night long not only would be devastating as a homeowner but a tremendous deterrent and negative impact on anyone who would want to sell their residence in the future. The loss in real estate value would be tremendous. Myself personally, I would sell my place and leave Ocean City, and I am not the only one, if this windmill farm was to be built so close to our shoreline. The negative impact on the town of Ocean City would be tremendous. Lastly, there would definitely be a catastrophically negative effect on the local marine life.	Thank you for your comment.

Comment No	Comment	Response
FDMS_0632_001	I vote for Alternative A please - No Action Alternative. I cannot imagine the damage that this project would do to the marine life, just devastating.	Thank you for your comment.
FDMS_0634_001	Alternative A - No Action Alternative	Thank you for your comment.
FDMS_0640_001	While I do support green energy, and was open to the project concept as presented at the public meeting held in Ocean City in 2020, I do not support the current project design as presented at the recent BOEM public comment meetings. Due to the lack of an option that provides an acceptable viewshed I strongly support Option A, such that the project can be reevaluated for viewshed, tourism, and environmental impacts. I am the owner of an oceanside co[nd]o on 76th Street in Ocean City. As an Ocean City MD property owner who purchased my property to enjoy the ocean and bay views it affords. As a family who has enjoyed Ocean City beach life for over three decades of rentals and condo ownership in the 76th street area, our property purchase is intended to benefit our family for generations to come. The viewshed impa[ct] for 84th Street in Ocean City as depicted in Sheet 5 of the 84th Street Beach Landscape and Setting Photography and showing turbines 917' above the water and only 10.8 miles from shore, is a very dramatic change from the rather minute turbine views shared during the 2020 public workshop held in Ocean City where the turbines shown were only phase I of the project and significantly shorter turbines. While the BOEM evaluation data in the Maryland Offshore Wind Draft Environmental Impact Statement is extremely impressive and thorough, the impacts on tourism and the environment lack a long term view as there is insignificant historical data to evaluate a wind form of the size proposed. The tourism impact evaluation is based upon a simple survey asking if tourists would continue to vacation in Ocean City MD if the viewshed is altered, or if they would come to see the wind turbines. There is no evidence in the draft that the tourism impact surveys conducted utilized the current vie[w] from 84th Street as the basis for the survey responses. The surveys also excluded questions regarding return visits by tourists wanting to see the wind farms, as return visits by tourists who solely come to Ocean City MD see the wind farms will most likely not return to Ocean City MD as is typical of tourists that visit major tourist destinations. The survey also does not reflect those vacationers who may have expressed they would continue to vacation in Ocean City MD prior to their viewing the finished project from their favorite beach spot, but would look to find a more pristine view of the ocean for future vacations after having experienced the view in person. The environmental impact of the construction and operation of the US Winds 114 turbine wind farm cannot be properly evaluated as the proposed density of turbines in a wind farm this size in a sensitive migratory zone is unprecedented. The proposed wind farm would contain 114 turbines on lease space of 125 square miles or 0.9 turbines per square mile is comparable to the density of the Hornsea Wind Farm in the UK, however the Hornsea Wind Farm is 80 miles offshore whereas this project is 10.8 to 25 miles offshore and directly within the normal migratory paths of birds, butterflies, fish and sea mammals. There are no existing wind farms of the size and density of the proposed project would provide a full understanding of the environmental impacts of the proposed wind farm in this highly sensitive migratory zone. The alternatives considered do not improve the location of density of the proposed wind farm, therefore until further evaluation of the impact of the density of the proposed farm based on installations in comparable environmentally sensitive locations, or consideration of relocating the lease zone further out from shore, such as the 80 mile distance from shore of the Hornsea Wind Farm, the only sensible option is Option A.	Thank you for your comment.

Comment No	Comment	Response
FDMS_0660_001	Thank you for the opportunity to give comments regarding the US Wind proposed wind project off of the coast of Maryland and southern Delaware. I have attended numerous presentations on this project conducted by US Wind representatives over the past few years. I also recently attended both public engagement activities at Ocean City Elementary and at Indian River High School. In addition, I have participated in the virtual hearings held including the hearing on Historic Resources. I must say that the BOEM staff has been very cordial and informative however I am not sure BOEM has reviewed all of the available, pertinent information so important in making logical decisions regarding this project. I am a resident of Fenwick Island, Delaware. My family has lived here for over 40 years and has enjoyed the quiet, pristine beach environment. In the last several years, thousands of retirees have moved to our community and surrounding area to enjoy this same quiet, pristine beach environment. The wind farm project is not in keeping with the environment of our beach community that is enjoyed by so many of our residents and visitors. I am opposed to the US Wind offshore wind projects. I am concerned about the adverse effects to our human and natural environment; the unacceptable threats to federally-listed endangered species; the environmental damage to our ocean floor, marine life and coastal areas; the negative impact on local tourism and associated businesses so vital to the State of Delaware's economy; the interference with defense-related and navigational radar; the effect on commercial and local fishing operations which provide food security; reduced ability of the US Coast Guard to conduct search and rescue missions, and the loss of our pristine, unobstructed ocean views. For these reasons, I encourage BOEM to make a determination that is Alternative A-No Action Alternative for the US Wind (Docket No: BOEM-2023-0050).	Thank you for your comment.
FDMS_0663_001	I am opposed to the US Wind offshore wind projects. I am concerned about the adverse effects to our human and natural environment; the unacceptable threats to federally-listed endangered species; the environmental damage to our ocean floor, marine life and coastal areas; the negative impact on local tourism and associated businesses so vital to the State of Delaware's economy; the interference with defense-related and navigational radar; the effect on commercial and local fishing operations which provide food security; reduced ability of the US Coast Guard to conduct search and rescue missions, and the loss of our pristine, unobstructed ocean views. For these reasons, I encourage BOEM to make a determination that is Alternative A-No Action Alternative for the US Wind (Docket No: BOEM-2023-0050).	Thank you for your comment.
FDMS_0664_001	I am opposed to the US Wind offshore wind projects. I am concerned about the adverse effects to our human and natural environment; the unacceptable threats to federally-listed endangered species; the environmental damage to our ocean floor, marine life and coastal areas; the negative impact on local tourism and associated businesses so vital to the State of Delaware's economy; the interference with defense-related and navigational radar; the effect on commercial and local fishing operations which provide food security; reduced ability of the US Coast Guard to conduct search and rescue missions, and the loss of our pristine, unobstructed ocean views. For these reasons, I encourage BOEM to make a determination that is Alternative A-No Action Alternative for the US Wind (Docket No: BOEM-2023-0050).	Thank you for your comment.
FDMS_0665_001	I am very much opposed to the proposed US Wind offshore wind projects. I am concerned about the adverse effects to our human and natural environment; the threats to our endangered species; the environmental damage to our ocean floor and marine life and coastal areas. Not too mention, the negative impact on local tourism and associated businesses so vital to the State of Delaware's economy. and the effect on commercial and local fishing operations. There is also the reduced ability of the US Coast Guard to conduct search and rescue missions to consider. And last but not least, the loss of our pristine, unobstructed ocean views. I shutter at the thought of looking out into the ocean and seeing these massive turbines! For these reasons, I encourage BOEM to make a determination that is Alternative A-No Action Alternative for the US Wind (Docket No: BOEM-2023-0050).	Thank you for your comment.
FDMS_0672_001	I am opposed to the US Wind offshore wind projects. I am concerned about the adverse effects to our human and natural environment; the unacceptable threats to federally-listed endangered species; the environmental damage to our ocean floor, marine life and coastal areas; the negative impact on local tourism and associated businesses so vital to the State of Delaware's economy; the interference with defense-related and navigational radar; the effect on commercial and local fishing operations which provide food security; reduced ability of the US Coast Guard to conduct search and rescue missions, and the loss of our pristine, unobstructed ocean views. For these reasons, I encourage BOEM to make a determination that is Alternative A-No Action Alternative for the US Wind (Docket No: BOEM-2023-0050).	Thank you for your comment.

Comment No	Comment	Response
FDMS_0673_001	I am opposed to the US Wind offshore wind projects. I am concerned about the adverse effects to our human and natural environment; the unacceptable threats to federally-listed endangered species; the environmental damage to our ocean floor, marine life and coastal areas; the negative impact on local tourism and associated businesses so vital to the State of Delaware's economy; the interference with defense-related and navigational radar; the effect on commercial and local fishing operations which provide food security; reduced ability of the US Coast Guard to conduct search and rescue missions, and the loss of our pristine, unobstructed ocean views. For these reasons, I encourage BOEM to make a determination that is Alternative A-No Action Alternative for the US Wind (Docket No: BOEM-2023-0050). I have owned my home in Fenwick Island for 43 years and raised my family there. I see no reason why such a huge facility needs to e so close to the shore -- thus it will me something we will see every day. Indeed, I suspect that at full operation, we will also hear the turbines. I am not opposed to renewable energy projects just one that will be visible from my DELAWARE home and of no benefit to homeowners in Fenwick Island. Move the project south by 5 miles so it is only visible from MARYLAND and move it further out to sea. Make everyone happy. Renewable energy does not have to intrude on people who will not benefit from it's installation. If it is to benefit Maryland residents, then let them carry the full burden.	Thank you for your comment.
FDMS_0674_001	I am opposed to the US Wind offshore wind projects. I am concerned for the following reasons: 1. Adverse effects to our human and natural environment 2. Unacceptable threats to federally-listed endangered species 3. Environmental damage to our ocean floor, marine life and coastal areas 4. Negative effect on local tourism and associated businesses so vital to the State of Delaware's economy 5. Interference with defense-related and navigational radar 6. Negative effect on commercial and local fishing operations which provide food security 7. Reduced ability of the US Coast Guard to conduct search and rescue missions 8. Loss of our pristine, unobstructed ocean views 9. Increased electricity costs for residents and businesses 10. Lack of secured funds to address maintenance, clean-up from potential natural disasters, and decommissioning For these reasons, I encourage BOEM to make a determination that is Alternative A-No Action Alternative for the US Wind (Docket No: BOEM-2023-0050).	Thank you for your comment.
FDMS_0696_001	I vote for Alternative A - No action The University of Maryland Center for Environmental Science writes about the Environmental impacts of wind turbines on their website, they say the following: • There are major impacts on birds and bats and risk of death from direct collisions with the turbines. • There are great risks of displacement from the turbine area causing changes in bird migration routes and loss of quality habitats • There are great impacts on marine life. • Noise is produced during the construction and installation of offshore wind farms from increased boat activity in the area and procedures such as pile-driving that will disturb marine life. • The sound levels from pile-driving, when the turbine is hammered to the seabed, are particularly high. This is potentially harmful to marine species and have been of greatest concern to marine mammal species, such as endangered whales. • The noise and vibration of construction and operation of the wind turbines can be damaging to fish and other marine species.	Thank you for your comment.

Comment No	Comment	Response
FDMS_0696_001	• Construction activities at the wind power site and the installation of undersea cables to transmit the energy to shore can have direct effects on the seabed and sediments, which can affect the abundance and diversity of benthic organisms. • Disturbance of the seafloor increases turbidity, which could affect plankton in the water column. • The presence of hard structures can provide habitat for barnacles, sponges, and other invertebrates, which may locally increase fish abundance. These processes can consequently result in attracting predators higher up the food chain, sharks. • The federal government has not spent enough time on the impact on marine life, horseshoe crabs and migratory birds and bats. Questions: 1. Can these wind turbines be made and installed without fossil fuels? 2. Our Maryland coastal horizon is a national treasure; this is our Grand Canyon, our Mount Rushmore, why is the government desecrating our horizon line with wind turbines? 3. What would make the government think anyone would want to see red blinking lights at night from these wind turbines instead of gods beautiful moon and stars? 4. Why did you allow US Wind to go from 250 foot high turbines to 938 foot high turbines? 5. Why didn't BOEM lease the land 10 miles out from Assateague, Maryland's shore, where only horses will see them? 6. Why did BOEM lease the area in front of Maryland coasts for tax paying homeowners and thousands of visiting tourists to see them? 7. How much will property taxes go down for homeowners of Ocean City Maryland, for cheapening and littering our ocean with hundreds of non-recyclable turbine towers and propellers? 8. https://www.americangeosciences.org/critical-issues/faq/what-are-advantages-and-disadvantages-offshore-wind-farms says wave action, and even very high winds, particularly during heavy storms or hurricanes, can damage wind turbines as soon as two years, when this happens, and the wind turbine propellers need replacing, how will you recycle the propellers? 9. By using old propellers and making them into concrete that is not good for the environment is it? 10. What would a total cost of one turbine be? 11. Does that cost include the following: a. How many BOEM employees are there? b. What is the high, medium and low salaries for a BOEM employees a year? c. What is the total amount of money, to this date November 19, 2023, did the United States government pay for wildlife studies including, marine life, plant life, bird and bat studies, fisherman studies, please total because your onsite information is too complicated to add up? d. How much did our government pay for the Sparrows Point Steel Plant? e. How much in tax credits did our government pay US Wind? 12. Cost of fuel to make and install the wind turbines? 13. how much global steel production is dependent on coal, for these wind turbines at 938 feet tall? 14. How much percentage of steel is made from coal? 70%? 15. How much coal and fossil fuels will it take to make offshore turbines? 16. Are wind turbine foundations made from steel and re-enforced concrete? 17. Are tubular steel towers made with 90% steel? 18. Are the generators 65% steel and 35% copper? 19. What holds the blades in place as they turn? Is that material steel? 20. How much oil synthetic or otherwise is used for the 938 foot tall turbines? 21. How much fuel will be used for the ships to haul the parts to the turbine installation site? 22. How much fuel will be used to drive the towers into the ocean floor? a. 16. At what year will the cost of the Wind Turbines will be paid off? b. 17. What year will we see a return on our money? c. 18. What year will the state of Maryland's electric bills go down due to these wind turbines? d. 19 CAN THESE WIND TURBINES BE BUILT WITH OUT FOSSIL FUELS? e. Wind turbines are not environmentally friendly and they will have catastrophic environmental effects	Thank you for your comment.

Comment No	Comment	Response
FDMS_0697_001	I am opposed to the US Wind offshore wind projects. I am concerned about the adverse effects to our human and natural environment; the unacceptable threats to federally-listed endangered species; the environmental damage to our ocean floor, marine life and coastal areas; the negative impact on local tourism and associated businesses so vital to the State of Delaware's economy; the interference with defense-related and navigational radar; the effect on commercial and local fishing operations which provide food security; reduced ability of the US Coast Guard to conduct search and rescue missions, and the loss of our pristine, unobstructed ocean views. For these reasons, I encourage BOEM to make a determination that is Alternative A-No Action Alternative for the US Wind (Docket No: BOEM-2023-0050). Please save our oceans and beaches!	Thank you for your comment.
FDMS_0699_001	Alternative A - No Action Alternative.	Thank you for your comment.
FDMS_0701_001	Alternative A - No Action Alternative.	Thank you for your comment.
FDMS_0702_001	Alternative A - No Action Alternative.	Thank you for your comment.
FDMS_0703_001	Alternative A - No Action Alternative.	Thank you for your comment.
FDMS_0704_001	Alternative A - No Action Alternative.	Thank you for your comment.
FDMS_0705_001	I vote for Alternative A - No Action Alternative.	Thank you for your comment.
FDMS_0707_001	Alternative A - No Action Alternative.	Thank you for your comment.
FDMS_0711_001	Alternative A - No Action Alternative.	Thank you for your comment.
FDMS_0713_001	With regard to offshore wind turbines I am asking for Alternative A - No Action Alternative. We need to reconsider as there is more and move evidence that this solution is not cost-effective and not the advertised "green" solution. Do not risk the environment and wildlife.	Thank you for your comment.
FDMS_0714_001	Alternative A - No Action Alternative.	Thank you for your comment.
FDMS_0729_001	Alternative A - No Action Alternative.	Thank you for your comment.
FDMS_0733_001	Please move MD offshore wind project to a minimum of 21 miles to the nearest point of Delaware. I do not want to see or hear the wind turbines at day or night. I do not want to use DE seashore park land for point of electrical interconnection. Let the proposed MD windfarm connect in MD. LET MD see the windfarm-- NOT DE. I am opposed to the US Wind offshore wind projects. I am concerned about the adverse effects to our human and natural environment; the unacceptable threats to federally-listed endangered species; the environmental damage to our ocean floor, marine life and coastal areas; the negative impact on local tourism and associated businesses so vital to the State of Delaware's economy; the interference with defense-related and navigational radar; the effect on commercial and local fishing operations which provide food security; reduced ability of the US Coast Guard to conduct search and rescue missions, and the loss of our pristine, unobstructed ocean views. For these reasons, I encourage BOEM to make a determination that is Alternative A-No Action Alternative for the US Wind (Docket No: BOEM-2023-0050).	Thank you for your comment.

Comment No	Comment	Response
FDMS_0734_001	I am opposed to the US Wind offshore wind projects. I am concerned about the adverse effects to our human and natural environment; the unacceptable threats to federally-listed endangered species; the environmental damage to our ocean floor, marine life and coastal areas; the negative impact on local tourism and associated businesses so vital to the State of Delaware's economy; the interference with defense-related and navigational radar; the effect on commercial and local fishing operations which provide food security; reduced ability of the US Coast Guard to conduct search and rescue missions, and the loss of our pristine, unobstructed ocean views. For these reasons, I encourage BOEM to make a determination that is Alternative A-No Action Alternative for the US Wind (Docket No: BOEM-2023-0050).	Thank you for your comment.
FDMS_0735_001	I am opposed to the US Wind offshore wind projects. I am concerned about the adverse effects to our human and natural environment; the unacceptable threats to federally-listed endangered species; the environmental damage to our ocean floor, marine life and coastal areas; the negative impact on local tourism and associated businesses so vital to the State of Delaware's economy; the interference with defense-related and navigational radar; the effect on commercial and local fishing operations which provide food security; reduced ability of the US Coast Guard to conduct search and rescue missions, and the loss of our pristine, unobstructed ocean views. For these reasons, I encourage BOEM to make a determination that is Alternative A-No Action Alternative for the US Wind (Docket No: BOEM-2023-0050).	Thank you for your comment.
FDMS_0736_001	I have been a resident of Fenwick Island, Delaware, for over 48 years. I'm opposed to the US Wind offshore wind projects due to the adverse effects on our environment and threats to endangered species. I am concerned about damage to marine life and the coastal views that draw tourism. The US Wind project will negatively impact local businesses including commercial fishing. Therefore, I'm asking BOEM to make a determination that is Alternative A-No Action Alternative for the US Wind (Docket No: BOEM-2023-0050).	Thank you for your comment.
FDMS_0737_001	I vote for alternative A	Thank you for your comment.
FDMS_0738_001	I vote for alternative A	Thank you for your comment.
FDMS_0739_001	I am opposed to the US Wind offshore wind projects. I am concerned about the adverse effects to our human and natural environment; the unacceptable threats to federally-listed endangered species; the environmental damage to our ocean floor, marine life and coastal areas; the negative impact on local tourism and associated businesses so vital to the State of Delaware's economy; the interference with defense-related and navigational radar; the effect on commercial and local fishing operations which provide food security; reduced ability of the US Coast Guard to conduct search and rescue missions, and the loss of our pristine, unobstructed ocean views. For these reasons, I encourage BOEM to make a determination that is Alternative A-No Action Alternative for the US Wind (Docket No: BOEM-2023-0050).	Thank you for your comment.
FDMS_0741_001	I am opposed to the US Wind offshore wind projects. I am concerned about the adverse effects to our human and natural environment; the unacceptable threats to federally-listed endangered species; the environmental damage to our ocean floor, marine life and coastal areas; the negative impact on local tourism and associated businesses so vital to the State of Delaware's economy; the interference with defense-related and navigational radar; the effect on commercial and local fishing operations which provide food security; reduced ability of the US Coast Guard to conduct search and rescue missions, and the loss of our pristine, unobstructed ocean views. For these reasons, I encourage BOEM to make a determination that is Alternative A-No Action Alternative for the US Wind (Docket No: BOEM-2023-0050).	Thank you for your comment.

Comment No	Comment	Response
FDMS_0746_001	I am very opposed to the US Wind offshore wind projects near Ocean City, Maryland and Fenwick Island, Delaware. I am concerned about the adverse effects to our human and natural environment; the unacceptable threats to federally-listed endangered species; the environmental damage to our ocean floor, marine life and coastal areas; the negative impact on local tourism and associated businesses so vital to the State of Delaware's economy; the interference with defense-related and navigational radar; the effect on commercial and local fishing operations which provide food security; reduced ability of the US Coast Guard to conduct search and rescue missions; the reduction in property value; and the loss of our pristine, unobstructed ocean views. For these reasons, I encourage BOEM to make a determination that is Alternative A-No Action Alternative for the US Wind (Docket No: BOEM-2023-0050).	Thank you for your comment.
FDMS_0747_001	I am opposed to the US Wind offshore wind projects. I am concerned about the adverse effects to our human and natural environment; the unacceptable threats to federally-listed endangered species; the environmental damage to our ocean floor, marine life and coastal areas; the negative impact on local tourism and associated businesses so vital to the State of Delaware's economy; the interference with defense-related and navigational radar; the effect on commercial and local fishing operations which provide food security; reduced ability of the US Coast Guard to conduct search and rescue missions, and the loss of our pristine, unobstructed ocean views. For these reasons, I encourage BOEM to make a determination that is Alternative A-No Action Alternative for the US Wind (Docket No: BOEM-2023-0050).	Thank you for your comment.
FDMS_0749_001	I am opposed to the US Wind offshore wind projects. I am concerned about the adverse effects to our human and natural environment; the unacceptable threats to federally-listed endangered species; the environmental damage to our ocean floor, marine life and coastal areas; the negative impact on local tourism and associated businesses so vital to the State of Delaware's economy; the interference with defense-related and navigational radar; the effect on commercial and local fishing operations which provide food security; reduced ability of the US Coast Guard to conduct search and rescue missions, and the loss of our pristine, unobstructed ocean views. For these reasons, I encourage BOEM to make a determination that is Alternative A-No Action Alternative for the US Wind (Docket No: BOEM-2023-0050).	Thank you for your comment.
FDMS_0751_001	I am opposed to the US Wind offshore wind projects. I am concerned about the adverse effects to our human and natural environment; the unacceptable threats to federally-listed endangered species; the environmental damage to our ocean floor, marine life and coastal areas; the negative impact on local tourism and associated businesses so vital to the State of Delaware's economy; the interference with defense-related and navigational radar; the effect on commercial and local fishing operations which provide food security; reduced ability of the US Coast Guard to conduct search and rescue missions, and the loss of our pristine, unobstructed ocean views. For these reasons, I encourage BOEM to make a determination that is Alternative A-No Action Alternative for the US Wind (Docket No: BOEM-2023-0050).	Thank you for your comment.
FDMS_0754_001	I am opposed to the US Wind offshore wind projects. I am concerned about the adverse effects to our human and natural environment; the unacceptable threats to federally-listed endangered species; the environmental damage to our ocean floor, marine life and coastal areas; the negative impact on local tourism and associated businesses so vital to the State of Delaware's economy; the interference with defense-related and navigational radar; the effect on commercial and local fishing operations which provide food security; reduced ability of the US Coast Guard to conduct search and rescue missions, and the loss of our pristine, unobstructed ocean views. For these reasons, I encourage BOEM to make a determination that is Alternative A-No Action Alternative for the US Wind (Docket No: BOEM-2023-0050) the harm to environment will hurt us all and energy will benefit only a few. there is definitely a better solution!	Thank you for your comment.
FDMS_0755_001	I am opposed to the US Wind offshore wind projects. I am concerned about the adverse effects to our human and natural environment; the unacceptable threats to federally-listed endangered species; the environmental damage to our ocean floor, marine life and coastal areas; the negative impact on local tourism and associated businesses so vital to the State of Delaware's economy; the interference with defense-related and navigational radar; the effect on commercial and local fishing operations which provide food security; reduced ability of the US Coast Guard to conduct search and rescue missions, and the loss of our pristine, unobstructed ocean views. For these reasons, I encourage BOEM to make a determination that is Alternative A-No Action Alternative for the US Wind (Docket No: BOEM-2023-0050) the harm to environment will hurt us all and energy will benefit only a few. there is definitely a better solution!	Thank you for your comment.

Comment No	Comment	Response
FDMS_0756_001	Alternative A - No Action Alternative	Thank you for your comment.
FDMS_0757_001	I am opposed to the US Wind offshore wind projects. I am concerned about the adverse effects to our human and natural environment; the unacceptable threats to federally-listed endangered species; the environmental damage to our ocean floor, marine life and coastal areas; the negative impact on local tourism and associated businesses so vital to the State of Delaware's economy; the interference with defense-related and navigational radar; the effect on commercial and local fishing operations which provide food security; reduced ability of the US Coast Guard to conduct search and rescue missions, and the loss of our pristine, unobstructed ocean views. For these reasons, I encourage BOEM to make a determination that is Alternative A-No Action Alternative for the US Wind (Docket No: BOEM-2023-0050).	Thank you for your comment.
FDMS_0763_001	Good morning, If you are seriously considering the Maryland taxpayers opinions (both in Worcester County and Montgomery County), I would vote for Alternative A, which is the no-action alternative. Please leave our waters alone and focus on other areas. Thank you!	Thank you for your comment.
FDMS_0764_001	I vote Alternative A - No Action Alternative	Thank you for your comment.
FDMS_0765_001	The residents of Fenwick Island, Delaware, strongly oppose the Maryland Offshore Wind project as proposed. We are extremely concerned about the negative effects to our human and natural environment. Endangered species and the fishing industry will be negatively impacted. Tourism, which is vital to the economies of Maryland and Delaware, and home values will be negatively impacted. National security is also at stake, as defense-related and navigational radar would be impacted by this project. We encourage BOEM to decide for Alternative A-NO ACTION alternative for the US Wind Docket No: BOEM-2023-0050.	Thank you for your comment.
FDMS_0766_001	Option A I do not want any type of wind turbines put offshore until more research is done as to the damage this will cause	Thank you for your comment.
FDMS_0769_001	Alternative A - No Action Alternative	Thank you for your comment.

Comment No	Comment	Response
FDMS_0771_001	BOEM should adopt the No Action Alternative for the US Wind Proposed Maryland project. Please see detailed comments in attached file. Thank you. I am a homeowner in the North Bethany Beach, Delaware community of Tower Shores. I am also a Delaware attorney, as well as a member of Tower Shores Beach Association (TSBA) which has also filed comments with respect to this project. These comments are submitted in my personal capacity as a Delaware resident and property owner in the subject area. It should be noted that my property (and other TSBA properties and beach) sits approximately 1/3 mile from 3Rs Road, where U.S. Wind proposes that the high-voltage transmission cables with 2000 mW of capacity would make landfall into a Delaware State Park public beach at 3-Rs Road. Further, the Project's 121+/- wind turbines, each up to 953' tall, and only 15 miles from the shoreline will, according to US Wind's own illustrations and project data filed with BOEM, be visible from Bethany Beach and beyond at all hours of the day and night, permanently and detrimentally changing the unique, natural viewshed. Further, there is insufficient data and safeguards to ensure that the project will not be detrimental, in some cases fatally, to endangered marine mammals and other marine life, as well as to commercial and recreational fishing and maritime activity. The stated purpose of the Draft Environmental Impact Statement (DEIS) is to "assess[] the potential biological, socioeconomic, physical, and cultural impacts that could result from the construction and installation, operations and maintenance, and conceptual decommissioning of the Maryland Offshore Wind Project (Project) proposed by US Wind, Inc. (US Wind), in its Construction and Operations Plan. (COP)." The DEIS also notes that the turbine array would be sited in offshore Maryland (entirely in Marylan – notwithstanding the underground cable issue), within Commercial Lease OCS-A 0490 (Lease Area). The proposed Project poses significant actual and potential harm to the biological, socioeconomic, physical and cultural assets of the proposed site area and its surroundings. The purported benefits of the project are not clear or verifiable, are undermined by environmental harm from the massive impact to the maritime environment, harms associated with the very construction and acquisition of raw materials for such a project and, in any event, any benefits do not outweigh the significant and serious harms the Project would present. Therefore, in consideration of the factors below and the information provided in other comments regarding environmental impacts2, BOEM should reject and disapprove the US Wind Project (hereinafter "Project") and adopt the "no action alternative." In the alternative, BOEM should conclude that a reasonable, and less detrimental alternative exists in that US Wind should reapply to have the state portions of the Project, including all on-shore access points, strictly within the State of Maryland, which is the state in which the "Lease Area" entirely resides (see discussion herein on Maryland alternative). Finally, and without waiver of my personal or other affected parties' objections, future rights to object and/or ability to file administrative or legal action to enjoin the Project, BOEM may consider recommendation of Alternative C-1, the less populated Towers Beach Landfall Alternative along with Alternatives D and E, as slightly preferable to other alternatives. Under no circumstances should BOEM adopt either the Proposed Action as presented, or Alternative C-2 (3Rs Road landfall). The US Wind Project, as currently presented and even with alternatives, is not in the public interest and, due to the many known and unknown risks and detriments to biological resources, marine mammal and other environmental habitats, physical resources and human and cultural resources, the US Wind Project should be rejected. NOTE: in BOEM's preliminary NOI for this Project, issued in 2022 (BOEM 2022-25), the project was described as having 1100mW of capacity. That number has now apparently increased more than 80% to 2000 mW (DEIS Abstract). In conclusion, I again respectfully submit that BOEM should reject the Project at this time by determining that the "no action" alternative is appropriate. In the alternative, BOEM should order that the Project is deferred until, at a minimum, US Wind conducts additional studies and provides data on environmental areas of concern outlined here; and: (1) the wind turbines should be moved at least 30 miles offshore, and/or lowered in maximum height, so they will be minimally visible from shore, (2) the high-voltage transmission lines should come ashore in Maryland, and not in Delaware, where no benefits are realized and Delaware stakeholders have not been included in the planning process, (3) Completion of all vital studies is needed with favorable data, including those to ensure the protection of endangered right whales and other marine and bird species. BOEM states that its own "Mission" is "to manage development of U.S. Outer Continental Shelf energy and mineral resources in an environmentally and economically responsible way." Approval of this particular US Wind Project as presented, or even with proposed Alternatives, would be contrary to this Mission.	Thank you for your comment.

Comment No	Comment	Response
FDMS_0774_001	Alternative A - No Action Alternative These wind turbines are ineffective, damage the environment, are harmful to marine life, and are an eye sore. Let's learn from this failed experiment. No wind turbines off of the O.C. coast!	Thank you for your comment.
FDMS_0782_001	Alternative A - No Action Alternative	Thank you for your comment.
FDMS_0795_001	I am a resident of Fenwick Island, DE. I am opposed to the US Wind offshore wind projects. I am concerned about the negative impact on local tourism and associated businesses so vital to the State of Delaware's economy; the adverse effects to our human and natural environment; the unacceptable threats to federally-listed endangered species; the environmental damage to our ocean floor, marine life and coastal areas; the interference with defense-related and navigational radar; the effect on commercial and local fishing operations which provide food security; reduced ability of the US Coast Guard to conduct search and rescue missions, and the loss of our pristine, unobstructed ocean views. For these reasons, I encourage BOEM to make a determination that is Alternative A-No Action Alternative for the US Wind (Docket No: BOEM-2023-0050).	Thank you for your comment.
FDMS_0800_001	Option A. No action. No turbines. Terrible for fishing and marine life!!	Thank you for your comment.
FDMS_0802_001	I am in favor of Alternative A, no action. These wind turbines are an eyesore and costly to manufacture. They produce a vibration and humming sound. This causes wind turbine syndrome in humans. What will it do to the marine animals? Whales are dying at an alarming rate ever since they were installed in NJ. Will this vibration make the sharks more aggressive? How will it affect the Horseshoe crab? The Horseshoe crab is a vital resource to human beings because it filters coastal waters and their blood is used in vaccines. These turbines have a lifespan of only 20 years and are not biodegradable. They emit microplastics in the air and require 700 gallons of oil to keep lubricated annually. The blades cannot be recycled. What will we do with the wind farms in 20 years? If built, these turbines will ruin the natural beauty of the shoreline considering the proximity to the coast. We will loose our gorgeous unobstructed sun rise and majestic views. These turbines will lower property values & discourage tourism to the area.	Thank you for your comment.
FDMS_0804_001	I am opposed to the US Wind offshore wind projects. I am concerned about the adverse effects to our human and natural environment; the unacceptable threats to federally-listed endangered species; the environmental damage to our ocean floor, marine life and coastal areas; the negative impact on local tourism and associated businesses so vital to the State of Delaware's economy; the interference with defense-related and navigational radar; the effect on commercial and local fishing operations which provide food security; reduced ability of the US Coast Guard to conduct search and rescue missions, and the loss of our pristine, unobstructed ocean views. For these reasons, I encourage BOEM to make a determination that is Alternative A-No Action Alternative for the US Wind (Docket No: BOEM-2023-0050).	Thank you for your comment.
FDMS_0806_001	I am opposed to the US Wind offshore wind projects. I am concerned about the adverse effects to our human and natural environment; the unacceptable threats to federally-listed endangered species; the environmental damage to our ocean floor, marine life and coastal areas; the negative impact on local tourism and associated businesses so vital to the State of Delaware's economy; the interference with defense-related and navigational radar; the effect on commercial and local fishing operations which provide food security; reduced ability of the US Coast Guard to conduct search and rescue missions, and the loss of our pristine, unobstructed ocean views. For these reasons, I encourage BOEM to make a determination that is Alternative A-No Action Alternative for the US Wind (Docket No: BOEM-2023-0050).	Thank you for your comment.
FDMS_0808_001	I am very much opposed to the US Wind offshore wind projects. I am concerned about the adverse effects to our human and natural environment; the unacceptable threats to endangered species; the environmental damage to our ocean floor, marine life and coastal areas; the negative impact on local tourism and associated businesses so vital to the State of Delaware's economy; the interference with defense-related and navigational radar; the effect on commercial and local fishing operations which provide food security; reduced ability of the US Coast Guard to conduct search and rescue missions, and the loss of our pristine, unobstructed ocean views. This project is expensive, unproven and not good for anyone. For these reasons, I strongly encourage BOEM to make the determination Alternative A- No Action Alternative for the US Wind	Thank you for your comment.

Comment No	Comment	Response
FDMS_0809_001	I'm in favor of Alternative A, No Maryland offshore wind turbines. My opposition is based on the fact that the proposed wind turbines are much larger than those originally proposed, and will consume a tremendous amount of petroleum to keep them operational, defeating the purpose of lowering carbon emissions. At three time the height of the Statue of Liberty and taller than the Chesapeake Bay Bridge, these turbines will be an eyesore, clearly visible from the Maryland shore line. As an avid Fisherman. the turbines will be a hazard to recreational navigation, especially during annual fishing tournaments when upwards of 400 sport fishing boats leave the inlet early in the morning headed 60+ miles offshore to the fishing grounds. Ocean City is the White Marlin Capital of the world, the wind farms will be a detriment to the sport fishing industry, a mainstay for our local economy. The boats will have to navigate around the 100-plus planned turbines some of which will be just 14-miles offshore. They have also proven to be a hazard to marine life, such as whales and seabirds, which fly into the turbine blades. Again, I'm in favor of Alternative A - No Maryland offshore wind turbines.	Thank you for your comment.
FDMS_0810_001	I vote for alternative A - no action alternative	Thank you for your comment.
FDMS_0811_001	I vote for alternative A - no action alternative	Thank you for your comment.
FDMS_0813_001	I am a Fenwick Island Resident. I am opposed to the US Wind offshore wind projects. I am concerned about the adverse effects to our human and natural environment; the unacceptable threats to federally-listed endangered species; the environmental damage to our ocean floor, marine life and coastal areas; the negative impact on local tourism and associated businesses so vital to the State of Delaware's economy; the interference with defense-related and navigational radar; the effect on commercial and local fishing operations which provide food security; reduced ability of the US Coast Guard to conduct search and rescue missions, and the loss of our pristine, unobstructed ocean views. For these reasons, I encourage BOEM to make a determination that is Alternative A-No Action Alternative for the US Wind (Docket No: BOEM-2023-0050).	Thank you for your comment.
FDMS_0816_001	On behalf of the Town of Fenwick Island, I am respectfully submitting comments on the US Wind Draft Environmental Impact Statement regarding Docket BOEM-2023-0050. In summary, given the risks inherent to the project to the economy, viewshed, environment and the greater public safety, the No Action alternative should be selected by BOEM and other alternatives pursued that will better accommodate responsible wind energy development. In that regard, Fenwick Island refers to and adopts by reference, the scientifically detailed response of the Mayor and City Council of the Town of Ocean City, Maryland, which was submitted on November 17, 2023, by OC City Manager Terence J. McGean, P. E. Historically, the State of Delaware has been at the forefront of protecting the pristine natural landscape of our beaches, which in turn, has allowed Delaware to have some of the most beautiful beaches in the country. The US Wind Project will destroy the potential to ever see a natural sunrise again and is not in keeping with the visual heritage of our area. However, the destruction of viewshed is not the only reason to oppose. The project's Environmental Impact Statement confirms that the project will present unacceptable threats to federally listed endangered species and cause environmental damage to our ocean and coastal area. Not only will this impact the future viability of our marine life but it will also negatively impact local tourism and associated businesses so vital to the State of Delaware's economy. While we support green energy, we do not support trading one threat to our environment for another. Ultimately, the production and installation of the Wind Farms will do little to reduce carbon emissions and the apparatus itself will pose a threat to our environment. Finally, the US Wind Project's Environmental Statement confirms that the wind farms will interfere with defense-related and other radar and sonar. Not only will the wind farms potentially lead to increased civilian boat/ship collisions and block commercial and local fishing operations which provide food security, it will also reduce the ability of the US Coast Guard to conduct search and rescue missions due to the negative impact on accurate sonar and radar operations. Interfering with our ability to conduct surveillance along our coast with sonar and radar, the windfarms 20 miles off our shores will become a virtual Trojan Horse, creating a potential launch pad for drones and/or missiles which are the mainstay of modern warfare. This will put the safety of every person who resides along the east coast at risk. For these reasons as well as those that were outlined by the Town of Ocean City, Maryland, the Town of Fenwick Island requests that BOEM determine that the project, as set forth, be given Alternative A-No Action Alternative for the US Wind Docket 2023- 0050 DEIS. The US Winds Project, as envisioned, is wrong for our residents, our environment our wildlife, our fisheries and our future.	Thank you for your comment.

Comment No	Comment	Response
FDMS_0819_001	The Town of Ocean City has specific concerns about the US Wind Project and the draft Environmental Impact Statement. The report states “recreationalists are generally considered to have a relatively high sensitivity to scenic quality and landscape character. ” It also states that “the beach LSZ is highly sensitive and the project would be clearly distinct and would detract from the character of the open ocean horizon.” It goes on to say “wind projects would be the dominant feature on the oceans cape.” Do these statements alone not clearly identify the concerns of the Town of Ocean City? Thousands of property owners and over 8 million visitors a year currently enjoy the natural resources of this area including the beach, the ocean, the pristine views and beautiful sunrises off the horizon in Ocean City Maryland. There is absolutely no reason to destroy the horizon off the coast of Ocean City, to ignore the impact on our multi-million-dollar tourism industry, to ignore the concerns of our 27,000 property owners and to ignore the concerns of commercial and recreational fisherman and move forward with a project that clearly leaves numerous questions to be answered. Why haven’t the concerns of these stakeholders been taken into consideration? Do not these individuals have standing in these decisions? For these reasons and more the Town of Ocean City supports alternative A – no action.	Thank you for your comment.
FDMS_0821_001	I am opposed to the US Wind offshore wind projects. I am concerned about the adverse effects to our human and natural environment; the unacceptable threats to federally-listed endangered species; the environmental damage to our ocean floor, marine life and coastal areas; the negative impact on local tourism and associated businesses so vital to the State of Delaware’s economy; the interference with defense-related and navigational radar; the effect on commercial and local fishing operations which provide food security; reduced ability of the US Coast Guard to conduct search and rescue missions, and the loss of our pristine, unobstructed ocean views. For these reasons, I encourage BOEM to make a determination that is Alternative A-No Action Alternative for the US Wind (Docket No: BOEM-2023-0050).	Thank you for your comment.
FDMS_0822_001	Option A no windmills, Does the cost of moving the turbines further offshore or completely do away with the project outweigh the economic loss the residents and commercial business in property values, rental income and town income I	Thank you for your comment.
FDMS_0823_001	I am opposed to the US Wind offshore wind projects. I am concerned about the adverse effects to our human and natural environment; the unacceptable threats to federally-listed endangered species; the environmental damage to our ocean floor, marine life and coastal areas; the negative impact on local tourism and associated businesses so vital to the State of Delaware’s economy; the interference with defense-related and navigational radar; the effect on commercial and local fishing operations which provide food security; reduced ability of the US Coast Guard to conduct search and rescue missions, and the loss of our pristine, unobstructed ocean views. For these reasons, I encourage BOEM to make a determination that is Alternative A-No Action Alternative for the US Wind (Docket No: BOEM-2023-0050).	Thank you for your comment.
FDMS_0833_001	I strongly oppose the US Wind offshore wind projects. There will be adverse effects to our human and natural environment; unacceptable threats to federally-listed endangered species; and environmental damage to our ocean floor, marine life and coastal areas. The negative impact on local tourism and associated businesses so vital to the State of Delaware’s economy can not be calculated. The interference with defense-related and navigational radar; the effect on commercial and local fishing operations which provide food security; the ability of the US Coast Guard to conduct search and rescue missions, and the loss of our pristine, unobstructed ocean views are unacceptable. This project will have questionable results, at beast. the damage far outweighs the good. For these reasons, I encourage BOEM to make a determination that is Alternative A-No Action Alternative for the US Wind	Thank you for your comment.
FDMS_0837_001	I am opposed to the US Wind offshore wind projects. I am concerned about the adverse effects to our human and natural environment; the unacceptable threats to federally-listed endangered species; the environmental damage to our ocean floor, marine life and coastal areas; the negative impact on local tourism and associated businesses so vital to the State of Delaware’s economy; the interference with defense-related and navigational radar; the effect on commercial and local fishing operations which provide food security; reduced ability of the US Coast Guard to conduct search and rescue missions, and the loss of our pristine, unobstructed ocean views. For these reasons, I encourage BOEM to make a determination that is Alternative A-No Action Alternative for the US Wind (Docket No: BOEM-2023-0050).	Thank you for your comment.

Comment No	Comment	Response
FDMS_0841_001	I am opposed to the US Wind offshore wind projects. I am concerned about the adverse effects to our human and natural environment; the unacceptable threats to federally-listed endangered species; the environmental damage to our ocean floor, marine life and coastal areas; the negative impact on local tourism and associated businesses so vital to the State of Delaware's economy; the interference with defense-related and navigational radar; the effect on commercial and local fishing operations which provide food security; reduced ability of the US Coast Guard to conduct search and rescue missions, and the loss of our pristine, unobstructed ocean views. For these reasons, I encourage BOEM to make a determination that is Alternative A-No Action Alternative for the US Wind (Docket No: BOEM-2023-0050).	Thank you for your comment.
FDMS_0847_001	Alternative A - no action alternative	Thank you for your comment.
FDMS_0860_001	I write this letter in support of US Wind's offshore wind projects and, specifically, for Alternative B (Proposed Action) in BOEM's Draft Environmental Impact Statement ("DEIS") for US Wind's Construction and Operations Plan ("COP"). The Turner Station Conservation Teams, Inc is a non-profit community-based organization who strives to have a strong and vibrant community where all generations work together to ensure all our neighbors thrive. In 2021, President Biden established a new national goal of deploying 30 gigawatts (GW) of offshore wind by 2030, and in March 2023, Maryland's Governor Wes Moore established a new state goal of deploying 8.5 GW of offshore wind by 2031, a goal that was codified by the Maryland General Assembly just one month later. These national and state goals recognize the importance of getting clean energy like offshore wind up and running as quickly as possible to combat global climate change, create good-paying jobs, and establish a domestic supply chain for generations to come. I applaud BOEM moving forward with the environmental review of US Wind's COP and the comprehensive and thorough analysis that went into the DEIS. I am especially supportive of BOEM moving forward on Alternative B, the Proposed Action, in the DEIS as that Alternative maximizes clean energy generation that will help meet Maryland's and the nation's offshore wind goals. Alternative B (Proposed Action) in the DEIS would allow for the construction of up to 2.2 GW of offshore wind energy in US Wind's lease area off the coast of Maryland, including MarWin, Momentum Wind, and the remaining capacity in the lease area. This alternative would consist of up to 114 turbines, up to four offshore substations, and allow US Wind to pursue interconnection to the power grid through Delaware. While Alternative B would maximize clean energy up to 114 turbines, up to four offshore substations, and allow US Wind to pursue interconnection to the power grid through Delaware. While Alternative B would maximize clean energy in US Wind's lease area, along with the many benefits that would flow from such generation, that Alternative has the added benefit of having generally the same level of impact as the more restrictive Alternatives C, D, and E. We are pleased to see that the mitigation measures proposed by US Wind and those considered by BOEM would provide additional protections for resources, like the endangered North Atlantic right whale. Thank you for your work on the DEIS. We respectfully request that you move swiftly in approving US Wind's COP and Alternative B (Proposed Action). Thanking you in advance for your consideration regarding our request.	Thank you for your comment.
FDMS_0865_001	Please consider alternative option 1, no action. The proposed action as stated will have profound impacts visually to the town of Ocean City, MD where tourism is the top industry and tourist destination. The proposed action would have detrimental effects on the hotel/lodging industry as well as restaurant and entertainment sectors. Any employee of said company would not wish to look at the window of their home and see the massive structures before them. Why would one wish it upon others for whom this is their home and for thousands of travelers who come to the beach to enjoy the view, which will no longer be one of beauty. Please ban the proposed action. Thank you.	Thank you for your comment.
FDMS_0870_001	Alternative A: No Action	Thank you for your comment.
FDMS_0871_001	Say no to Wind Turbines. I vote alternative A	Thank you for your comment.

Comment No	Comment	Response
FDMS_0875_001	As a life long boater, semi-pro landscape and nature photographer, a Sussex County Delaware property owner and resident, a director of a boat club in Fenwick Island, and a marine mammal stranding response team volunteer with a local non-profit dedicated to marine mammal, education, research, and rehabilitation, I have great concern for our coastlines, waters off them, wildlife, fisheries, and especially our sensitive ecosystems stretching from Assateague National Seashore in Maryland to Delaware State Park and the Carl N. Shuster, Jr. Horseshoe Crab Reserve. I am a proponent of alternative energy sources, however offshore wind projects have been rushed along and due diligence has not been done to study and understand their effects on our environment. In response, to BOEM's Environmental Impact Statement, for the Maryland Offshore Wind Project OCSA0490, I offer the following comments and concerns. Furthermore, more studies need to be performed regarding offshore wind turbine farms' Electromagnetic fields (EMF), changes in suspended sediment within the water column, changes in currents, as well as the effects on zooplankton, and the effects on marine mammals and our fisheries before I can't endorse any further action. As a result of the major adverse effects, that are likely to occur to the endangered North Atlantic Right whale as stated in BOEM's Environmental Impact Statement for the proposed alternatives B, C, D, and E, the inadequate precautions to be put in place, the number of wind lease areas that are in development with similar plans to allow incidental takes of endangered species, as well as the lack of transparency associated with this project with the denial of an expedited Freedom of Information Act request filing 10/28 (Confirmation ID #92336) for the release of several classified sections of the Construction and Operations Project including the Oil Spill Response Plan, the Socioeconomics and Economic Assessment Studies, I can only endorse BOEM's Alternative A - No Action for the Maryland Offshore Wind Project OCSA0490. I urge BOEM to approve only Alternative A for no action, as otherwise BOEM will be in violation of the Endangered Species Act.	Thank you for your comment.
FDMS_0876_001	I am opposed to the US Wind offshore wind projects. I am concerned about the adverse effects to our human and natural environment; the unacceptable threats to federally-listed endangered species; the environmental damage to our ocean floor, marine life and coastal areas; the negative impact on local tourism and associated businesses so vital to the State of Delaware's economy; the interference with defense-related and navigational radar; the effect on commercial and local fishing operations which provide food security; reduced ability of the US Coast Guard to conduct search and rescue missions, and the loss of our pristine, unobstructed ocean views. For these reasons, I encourage BOEM to make a determination that is Alternative A-No Action Alternative for the US Wind (Docket No: BOEM-2023-0050).	Thank you for your comment.
FDMS_0878_001	Alternative A - No Action Alternative. No Wind Turbines on the beautiful ocean costs of Maryland.	Thank you for your comment.
FDMS_0879_001	I am opposed to the US Wind offshore wind projects. I am concerned about the adverse effects to our human and natural environment; the unacceptable threats to federally-listed endangered species; the environmental damage to our ocean floor, marine life and coastal areas; the negative impact on local tourism and associated businesses so vital to the State of Delaware's economy; the interference with defense-related and navigational radar; the effect on commercial and local fishing operations which provide food security; reduced ability of the US Coast Guard to conduct search and rescue missions, and the loss of our pristine, unobstructed ocean views. For these reasons, I encourage BOEM to make a determination that is Alternative A-No Action Alternative for the US Wind (Docket No: BOEM-2023-0050).	Thank you for your comment.
FDMS_0881_001	I am opposed to the US Wind offshore wind projects. I am concerned about the adverse effects to our human and natural environment; the unacceptable threats to federally-listed endangered species; the environmental damage to our ocean floor, marine life and coastal areas; the negative impact on local tourism and associated businesses so vital to the State of Delaware's economy; the interference with defense-related and navigational radar; the effect on commercial and local fishing operations which provide food security; reduced ability of the US Coast Guard to conduct search and rescue missions, and the loss of our pristine, unobstructed ocean views. For these reasons, I encourage BOEM to make a determination that is Alternative A-No Action Alternative for the US Wind (Docket No: BOEM-2023-0050).	Thank you for your comment.

Comment No	Comment	Response
FDMS_0883_001	I am opposed to the US Wind offshore wind projects. I am concerned about the adverse effects to our human and natural environment; the unacceptable threats to federally-listed endangered species; the environmental damage to our ocean floor, marine life and coastal areas; the negative impact on local tourism and associated businesses so vital to the State of Delaware's economy; the interference with defense-related and navigational radar; the effect on commercial and local fishing operations which provide food security; reduced ability of the US Coast Guard to conduct search and rescue missions, and the loss of our pristine, unobstructed ocean views. For these reasons, I encourage BOEM to make a determination that is Alternative A-No Action Alternative for the US Wind (Docket No: BOEM-2023-0050).	Thank you for your comment.
FDMS_0885_001	I am opposed to the US Wind offshore wind projects. I am concerned about the adverse effects to our human and natural environment; the unacceptable threats to federally-listed endangered species; the environmental damage to our ocean floor, marine life and coastal areas; the negative impact on local tourism and associated businesses so vital to the State of Delaware's economy; the interference with defense-related and navigational radar; the effect on commercial and local fishing operations which provide food security; reduced ability of the US Coast Guard to conduct search and rescue missions, and the loss of our pristine, unobstructed ocean views. For these reasons, I encourage BOEM to make a determination that is Alternative A-No Action Alternative for the US Wind (Docket No: BOEM-2023-0050).	Thank you for your comment.
FDMS_0890_001	I am opposed to the US Wind offshore wind projects. I am concerned about the adverse effects to our human and natural environment; the unacceptable threats to federally-listed endangered species; the environmental damage to our ocean floor, marine life and coastal areas; the negative impact on local tourism and associated businesses so vital to the State of Delaware's economy; the interference with defense-related and navigational radar; the effect on commercial and local fishing operations which provide food security; reduced ability of the US Coast Guard to conduct search and rescue missions, and the loss of our pristine, unobstructed ocean views. For these reasons, I encourage BOEM to make a determination that is Alternative A-No Action Alternative for the US Wind (Docket No: BOEM-2023-0050).	Thank you for your comment.
FDMS_0898_001	I'm very concerned that offshore wind is being rushed through in order to reach "quota" for establishing "X" many megawatts of renewable energy in America without fully understanding all the effects this development will have on our marine environment. I'm not convinced that BOEM fully understands what the environmental effects will be from one particular offshore wind farm but even less convinced that anyone really knows or can understand what the cumulative effect of many offshore wind farms up and down the eastern seaboard will be. I know the basic response concerning the stranding and deaths of marine mammals over the last year, perhaps several years, is that there is no evidence these incidents are due to any activities related to offshore wind. Is there really any proof that there is no correlation though? If there is the slightest chance that there is a correlation shouldn't we at least tap the brakes and stop rushing things through? I don't understand how there can be a federal proposal to create and enforce a 10 mph speed limit for boats over 35' in the name of protecting whales while BOEM authorizes "taking" of marine mammals for the sake of developing offshore wind. I have been a member of the boating and recreational fishing community from Maryland to Florida for the past 30+ years. My friends and cohorts are members of these communities and I don't know a single person who has had a collision with a whale let alone a collision that ended a whales life. It seems that most of the marine mammals that have died have been too decomposed to examine their ears for any damages. Just because there may be obvious signs of a ship strike does not rule out offshore wind related activities as a contributing factor to why the ship strike occurred. We don't really know if offshore wind activity could be causing damage to marine mammals' hearing or otherwise disorienting them in ways that contribute to standings or inability to avoid vessels as they normally would. We need to thoroughly and with absolute certainty understand all the effects these wind farms will have on the marine environment before giving them the green light. I've limited my comment to environmental concerns but I share many more with the majority of my neighbors in the Ocean City area concerning the effects this will have on our local economy as far as the commercial and recreational fishing industries as well as tourism in general. I attended the info session at Ocean City Elementary School and recall some poster boards with a few "Options". I think there was an option that was not displayed and that was not to allow US Winds project at all. This is the option I would request BOEM to take.	Thank you for your comment.

Comment No	Comment	Response
HANDIN-24_0003_001	Alternative A no windmill	Thank you for your comment.
HANDIN-24_0015_001	I am against offshore wind because I support Alternative A. NO OFFSHORE WIND	Thank you for your comment.
HANDIN-24_0016_001	I am against offshore wind turbines, it will affect all fishing and seafood industries, I support alternative A	Thank you for your comment.
HANDIN-24_0030_001	Public comments re. the offshore wind proposals as an episcopal priest and former geologist, the reality and repercussions of climate change are worrisome. We must reduce our use of fossil fuel and work multiple ways to mitigate negative impacts we as humans have. Harnessing the energy of the wind is a relatively low risk way of doing so	Thank you for your comment.
HANDIN-24_0049_001	No Wind	Thank you for your comment.
HANDIN-26_0028_001	This is a joke, do not support opt A no wind	Thank you for your comment.
MAILIN_0005_232	In Summary, we find that the DEIS makes numerous assumptions and conclusions without adequate data or support. Of special concern to Ocean City are the unsupported determinations regarding the potential socio-economic impacts of the project on our town. The DEIS incorporates findings from US Wind supporting positive economic impact and job creation but fails to document any potential negative impacts or job loss citing "limited available research". However, that limited research indicates the project could have major negative impacts on Ocean City tourism and property values. Given the tremendous risks from this project to the Ocean City economy, visual heritage, and environment, the No Action alternative should be selected by BOEM and new lease areas should be explored that will better accommodate responsible offshore wind energy development.	Thank you for your comment.
TRANS-19_0001_001	I agree with Alternative A only. I would like everybody to take a look at Appendix E in our Environmental Impact Statement that's titled, Analysis of Incomplete and Unavailable information. And the list of topics, starting with Air Quality, Water Quality, Bats, Benthic Resources, Birds, Coastal Habitat and Fauna, Finfish, Invertebrates, Essential Fish Habitat, Marine Mammals, Sea Turtles, Wetlands, Commercial Fisheries and For-Hire Reactional Fishing, Cultural Resources, Demographics, Environmental Justice, Land Use, Navigation and Vessel Traffic, Other Uses, Recreation and Tourism, and Visual Resources. All of these are listed in the table of contents, with the topic that states that when they have to look at these different topics, they're missing modeling results. Therefore, they take a look at other alternative models that could possibly be similar to any of these other topics. So we don't have any real research on any of the topics I just named. And we kind of say, well, that's kind of what would happen in different places. So we need to look at these, Appendix E. And again, I am for Alternative A, for the non-destruction, and the non-urbanization of our oceans so that we can continue to eat fresh seafood, eat fresh fish, and people can continue with their livelihoods and their life.	Thank you for your comment.
TRANS-19_0002_001	I am against this, and I would like to support Alternate A. I don't understand why we have to destroy whales, dolphins, sea life to produce windmills that are made from carbon fiber, are not a renewable source, and are now being buried in landfills, which are polluting our ground. These blades are not biodegradable and cannot be recycled. And so, this global warming is now going to effect where we live and build our houses when we try to bury these things under the ground. As a side note, I'd like to say, how much cement are you going to put in the ocean to put these windmills on, and where is that water that you're going to replace going to go for all these people concerned about the water coming up on our shores? Is it, like, how many pounds of concrete are you going to have to put down to hold these in the ground? And those are my concerns. And I'm 110% against this.	Thank you for your comment. US Wind would be required to remove or decommission all facilities, projects, cables, pipelines, and obstructions and clear the seabed of all obstructions created by the Project. All facilities would need to be removed 15 feet (4.6 meters) below the mudline (30 CFR 285.910(a)). Absent permission from BSEE, US Wind would have to achieve complete decommissioning within 2 years of termination of the lease and either reuse, recycle, or responsibly dispose of all removed materials. It should be noted no concrete is being used to secure the WTG, OSS or Met Tower foundations to the seabed.

Comment No	Comment	Response
TRANS-24_0001_001	I'm totally against these wind turbines for a bazillion reasons, but mainly tourism. It's going to affect our tourism drastically because nobody wants to stare at a beautiful sunrise which I take pictures all the time of and post it on Facebook today and then will be attaching all this, too. The fishing industry, I mean, 80 percent of our people here rely on it or participate in the huge fishing tournaments, and they're going to go away with what's going to affect the ocean and its surroundings with all these stupid turbines. I heard today, I've been looking at things, the minerals that are running these turbines are only found in China, so that puts us, as the United States, again, bowing down to China, and we don't need any more. We need to be the great United States that we can be. I support alternative A.	Thank you for your comment.
TRANS-26_0001_001	We have a place at 12705 Wight Street, Ocean City, Maryland. I'm against the wind turbines this close to shore. I prefer alternative A from the environmental impact statement. It was curious that in the environmental impact statement that the visual impact was one of the strongest impacts in the whole entire statement. It's absolutely ridiculous that we would take Maryland's only shore and degrade the beauty that God gave us and put up these windmills that are going to be seen all the time from the only beaches in Maryland. You ought to move them down to Assateague and the horses can look at them. But they should not be on Maryland's only Atlantic beaches. It's absolutely an atrocity. I'm not completely against green energy, but we will, A, not meet our 50 percent goals in six years. It's not going to happen. Certainly not going to happen with wind. It's lovely to also read about how many giga megawatts that these towers are going to produce and for how many households they're going to do, but we all know it's going to cost anywhere from three to ten times as much as regular fossil fuels. It's helping no one. We are worried about the climate while we are destroying the environment.	Thank you for your comment.
TRANS-30_0002_001	I am a resident of Worcester County. I am a registered Democrat. I am also, believe it not, not funded by the oil or gas industry, but I'd like to share my views. I'm also, like Angela, opposed to offshore wind. I'm also very angry about it, but I'll try to be a little more measured about my opposition. First, I find it interesting that, you know, there's a lot of opposition from Worcester County residents, and there's a lot of support from other counties like Baltimore City, Montgomery County, and Prince George's County. Probably, the counties with the biggest pollution emitters state of Maryland. What are they contributing? I'm not sure. But you know, to put everything on Worcester County and Ocean City residents I don't think is right. You know, we talk about, you know, the harms, the views, and why people dismiss the views, and oh, they're miles offshore, you won't see them, they're barely a blip on the coastline. I don't think any of those people have actually seen the depictions that BOEM has provided. If you look at them, they're quite clear. The wind turbines are large, they're clearly visible. They are going to harm tourism. You know, there's studies out there that say, oh, we're not going to have an impact on tourism. Well, you know, those are based on wind farms that are, you know, maybe four turbines, like Buck Island, and they're probably half the size of what we have here. So it's not an apples to apples comparison. I think the biggest issue for me is, it's even stated in BOEM's report, that there's no impact on global temperatures, or it's a negligible impact on global temperatures. So what are we doing here? We're going to spend billions of dollars, permanently mar the views cape, for no impact on climate change. I'm a big environmentalist. I'm a big believer in being a steward of the environment. But this isn't the way to do it. Again, you know, we're following the footprints of European countries that have no other options. You know, we were able to reduce climate emissions through natural gas. It's not the cleanest, but it's better than coal, and it's better than a lot of options. And we're following European countries. You know, European countries that were the home of clean diesel, which was just as fraudulent. I hope that BOEM really takes into consideration the negative impacts. The report states, clearly, that there are negative impacts on marine life, there's negative impacts on the views and tourism. And so, I hope this is not just a performant process. I know that there is -- you know, that somebody talked about Option D as a viewshed. I don't view that as an option, right. That's 15 miles out. That's what your depictions show. The turbines are still clearly visible from that distance. So I don't view that as a compromise. I view the only option here, viable option, is Option A. And I think it would be a dereliction of duty by BOEM to approve anything else.	Thank you for your comment.

Comment No	Comment	Response
TRANS-30_0003_001	I'm a Worcester County resident who lives 15 minutes from the beach, and I have family that lives oceanfront. I completely agree with Kerrie Bunting, with the Ocean Pines Chamber of Commerce, and Terence McGean, our city manager. I ask that this project -- project does not receive your approval; therefore, Alternative A. I attended both flag meetings this past week in Maryland and Delaware where there were hundreds of actual local residents who attended. And I must say that we feel a bit discouraged because it is painfully obvious to so many of us that the offshore wind farms will surely lead to some degree of destruction to our ocean, our beaches, our environment in general, and specifically to our wildlife just to name a few. What you may have labeled as negligible could be catastrophic to our wildlife and our residents. Our fishermen's livelihoods will be devastated. What will become of the turbines when they are damaged in some way, like in Puerto Rico for example, and other places worldwide when they encounter hurricane force winds or 25-foot waves? Will there be shards of fiberglass and other materials washing up on our beaches; oil, and other toxic chemicals in our water? Our oceans should be protected at all costs. This is the big green dream that's not really that green at all. Please consider the diesel and coal that will be required to create and transport the turbine parts. All it takes is a few simple Google searches to see that there is an increase in turbine failings, especially in the last 18 months, as per Tim Newcomb of Popular Mechanics. Many photos show defunct, abandoned, leaking turbines littering our natural world. And I'll finish with this quote from Warren Buffet who owns MidAmerican Energy and has this to say about why he builds windfarms, "I will do anything that is basically covered by the law to reduce Berkshire's tax rate. For example, on wind energy, we get a tax credit if we build a lot of wind farms. That's the only reason to build them. They don't make sense without the tax credit." I think that's a telling statement and I would ask BOEM to consider the true motives for building these huge experimental offshore wind farms.	Thank you for your comment.
TRANS-30_0004_002	And the environment really is the main draw of this area. It is a major migratory path for birds. None of these birds are ones that, like, fly into your window. These are all, like, larger birds like snow geese, et cetera. And they're not ones that your cats in the backyard are going to attack either. This is pretty critical. And the fishing areas. I'm sorry, but let's not forget the White Marlin contests. I mean, these fish are going to go away. The Horseshoe Crab population and the Right Whale population are here. And these just can't be replaced. And the fact that these were really not considered when you look at the reports, you just kind of blew it off and said, well, it's not within our purview. So obviously, I'm voting for Option A. And please don't take one of our most pristine wildlife areas and ruin it for many generations.	Thank you for your comment.
FDMS_0348_001	I recommend alternative A: No action. No wind turbines should be constructed. As a local business owner for 40 years who is dependent on tourism, and as a commercial fisherman, I am overwhelmingly concerned about the detriment to the local economy as well as our fisheries and access to them and I am adamantly opposed to the offshore wind projects. In addition to the burden to tax payers to subsidize this project of questionable viability, we are destroying the environment we swore to protect. Industrializing the horseshoe crab management area and hundreds of square miles of ocean, as well as the Delaware Seashore State Park will be the greatest downfall of this era. For a technology that is not viable. Remove the subsidies, and Orsted and other companies will show no interest. There is no money to be made without the tax payer because the efficiency of these turbines is not as advertised. Additionally, there is no standard to which offshore wind turbines are built compared to land based turbines. They will crumble in our winter storms, leaving wreckage hazardous to navigation and toxic to our environment, which will cost even more money to repair. Our oceans are no place to wage political wars and push agendas. The stakes are too high and when the damage is done there is no turning back. We already know the sonar testing is killing whales and dolphins. Endangered species are at stake. What happens when migration patterns of fish change due to electromagnetic fields? Or the millions of seabirds that will be killed. We cannot afford to disrupt the entire ecosystem of the western North Atlantic.	Thank you for your comment.

Comment No	Comment	Response
FDMS_0753_001	As the State of Delaware Representative for the 38th District, spanning the coastline of Delaware from Bethany Beach to the Maryland State Line, I am writing in opposition to the US Wind offshore wind projects. My concerns are for several reasons including the adverse effects to our human and natural environment; the unacceptable threats to federally-listed endangered species; the environmental damage to our ocean floor, marine life and coastal areas; the negative impact on local tourism and associated businesses so vital to the State of Delaware's economy; the interference with defense-related and navigational radar; the effect on commercial and local fishing operations which provide food security; reduced ability of the US Coast Guard to conduct search and rescue missions, and the loss of our pristine, unobstructed ocean views. For these reasons, I encourage BOEM to select Alternative A - No Action Alternative for the US Wind (Docket No: BOEM-2023-0050). Thank you in advance for your consideration. If you have any questions or wish to discuss this further, please do not hesitate to contact me.	Thank you for your comment.
FDMS_0902_001	I am writing to respectfully submit comments on the Draft Environmental Impact Statement submitted by US Wind Inc. for its proposed Maryland Offshore Wind Project. This proposed offshore wind project is a significant cause for concern among the residents and homeowners of Ocean City, Maryland. There are many concerning factors of this project such as environmental impacts, economic impacts, visual pollution, effects on marine and wildlife, and the industrialization of the Atlantic Ocean. The draft environmental impact study does not specifically present demographic and economic data for Ocean City, MD. It also does not properly evaluate the potential impacts that the presence of large offshore structures will have on Ocean City's tourism and recreation industry. According to a study from North Carolina State University, 55% of ocean vacation renters would not return to their vacation destination if wind turbines were visible. This is very concerning for the future of economic development in Ocean City as tourism accounts for a large percentage of the local economy. Furthermore, the study does not provide any potential negative impacts or job loss due to this project, citing "limited available research". The Mid-Atlantic region has witnessed an unprecedented amount of whale deaths over recent years. Meanwhile, offshore windmill companies have been practicing seismic testing to survey the Atlantic floor. This form of testing uses seismic air guns to blast air into the ocean floor which can produce sounds upward of 140 decibels. Whales, dolphins, and other oceanic creatures are reliant on the ability to produce sound for communication and navigational purposes. This extremely loud disruption causes a significant interference for all marine life. Seismic testing has become an imperative threat to our local ecosystem; we must not destroy it in the attempt to detect locations for windmills off our coast. The construction and operation of the proposed offshore windmills will create physical barriers for marine life, interfere with migratory patterns, and produce underwater noise disturbances. Additionally, Maryland's taxpayers are currently subsidizing this endeavor, and many speculate that there will not be a positive return on investment when it comes to reducing utility costs. Considering the risk factors from this project to the economy, visual heritage, and environment, the No Action alternative should be selected by the Bureau of Ocean Energy Management.	Thank you for your comment.

Comment No	Comment	Response
MAILIN_0006_001	On behalf of the Town of Fenwick Island, I am respectfully submitting comments on the US Wind Draft Environmental Impact Statement regarding Docket BOEM-2023-0050. In summary, given the risks inherent to the project to the economy, viewshed, environment and the greater public safety, the No Action alternative should be selected by BOEM and other alternatives pursued that will better accommodate responsible wind energy development. In that regard, Fenwick Island refers to and adopts by reference, the scientifically detailed response of the Mayor and City Council of the Town of Ocean City, Maryland, which was submitted on November 17, 2023, by OC City Manager Terence J. McGean, P.E. Historically, the State of Delaware has been at the forefront of protecting the pristine natural landscape of our beaches, which in turn, has allowed Delaware to have some of the most beautiful beaches in the country. The US Wind Project will destroy the potential to ever see a natural sunrise again and is not in keeping with the visual heritage of our area. However, the destruction of viewshed is not the only reason to oppose. The project's Environmental Impact Statement confirms that the project will present unacceptable threats to federally listed endangered species and cause environmental damage to our ocean and coastal area. Not only will this impact the future viability of our marine life but it will also negatively impact local tourism and associated businesses so vital to the State of Delaware's economy. While we support green energy, we do not support trading one threat to our environment for another. Ultimately, the production and installation of the Wind Farms will do little to reduce carbon emissions and the apparatus itself will pose a threat to our environment. Finally, the US Wind Project's Environmental Statement confirms that the wind farms will interfere with defense-related and other radar and sonar. Not only will the wind farms potentially lead to increased civilian boat/ ship collisions and block commercial and local fishing operations which provide food security, it will also reduce the ability of the US Coast Guard to conduct search and rescue missions due to the negative impact on accurate sonar and radar operations. Interfering with our ability to conduct surveillance along our coast with sonar and radar, the wind farrns 20 miles off our shores will become a virtual Trojan Horse, creating a potential launch pad for drones and/ or missiles which are the mainstay of modern warfare. This will put the safety of every person who resides along the east coast at risk. For these reasons as well as those that were outlined by the Town of Ocean City, Maryland, the Town of Fenwick Island requests that BOEM determine that the project, as set forth, be given Alternative A-No Action Alternative for the US Wind Docket 2023- 0050 DEIS. The US Winds Project, as envisioned, is wrong for our residents, our environment, our wildlife, our fisheries and our future.	Thank you for your comment.

O.8.4 Alternative B - Proposed Action

Table O.8-4. General Responses – Alternative B - Proposed Action

Comment No	Comment	Response
FDMS_0003_001	Alternate B makes the most sense to me given all of the federal permitting that's been required and the half decade of stakeholder and scientific input that helped create the lease area. We need to keep using alternative methods of power to avoid fossil fuel usage.	Thank you for your comment.
FDMS_0011_001	We are very interested in US Wind's activity and appreciate this opportunity to provide comments. We write in support of US Wind's offshore wind projects. Sea level rise and climate change pose existential threats to the health of the Delaware coast. Current models show that the area will experience 12 to 18 inches of sea level rise by the 2050's based upon the amount of greenhouse gas emissions already in or anticipated to be released into the atmosphere. That alone will create big problems for the local coastline, but if we experience more than 24 inches of sea level rise, we will lose almost 10% of the land along the Delmarva peninsula. That would cripple coastal economies, inundate drinking water, destroy arable farmland, and forever change the beaches we know and love. The best way to combat this is to aggressively adopt renewable energies, and offshore wind is a proven technology we can develop in our area. I applaud BOEM moving forward with the environmental review of US Wind's COP and the comprehensive and thorough analysis that went into the DEIS. I am especially supportive of BOEM moving forward on Alternative B, which maximizes clean energy generation that will help reach the nation's offshore wind goals, which are fundamental to addressing sea level rise. Thank you for your work on the DEIS. I respectfully request that you move swiftly in approving US Wind's COP and Alternative B (Proposed Action).	Thank you for your comment.

Comment No	Comment	Response
FDMS_0012_001	We are very interested in US Wind's activity and appreciate this opportunity to provide comments. We write in support of US Wind's offshore wind projects. Sea level rise and climate change pose existential threats to the health of the Delaware coast. Current models show that the area will experience 12 to 18 inches of sea level rise by the 2050's based upon the amount of greenhouse gas emissions already in or anticipated to be released into the atmosphere. That alone will create big problems for the local coastline, but if we experience more than 24 inches of sea level rise, we will lose almost 10% of the land along the Delmarva peninsula. That would cripple coastal economies, inundate drinking water, destroy arable farmland, and forever change the beaches we know and love. The best way to combat this is to aggressively adopt renewable energies, and offshore wind is a proven technology we can develop in our area. I applaud BOEM moving forward with the environmental review of US Wind's COP and the comprehensive and thorough analysis that went into the DEIS. I am especially supportive of BOEM moving forward on Alternative B, which maximizes clean energy generation that will help reach the nation's offshore wind goals, which are fundamental to addressing sea level rise. Thank you for your work on the DEIS. I respectfully request that you move swiftly in approving US Wind's COP and Alternative B (Proposed Action).	Thank you for your comment.
FDMS_0057_001	Thank you for the opportunity to speak on this issue. I write to you today as both a resident of the Eastern Shore and a representative of the Salisbury City Council. I would like to reiterate my support for this project and advocate in support of Option B. Option B represents the culmination of meticulous planning and extensive collaboration, which has spanned over half a decade and has incorporated invaluable stakeholder and scientific input. This alternative, which is a testament to Maryland's commitment to clean energy, seeks to construct a remarkable 2.2 GW wind energy project in the lease area. That 2.2 GW represents more than just energy, it represents jobs and economic opportunity for my residents, it represents a more sustainable future, one that tackles climate change head on. It is my belief that Option B is the right choice for Maryland and the residents of the Eastern Shore. Thank you for your time and consideration.	Thank you for your comment.
FDMS_0091_001	I support option B. As a resident of the Eastern Shore for 50 years, Ocean City has been a place our family has gone for generations. I would not all be bothered if I saw turbines in the water because I feel the good they would provide far outweighs not having them.	Thank you for your comment.
FDMS_0092_001	I support Alternative B to move forward with the project as it has been planned. A great deal of resources have gone into getting the project to this point. My husband and I stay in hotels in Ocean City about 3 times a year and visit on day trips several times a year as well. We spend thousands of dollars each year in Ocean City and will continue to do so when turbines are visible. It would make me happy to see the turbines as we need to make changes in our behavior for sustainability and stability for both people and the planet. I have been a SCUBA diver for 25 years and have seen the decimation of the coral reefs due to global warming. I also work for a town which is devastated due to the constant flood caused in part by climate change. Seeing the wind turbines from Ocean City will make me happy as I will be able to see evidence that we are doing our best for future generations.	Thank you for your comment.
FDMS_0114_007	The Indian River Bay is classified as a Water of Exceptional Recreational Significance and a Harvestable Shellfish Water. Transmission cables from the Block Island offshore wind project became exposed several years ago despite the burial of 6' or more, and it took years to get the cables reburied. Placing four high voltage cables in the bay only 3' deep should be viewed as unacceptable instead of the first choice as listed in the DEIS.	Thank you for your comment
FDMS_0119_001	First I'd like to the thank the Bureau for accepting public comments and input. I've been following efforts to help develop greenhouse gas emissions goals and clean energy legislation in Maryland. I'd like to voice my support for Alternative B. As I understand it, five years of careful study and scientific input went into determining that the Alternative B lease area is the best way to bring offshore wind to Maryland. Climate scientists tell us the time to act is now; now is the time to make decisions that help reduce climate-warming emissions. As a Marylander who cares deeply about our environment and climate change, I strongly urge the Bureau to approve Alternative B, and bring offshore wind to our state. We need more sustainable energy now. Thank you for considering my comment.	Thank you for your comment.

Comment No	Comment	Response
FDMS_0121_001	I fully support installing as much OSW as feasible. Preference for Alternative B. I speak only for myself but to verify for you my qualifications for these comments, I have a BS in Environmental Science and my senior project was to review the EIS for the Wilson Bridge renovation. I have worked in Environmental jobs for nearly 20 years including the last nearly 4 years at the Maryland Department of the Environment, Climate Change Program as a Climate policy analyst where I was project manager of the 2030 GGRA Report, the state climate plan and was PM for the upcoming 2031 climate plan to be published at the end of 2023. I am now the Climate Resilience Director for the Comptroller of Maryland where I am the subject matter expert on climate change, resilience and environmental sustainability where I lead efforts to incorporate climate change mitigation and sustainability strategies into the work of the Board of Public Works, Maryland state retirement and pension system and other work. I am chair of the Howard County Environmental Sustainability Board where I was appointed by the County executive and approved by the county council, I am chair of the Columbia Association Climate Change and sustainably Board where I was approved by the CA board. I am also on the Howard County Sierra club board. That should qualify me as a well-informed, if not expert Maryland resident to comment on this EIS and project. Just today I read this peer-reviewed journal article, https://doi.org/10.1093/biosci/biad080, which states unequivocally that the world must transition away from burning fossil fuels and onto renewable energy or "3-6 Billion people might find themselves confined beyond the livable region, encountering severe heat, limited food availability, and elevated mortality rates because of the effects of climate change" (Lenton et al. 2023). Those who oppose OSW clearly don't understand that if we don't mitigate climate change their bayside and/or beach front homes will be underwater due to sea level rise. The viewshed alternative should be abandoned as an option as viewshed is not a reasonable opposition to OSW. It's a hive mind theory that has no scientific merit. I support reducing as many environmental impacts as possible while installing as many wind turbines as possible. When possible, floating turbines provide less impact.	Thank you for your comment.
FDMS_0129_001	Scientists taught us the danger of our climate crisis and we see the harm in places like Curtis Bay from the huge coal pile that spreads black dirty dust daily in their neighborhood. Because of course if it is harmful it is placed in underserved communities. So to use a clean source like wind instead of using fossil fuels and coal is wonderful. The fact that our small % of population in the U.S. uses such a large portion of resources is appalling and we need to be part of the solution. I support Option B.	Thank you for your comment.
FDMS_0132_001	Global warming must be slowed! This proposed project will help. Also, I recently read an article by an authority on bird collisions with structures, including offshore wind turbines. He found almost no evidence supporting claims of hundreds of bird deaths at offshore wind turbines. Fossil fuel exploration and burning must be strongly mitigated. Installations like this when becoming operational will answer the threat to human existence and peace.	Thank you for your comment.

Comment No	Comment	Response
FDMS_0145_001	Delaware Interfaith Power & Light supports offshore wind power generation off the coast of Delaware when done properly. Greenhouse gases are the primary cause of climate change, and in Delaware, electric power generation constitutes 23% of Delaware's greenhouse gas emissions (https://documents.dnrec.delaware.gov/energy/Documents/Climate/Plan/DNREC%20Technical%20Report.pdf). We are in the early stages of a climate crisis that can only be abated by transition to a clean energy economy and offshore wind is a competitive solution. Offshore power generation costs are estimated to be within the range of current wholesale prices and it's social cost is half that of conventional electric generation (https://documents.dnrec.delaware.gov/energy/offshore-wind/SIOW-report.pdf). A decision to establish offshore wind power would help Delaware hit its target of achieving 100 percent renewable energy by 2050 and provide green jobs to the economy. There are concerns about offshore wind regarding the beach economy and potential harm to marine wildlife. Current proposals have the potential wind farms located well offshore such that they will have a minimal impact on the views cape of Delaware beaches. US Wind has an extensive plan to minimize the impact of construction on marine mammals. NOAA studies also suggest that no harm will occur to marine mammals when appropriate procedures are followed. DeIPL therefore supports the development of offshore wind electricity when done in such a way that minimizes the environmental impact of the projects. Appendix: Projections suggest that one 800 megawatt wind farm – around the same size as several already planned off other Northeastern states -- off the coast of Delaware would reduce carbon emissions from power generation by almost a third, and create jobs[1]. Offshore wind power's pros and cons | Delaware First Media. https://www.delawarepublic.org/science-health-tech/2017-08-29/offshore-wind-powers-pros-and-cons. Offshore wind report says Delaware could procure power at less than https://www.delawarepublic.org/show/the-green/2022-04-08/offshore-wind-report-says-delaware-could-procure-power-at-less-than-half-current-cost.	Thank you for your comment.
FDMS_0153_001	I encourage BOEM to choose Alternative B, the "Proposed Action", which would allow the full buildout of the project and all of the associated benefits, such as clean, emissions-free power every year for up to 770,000 households. My family spends a week on the Delaware shore every summer - and we would absolutely still go if there are turbines in the distance. It would be well worth it - considering I want to address climate changes NOW and leave a livable world for my kids. I don't see how seeing turbines in the distance would effect our awesome summer vacations year after year.	Thank you for your comment.

Comment No	Comment	Response
FDMS_0165_001	Maryland imports energy from the PJM grid which has among the lowest percentage of zero emission energy resources of all regional transmission organizations. Maryland has committed to reducing greenhouse gas (GHG) emissions 60% by 2031 and attaining net zero by 2045. Maryland's draft Climate Pathway Report (http://www.marylandsclimatepathway.com.) has mapped out only a single, narrow pathway to achieve these goals. This pathway includes obtaining 2.2 GW of offshore wind before 2031 and at least 6.0 additional GW by 2035. Maryland law seeks 8.5 GW of offshore wind by 2035. (* Charkoudian et al, Offshore Wind Energy – State Goals and Procurement (Promoting Offshore Wind Energy Resources Act); 2023.) According to the Pathway Report, decarbonizing the power grid can deliver more GHG emissions reductions than any other economic sector. (*Climate Pathway Report at 33.) But to reach this goal, Maryland needs a fivefold increase in both wind and solar by 2031. (* Id at 35.) The lease acreage currently being considered by BOEM, if not reduced, would be sufficient to achieve that goal. Accordingly, I urge BOEM, consistent with the analysis in the draft EIS, to adopt Alternative B and reject Alternatives D and E. Alternative D would remove 32 turbines so that the remaining turbines are 15 rather than 14 miles from shore. The draft EIS indicates that removing these turbines "is not likely to result in a significant reduction in impact," only marginally reducing seascape and landscape impacts. I grew up in Miami Beach, which depends on tourism. I frequented the beach which was only a 15 minute walk from my home. Watching large tankers appearing to pass slowly on the horizon was relaxing. Watching onshore windmills in Europe and California has the same calming effect. And, the draft EIS notes that excursions to the windmills could be a tourist attraction. Beach erosion caused by more intense storms and higher tides required Miami Beach to spend considerable funds to dredge offshore sand to rebuild its beaches. Frequent sunny weather flooding in Miami Beach also challenges local tourism, residents and land values. While, high sea levels projected for the Mid-Atlantic area, (* 2023 Report on Sea Level Rise Projections, University of Maryland, https://www.umces.edu/sea-level-rise-projections 2022 Sea Level Rise Technical Report, National Ocean Service, NOAA ("NOAA 2022 Sea Level Rise Technical Report"), 2022 Sea Level Rise Technical Report (noaa.gov) sea levels are rising more rapidly in Maryland because the land is also sinking.(* "What Climate Change Means for Maryland, U.S. Environmental Protection Agency, EPA 430-F-16-022 (August, 2016), x https://www.worldwildlife.org/stories/whales-and-the-plastics-problem (hereafter, sometimes referred to as "the EPA Report"). Combined with the rise in ocean temperatures and reduced stability of the jet stream, more intense storms7 in winter and summer may also erode the beaches on which Maryland shore tourism depends and cause more local flooding. Higher ambient air temperatures and smoke blowing in from forest fires could force people to remain indoors and reconsider beach vacations. These environmental developments could reduce tourism and land values and erode the tourism-dependent tax base. Taking competing factors into account, it is not clear that offshore turbines would negatively impact the economy of Worcester County (Ocean City and Assateague Island National Seashore). The economic impact on Worcester County beach communities is not the only economic impact on Maryland. Given the development of offshore wind throughout the Atlantic coastal areas, U.S. Wind decided to develop a long-term monopole production facility at the former Sparrows Point steel mill in Tradepoint Atlantic. This facility can bring new jobs to an area of Baltimore County that, since the close of the Bethlehem Steel mill, has been struggling. Nor are the impacts of sea level rise limited to Worcester County. According to the EPA Report, "[a]s sea levels rise, the lowest dry lands are submerged and become either tidal wetlands or open water. "8 Indeed, "the wetlands along the Eastern Shore south of the Bay Bridge are even more vulnerable, and likely to be lost if the sea rises two feet. "9 Dorchester County beaches are eroding and, its wetlands are being submerged. (* Id.; Dance, Scott, "A County in Maryland's Lower Eastern Shore is Washing Away, Leaving Its Residents with Hard Choices, " The Washington Post (August 24, 2020) https://www.washingtonpost.com/local/a-county-in-marylands-lower-eastern-shore-is-washing-away-leaving-its-residents-with-hard-choices/2020/08/24/0724bdf8-e628-11ea-bc79-834454439a44_story.html.) Accordingly, I urge BOEM to reject Alternative D. Reducing the number of turbines to achieve a minimal reduction in visual impacts is not justifiable, given the differences in visibility of windmills from the shore and the significant economic and environmental impacts in other parts of Maryland.	Thank you for your comment.

Comment No	Comment	Response
FDMS_0165_001 (continued)	Alternative E would remove 11 turbines to address potential impacts on sensitive benthic habitat. Table ES-1 classifies the alternative and cumulative impacts for both Alternatives B and D as “moderate; moderate beneficial.” Thus, the two alternatives do not differ in scope of impact. Plus, any negative impact of the turbines and cables on benthic habitat must be compared with the benefits of reduced carbon emissions on the aquatic environment. Entire food chains and ecosystems are being adversely impacted by higher ocean temperatures and changes to global ocean currents already underway. Table ES-1 and these broader climate change factors demonstrate that elimination of 11 wind turbines is not justified.	Continued from above
FDMS_0165_001	The draft EIS evaluates Alternatives B and E under the Marine Mammal Protection Act. The anticipated disturbance of marine mammals resulting from construction and operation of offshore wind projects pales in comparison to the damage caused by ocean microplastics, increased ship traffic, including large container ships, and commercial and other fishing gear. (* Lewis, Andrew, “The East Coast Whale Die.): Unraveling the Causes, ” Yale Environment 360 (March 8, 2023) https://e360.yale.edu/features/humpback-whale-strandings-u.%20s.%20-east-coast; “Whales and the Plastics Problem, ” World Wildlife Foundation (February 18, 2021) https://www.worldwildlife.org/stories/whales-and-the-plastics-problem.) Carbon emissions leading to higher ocean temperatures, more severe ocean storms and reductions in traditional food supplies are an even greater threat. Decarbonizing Maryland’s economy helps address these significant environmental risks. The draft EIS concludes that notwithstanding the reduced impacts on open ocean and seascape character under Alternative E, “the impacts of the action alternatives would likely remain the same as Alternative B: moderate to major with an overall moderate impact.” In other words, the overall magnitude of impact of the alternatives is again the same. Accordingly, given the similarity in risks to marine mammals under the two alternatives, and the significant negative impacts of carbon emissions on marine life, Alternative B remains the better option. I appreciate the careful and detailed analysis contained in the draft EIS. I also understand that BOEM plans an additional lease sale in 2025 which I hope will allow Maryland to achieve at least 8.5 GW of offshore by 2035. For an additional offshore wind lease sale in the Mid-Atlantic in 2025, I would be additionally grateful. This growth in offshore wind lease sales, however, likely will not be sufficient to allow Maryland to achieve net zero by 2045. I hope the 2025 lease sale and future sales will allow Maryland to achieve even more wind power, while allowing Delaware, Virginia and North Carolina, all part of the PJM grid, to achieve their offshore wind goals as well.	Thank you for your comment.

Comment No	Comment	Response
FDMS_0342_001	The BOEM public gatherings in West Ocean City on October 24th and October 26th in Dagsboro at Indian River HS were both times well spent. Participating in the October 30th virtual Zoom meeting was also a valuable learning experience. I wish to share several “takeaway” impressions from not just the recent hearings but from all the previous hearings that I have attended about offshore wind development off the Maryland and Delaware coasts. Yes, the development of Offshore wind infrastructure and supply chain is expensive. But please consider the costs of “option A”. At this point in our history, to achieve peace and justice goals, it is essential for us to move beyond the extraction economy. The broad adoption of renewable energy holds a promise to equalize the distribution of wealth and power. The rule of “petrostate” autocrats can give way to an equitable distribution of wealth and a harmonious future. We must learn to put politics aside and accept the disruptive realities our warming planet is imposing on us all. First, I must say that I have always been a supporter of offshore wind in general and particularly the projects planned by US Wind and Oersted Wind off the Maryland and Delaware coasts. I am in full support of BOEM’s “Option B”. The environmental impact statements provided by the scientists and professionals from BOEM have been researched well and are proven to be accurate. One of the common themes among all who oppose this project is the “viewshed” argument. This has never held very much weight for me simply because of all the human-made visual pollution that has been introduced on and offshore over the 40 years that I have resided in the area. For me, the “Fiduciary responsibility" argument made by the town councils of Ocean City and Fenwick Island falls apart when segments of property along the bayside in both communities have been removed from the tax map because of frequent and persistent flooding. The towns' refusal to address the root causes of this issue has also led to increasingly high coastal property insurance rates. Never have the claims that the sight of wind turbines offshore would keep tourists away and result in reduced property values and rental income been substantiated by any verified data. In fact, in Block Island, Rhode Island, the reverse is true. Tourism revenues and sport fishing revenues have increased! Slowly, I have witnessed that the attitudes of local commercial fishing interests in opposition to offshore wind have been changing to being favorable toward wind development. Several that I know have realized that wind farms will also provide sanctuaries that enable proliferation of fish species commonly caught. Because of the warming ocean, fishers have also awakened to the fact that species uncommon to the region have begun to find their way into their nets. Also, species they have caught in the past have begun moving to the fishing grounds north of the Maryland-Delaware coast. This reality has alerted several anglers with whom I am acquainted to the dramatic changes that the warming ocean is foisting on their industry and that clean, offshore wind energy solutions promise to be helpful to fish nurseries that will enhance their industry. Over the years the fingerprints of the fossil fuel interest groups have been all over the opposition to offshore wind. Campaign funding for any politician who use public narratives that oppose offshore wind development has been an encouragement for politicians to use misinformation to help denigrate the efficacy of offshore wind and encourage not only the status quo of energy from fossil fuels, but efforts to increase dependence on fossil fuels through the installations of natural gas pipelines throughout the Eastern Shore. The summer of 2023 provided dramatic proof of continued planetary warming and demonstrated how increased heat amplifies the frequency and intensity of storms. Much of the research that has been done on these impacts to our warming planet has been borne out by these realities worldwide. Every major religion on the globe has voiced opposition to the injustices that are the result of these human-caused climate disruptions. Those that hold the least responsibility for these impacts are those that endure most of the negative outcomes and have the least capacity to mitigate and adapt to the climate disasters that are an increasing and more frequent global reality. At the same time world religions are all calling on humanity to embrace the ethical and moral responsibilities to take known actions that effectively reduce greenhouse gas emissions and help facilitate the rapid adoption of energy from renewable sources. It is therefore incumbent on ALL PEOPLE who love their children and grandchildren to take all actions toward the “Just” transition away from the use of fossil fuels toward our clean energy future. All our efforts toward these goals promise to improve and protect the health and wellbeing of all life, human and non-human.	Thank you for your comment.
FDMS_0375_001	I am a long time resident of Worcester County and I support option B of the Environmental Impact Statement. I look forward to the day we can stand on the beach and see the turbines spinning in the distance knowing that we are reversing the harmful effects of fossil fuels. The offshore wind industry will also give Worcester County a much needed economic boost.	Thank you for your comment.

Comment No	Comment	Response
FDMS_0379_001	I support Alternate B, as I feel this will best fulfill our demands for offshore wind energy. For those concerned about the visual impact of the turbines on the horizon, I believe that we will quickly get used to seeing them as we have all human-made structure in our environment. Ocean City, MD is full of things that I don't like to see and hear, but few of the folks protesting the turbines have shared equal concern about the disgusting racist and homophobic t-shirts on the boardwalk, the sound of blaring mufflers during the town-sanctioned events featuring cars, motorcycles and speedboats, etc. I think many will take boat tours out to see the turbines.	Thank you for your comment.
FDMS_0397_001	I am writing on behalf of Interfaith Partners for the Chesapeake (IPC), a regional non-profit organization of faith communities dedicated to environmental stewardship. IPC supports expanding renewable energy generation in the Mid-Atlantic including offshore wind power projects such as those proposed off Maryland's coastline. Congregations of all faiths believe we have a sacred duty to care for the whole web of life entrusted to human care. Thus, addressing the climate crisis is one that demands our strong and immediate attention given this moral call to care for the earth and all web of life within. IPC supports option B (full build out) because we need to aggressively fight climate change and this buildout will achieve net 139 million tons of CO2 avoidance. The full buildout will also boost the economy by bringing to Maryland 14,000 direct and indirect jobs, opportunities for minority-owned businesses, and $6.9 billion to MD GDP. Every turbine lost means over 5,500 homes that won't have this clean energy -- we don't have time for this kind of loss! Offshore wind is a critical part of our response to this crisis. Energy solutions are climate solutions. Climate solutions are health solutions. Health solutions profoundly benefit human dignity and create communities that will thrive. As people of faith, we have no greater call to action than to create a future whereby people are dignified with a stable climate and reliable jobs.	Thank you for your comment.
FDMS_0425_001	I support Option B the full buildout of Maryland offshore wind as it will have the greatest production of renewable energy, the greatest reduction of fossil fuels, and the greatest positive impact on jobs and the Maryland economy.	Thank you for your comment.
FDMS_0543_001	I'd like to vote for the option "Alternative B, " a full build out of the lease area for U.S. Wind. I strongly believe we all need to take responsibility for the health of the planet. the most important being to keep the temperature down to stop the acceleration of sea level rise, especially since human action has caused much of it. Though no energy source is a perfect system, I believe the pros far outweigh the cons. The wind turbines will be far enough offshore to be hardly visible from land, far enough out to not impact migratory birds that tend to hug the shore because of reliable food sources, and will provide habitat for fisheries, more than detract from it. I also believe it will make a strong economic impact on the area in terms of jobs. I believe we are twenty years behind other countries in establishing clean energy. If we don't act now, the future of Ocean City and all coastlines will be impacted beyond repair. Thank you.	Thank you for your comment.
FDMS_0550_001	I support Option B, a full build out of the wind turbines project. I'm excited about the positive outcomes that this project affords including reduction of carbon footprint (139 million tons of CO2 avoided). This project will increase jobs, both directly and indirectly, and opportunities for minorities and will help the local economy as well as the MD's economic forecast resulting in 6.9 billion GDP. Reducing the size of this project will only hurt our efforts to bring clean energy to as many homes and businesses as possible. Just one turbine deletion results in 5,500 homes that will not benefit from clean energy.	Thank you for your comment.

Comment No	Comment	Response
FDMS_0558_001	I'm submitting these comments in support of US Wind's offshore wind farm site, specifically alternative B. I have owned in Ocean City for 20 years and live there six months a year. I am a certified naturalist and avid birder, who, as a volunteer, monitors horseshoe crab and diamondback terrapin populations for the state of Maryland. My community, Sunset Island, is bayfront, where rising tides have already caused issues. And in other area of Ocean City, flooding during storm surges often closes roads and damages dwellings. It's only going to get worse unless we do something. In this day and age, we need to look at the good of the entire community, not just the interests of those who are worried about their view corridors. Also, I firmly believe these fears of view impacts are misplaced: These turbines will not dominate the horizon. Change is rarely embraced, especially when someone who has no particular interest in the good of society at large is hellbent on maintaining the status quo. As someone who sits on the beach much more than I probably should, I also thought long and hard about having wind turbines in my distant view. I concluded that the value this project brings is so much more important than a slight change in my reality as I gaze at the horizon. My sight line is far more negatively impacted by the homophobic, racist, misogynistic t-shirts sold on Ocean City's boardwalk. Do you remember when every restaurant in Ocean City said they'd go out of business if smoking was banned? I feel this is a similar situation. US Wind has done its homework. I was initially very worried about the turbines' impact on migratory birds, but the wind farm has been sited far enough offshore to mitigate impacts on birds, but close enough not to harm migrating whales. The company has also worked with anglers to ensure that livelihoods and hobbies are not negatively impacted. Finally, this project will bring jobs to the area while helping to supply clean energy to thousands. It's a win-win. I believe alternative B makes the most sense as it maximizes the project's positive impacts.	Thank you for your comment.
FDMS_0571_001	I support Alternative B, a full build out of the lease area. This will result in a 139-million-ton reduction in CO2 emissions. These avoided emissions are equivalent to 2.7 million passenger vehicles or power to 705,000 homes every year. This project promises just under $7 billion in GDP growth for the state over the next 20 years and over 10,000 jobs. Many will come from union labor and minority-owned businesses. Our state and the world at large need fast and efficient renewable energy transition to avoid the most devastating projections of climate change. There will be more and more severe consequences if we do not make sound decisions and act on promoting renewable energy and discouraging toxic fossil fuel pollution. There is no time to waste. This lease area has been studied extensively to help reduce and avoid impacts to other ocean uses, including wildlife, and I believe the wind turbines will be a sign of hope for a brighter future for the next generations.	Thank you for your comment.
FDMS_0581_001	I am submitting my comments in support of Alternative B, a full build out of the lease area. I am a small business owner in Berlin, MD offering kayaking and paddle boarding along the beautiful marshes and estuaries of Maryland's Eastern Shore. Over the past 15 years I have witnessed the disappearance of large sections of marsh along our waterway. This loss is fueled by the impact of climate change. The waterways of the Maryland Coastal Bays are critical to our way of life on the Eastern shore. This is just one small example of the impact of climate change that I can observe. Our home and business is at increased risk of flooding with higher tides and our air this summer was choked with the smoke from Canadian wild fires. In order to avert the worst effects of climate change, we need to transition away from dirty fossil fuels as quickly as possible. The minor environmental impacts from offshore wind are significantly offset by the reduction in fossil fuel extraction and burning. The full buildout of the lease area will result in a 139-million-ton reduction in CO2 emissions. These avoided emissions are equivalent to 2.7 million passenger vehicles or power to 705,000 homes every year. In addition, the project promises almost $7 billion in GDP growth for the state over the next 20 years and over 10,000 jobs. Many will come from union labor and minority-owned businesses.	Thank you for your comment.

Comment No	Comment	Response
FDMS_0584_001	My name is Russell Kovach, I am a resident of Columbia, MD and am a part-time guide working in Worcester and Sussex Counties. I recently gave a public comment in support of “Option B” in relation to the BOEM review of wind development off the coast of Ocean City, MD. To start out – a common complaint about the development of wind power is the impact it will have on birds and other wildlife such as seals, whales, and dolphins. While I do not live in Ocean City, I am a local guide that frequently conducts birdwatching, seal-watching, and whale-watching trips in and around the area on a roughly monthly basis. I have had hundreds of participants in trips over the past few years, and literally not once in conversation did I hear a single person indicate they are against the production of wind turbines off of Maryland’s Atlantic coast. In fact, the birdwatching and environmentalist communities are overwhelmingly in support of the initiative. The benefits of wind energy so overwhelmingly outweigh any potential negatives that it is a no-brainer for anyone concerned about the impacts of climate change and other types of pollution caused by the burning of fossil fuels. Another common complaint about the development of wind power off the coast of Ocean City is that the view of the ocean will be marred. This complaint is made while literally hundreds of high-rise buildings are being erected along the coast, destroying any natural aspect of the view of the ocean from pretty much all parts of town! It’s somewhat appalling to see people support building development in town while at the same time working to subvert offshore wind development. Furthermore, the proposed wind project would barely be visible from shore anyway – to get an idea of what the windmills will look like from shore, one only needs to take a trip on the Cape May – Lewes Ferry and look back at the large wind turbine that has been erected above the University of Delaware campus outside of Lewes – from about the halfway point of the trip the turbine will be of similar proportions to what will be seen off the coast of Ocean City. Please record my comment fully in support of the proposed development plan, the Maryland Offshore Wind Project - alternative B.	Thank you for your comment.
FDMS_0585_001	I would like to express my support for option B, a full build out of U.S. Wind's lease area off the coast of Ocean City. While there is concern from area residents about the view shed and how this might impact the resort town's economic outlook, on balance, the failure to invest and support clean energy initiatives could have a much more devastating impact on the economy of Ocean City. People will eventually get used to seeing the turbines off the shoreline in the distance, but the impact of constantly flooded streets and unbearably hot summers could jeopardize the existence of the town altogether. We have already waited too long to transition to more environmentally friendly energy sources, and have put future generations at risk of living in an uninhabitable planet. Along the Eastern Shore, energy companies are continuing to build out natural gas infrastructure, ignoring the warnings from scientists that continuing to invest in fossil fuels is extremely dangerous for the health of our planet. Unfortunately, we have not discovered a problem free energy source as yet, but that does not mean we should ignore the best we have at the moment. It appears that U.S. Wind has taken great efforts to address the problems and concerns that area residents have expressed in their opposition to the turbines. Hopefully, in time, the jobs this creates for the area would convince some of the local opposition that this would have a positive financial impact on the town and its residents	Thank you for your comment.

Comment No	Comment	Response
FDMS_0604_001	I write this letter in support of US Wind's offshore wind projects and, specifically, for Alternative B (Proposed Action) in BOEM's Draft Environmental Impact Statement ("DEIS") for US Wind's Construction and Operations Plan ("COP"). Maryland Washington Minority Companies Association (MWMCA) is a member-trade association formed in 2002 to advocate for minority and women-own construction, design, and material commodity suppliers' advancement throughout the horizontal, vertical, and energy construction industries. We believe that all industry and construction throughout the USA must practice total social economic engineering inclusion. We are based in Baltimore MD but cover the entire DMV region. In 2021, President Biden established a new national goal of deploying 30 gigawatts (GW) of offshore wind by 2030, and in March 2023, Maryland's Governor Wes Moore established a new state goal of deploying 8.5 GW of offshore wind by 2031, a goal that was codified by the Maryland General Assembly just one month later. These national and state goals recognize the importance of bringing clean energy like offshore wind online as quickly as possible to combat global climate change, create good-paying jobs, and establish a domestic supply chain that will benefit union workers and minority-owned businesses for generations to come. I applaud BOEM moving forward with the environmental review of US Wind's COP and the comprehensive and thorough analysis that went into the DEIS. I am supportive of a decision that will help meet Maryland's and the nation's offshore wind goals and allow for the construction of up to 2.2 GW of offshore wind energy in US Wind's lease area off the coast of Maryland, including MarWin, Momentum Wind, and the remaining capacity in the lease area. Building 2.2 GW of wind energy would have the effect of taking 2.7 million cars off the road each year and avoid greenhouse gas emissions equivalent to the energy use of 705,000 homes per year. Thank you for your work on the DEIS. I respectfully request that you move swiftly in approving US Wind's project at its full potential.	Thank you for your comment.
FDMS_0606_001	I would like BOEM to choose Alternative B.	Thank you for your comment.
FDMS_0611_001	I write this letter in support of US Wind's offshore wind projects and, specifically, for Alternative B (Proposed Action) in BOEM's Draft Environmental Impact Statement ("DEIS") for US Wind's Construction and Operations Plan ("COP"). The DEBCC is driven by a visionary goal—to cater to the unique needs of Black-owned businesses and facilitate economic growth in the communities they serve. Our purpose is deeply rooted in leaving a lasting impact on Delaware's business landscape, fostering resourceful relationships, partnerships, and apprenticeships that empower our members. With a mission focused on supporting Black business initiatives and ensuring their success and sustainability, we aim to enhance visibility through advocacy and provide crucial education and training opportunities. Ultimately, our overarching purpose is to serve as a central hub, connecting Black business owners and entrepreneurs with the resources necessary for growth, fostering economic opportunities, and contributing to job growth across the entire First State. I write this letter in support of offshore wind projects. In 2021, President Biden established a new national goal of deploying 30 gigawatts (GW) of offshore wind by 2030, and in March 2023, Maryland's Governor Wes Moore established a new state goal of deploying 8.5 GW of offshore wind by 2031, a goal that was codified by the Maryland General Assembly just one month later. These national and state goals recognize the importance of bringing clean energy like offshore wind online as quickly as possible to combat global climate change, create good-paying jobs, and establish a domestic supply chain that will benefit union workers and minority-owned businesses for generations to come. I applaud BOEM moving forward with the environmental review of US Wind's COP and the comprehensive and thorough analysis that went into the DEIS. I am supportive of a decision that will help meet Maryland's and the nation's offshore wind goals and allow for the construction of up to 2.2 GW of offshore wind energy in US Wind's lease area off the coast of Maryland, including MarWin, Momentum Wind, and the remaining capacity in the lease area. Building 2.2 GW of wind energy would have the effect of taking 2.7 million cars off the road each year and avoid greenhouse gas emissions equivalent to the energy use of 705,000 homes per year. Thank you for your work on the DEIS. I respectfully request that you move swiftly in approving US Wind's project at its full potential.	Thank you for your comment.

Comment No	Comment	Response
FDMS_0635_001	I heard testimony against the project from some folks who talked about visiting Ocean City each year for a week on vacation and being concerned about the new view. I could only laugh at these claims. I am there 52 weeks a year and have no issue with the possible change in the viewshed. I heard some folks express concern about whale deaths and a detrimental effect on the fishing industry. Their claims have been debunked by the professionals and I find it to be nothing but noise and a red herring. Most troubling was the statement made by Ocean City Manager Terry McGean. He stated that his research found that tourism would decline 57% if there were windmills erected off the coast. This has to be among the most ridiculous statements I have heard by any town official in Ocean City in my lifetime. I do not believe we would lose 57 people, let alone 57% of them. This is the fearmongering expressed by Town Officials that has me doubling down on my support of Option B. I have respectfully listened to the "experts" and to many citizens and guests to our community about their take on the Offshore Wind project. I have concluded that we need the project to move forward as spelled out in option B. We also need to stop the fearmongering that Town Officials have undertaken with hopes of sinking the project. Ocean City is backwards in thinking when it comes to recycling. Let's move to the forefront and be leaders on environmental issues by getting this project moving along. This time is now. Thank you.	Thank you for your comment.
FDMS_0786_001	I write this letter in support of US Wind's offshore wind projects and, specifically, for Alternative B (Proposed Action) in BOEM's Draft Environmental Impact Statement ("DEIS") for US Wind's Construction and Operations Plan ("COP"). The Turner Station Conservation Teams, Inc is a non-profit community-based organization who strives to have a strong and vibrant community where all generations work together to ensure all our neighbors thrive In 2021, President Biden established a new national goal of deploying 30 gigawatts (GW) of offshore wind by 2030, and in March 2023, Maryland's Governor Wes Moore established a new state goal of deploying 8.5 GW of offshore wind by 2031, a goal that was codified by the Maryland General Assembly just one month later. These national and state goals recognize the importance of getting clean energy like offshore wind up and running as quickly as possible to combat global climate change, create good-paying jobs, and establish a domestic supply chain for generations to come. I applaud BOEM moving forward with the environmental review of US Wind's COP and the comprehensive and thorough analysis that went into the DEIS. I am especially supportive of BOEM moving forward on Alternative B, the Proposed Action, in the DEIS as that Alternative maximizes clean energy generation that will help meet Maryland's and the nation's offshore wind goals. Alternative B (Proposed Action) in the DEIS would allow for the construction of up to 2.2 GW of offshore wind energy in US Wind's lease area off the coast of Maryland, including MarWin, Momentum Wind, and the remaining capacity in the lease area. This alternative would consist of up to 114 turbines, up to four offshore substations, and allow US Wind to pursue interconnection to the power grid through Delaware. While Alternative B would maximize clean energy up to 114 turbines, up to four offshore substations, and allow US Wind to pursue interconnection to the power grid through Delaware. While Alternative B would maximize clean energy in US Wind's lease area, along with the many benefits that would flow from such generation, that Alternative has the added benefit of having generally the same level of impact as the more restrictive Alternatives C, D, and E. We are pleased to see that the mitigation measures proposed by US Wind and those considered by BOEM would provide additional protections for resources, like the endangered North Atlantic right whale. Thank you for your work on the DEIS. We respectfully request that you move swiftly in approving US Wind's COP and Alternative B (Proposed Action). Thanking you in advance for your consideration regarding our request.	Thank you for your comment.

Comment No	Comment	Response
FDMS_0801_001	The Maryland League of Conservation Voters is a non-partisan non-profit organization whose vision is a healthy environment for everyone in Maryland. We are actively working in support of the state's target of 60% greenhouse gas emissions reductions by 2031 set in statute, as well as the state's 8.5 GW offshore wind energy goal set in statute, and the Moore Administration's goal of 100% clean energy generation by 2035. To meet these targets, Maryland must rapidly accelerate the deployment of new renewable energy resources and improve transmission and interconnection. We understand there is enough room in offshore areas to accommodate the needs of all ocean users safely, and appreciate the ongoing conversations with BOEM, developers, and stakeholders, including local residents, to find the solutions that enable states to meet clean energy targets. We are heartened to see progress, through the release of the Draft Environmental Impact Statement, on the US Wind Project in existing lease areas that could produce up to 2.2 GW of wind energy. The offshore wind industry brings with it investment and economic opportunities across the state, and can offer jobs and generational wealth building to communities previously excluded from these opportunities because of pervasive and systemic injustices. Clean energy resources also bring with them cleaner air. Maryland's Climate Pathway report released earlier this year estimates between $296-667 million in health savings per year when the state reaches 60% emissions reductions in 2031, mostly due to improvements in air quality. According to Maryland's own "Greenhouse Gas Emissions Progress Report" released last year, "Offshore wind represents one of the most reliable clean energy sources available to the state." We are hopeful this project can be developed to meet its full scope included in the Construction and Operations Plan. Thank you for the opportunity to support this project. (Attachment is the letter with the same text as provided above)	Thank you for your comment.
FDMS_0832_001	Hello. I am an early descendant of the Eastern Shore and the Ocean City area. My family and I have enjoyed the region for over eight generations now. We have fished, hunted, birdwatched, waterskied, boated, kayaked, and sailed through these years as an early family of the eastern shore. We were farmers and mariners like many people that have lived here for centuries. Many people that visit our area enjoy many of the same activities and one thing we all have in common is that sea breeze. That sea breeze is the wind and our wind should be harnessed like humans have done since their very existence around the globe. I support Option B. Ocean City needs to join the globe in the long term cost-effective clean energy source of wind. This clean energy source will help preserve our beautiful region and protect our wetlands that are completely under pressure with all of the development. The skyline of Ocean City is constantly changing. We have modernized our city and this clean energy source will be a modern improvement to our area with many long term benefits. Thank you for the opportunity to comment and for your serious consideration in this matter.	Thank you for your comment.

Comment No	Comment	Response
FDMS_0834_001	MAREC Action (informally, MAREC stands for “Mid-Atlantic Renewable Energy Coalition”) respectfully submits these comments support of US Wind’s offshore wind projects and, specifically, for Alternative B (Proposed Action) in BOEM’s Draft Environmental Impact Statement (“DEIS”) for US Wind’s Construction and Operations Plan (“COP”). MAREC Action is a non-profit organization dedicated to the expansion of utility-scale wind, solar and storage development in nine states and Washington D.C., including offshore wind development from New Jersey to North Carolina. US Wind’s offshore wind projects include, MarWin, Momentum Wind, and the build-out of the remainder of the lease area to fulfill ongoing, government-sanctioned demands for offshore wind energy. Totaling 2.2 GW, this would make up over 25% of Maryland’s goal of deploying 8.5 GW of offshore wind by 2035, and aid in meeting President Biden’s national goal of 30 GW by 2030. U.S Wind’s projects will help kickstart the robust offshore wind supply chain necessary to meet current and future energy demands and provide substantial economic benefits to the state. The offshore wind industry has proven to be a reliable and efficient source of carbon-free energy in Europe and around the world, and it is beginning to make headway in the U.S. Vineyard Wind, an 800 MW project off the coast of Massachusetts and the country’s first commercial-scale offshore wind project, is currently under construction and projected to begin coming online this year. There are over a dozen offshore wind projects under development in the U.S., with a total capacity of almost 18 GW. In Europe, the offshore wind industry has created thousands of jobs, revitalized port communities, created a supply chain, and invested billions of dollars into local economies; similar benefits will soon be felt in U.S. communities. As noted in the DEIS, tax revenues from U.S. Wind’s offshore wind projects, around $162.8 million during construction, would provide a beneficial impact on public expenditures and local workforce and supply chain development for offshore wind. Additionally, the trained and skilled offshore wind workforce would contribute economic activity in port communities and the region as a whole. MAREC is especially supportive of BOEM moving forward on Alternative B, the Proposed Action in the DEIS, as this Alternative maximizes clean energy generation that will help meet Maryland’s and the nation’s offshore wind goals. Alternative B (Proposed Action) would consist of up to 114 turbines, up to four offshore substations, and allow US Wind to pursue interconnection to the power grid through Delaware. Alternative B would maximize clean energy generation in US Wind’s lease area, and along with the many local workforce and supply chain benefits that would come from such generation, that Alternative has the added benefit of having generally the same level of impact as the more restrictive Alternatives C, D, and E. The mitigation measures proposed by US Wind and those considered by BOEM would provide additional protections for species like the endangered North Atlantic right whale. We appreciate BOEM’s effort to move this industry and project forward. MAREC respectfully requests that BOEM move swiftly in approving US Wind’s COP and Alternative B (Proposed Action). These projects, and other worthy projects that follow them, will launch Maryland’s offshore wind industry toward success. Thank you for this opportunity to voice our support for US Wind’s offshore wind projects.	Thank you for your comment.
FDMS_0835_001	I am in favor of Alternative B, accepting the developer's proposal in its entirety. Climate change is the #1 issue facing humanity and threatens the quality of life for us all, and for many, our ways of life and livelihoods. Wind power is a huge and crucial contributor to the energy transition which we need to make. I understand that some might find the wind farm unappealing or have other concerns. I will plan to visit Ocean City and spend my money there if the wind farm is constructed! It would please me to see on the horizon offshore such a sign of progress being made. Many besides me would enjoy knowing we are contributing to eco-tourism. And for those less enthusiastic, 10 miles from shore is hard to see clearly. All of us in Maryland need to do our part as part of the transition to renewable energy and saving our world for our kids and grandkids. I wish for speedy approval and construction and full activation of the Maryland wind farm under Alternative B. Thank you.	Thank you for your comment.

Comment No	Comment	Response
FDMS_0858_001	I write this letter in support of US Wind's offshore wind projects and, specifically, for Alternative B (Proposed Action) in BOEM's Draft Environmental Impact Statement ("DEIS") for US Wind's Construction and Operations Plan ("COP"). As president and CEO of the Capital Region Minority Supplier Development Council (CRMSDC), we are ardent supporters. Our territory is the State of Maryland, the District of Columbia and Northern Virginia. CRMSDC is one of 23 regional affiliates of the National Minority Supplier Development Council (NMSDC) Nationally, the 23 regional affiliates of the play a pivotal role in driving economic growth, promoting innovation, and supporting the vitality of minority-owned businesses across the United States. With a commitment to fostering collaboration between corporations and minority entrepreneurs, the NMSDC has created a robust ecosystem representing 16,000 certified minority owned businesses, 1,500 corporations, $482.1 billion in minority spend, $136.4 billion in total wages, and 1.8 million jobs. In 2021, President Biden established a new national goal of deploying 30 gigawatts (GW) of offshore wind by 2030, and in March 2023, Maryland's Governor Wes Moore established a new state goal of deploying 8.5 GW of offshore wind by 2031, a goal that was codified by the Maryland General Assembly just one month later. These national and state goals recognize the importance of getting clean energy like offshore wind up and running as quickly as possible to combat global climate change, create good-paying jobs, and establish a domestic supply chain for generations to come. I applaud BOEM moving forward with the environmental review of US Wind's COP and the comprehensive and thorough analysis that went into the DEIS. I am especially supportive of BOEM moving forward on Alternative B, the Proposed Action, in the DEIS as that Alternative maximizes clean energy generation that will help meet Maryland's and the nation's offshore wind goals. Alternative B (Proposed Action) in the DEIS would allow for the construction of up to 2.2 GW of offshore wind energy in US Wind's lease area off the coast of Maryland, including MarWin, Momentum Wind, and the remaining capacity in the lease area. This alternative would consist of up to 114 turbines, up to four offshore substations, and allow US Wind to pursue interconnection to the power grid through Delaware. While Alternative B would maximize clean energy generation in US Wind's lease area, along with the many benefits that would flow from such generation, that Alternative has the added benefit of having generally the same level of impact as the more restrictive Alternatives C, D, and E. I am also pleased to see that the mitigation measures proposed by US Wind and those considered by BOEM would provide additional protections for resources, like the endangered North Atlantic right whale. Thank you for your work on the DEIS. I respectfully request that you move swiftly in approving US Wind's COP and Alternative B (Proposed Action).	Thank you for your comment.
FDMS_0882_001	I am in favor of Alternative B, accepting the developer's proposal in its entirety. Climate change is the #1 issue facing humanity and threatens the quality of life for us all, and for many, our ways of life and livelihoods. Wind power is a huge and crucial contributor to the energy transition which we need to make. I understand that some might find the wind farm unappealing or have other concerns. I will plan to visit Ocean City and spend my money there if the wind farm is constructed! It would please me to see on the horizon offshore such a sign of progress being made. Many besides me would enjoy eco-tourism, knowing that Ocean City was supporting renewable offshore wind energy. And for those less enthusiastic, 10 miles from shore is hard to see clearly. All of us in Maryland need to do our part in the transition to renewable energy and saving our world for our kids and grandkids. I wish for speedy approval, construction, and full activation of the Maryland wind farm under Alternative B. Thank you.	Thank you for your comment.
FDMS_0892_001	We submit these comments on the Draft Environmental Impact Statement for the US Wind Inc. 's Proposed Wind Energy Facility Offshore Maryland on behalf of the National Wildlife Federation, National Audubon Society, Mass Audubon, New Jersey Audubon, Sierra Club, and American Bird Conservancy. We thank BOEM for its consideration of our comments and look forward to working with the agency and US Wind to support responsible offshore wind development in the Project Area off the coast of Maryland and Delaware. Alternative B - Proposed Action, should be adopted with additional micro siting to protect benthic resources. This recommendation aims to not only advance the production of urgently needed renewable energy to mitigate the worst impacts of climate change, but also ensure that impacts to vulnerable and valuable wildlife and habitats are avoided, mitigated, and minimized to the greatest extent possible. Moving ahead with proactive, protective measures, based on the best available science and designed to adaptively manage, is essential to building durable support for responsibly developed offshore wind as a successful climate mitigation strategy.	Thank you for your comment.

Comment No	Comment	Response
HANDIN-24_0024_001	I have read the Maryland Offshore Wind Draft Environmental Impact Statement (EIS) for Commercial Wind Lease OCS-A 0490 with great interest. In my opinion the proposed action (alternative B) would be the best option. Alternatives C would disturb shore habitat for birds. Alternatives D and E would change the overall impact on the environment only marginally while reducing the size of the project. Alternative A's environmental impact would be, in my opinion, far more devastating than any of the other alternatives. Reducing carbon emissions is imperative to the health of our planet! In the long run, coastal communities such as Ocean City, MD will suffer far more from climate change and sea level rise than from a slight change in their views cape and offshore habitat. I grew up in Germany, where the first wind farms were built in the early 1990s. I remember well how the public perception slowly changed from anger over the altered landscape to pride. In 2022, wind energy had the largest share (23%) in German electricity production, ahead of coal and other energy sources. These days, most people there see wind turbines as a status symbol of an environmentally friendly economy. I hope that one day this will be the same on the coast of Delmarva! Personally, I would love to see offshore wind turbines. It would remind me of a great solution to one of our most pressing environmental issues!	Thank you for your comment.
HANDIN-24_0030_002	As a member of directors of the interfaith partnerships for Chesapeake I Supports alternatives A, B & C not D and E	Thank you for your comment.
HANDIN-24_0043_001	I agree and support "Exhibit B" in the documents provided by Seamark, LLC. This prepared information accurately depicts our coast and waters including vital information left out of BOEMs presentation	Thank you for your comment. The Final EIS discusses transiting safety, navigational, and maneuverability challenges, as well as fishery displacement and potential loss of income to fisheries.
HANDIN-24_0051_001	I am an environmentalist and I am for this project of offshore wind moving forward. The viewing concern of 10 miles offshore is such a minimal impact compared to the positive impact the windmills will provide. The amount of power will be approximately enough to provide 800k homes. I believe turbines will create reefs and new habitats for even more fish life, look at ay bridge and tunnels	Thank you for your comment.
HANDIN-26_0008_002	The maintenance program of wind turbines, namely bearing replacement or blade replacement lacks responsibility or consideration in the short term and long term.	WTGs are designed to be operated remotely and only accessed by technicians for routine maintenance and inspections, or in the event of a fault that requires local reset or intervention. Operations monitoring will be performed remotely from the O&M Facility and the OEM remote operations center. All operational decisions are managed between the O&M Facility and the OEM remote operations center, including coordination on marine and aviation safety with the USCG, Federal Aviation Administration (FAA), relevant local authorities, and grid operator.
HANDIN-26_0011_001	I am in favor of going ahead with the project as alternative B. The lease location has a minimal impact on bird migration based on the study/survey done.	Thank you for your comment.
MAILIN_0010_001	I have resided in Ocean City, MD for over nineteen years. I have been a resident of Maryland for forty-four years. I am writing to express my support of US Wind's Construction and Operations Plan (COP) to deliver renewable energy for the Delmarva Region. In support of the Biden-Harris administration's goal of deploying 30 gigawatts of offshore wind energy capacity by 2030, the Bureau of Ocean Energy Management (BOEM) has announced the availability of the draft Environmental Impact Statement (EIS} for the proposed Maryland Offshore Wind Project. If approved, the project could generate between 1,100 and 2,200 megawatts of clean, renewable energy to the Delmarva Peninsula, which could power up to 770,000 homes. This project is critical to the future of a healthy planet. Climate change is real and we must take all steps necessary to keep the climate of our planet healthy. Through a competitive bidding process in 2014 and 2018, U.S. Wind had won the exclusive right to submit a COP, which is currently under review as part of the BOEM's draft EIS. BOEM's authority, under the Outer Continental Shelf Lands Act (OCSLA), is to authorize renewable energy activities on the OCS. Through its DEIS, BOEM has done a comprehensive and thorough analysis of U. S. Wind's COP. I SUPPORT ALTERNATIVE B (the Proposed Action) and request that BOEM to do the same.	Thank you for your comment.

Comment No	Comment	Response
MAILIN_0011_001	I write this letter in support of US Wind's offshore wind projects and, specifically, for Alternative B (Proposed Action) in BOEM's Draft Environmental Impact Statement ("DEIS") for US Wind's Construction and Operations Plan ("COP"). In 2021, President Biden established a new national goal of deploying 30 gigawatts (GW) of offshore wind by 2030, and in March 2023, Maryland's Governor Wes Moore established a new state goal of deploying 8.5 GW of offshore wind by 2031, a goal that was codified by the Maryland General Assembly just one month later. These national and state goals recognize the importance of getting clean energy like offshore wind up and running as quickly as possible to combat global climate change, create good-paying jobs, and establish a domestic supply chain for generations to come. I applaud BOEM moving forward with the environmental review of US Wind's COP and the comprehensive and thorough analysis that went into the DEIS. I am especially supportive of BOEM moving forward on Alternative B, the Proposed Action, in the DEIS as that Alternative maximizes clean energy generation that will help meet Maryland's and the nation's offshore wind goals. Alternative B (Proposed Action) in the DEIS would allow for the construction of up to 2.2 GW of offshore wind energy in US Wind's lease area off the coast of Maryland, including MarWin, Momentum Wind, and the remaining capacity in the lease area. This alternative would consist of up to 114 turbines, up to four offshore substations, and allow US Wind to pursue interconnection to the power grid through Delaware. While Alternative B would maximize clean energy generation in US Wind's lease area, along with the many benefits that would flow from such generation, that Alternative has the added benefit of having generally the same level of impact as the more restrictive Alternatives C, D, and E. I am also pleased to see that the mitigation measures proposed by US Wind and those considered by BOEM would provide additional protections for resources, like the endangered North Atlantic right whale. Thank you for your work on the DEIS. I respectfully request that you move swiftly in approving US Wind's COP and Alternative B (Proposed Action).	Thank you for your comment.
MAILIN_0012_001	I write this letter in support of US Wind's offshore wind projects and, specifically, for Alternative B (Proposed Action) in BOEM's Draft Environmental Impact Statement ("DEIS") for US Wind's Construction and Operations Plan ("COP"). In 2021, President Biden established a new national goal of deploying 30 gigawatts (GW) of offshore wind by 2030, and in March 2023, Maryland's Governor Wes Moore established a new state goal of deploying 8.5 GW of offshore wind by 2031, a goal that was codified by the Maryland General Assembly just one month later. These national and state goals recognize the importance of getting clean energy like offshore wind up and running as quickly as possible to combat global climate change, create good-paying jobs, and establish a domestic supply chain for generations to come. I applaud BOEM moving forward with the environmental review of US Wind's COP and the comprehensive and thorough analysis that went into the DEIS. I am especially supportive of BOEM moving forward on Alternative B, the Proposed Action, in the DEIS as that Alternative maximizes clean energy generation that will help meet Maryland's and the nation's offshore wind goals. Alternative B (Proposed Action) in the DEIS would allow for the construction of up to 2.2 GW of offshore wind energy in US Wind's lease area off the coast of Maryland, including MarWin, Momentum Wind, and the remaining capacity in the lease area. This alternative would consist of up to 114 turbines, up to four offshore substations, and allow US Wind to pursue interconnection to the power grid through Delaware. While Alternative B would maximize clean energy generation in US Wind's lease area, along with the many benefits that would flow from such generation, that Alternative has the added benefit of having generally the same level of impact as the more restrictive Alternatives C, D, and E. I am also pleased to see that the mitigation measures proposed by US Wind and those considered by BOEM would provide additional protections for resources, like the endangered North Atlantic right whale. Thank you for your work on the DEIS. I respectfully request that you move swiftly in approving US Wind's COP and Alternative B (Proposed Action).	Thank you for your comment.

Comment No	Comment	Response
MAILIN_0013_001	I write this letter in support of US Wind's offshore wind projects and, specifically, for Alternative B (Proposed Action) in BOEM's Draft Environmental Impact Statement ("DEIS") for US Wind's Construction and Operations Plan ("COP"). In 2021, President Biden established a new national goal of deploying 30 gigawatts (GW) of offshore wind by 2030, and in March 2023, Maryland's Governor Wes Moore established a new state goal of deploying 8.5 GW of offshore wind by 2031, a goal that was codified by the Maryland General Assembly just one month later. These national and state goals recognize the importance of getting clean energy like offshore wind up and running as quickly as possible to combat global climate change, create good-paying jobs, and establish a domestic supply chain for generations to come. I applaud BOEM moving forward with the environmental review of US Wind's COP and the comprehensive and thorough analysis that went into the DEIS. I am especially supportive of BOEM moving forward on Alternative B, the Proposed Action, in the DEIS as that Alternative maximizes clean energy generation that will help meet Maryland's and the nation's offshore wind goals. Alternative B (Proposed Action) in the DEIS would allow for the construction of up to 2.2 GW of offshore wind energy in US Wind's lease area off the coast of Maryland, including MarWin, Momentum Wind, and the remaining capacity in the lease area. This alternative would consist of up to 114 turbines, up to four offshore substations, and allow US Wind to pursue interconnection to the power grid through Delaware. While Alternative B would maximize clean energy generation in US Wind's lease area, along with the many benefits that would flow from such generation, that Alternative has the added benefit of having generally the same level of impact as the more restrictive Alternatives C, D, and E. I am also pleased to see that the mitigation measures proposed by US Wind and those considered by BOEM would provide additional protections for resources, like the endangered North Atlantic right whale. Thank you for your work on the DEIS. I respectfully request that you move swiftly in approving US Wind's COP and Alternative B (Proposed Action).	Thank you for your comment.
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Comment No	Comment	Response
MAILIN_0015_001	I write this letter in support of US Wind's offshore wind projects and, specifically, for Alternative B (Proposed Action) in BOEM's Draft Environmental Impact Statement ("DEIS") for US Wind's Construction and Operations Plan ("COP"). In 2021, President Biden established a new national goal of deploying 30 gigawatts (GW) of offshore wind by 2030, and in March 2023, Maryland's Governor Wes Moore established a new state goal of deploying 8.5 GW of offshore wind by 2031, a goal that was codified by the Maryland General Assembly just one month later. These national and state goals recognize the importance of getting clean energy like offshore wind up and running as quickly as possible to combat global climate change, create good-paying jobs, and establish a domestic supply chain for generations to come. I applaud BOEM moving forward with the environmental review of US Wind's COP and the comprehensive and thorough analysis that went into the DEIS. I am especially supportive of BOEM moving forward on Alternative B, the Proposed Action, in the DEIS as that Alternative maximizes clean energy generation that will help meet Maryland's and the nation's offshore wind goals. Alternative B (Proposed Action) in the DEIS would allow for the construction of up to 2.2 GW of offshore wind energy in US Wind's lease area off the coast of Maryland, including MarWin, Momentum Wind, and the remaining capacity in the lease area. This alternative would consist of up to 114 turbines, up to four offshore substations, and allow US Wind to pursue interconnection to the power grid through Delaware. While Alternative B would maximize clean energy generation in US Wind's lease area, along with the many benefits that would flow from such generation, that Alternative has the added benefit of having generally the same level of impact as the more restrictive Alternatives C, D, and E. I am also pleased to see that the mitigation measures proposed by US Wind and those considered by BOEM would provide additional protections for resources, like the endangered North Atlantic right whale. Thank you for your work on the DEIS. I respectfully request that you move swiftly in approving US Wind's COP and Alternative B (Proposed Action).	Thank you for your comment.
MAILIN_0016_001	I write this letter in support of US Wind's offshore wind projects and, specifically, for Alternative B (Proposed Action) in BOEM's Draft Environmental Impact Statement ("DEIS") for US Wind's Construction and Operations Plan ("COP"). In 2021, President Biden established a new national goal of deploying 30 gigawatts (GW) of offshore wind by 2030, and in March 2023, Maryland's Governor Wes Moore established a new state goal of deploying 8.5 GW of offshore wind by 2031, a goal that was codified by the Maryland General Assembly just one month later. These national and state goals recognize the importance of getting clean energy like offshore wind up and running as quickly as possible to combat global climate change, create good-paying jobs, and establish a domestic supply chain for generations to come. I applaud BOEM moving forward with the environmental review of US Wind's COP and the comprehensive and thorough analysis that went into the DEIS. I am especially supportive of BOEM moving forward on Alternative B, the Proposed Action, in the DEIS as that Alternative maximizes clean energy generation that will help meet Maryland's and the nation's offshore wind goals. Alternative B (Proposed Action) in the DEIS would allow for the construction of up to 2.2 GW of offshore wind energy in US Wind's lease area off the coast of Maryland, including MarWin, Momentum Wind, and the remaining capacity in the lease area. This alternative would consist of up to 114 turbines, up to four offshore substations, and allow US Wind to pursue interconnection to the power grid through Delaware. While Alternative B would maximize clean energy generation in US Wind's lease area, along with the many benefits that would flow from such generation, that Alternative has the added benefit of having generally the same level of impact as the more restrictive Alternatives C, D, and E. I am also pleased to see that the mitigation measures proposed by US Wind and those considered by BOEM would provide additional protections for resources, like the endangered North Atlantic right whale. Thank you for your work on the DEIS. I respectfully request that you move swiftly in approving US Wind's COP and Alternative B (Proposed Action).	Thank you for your comment.

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TRANS-19_0004_001	I am in support of the US Wind's offshore wind project, for Alternative B. I'd like to say that it is going to create approximately 4,500 jobs, and it's going to provide 114 windmills that will provide 350,000 homes with electricity. So I'm really excited about this opportunity. And I won't second everything that everyone has said regarding President Biden and Governor Wes Moore's goals for the country and for this state, but I will go on record that I am in full support of Alternative B.	Thank you for your comment.
TRANS-19_0007_001	I believe this wind project will be an excellent project for us to implement. It will affect the economic impact to the community both in Virginia eastern shore, Maryland eastern shore, and the lower portions of Delaware. I think we should move forward and move forward with the Alternative B as a recommendation.	Thank you for your comment.

Comment No	Comment	Response
TRANS-19_0010_001	I have followed this project for several years and taking into account everything that I have read and learned, I support the immediate approval of the maximum number of wind turbines. Concerns about the impact on the viewshed of wind turbines in the ocean, 14 miles away, are not at all consistent with allowing billboard boats to drive back and forth within a hundred feet of the beach all day long. These boats contribute to the global warming by burning fossil fuels, whereas the wind turbines would help reduce greenhouse gas emissions. I also find it ironic that anyone standing on the beach, who simply turns around, would have a viewshed of high-rise buildings, telephone poles, and other manmade structures. I support Option B.	Thank you for your comment.
TRANS-19_0011_001	I support the Marwin and Momentum wind farms off the coast of Maryland. NASA, the agency that accurately piloted American spacecraft to all the known planets in our lifetime, and precisely guided several spacecraft to orbit several asteroids, has projected the past Atlantic shore sea level rise from the late 1800's, using the IPCC's verified data. Sea levels rose in line with the climate change models from the reference point of the mid-1800's to 2014, which confirms trusting NASA's projections up to 2100. According to NASA, the Ocean City inlet will experience another 10 inches increase in sea level rise by 2050, and a sea level increase of 3 feet by 2100. That 10-inch sea level rise by 2050 is well within the financing timespan of mortgages which require flood and storm insurance. Given 33% of the surface area of Worcester County is water, and 21% of Sussex County is water, you should question if individuals opposing renewable energy can pay 30-year mortgages from now to beyond 2050, while simultaneously losing land value and property insurance resulting from the effects of fossil fuel caused global warming. If the opposition lose their communities because of the cumulated global warming damage, doesn't that mock the value of that testimony? Does the opposition offer alternatives that halt as much greenhouse gas production as these projects? Is there a better revenue source in this area that could possibly pay for relocating local global warming victims when their mortgages are more than their home values? Alternative B provides the best current year-round, non-tourist revenue source for Worcester and Sussex Counties. But the most important are the healthcare benefits during the operational lifetime of these offshore wind farms that are measured by billions of dollars, and 50 premature deaths that are estimated to be avoided every year. Renewable energy projects are the solutions to the oppositions global warming problems.	Thank you for your comment.
TRANS-19_0012_001	The Bureau of Ocean Energy Management has done a thorough analysis of US Wind's construction operations plan. Wind energy is one of the forms of renewable energy that will be important to our future to arrive at a sustainable renewable energy solution. As such, I support Alternative B, the proposed action, and ask the Bureau of Ocean Energy Management to do the same.	Thank you for your comment.
TRANS-24_0002_001	I was born and raised down on the lower Eastern Shore of Maryland in Salisbury. And I think that given climate change and energy needs, we need to do all we can to get renewable resources of energy such as what we're talking about tonight, offshore wind. In looking over the draft EIS, environmental impact statement, what I've been able to piece together is alternative B is the one I favor. And I think there's been a lot of studies and analysis and input from stakeholders already. And so I think we need to finish the process and to really work to get these turbines out there and to start generating green energy as fast as we can. And I've seen -- just in my lifetime I've seen areas, especially down here on the lower Eastern Shore of Maryland, get inundated by water from climate change. I've seen other impacts of climate change, worse storms, more frequent and more intensive. Like I said, areas that when I was younger that we were mostly dry, I've seen them become wet. And so I just think this is very important. And we've been working at it for a very long time, and I would encourage the Department of Interior to put forth alternative B. And again, thank you.	Thank you for your comment.
TRANS-24_0003_001	I would just like to stay I strongly support option B, that the project be -- go forward as proposed. If there was an option for more turbines, I would vote for that option. Each turbine represents thousands of tons of pollutants that will not be going into the ocean. So I would like to see as many turbines as possible in order to keep the oceans healthy. I think it's really critical that we take steps to minimize global warming, and here is a solution someone has proposed that will minimize global warning. I am frustrated at the resistance to it, so I want to just register my strong support for as much clean energy production as possible through the offshore wind turbines.	Thank you for your comment.

Comment No	Comment	Response
TRANS-30_0007_001	I'm a business development manager of CBY Enterprises. We are a minority business enterprise. And we are engaged in trucking and hauling. We were intimated about the opportunities with the offshore wind industries, particularly at Tradepoint Atlantic, which is just up the road from our office. And we were invited in there to hear about the opportunities. Eventually, I ended up attending a training executed by the offshore wind partnership to explain the technology, explain the investment, explain the environmental impact, and eventually what's coming down the road. You know, and what occurred to me was that the United States, the tends to be the lead in technology, and the lead ahead was way behind the curve. Europe has done all this. You know, have made all the mistakes that they need to make. They've gotten it right. And they are, essentially, bringing in the technology to help the United States. They are also investing a lot of money in this. It's not as if they're just coming in and getting paid all the money that they require. That's not the case. That's not what we're hearing. What we are hearing is that they are investigating - they will be investing billions of dollars in this. You know, it's, for us, for me, I believe it's a good thing. You know, there's a bit of business wisdom. They say change before you have to. And that's exactly what we're talking about with the renewable energy. You know, the impact to the environment has been terrible from fossil fuels. And this is a great way to go. Plus, there's lots of -- I mean, there's just no way that there will be zero impact. But the issue is, is it better for the United States, is it better for the environment than what the situation is now. And I believe that it is. I'm a supporter of US Wind, who are going out of their way to ensure that minorities and small businesses get the opportunities, both at Tradepoint Atlantic and in Ocean City where there will be hubs built there on land and, of course, the work that will be done at sea. I believe that that this is the way to go. And it will help global warming tremendously, particularly Option B, where it just gels with the type of investment that is coming from Europe. So I'm in full support of Option B	Thank you for your comment.
TRANS-30_0008_001	I am a water resources engineer by profession, and I'm also a volunteer member of Chesapeake Climate Action Network. I am in full support of this project, specifically, Alternative B because it will help us meet our climate goals as a state and as a country, which we so urgently need to do. I know that some environmental groups are concerned about harmful effects on marine wildlife, but there's really very little evidence to suggest that these effects will be significant. As a sidenote, although I don't live along the coast now, I did grow up in a coastal county in New Jersey, and I'm thrilled to know that there's offshore wind in development along those shores as well. If the turbines are not visible, great, we get a beautiful, clear horizon. If they are visible, great, we get graceful looking reminders that we're working toward a livable future for ourselves and the generations to come. So in conclusion, I mean, offshore wind is one of the cleanest, safest forms of renewable energy. And it's a great opportunity to make good use, responsible use of the space and the resources we've been given. So again, I support Alternative B.	Thank you for your comment.
TRANS-30_0009_001	I'm with the Chesapeake Climate Action Network on behalf of tens of thousands of Marylanders. We strongly support Alternative B. We love offshore wind. Offshore wind is just incredible. It is a huge boon. It would be a huge mistake to not fully develop. It improves health outcomes, it lowers energy costs, and it creates good union jobs. Air pollution is a killer. Eight million people die every year from air pollution alone. And while that's most concentrated in countries that don't have the Clean Air Act like we do, there are many, many Marylanders who die every year from air pollution, from combustion of fossil fuels. And as we transition to clean renewable energy, like offshore wind, we will literally be saving lives through cleaner air. And we can't afford to not save those lives. And, also, it will create more reliable energy prices. When Vladimir Putin invaded Ukraine, we saw natural gas prices spike 50 percent. That increased the cost of home heating, it increased the cost of electricity. And when people are struggling to make it paycheck to paycheck, that is devastating. When the day comes that we power our lives with electricity and generate all of our electricity from clean domestic renewable energy sources, there will be no foreign leader who can cause our energy prices to spike the way that Vladimir Putin was able to do because of our reliance on fossil fuels, which are sold as a global commodity. In addition, I am a lifelong Marylander. Growing up in Baltimore, I remember the steel jobs leaving and the effect it had on the city. Offshore wind is bringing in good union jobs back to Baltimore City and the entire region, which is terrific and just lifechanging for so many people who need those family sustaining jobs and are able to turn their little community around. And the bonus on top of all of those great aspects of offshore wind is that they are just beautiful. And I really hope that on a clear, clear day, I'll be able to see them on the shore of Ocean City. I'll say that I recently took a boat trip out to see the offshore wind turbines off the coast of Virginia Beach, and they were beautiful. The closer I got, the more beautiful they were. And, also, when we got there, there was a school of jackfish swimming around them, and then multipole barracudas trying to, you know, get that bait ball. And it looked like we were in a nature documentary or something. As a previous commentor said, these turbines will actually provide artificial reefs, and they are actually going to be a cornucopia of wildlife in the oceans. So for all those reasons, it is absolutely in our interest to build as much offshore wind as possible. And for that reason, we strongly support Alternative B.	Thank you for your comment.

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TRANS-30_0010_001	I'm the founder of the Climate Communications Coalition, a nonprofit that works with numerous environmental and climate justice organizations across the state and the nation. I am here this evening to show our absolute and unconditional enforcement of the maximum possible allocation of OREC to ensure that Maryland can expand and maximize access to clean wind energy. We strongly endorse Option B. Not only will it generate massive amounts of much needed clean energy, it will turn Maryland into a hub for new manufacturing, provide port facilities to serve this great sector, and create centers and well-paying jobs for a new green workforce. In fact, we could not be more enthusiastic about this proposal. This type of energy is precisely where Maryland needs to focus its investments. We need to stop siphoning funds to archaic predictions and projects, such as gas or methane, or biogas, or trash winds formation, or sacrificing our forests and woody biomass plants. It is projects in wind and solar that generate truly clean energy with zero emissions and zero waste. So please pull out all the stops for wind. We can create jobs, uplift underserved communities, clean up our grid, become the nation's climate and justice leaders, and we cannot do it fast enough. We can even fight the coastal erosion. The Eastern Shore will increase its tourist offerings with excursions to this designed composed by magnificent and majestic clean energy generating windmills that will enhance the quality of the air, the water, add interest to the horizon and the skyline, and improve the economy and the jobs. As mentioned, we vote for Option B. This is a win-win wind. So let's do it.	Thank you for your comment.
TRANS-30_0011_001	We strongly support the construction operation of the Maryland Offshore Wind Project; this includes the installation of up to 121 wind turbines and the associated infrastructure. This project should be initiated and brought online without delay, as it will play a critical role in Maryland's climate plan. The Climate Solutions Now Act, signed into law in2022 , set an ambitious goal of 60 percent reduction of greenhouse gas emissions by 2031, and net zero emissions by 2045. Maryland also has a renewable energy goal of 50 percent by 2030, including at least 1200 megawatts of offshore wind set by the Clean Energy Jobs Act of 2019. To meet these goals, you must move forward with the rapid deployment of renewable energy and investments in infrastructure. Maryland currently expects over two gigawatts of offshore wind capacity to come online after 2025. The full lease acreage currently offered by BOEM could be sufficient to allow US Wind to generate 2.2 gigawatts of offshore wind by 2035. With this in mind, we request BOEM adopt Alternative B and reject any other alternative that limits the project to a smaller area. As this project is considered, there's a need to weigh Maryland's and our nation's goals for offshore wind with the needs of many, including local shore economies. And with this in mind, the alternative plans which reduce the area available for wind turbines must be rejected. We need to maximize production of renewable energy as the best option for mitigating climate change, which is directly linked to sea level rise and a major threat to Maryland's coastline. Scientists from NASA have found that Global Mean Sea Level has risen nearly four inches since 1992. Furthermore, the rate of sea level rise is accelerating. Globally, it has doubled from about .1 inch per year over 1993 to 2003, to nearly two inches per year over the last decade. In the 2023 report on sea level rise projections issued by the University of Maryland, they found that sea level among Maryland shores will likely rise a foot between 2000 and 2050, which is as much as it did over the entire previous century and could even rise by a-foot-and-a-half. It is estimated that every one inch of sea level rise translates into 8.5 feet of beachfront loss along the average coast. High tide and storm surges can rise even higher, bringing more coastal flooding. This is a clear threat to the Maryland shoreline. We must do everything we can to address it. And the consensus among scientists is clear, the rapid rising sea level is due to human-caused climate change resulting from greenhouse gas emissions. As such, in summary, we urge the rapid approval of the full lease acreage, Alternative B, for the Maryland Offshore Wind Project to meet Maryland's need for energy and mitigate the rest of the effects of climate change.	Thank you for your comment.

Comment No	Comment	Response
TRANS-30_0014_001	I am a property owner in downtown Ocean City. Me and my family were fortunate enough to have a few properties right in downtown, and we get to see the ocean every day. I can tell you that from listening for the last decade, I wasn't sold one way or another on which way I was leaning. But I can tell you, listening to some of the folks that are against this have swayed me to be more in favor of it than ever before because the fear mongering and some of the verbiage that these folks are using is just completely off the charts. I've watched Terry McGean work his backside off for years in Ocean City, and he does a great job. But I think I heard him say tonight that 55 percent of the tourism would go away. That -- there's no way that anybody could believe statements like that. So there's an underlying agenda with some folks. And 55 percent, I can't find 55 people that would be against the wind, so. And, you know, there was another lady, the Ocean Pines Chamber of Commerce. And she was speaking in kind of a derogatory fashion about some of the folks from Baltimore or not around the shore. I can see the ocean from my place. I don't believe that she can see the ocean from Ocean Pines. So if she's saying others don't have credibility, she doesn't have credibility herself. And you know, when I hear people talk about recycling in Ocean City, it bothers me that we don't do it. I don't know why we don't do it. We're 40 years behind time by not doing it. We have some folks that want to get involved in zero waste and taking a role in composting and trying to do the right thing. Here's something for us to be at the forefront and moving forward and doing the right thing. So I wholeheartedly support Plan B, Option B through this.	Thank you for your comment.
TRANS-30_0015_001	We're a regional nonprofit organization that's dedicated to the expansion of utility scale clean energy in nine states, and in Washington D.C., including representing the offshore wind industry in Maryland. I'm speaking today, both on behalf of MAREC Action, and also as a resident of Maryland. I live in Montgomery County. I'm in strong support of US Wind's projects and, specifically, Alternative B in BOEM's DEIS for the project's COP. While our organization typically does not endorse these kinds of specific projects, we have made an exception in this case given the precedential impact that improving these projects will have on the growth of the industries' jobs investment and clean energy in Maryland. US Wind's project will accelerate Maryland's transition into a clean energy hub, clean the environment and lay the groundwork for similarly worthy projects proposed by other offshore wind developers. These projects are necessary to help keep the lights on, combat climate change, and to achieve both President Biden and Governor Wes Moore's prudent goals for enhancing American clean energy infrastructure. US Wind's projects have been under construction for years. I've seen many of those myself working in the clean energy industry, and I really want to applaud the hard work of all the parties involved, including the US Wind staff, BOEM, and various community stakeholders in the way that they've conducted rigorous research to protect and enhance Maryland's coastal communities and natural resources. I'm confident that this project will be a good thing for the state of Maryland. We appreciate BOEM's work to move the industry and the project forward, and encourage you to approve US Wind's COP and Alternative B.	Thank you for your comment.
TRANS-30_0016_001	We are a group of people from many churches in Montgomery County who are working together for a cleaner environment. I also, though I live in Montgomery County, I have owned a home on the Eastern Shore, and so I have a lot of experience on the beach. And I would say that our group and myself, personally, support Option B. The importance of clean energy is so important in terms of reducing the global warming. I wonder if the BOEM analysis goes out far enough because we know that over the next hundred years, there are going to be increases in sea level, increases in temperature, increases in ocean acidity, all of which will have major impact. And I don't know whether the analysis goes out that far, but I think it's very important to realize that clean energy will impact the ocean experience for the animals and the people who live by it if we do nothing. Also, I think windmills, it's an aesthetic decision. I have, you know, seen windmills on land, I've seen windmills in Europe offshore, I have seen pictures of Rembrandt who liked to paint pictures of windmills. So I think it's, again, something that is in the eye of the beholder. And the last thing I would comment here is there was a very disturbing article in the Washington Post last summer which mentioned that gas and oil companies are in a secret way donating to groups that are then against allowing wind power on the Eastern Shore. I think this is very much like what the tobacco companies did. And I think it's despicable. And I hope it's not true.	Thank you for your comment.

Comment No	Comment	Response
TRANS-30_0019_001	We are in support of US Wind's proposal for Alternative B for Maryland Offshore Wind's Project. One of the District Heights Sustainability Committee's primary goals is to advocate for the enhancement of community living standards, while concurrently bolstering their capacity to withstand adverse challenges. The proposal put forth by US Wind constitutes a promising avenue towards accomplishing precisely that objective. Remarkably, the proposal by US Wind aligns perfectly with the goals of the Power Act, signed by Governor Wes Moore, which aims to quadruple Maryland's offshore wind energy production by 2031. US Wind's Energy Proposal includes up to 114 wind turbines, four offshore substations, and a met tower facility in Ocean, Maryland. The visionary project will not only generate a substantial amount of clean energy, but also create numerous jobs in the offshore wind industry. The Power Act prioritizes environmental justice. It ensures that the benefits of offshore wind energy, such as job creation and cleaner air reach disadvantaged communities. US Wind's Alternative B supports this focus on equity by providing equal opportunities to local communities. In conclusion, we believe that US Wind's Alternative B is a groundbreaking project that will position Maryland as a leader in offshore wind. We urge all stakeholders to support its implementation, and to work together to realize its full potential. Together, we can propel Maryland towards a brighter, cleaner, and more equitable energy future.	Thank you for your comment.
TRANS-30_0020_001	I'm here to speak in support of US Wind's Offshore Wind Projects and, specifically, for Alternative B in BOEM's Draft Environmental Impact Statement for US Wind's Construction and Operations Plan. In March 2023, Maryland's Governor, our Governor, Wes Moore, established a new state goal of deploying 8.5 gigawatts of offshore wind by 2031, a goal that was codified by the Maryland State Assembly -- General Assembly just a month later. The Maryland State Conference of the NAACP and our branch supports these goals. It is absolutely imperative that clean energy, like offshore wind, is prioritized. Climate change is real. We need to combat global climate change, create good paying jobs, and establish a domestic supply chain for future generations. The Eastern Shore is continually plagued by dirty energy disguised as green energy in the forms of biogas and incinerators. Offshore wind is a clean energy source. Let's see. Okay. Alternative B would maximize clean energy generation in US Wind's lease area, along with the many benefits that would flow from such generation. So I just am saying on behalf of those here on the Eastern Shore that we are in support of Alternative B, and that we hope that it is supported. We definitely want to bring more jobs to this space and definitely give more opportunities to people who are marginalized. And the prioritization of not only bringing these jobs, but also giving opportunities to minority owned businesses, as well as expanding the space and job opportunities to people of color.	Thank you for your comment.
TRANS-30_0021_001	Hi, I'm Sara Parnell. I'm from Maryland's Eastern Shore. I'm a homeowner. I'm a business owner. And I am in support of green energy. I'm really concerned about what's going on with the climate. I'm concerned about deposits in the ocean, our plastic use. I'm just concerned about the changes in the temperature that we're experiencing. And so, I really support any initiatives that are going to help us make the changes we need to make. Offshore wind power is one of those. It's a clean source of energy. It's about time. We have the technology. I don't know what's been taking so long. And it's really just disheartening to see that, you know, we're just not keeping up the progress as we could with the technology capacity that we have. And we have the money to do these things. And so, I just really want to see this kind of effort go forth. The energy is clean. We need to reduce these air pollutants. It doesn't make any sense, you know, the greenhouse gas emissions. It just such a disheartening affair that's going on, and we need to save the world today. And so, we're seeing offshore wind resources, they're used in other places, they're abundant everywhere, you know, globally. I don't know why we, in the United States aren't, you know, in comparison, making offshore wind farms. I think this energy is stable. I think it's predictable. I think, you know, really, we could get this done. It's definitely going to help the economy and the jobs creation in that industry. I would really love to see that. And then hopefully, we can get, you know, different technologies developed when we have our own wind sourcing farm, and we're not reliant so much on other countries, or other power sources, or exporting of power. I just really want to see us really dive into these types of green energy projects. I would say that I support Option B for this particular project. And that's pretty much the summation of my comments. I just really hope that we can make offshore wind happen, green energy happen. I really hope we can get the oceans cleaned up. I just really want to see a lot of technological power and money going into cleaning up our atmosphere so that we can have a better home for everybody, and not just the few people who have access to wealth and resources, who can avoid the effects of the pollution that's being created.	Thank you for your comment.

Comment No	Comment	Response
TRANS-30_0022_001	I am a resident of Columbia, in Howard County. I'm a teacher, a science teacher, but I also have a part-time job as a bird guide, mostly in Worcester and Sussex Counties. So I am in Ocean City all the time, usually once or twice a month. And I speak out in support of Option B. I literally guide, sometimes, hundreds of people a year on birdwatching trips in the area, and other nature activities like photography. And I literally have not once heard anybody suggest that they would be against the production of wind turbines in Ocean City. In fact, almost everybody I know loves the idea because they recognize several things. First, the idea that the turbines pose a danger, rather, to marine mammals is incorrect. The data after study after study shows that. I hope BOEM appreciates that. Those comments to the contrary are against what reality shows, what research shows us is true. Furthermore, Ocean City, you know, is not exactly a naturally pristine beach. There are buildings, there's new buildings, there's proposals right now to build a high rise motel literally next door to a park. And people are not speaking out against that like they are the wind turbines. The benefits of the wind turbines dramatically outweigh any cost of having them there. The lack of, or rather, the reduction carbon emissions is very well documented. It's clear, the huge benefit that they will have. But when I hear speak against the turbines, the most frequent thing they mention is the sight of them. And I would encourage anybody who's concerned or questions what these turbines will look like to go up to Lewis, Delaware and take a ride on the ferry, and go about halfway across and look back at the wind turbines over the Delaware University campus at Lewis, and you can get a really good sense of what these turbines will look like from the distance from Ocean City. You almost cannot see them. So the idea that the sight is a problem, I think can be pretty much looked at that way. In closing, once again, support Option B. When you consider that we're talking about a town with tall -- with high-rise buildings and so forth, this is a very minor impact with all sorts of huge benefits.	Thank you for your comment.
TRANS-30_0023_001	I am a resident of Maryland, of Baltimore City. And I'm also the mother of three children. My children are nine, twelve, and fourteen. And I think, especially, my two older kids are very aware of climate change, and how that is going to affect their future. I'm very scared about the climate change. And because of that, and, also, just my own commitment to taking care of our beautiful earth that we've been given, I'm very much in favor of addressing climate change through wind energy, or any really green sources of energy. And I really think that we do not have any time to waste. You know, as a parent, it's very scary to me what future we're leaving for our children, and what condition we're leaving the planet in. And I ask that we move forward as quickly as possible to protect our climate and protect our future for future generations. I am also here from the Green Team at our church here -- it's a catholic church here in Baltimore City. And our Green Team is also very dedicated to protecting the earth. And also, speaking as a Catholic and as a Christian, that we need to protect our common home that we live on. We have this beautiful planet that we were given, and I think that it is our job to protect it. And the greatest risk that we have at this point, of our planet, is climate change. And certainly, we have the capacity to turn things around. We know how to do it. And wind energy is a big piece of that. But we need the political will to actually move forward with that. So I thank you for your time. And ask, again, that we move forward with wind energy to protect kids' future.	Thank you for your comment.
TRANS-30_0024_001	I am a resident of Ocean City. As someone who has worked on water quality and planning in Ocean City and enjoys deeply showing off Ocean City to my friends and my family, I fully support the project, especially Option B, as it makes the most sense to me. And I look forward to the possibility of seeing turbines on the Ocean City horizon.	Thank you for your comment.
TRANS-30_0026_001	I am in favor of Option B. I just really enjoy everything that you guys are doing right now and giving us the opportunity to speak on this matter. I think clean energy is absolutely the way. And I really think it helps sets us up for a better future for -- not for just us, presently, but for our generations to come. I think that's really what we should be thinking about, what's really going to help us progress forward in the future that can set up our kids, and our kids' kids, and our kids' kids, and so on and so forth for a better life. And again, once again, I appreciate everything you guys are doing giving us the opportunity to speak. And yeah, I'm in support of Option B if you couldn't tell already. Thank you very much. That's all I needed to say.	Thank you for your comment.

Comment No	Comment	Response
TRANS-30_0028_001	I live in Northern Delaware. I would absolutely love to see wind turbines off the shore of Maryland, and even more off the shore of Delaware. We really need this renewable energy. I think seeing the turbines, though, is more a figure of speech. While the turbines will be tall enough there that you could make them out quite clearly, with the fog that's around the ocean most of the time, they're not going to be highly visible. And I'd have to go down in the winter if I really wanted to take a look at them. At any case, on the comments I've heard, I'm a little confused about ones made about the University of Delaware studies that showed a loss of tourism and property values if wind turbines were brought in because I've read a number of UD studies that say absolutely the opposite. There would be almost no negative effect, and some positive effects. I know that some literature that misquoted the UD studies were circulated widely in southern Delaware and near Ocean City that may be causing some confusion. They were sent out by a company that is sponsored by fossil fuels, mostly coal. Another concern is the effect on marine wildlife and birds. The deaths of whales in this area have been studied since about 1990, but they show that almost all of the deaths were due to boats; being struck by ships. There may be, what we're seeing now, this loss of marine mammals because their feeding patterns have had to change because of the global warming changing where the currents are. They're not where they used to be. Birds, again, I think studies off the shore of England showed that they saw not a single bird strike in almost a year period on one wind farm. In any case, the possible wind strike deaths were truly minimal compared by what's deaths due to striking windows or even more by being killed by cats. I have a couple of felines watching this with me, and I keep them inside, so they won't add to the deaths. But anyway, I am very much in favor of this renewable energy. We desperately need it. Our weather is changing so much already. You can see it year-to-year. So I would vote for Option B.	Thank you for your comment.
TRANS-30_0029_001	I work for a conservation organization, but I come to this to speak out as a homeowner in Sea Colony in Bethany Beach and, also, someone who rents my unit in order to keep it. I've been going to Ocean City all my 64 years, up until I couldn't stand to be without a place and purchased my unit in Sea Colony. And I am so in support of what's going to be happening because, to me, it's the last hope we have to be able to keep this ocean habitable for human beings. When I used to go to the beach, we used to go to Josh's and buy little pinwheels that we would stick in the ocean that was -- -- stick in the sand, and that was great fun. And these will be my pinwheels of hope that, hopefully, with all this brilliant research that's been done, the mitigation for the problems that people are so concerned about will become a reality and we will have a chance to keep that Ocean City and Bethany Beach and all the places that we love to visit. So kudos to you all for doing all this wonderful research. And I am in full support of Option B.	Thank you for your comment.
TRANS-30_0030_001	I, too, pre-registered and signed up to speak. It's been a long evening, but the only comment that I would like to make is that I totally support Alternative B. And I hope that BOEM continues to pursue this approach.	Thank you for your comment.
TRANS-30_0031_001	I'm a resident of Ocean City. I'm also sometimes a part-time guide in birding. I want to just make a couple points. I am for Option B, first and foremost. But I want to say that the temperature of the planet, keeping the temperature of the planet down is the number one thing that we have to do as citizens of this earth. A one percent increase in heat will have devastating effects. Two percent, we'll be under water. Three percent, all that we know will be gone. So it's a very urgent thing to keep the temperature of the planet down. Secondly, I don't think that the impacts of the birds are going to be -- it's not something we've seen. A lot of times, I know that I've looked at different studies and a lot of the birds go over or around. They seem to adapt. One of the things that strikes birds the most are window strikes. We've had millions and millions and millions of birds killed by window strikes. That is the number one reason they die. So I think the impact of wind is much smaller and minuscule compared to window strikes. Also, I think that Ocean City is a very small area that uses a tremendous amount of energy. And I think as citizens, we have to be responsible for that or be part responsible for finding a solution. And I'm willing to play my part in that. I do agree that, I think, the windmills being offshore at such a distance that they'll be very tiny in perspective. I was just up in Cape Cod where some of the windmills are right on land. And I like the idea of them being offshore much more. So I think that we have to -- we have to be part of the solution if we're going to use that much energy. So that's it. I just am in full support of Option B. And I thank you for your time.	Thank you for your comment.

Comment No	Comment	Response
TRANS-30_0032_001	I'm a resident of Silver Spring, Maryland, and a strong supporter of offshore wind, including the US Wind proposal to construct and operate wind turbines, as well as offshore and onshore substations and export cables on the Maryland-Delaware coast. US Wind's proposal makes sense, would create hundreds of clean energy jobs, help improve our air quality, and expand our economy. Specifically, I support Alternative B, as the proposed action. Transitioning from dirty energy to clean, renewable energy is one of the most promising ways to reduce Maryland's greenhouse gas pollution, and other harmful pollutants, and lessen our adverse impact on the environment. Electricity use accounts for 21 percent of the state's greenhouse gas emissions. Maryland produces almost half the electricity it consumes, and we import the rest from states that share our electricity grid. As we look to decrease emissions from electricity generation, we must do so in a way that rapidly expands the amount of clean energy available on the grid. I support the Moore/Miller Administration's goal of a hundred percent clean energy generation by 2035. As Delegate Charkoudian and Senator Hester mentioned earlier in the hearing, the Maryland General Assembly passed legislation last session which the Governor enthusiastically approved and set a goal for the state to generate 8.5 gigawatts of offshore wind by 2031. US Wind's Project, if approved, would make an important contribution towards achieving that goal. Before I close, let me briefly address two of the concerns raised by opponents to the project. Seeing wind turbines offshore would not negatively impact tourism or real estate values, as shown, clearly, by the public's positive view of wind turbines off the coast of Block Island in Rhode Island and Denmark that are quite visible to visitors and residents there. Regarding alleged negative impact on whales, the National Oceanic and Atmospheric Administration, NOAA, and the Federal Marine Mammal Commission both say there's no scientific evidence to support speculation that wind energy projects cause whale deaths. Rather, the biggest threats to whales are ships and fishing gear. In closing, I ask you to please support the US Wind Proposal, Alternative B, for constructing and operating clean renewable wind power off the Maryland- Delaware coast.	Thank you for your comment.
TRANS-30_0033_001	I'm a small business advocate. I live in Prince George's County. I support renewable energy and offshore wind projects. So I support Alternative B, the full US Wind Construction Operation Plan. I think it will be good for the state of Maryland, and hopefully, it will bring more contracting opportunities for the small business community. Thank you for the opportunity to comment.	Thank you for your comment.
TRANS-30_0034_001	I'm an early decedent of the Eastern Shore and the Ocean City, Delaware region. My family has enjoyed this region for over eight centuries. We fished, hunted, bird watched, water skied, boated, kayaked, and we've done just about every water activity out there. We were mariners and farmers. And I know that this is a very sensitive topic for a lot of people. And I see things from many different angles. Many people come to visit our area because of the sea breeze, and to enjoy all these activities. For, you know, hundreds of centuries humans have harnessed the wind to navigate the world, to trade, and to power many different items with the wind. So, I see this as a great opportunity for our state, for our region, for the whole globe. And we should join the other people that are also doing this around the globe. I'd also like to say that, you know, I do support Option B. I know that it's very scary for a lot of the local people for, you know, possibly seeing the view of these turbines. And -- but one thing we really have to keep in mind is that Ocean City, Maryland has developed through the years, and our skyline has changed constantly. So this will just be something kind of congruent with what we have experienced for hundred -- you know, well over a hundred years now. And I would last like to say that I'm concerned about my children, too. And I'm concerned about clean air, and I think this is an opportunity to help clean air in our region, and help our wetlands, and help our wildlife. And I really, once again, want to say that I support Option B. And thank you for this opportunity.	Thank you for your comment.

Comment No	Comment	Response
TRANS-30_0035_001	I'm Deborah Cohn from Bethesda, Maryland. First, I'm really impressed with the DEIS. There was a lot of detailed analysis. Maryland imports energy from the PJM Grid which has among the lowest percentage of zero emission energy sources of all the regional transmission organizations. As Delegate Charkoudian mentioned, Maryland has committed to reducing greenhouse gas emissions to net zero by 2045. The Maryland Climate Pathway Report has mapped out only a single, narrow, difficult pathway to achieve these greenhouse gas reduction goals. And this pathway includes achieving 2.2 gigawatts of offshore wind before 2031, and of at least six additional gigawatts by 3025. And Maryland is seeking to achieve 8.8 gigawatts by 2035. According to the Pathway Report, decarbonizing the power grid can deliver the largest GHG emissions reductions of all economic sectors. But to reach this goal, Maryland needs a fivefold increase in both wind and solar by 2031. The lease acreage under Alternative B would allow Maryland to achieve at least the short-term goals. I'm going to speak tonight because I'm going to submit written comments only to Alternative D because of a unique experience. I grew up in Miami Beach. That economy depended almost exclusively on the tourist industry. I lived about 10 minutes' walk from the beach and went there all the time. And I remember how relaxing it was watching the large tankers that appeared be passing slowly -- I'm sure they weren't that slow -- but they appeared to be passing slowly, along the horizon. And it was extremely relaxing. Watching onshore and offshore windmills has the same lulling impact. And the Draft EIS notes that excursions to the windmills could be a tourist attraction. And you've heard from local Maryland -- Marylanders the interest in these offshore wind -- windmills. So I am encouraging BOEM to go with Alternative B. And I will submit my other comments later.	Thank you for your comment.
TRANS-30_0036_001	I'm from Silver Spring, Maryland. I am in favor of Alternative B. A lot of the changes that are going on in Ocean City are a result of climate change, but you also must remember, too, that a lot of the pollution comes from your fossil fuel plant, and you have quite a few close to Ocean City. And a lot of times, those fossil fuel plants dump out CO2, sulfur emissions, and other elements into the ocean from the tributaries of the rivers surrounding Ocean City. So I think that if you cut back on the power plants and go to alternative measures, as far as, you know, wind turbines, I think that you will have a cleaner environment, and then we'll have more efficient use of our using energy. That is it for me.	Thank you for your comment.
TRANS-30_0037_001	I'm in full support of Alternative B for three reasons. Well, first of all, my affiliation is as a frequent tourist to Ocean City, and as a private citizen that's really focused on climate change. I think that this project would, in fact, help Maryland achieve its clean energy objectives. I think that the COP probably mitigates as well as it can any negative effects that can happen. And finally, I think the economic impact could be a great thing for the community overall.	Thank you for your comment.
TRANS-30_0038_001	I'm in full support of renewable energy and offshore wind. I'm not too concerned about what the turbines will look like offshore of Ocean City, which is a place I've lived for about a decade. And from what I hear, you won't be able to see it much, so I'm not too concerned about that. And I'm in full support of Option B. So that's my comment.	Thank you for your comment.
TRANS-30_0039_001	Thank you. And thanks to BOEM for doing a great job on this. I'm in favor of Alternative B. I think that the wind turbines will have a demonyms effect on tourism, water recreation, and fishing. I just can't see anyone deferring booking a trip to Ocean City because they're offended by the sight of wind turbines on the distant horizon. I just don't see that happening. The coastline is hardly pristine now. The view: it's going to have a tiny effect on the view compared to, for example, planes towing banners up and down the beach, nighttime laser pointers, flashing signs, boats, ships, and tall buildings. I think it's going to have a minimal effect on the nearby marine environment. The wind turbines are probably going to turn out to be an oasis, actually, and attract fish, like fish congregating around artificial reefs. I think it's going to have a minimal effect on whales. I think the issue of whale mortality has been suddenly discovered by anti-wind interests. And there was a question early on, in the last hour, about where the electricity would be used. And, like, how Marylanders would benefit. You can't direct it specifically to Marylanders, but whoever uses it, the electricity is going to be used on increasing numbers of electric appliances, electric heat pumps, and electric vehicles; thereby, displacing fossil gas and motor gasoline. So again, I'm in favor of Alternative B.	Thank you for your comment.

Comment No	Comment	Response
TRANS-30_0040_001	Yes, I just want to speak to the effect of the economics of this project. I'm in support of Option B. We need as much energy as we can. We're predicted to do 949 more gigawatts by 2050 in the country than we have currently. So that growth has to come from somewhere. And basically, it's going to come, so if we don't expand as large as we can, wind power, that will have to come from a fossil fuel, or another form of energy. That -- therefore, I am all in favor of going forward with this because of all the options, with the negatives and positives, you add it up together, you -- the positives outweigh it 20 to one. So please, go with Option B. And that's really all I have to add.	Thank you for your comment.
FDMS_0131_001	I AM IN SUPPORT OF ALTERATIVE B. Venkat Subramanian, Small Business owner ANGARAI and resident of Prince George's County; Spend vacation and conferences in Ocean City, MD We (Maryland) is Net Energy Importer and Off Shore Wind Power would benefit to change the equation and also bring down the cost. Both Gov Hogan and Gov Moore and the Legislature are in support of the project and the positive impact that this would bring to the community and Marylanders in particular. Gov Moore has challenged the community, industry, citizens 8.5 Giga Watts by 2031 I am in full support of the project Alternative B. As a resident of MD, I urge BOEM to approve and take this important project to the next level Wind Turbines has significant advantages - Clean & Renewable Energy, Low Operating Costs, Energy Independence, Job Creation, Community Benefits, Reduce Water Usage, Conservation of Natural Resources, Reduced Carbon Emissions, I can see the Visual Impact challenge concerns. I feel the concerns of local residents should be addressed and provided more opportunities. Want to recognize the excellent work and meticulous research and presentation by BOEM. In Summary, I strongly support Alternate B for US Wind Turbine Project	Thank you for your comment.
FDMS_0147_001	I write this letter in support of US Wind's offshore wind projects and, specifically, for Alternative B (Proposed Action) in BOEM's Draft Environmental Impact Statement ("DEIS") for US Wind's Construction and Operations Plan ("COP"). As a strong advocate for offshore wind in the Maryland General Assembly, and sponsor of this year's POWER Act, I am thrilled to see BOEM issue this draft environmental impact statement (DEIS) for US Wind's construction and operations plan (COP). In 2021, President Biden established a new national goal of deploying 30 gigawatts (GW) of offshore wind by 2030, and in March 2023, Maryland's Governor Wes Moore established a new state goal of deploying 8.5 GW of offshore wind by 2031, which was codified into law by the bill I sponsored, the Promoting Offshore Wind Energy Resources Act (POWER Act).These national and state goals recognize the importance of getting clean energy like offshore wind up and running as quickly as possible to combat global climate change, create good-paying jobs, and establish a domestic supply chain for generations to come. I applaud BOEM moving forward with the environmental review of US Wind's COP and the comprehensive and thorough analysis that went into the DEIS. I am especially supportive of BOEM moving forward on Alternative B, the Proposed Action, in the DEIS as that Alternative maximizes clean energy generation that will help meet Maryland's and the nation's offshore wind goals. Alternative B (Proposed Action) in the DEIS would allow for the construction of up to 2.2 GW of offshore wind energy in US Wind's lease area off the coast of Maryland, including MarWin, Momentum Wind, and the remaining capacity in the lease area. This alternative would consist of up to 114 turbines, up to four offshore substations, and allow US Wind to pursue interconnection to the power grid through Delaware. While Alternative B would maximize clean energy generation in US Wind's lease area, along with the many benefits that would flow from such generation, that Alternative has the added benefit of having generally the same level of impact as the more restrictive Alternatives C, D, and E. I am also pleased to see that the mitigation measures proposed by US Wind and those considered by BOEM would provide additional protections for resources, like the endangered North Atlantic right whale. Thank you for your work on the DEIS. I respectfully request that you move swiftly in approving US Wind's COP and Alternative B (Proposed Action). Sincerely, Maryland State	Thank you for your comment.

Comment No	Comment	Response
FDMS_0281_001	We support US Wind's proposal for "Alternative B (Proposed Action)" for the Maryland Offshore Wind Project and encourage BOEM to do the same. One of the District Heights Sustainability Committee's primary goals is to advocate for the enhancement of community living standards while concurrently bolstering their capacity to withstand adverse challenges. The proposal put forth by US Wind constitutes a promising avenue toward accomplishing precisely that dual objective. Remarkably, the proposal by US Wind aligns perfectly with the goals of the Promoting Offshore Wind Energy Resources (POWER) Act, signed by Governor Wes Moore, which aims to quadruple Maryland's offshore wind energy production by 2031. US Wind's proposal includes up to 121 Wind Turbine Generators (WTGs), four Offshore Substations (OSSs), a Meteorological Tower (Met Tower), and an Operations and Maintenance (O&M) Facility in the Ocean City, Maryland region. This visionary project will not only generate a substantial amount of clean energy but also create numerous jobs in the offshore wind industry. The POWER Act prioritizes environmental justice. It ensures that the benefits of offshore wind energy-such as job creation and cleaner air-reach disadvantaged communities. US Wind's "Alternative B (Proposed Action)" supports this focus on equity by providing economic opportunities to local communities. In conclusion, we believe that US Wind's "Alternative B (Proposed Action)" is a groundbreaking project that will position Maryland as a leader in offshore wind energy. We urge all stakeholders to support its implementation and to work together to realize its full potential. Together, we can propel Maryland towards a brighter, cleaner, and more equitable energy future. (https://www.wypr.org/wypr-news/2023-04-21/governor-moore-signs-power-act-to-push-wind-energy-in-maryland)	Thank you for your comment.
FDMS_0603_001	I write this letter in support of US Wind's offshore wind projects and, specifically, for Alternative B (Proposed Action) in BOEM's Draft Environmental Impact Statement ("DEIS") for US Wind's Construction and Operations Plan ("COP"). The Bi-County Business Roundtable is an organization representing businesses throughout the state of Maryland. We are one of the largest roundtables in the state and surrounding Washington Metropolitan region. We have earned our well-deserved reputation as the "Voice of the voiceless and the go-to for small business." It is our aggressive pursuit of a healthy economic climate for business and an improved quality of life for local residents. At the core of our mission is the goal of advancing the interests of small business and helping to create wealth for a vibrant climate in the state of Maryland. In 2021, President Biden established a new national goal of deploying 30 gigawatts (GW) of offshore wind by 2030, and in March 2023, Maryland's Governor Wes Moore established a new state goal of deploying 8.5 GW of offshore wind by 2031, a goal that was codified by the Maryland General Assembly just one month later. These national and state goals recognize the importance of bringing clean energy like offshore wind online as quickly as possible to combat global climate change, create good-paying jobs, and establish a domestic supply chain that will benefit union workers and minority-owned businesses for generations to come. I applaud BOEM moving forward with the environmental review of US Wind's COP and the comprehensive and thorough analysis that went into the DEIS. I am supportive of a decision that will help meet Maryland's and the nation's offshore wind goals and allow for the construction of up to 2.2 GW of offshore wind energy in US Wind's lease area off the coast of Maryland, including MarWin, Momentum Wind, and the remaining capacity in the lease area. Building 2.2 GW of wind energy would have the effect of taking 2.7 million cars off the road each year and avoid greenhouse gas emissions equivalent to the energy use of 705,000 homes per year. Thank you for your work on the DEIS. I respectfully request that you move swiftly in approving US Wind's project at its full potential.	Thank you for your comment.

Comment No	Comment	Response
FDMS_0794_001	I write this letter in support of US Wind's offshore wind projects and, specifically, for Alternative B (Proposed Action) in BOEM's Draft Environmental Impact Statement ("DEIS") for US Wind's Construction and Operations Plan ("COP"). In 2021, President Biden established a new national goal of deploying 30 gigawatts (GW) of offshore wind by 2030, and in March 2023, Maryland's Governor Wes Moore established a new state goal of deploying 8.5 GW of offshore wind by 2031, a goal that was codified by the Maryland General Assembly just one month later. These national and state goals recognize the importance of bringing clean energy like offshore wind online as quickly as possible to combat global climate change, create good-paying jobs, and establish a domestic supply chain that will benefit union workers and minority-owned businesses for generations to come. I applaud BOEM moving forward with the environmental review of US Wind's COP and the comprehensive and thorough analysis that went into the DEIS. I am especially supportive of Alternative B, the Proposed Action, as that Alternative maximizes clean energy generation that will help meet Maryland's and the nation's offshore wind goals. Specifically, Alternative B would allow for the construction of up to 2.2 GW of offshore wind energy in US Wind's lease area off the coast of Maryland, including MarWin, Momentum Wind, and the remaining capacity in the lease area. While Alternative B would maximize clean energy generation in US Wind's lease area, along with the many economic benefits that would flow from such generation, that Alternative would also have the effect of taking 2.7 million cars off the road each year and avoid greenhouse gas emissions equivalent to the energy use of 705,000 homes per year. Alternative B also has the added benefit of having generally the same level of impact as the more restrictive Alternatives C, D, and E, while putting in place much needed clean energy to combat climate change. Thank you for your work on the DEIS. I respectfully request that you move swiftly in approving US Wind's COP and Alternative B (Proposed Action).	Thank you for your comment.
HANDIN-24_0047_001	The bureau of ocean energy management has done a thorough analysis of US Winds construction and operations plan. I support Alternative B and ask BOEM to do the same. As a skilled union electrician I am qualified to perform this work. This project will provide good jobs for us and many other skilled trades in our region	Thank you for your comment.
MAILIN_0007_001	The Maritime Trades Department, AFL-CIO submits this letter in support of US Wind's offshore wind projects and, specifically, for Alternative B (Proposed Action} in BOEM's Draft Environmental Impact Statement ("DEIS") for US Wind's Construction and Operations Plan ("COP"). The Maritime Trades Department is a coalition of the AFL-CIO's 24 international labor unions in the maritime industry and allied trades. We represent workers involved in every step of the process creating offshore wind energy. These proud union members build the turbine components, install them, maintain them, and even shuttle their fellow workers to and from the offshore job sites. Offshore wind is not just a source of clean energy to them, but their livelihoods. The Maritime Trades Department applauds BOEM moving forward with the environmental review of US Wind's COP and the comprehensive and thorough analysis that went into the DEIS. The MTD is especially supportive of BOEM moving forward on Alternative B, the Proposed Action, in the DEIS as that Alternative maximizes clean energy generation that will help meet Maryland's and the nation's offshore wind goals.	Thank you for your comment.

Comment No	Comment	Response
MAILIN_0008_001	Thank you for your service to improving renewable energy opportunities across the United States. I am thrilled to write in support of US Wind's offshore wind projects in Maryland and, specifically, for Alternative B (Proposed Action) in BOEM's Draft Environmental Impact Statement ("DEIS") for US Wind's Construction and Operations Plan ("COP"). As Governor, I am committed to ensuring that offshore wind is a part of Maryland's renewable energy portfolio in ways that we have not considered before. We must take climate change more seriously if we are to keep the planet healthy, green, and livable for the next generation. Since taking office, I have put the full weight of my Administration behind ensuring that Maryland is a global leader in offshore wind. In March, I established a new state goal that is now the law in Maryland to deploy 8.5 GW of offshore wind by 2031. This new goal requires that we all move with a clear vision and focus to combat global climate change, create good-paying jobs, and establish a domestic supply chain for future generations. Alternative B, the Proposed Action, is the Alternative that makes the most sense for the people of Maryland and the nation as a whole. That Alternative would allow US Wind to construct up to 114 turbines and four substations off the coast of Maryland for a total capacity of 2.2 GW of offshore wind energy and to pursue interconnection to the power grid through Delaware. The full buildout of the lease area would include the development of MarWin, Momentum Wind, and a future offshore wind project. That future offshore wind project is something already contemplated in the POWER Act, legislation that I signed into law in April that provides a new opportunity for existing federal leaseholders, like US Wind, to enter into a power purchase agreement with the state to power Maryland's state facilities with offshore wind energy. I applaud BOEM for moving forward with Alternative B, the Proposed Action, as that will ensure we not only move quickly to meet Maryland's offshore wind goals but the nation's as well. Thank you for the thorough and comprehensive analysis of US Wind's COP, which included important mitigation measures proposed by US Wind to provide additional protections for resources like the endangered North Atlantic right whale. We cannot afford to wait when it comes to the health of our state, our nation, and our planet. I urge you to move forward as quickly as possible with US Wind's COP and Alternative B (Proposed Action) to ensure that Maryland does our part to mitigate the impacts of climate change for generations to come.	Thank you for your comment.
MAILIN_0009_001	Please accept this letter of support for US Wind's offshore wind projects and, specifically, for Alternative B (Proposed Action) in the Bureau of Ocean Energy Management's (BOEM) Draft Environmental Impact Statement (DEIS) for US Wind's Construction and Operations Plan (COP). In 2021, President Biden instituted the goal of deploying 30 gigawatts (GW) of offshore wind in the United States by 2030. In March of this year, Governor Moore proposed setting Maryland's goal of deploying 8.5 GW of offshore wind by 2031 and the Maryland General Assembly voted to codify it in law. These National and State offshore wind targets highlight the urgent need to get clean energy, such as offshore wind, operational as soon as possible in order to combat global climate change, create good-paying jobs, and establish a healthy domestic supply chain. I applaud BOEM's thorough environmental review of US Wind's COP and the comprehensive analysis that went into the DEIS. I am particularly supportive of BOEM moving forward on Alternative B, the Proposed Action, in the DEIS as that Alternative maximizes clean energy generation that will help meet our offshore wind objectives. Alternative B (Proposed Action) in the DEIS would allow for the construction of up to 2.2 GW of offshore wind energy in US Wind's lease area off the coast of Maryland, including MarWin, Momentum Wind, and the remaining capacity in the lease area. This alternative would consist of up to 114 turbines, up to four offshore substations, and allow US Wind to pursue interconnection to the power grid through Delaware. While Alternative B would maximize clean energy generation in US Wind's lease area, along with the many benefits that would flow from such generation, that Alternative has the added benefit of having generally the same level of impact as the more restrictive Alternatives C, D, and E. I am also pleased to sec that the mitigation measures proposed by US Wind and those considered by BOEM would provide additional protections for resources, like the endangered North Atlantic right whale.	Thank you for your comment.

Comment No	Comment	Response
TRANS-19_0003_001	We're a membership organizaiton of supply chain members in the offshore wind community from multi-national corporations to small family businesses, including over 60 members in the Maryland and Delaware area. Our organization formed here in Baltimore in 2013 because the local businesses recognized the benefits the offshore wind could provide the local economy and worked to get involved. Spotlighting the industry's immense potential, our little Baltimore organization is now a national and international one with over 500 members. We congratulate BOEM on advancing the project to this phase, after a careful and thorough environmental analysis. Based on the analysis, it's clear that moving the project forward through the Alternative B proposed action option is the best for the people of Maryland, of Delware, and the rest of the United States. US Wind project is a realization of our organization's original mission. A Maryland project, powering Maryland homes, and creating Maryland manufacturing and maritime jobs. If approved, US Wind project will supply at least half-a-million homes with clean, renewable energy, greatly hastening our energy transition. It will also help propel Maryland's economy forward by creating thousands of jobs. And by standing up a foundation in the power and manufacturing facility in Baltimore, bringing steel manufacturing back to the city. It will also create hundreds of jobs on Maryland's Eastern Shore, training, and operating, and maintaining this wind farm for decades. The steel facility in Baltimore will be a linchpin of the wider US Offshore Wind Industry, supplying foundations and powers to projects near and far, and helping to achieve the Administration's goal to deploy 30 gigawatts of offshore wind by 2030.	Thank you for your comment.
TRANS-19_0005_001	I'm here today to support BOEM moving forward on Alternative B, the proposed action. That will help meet Maryland's and the nation's offshore wind goals. I'm excited by the opportunity for our members and future members to work on offshore wind projects in their home state. As far as the viewshed goes, I'd much rather look at clean energy being generated in the ocean than the sea planes flying by advertising our H20 nightclub. Thank you for the opportunity to speak with you today in support of Alternative B.	Thank you for your comment.
TRANS-19_0006_001	We have jurisdiction from Frederick to Ocean City. And I want to thank you all for your hard work on this issue. I appreciate you taking my testimony today. I am in support of Alternative B, the proposed action, and all the job opportunities this project will create, not just for Ocean City residents, and the residents of the Eastern Shore, but all the way throughout the region. I'm talking about proposed monopile facilities, cable manufacturing facilities, advance component manufacturing sites, let's not even mention the hundreds of jobs for turbine installation and steady, ongoing maintenance jobs. In my opinion, offshore wind industry is way too important to let this chance go by. It's clear we need to move forward to meet the energy goals of Maryland and the United States. And lastly, in regards to the viewshed, unfortunately I'm not an Ocean City property owner, however, I do vacation there every year. We - my family and I choose to go to Ocean City because we love Ocean City, we love the boardwalk, we love the beach, we love spending time there. I wouldn't mind at all seeing the turbines and explaining to my children what they mean and why they're important. And when we have an opportunity to do something for their future, we chose to make the right decision. Lastly, I don't benefit financially in any way from my comment here. It's just something that I feel passionate about. Not only the economic benefits, but also the benefits of clean energy.	Thank you for your comment.
TRANS-19_0008_001	I am in support of US Wind's offshore wind project, specifically Alternative B, the proposed action in this Draft Environmental Impact Study today. According to the National Oceanic and Atmospheric Administration, NOAA, the world has sweltered through the hottest August on record. Both hemispheres saw record seasons. We do not have any more time. I'm the CEO of Strum Contracting and we're a welding and light fabrication firm in Baltimore, Maryland. And I can say that Strum Contracting has already experienced great business growth with opportunities such as offshore wind and offshore wind opportunities with US Wind, specifically. We were awarded a contract in 2018. From there, we were able to create jobs. We were able to create jobs for men and women in the local community, in the Baltimore City and Baltimore County area. In addition ot that, in 2021, President Biden, we know, established a new national goal deploying 30 gigawatts of offshore wind. As well as in March 2023, Maryland's Governor Wes Moore established a new state goal, deploying 8.5 gigawatts of offshore wind by 2031. We all know that it passed, it went into law. And Strum Contracting advocated and helped support the passing of that bill. And now with these national and state goals recognized, we now recognize the importance of clean energy, like offshore wind. And we need it up and running as quickly as possible to combat the global climate change. As mentioned before, August was the hottest month on record. Also, understanding that this opportunity would create good paying jobs, and establish a domestic supply chain for generations to come. So again, I support BOEM of moving forward with environmental review for US Wind's COP and comprehensive - with the DEIS. And I support Alternative B, proposed action, with US Wind constructing up to 2.2 GW of offshore wind energy.	Thank you for your comment.

Comment No	Comment	Response
TRANS-19_0009_001	I want to applaud BOEM moving forward with the environmental review of US Wind's COP and the comprehensive and thorough analysis that went into US Wind's DEIS. I am especially supportive of BOEM moving forward on Alternative B, the proposed action. As that alternative maximizes clean energy generation that will help Maryland meet its goals, and the nation also. Alternative B, the proposed action, would allow for the construction of up to 2.2 gigawatts of offshore wind energy in US Wind's lease area off thecoast of Maryland, including its two projects of MarWin and Momentum Wind. While Alternative B would maximize clean energy generation in US Wind's lease area, along with the many economic benefits that would flow from such generation. That alternative has the added benefit of having generally the same level of impact as the more restrictive alternatives C, D, and E. I just want to add to this regarding the economic benefits. I am a lifelong resident of Baltimore, Maryland. Back in August of 2022, US Wind made a major announcement at Tradepoint Atlantic, which was referred to as Sparrows Point, which was the home of the largest steel mill in North America, Bethlehem Steel. At one point, we had over 30,000 workers at that facility, and it was the largest private employer. Over the years, we've lost those jobs. And in 2015, steelmaking, as we know, came to an end. US Wind made an announcement back in August that it plans to refab buildings and eventually construct a new building named Sparrows Point Steel Mill. With the plans that at full capacity, we know that there will be over 500 jobs at this facility. And let me add, these are not just jobs, these will be union jobs, which is in line with the Administration's goal of creating not only more clean energy, but supporting unions in these jobs. But for these reasons, we would request that you move swiftly in approving US Wind's COP and Alternative B.	Thank you for your comment.
TRANS-30_0001_001	As a member of Triple EEE, that's the Education of Energy on the Environment Committee in Maryland, I have had a vested interest in our state's approach to sustainable energy initiatives. It is with great pride and conviction that I express my full support for Alternative B concerning the Maryland Offshore Wind Project proposed by US Wind. The Construction and Operations Plan outlines a commendable effort to bolster our state's renewable energy infrastructure, with an ambitious capacity to up to 2,000 megawatts of offshore wind. This endeavor not only targets the ever-growing demand for renewable energy in our region, but also aligns with our state's commitment to combat the climate crisis and achieve a clean energy grid. In 2021, President Obama established a new national goal of deploying 30 gigawatts of offshore wind by 2030. And in March of 2023, Maryland's Governor, Wes Moore, established a new state goal of deploying 8.5 gigawatts of offshore wind by 2031. A goal that was codified by the Maryland General Assembly just one month later. The project also promises to create well-paying union jobs, furthering economic growth, particularly in a growing green energy sector. Furthermore, it is crucial to note that the Draft Environmental Impact Statement found minimal impact on water quality, the air quality, and marine life. Alternative B does not sacrifice one environmental goal for another. It is ambitious and a well-considered plan to increase our state wind energy capacity. In conclusion, Alternative B is a monumental step forward in our collective journey toward a sustainable ecofriendly future. I fervently urge the BOEM to support this proposal, as it holds immense promise for Maryland and our climate goals.	Thank you for your comment.

Comment No	Comment	Response
TRANS-30_0005_001	The American Clean Power Association, or ACP, is the leading voice of today's multi-tech clean energy industry, representing over 800 energy storage, wind, utility-scale solar, clean hydrogen, and transmission companies. ACP is committed to meeting America's national security, economic and climate goals with fast-growing, low-cost, and reliable domestic power. For ACP, I head up state affairs in the East Coast where offshore wind is set to be the largest source of generation. I'm also here as a resident of Maryland and a mom. And I strongly support US Wind's Offshore Wind Projects, and, specifically, Alternative B, in BOEM's DEIS for US Wind's COP. Offshore wind promises clearer air and reliable energy, and this is important to me because my three-year-old daughter has asthma. Thank you to BOEM for the work and the thorough analysis that went into the DEIS and the environmental review of the COP. Alternative B, or the proposed action, is the alternative supported by ACP and which would maximize clean energy generation that will help meet Maryland and the nation's offshore wind goals. This plan means the construction of up to 2.2 gigawatts of offshore wind energy in US Wind's lease area off the coast of Maryland, including MarWin, Momentum Wind, and the remaining capacity in the lease area. You'd see up to 114 turbines and up to four offshore substations. And we need this energy as electricity demand continues to increase. More than 30 percent of Americans live within a hundred miles of the East Coast. The east coastal load centers, like Maryland, need reliable, clean, and homegrown energy. Building America's offshore wind pipeline will bring enormous economic benefits to communities across America. If we do it right, the impacts of offshore wind will reverberate, we'll create a new American supply chain, and that's already starting in Maryland. We'll revitalize port communities and stimulate investment into local economies across the country. Maryland is moving forward with offshore wind. Governor Hogan led the charge to seek 10 gigawatts of additional leasing. And just today, Governor Moore announced millions in funding for Maryland's small businesses in support of offshore wind. We could do it right in Maryland. The mitigation measures proposed by US Wind and those considered by BOEM would provide additional protections for our oceans, the animals that live there, and the people who use it. Thank you to the staff at BOEM, thank you for your work on the DEIS. Please move swiftly in approving US Wind's COP and Alternative B.	Thank you for your comment.
TRANS-30_0006_001	I am the president and CEO of the Anthony Management Group, a Certified Minority Business Enterprise here in Maryland, also a Certified Service Disabled Veteran Owned Small Business. And I am absolutely in full support of Alternative B, with approving the US Wind Construction Operation Plan.	Thank you for your comment.
TRANS-30_0012_001	I'm a State Delegate representing Maryland's District 20 in the General Assembly as a lead author of the Power Act to establish Maryland's goal of 8.5 GW of offshore wind, and advocate and helped push through the Clean Energy Jobs Act a number of years ago, which led to the second OREC sale that we're discussing here today. So I want to thank BOEM for all of your work, and thank US Wind for all of your work with the state of Maryland, with the communities around where the wind will be developed, and also with labor and broader economic development work that you've been doing in the state. Specifically, as it relates to the alternatives, I want to urge BOEM to go with Option B. And I think that what we can see by comparing Option B to all the other considered alternatives is that it really is the strongest option, both in terms of its development of offshore wind, in terms of the renewable energy capacity, in terms of the economic impact, and then also it really mitigates, effectively, any of the potential concerns that might come with any of the other options. I will say that one of the things about the NEPA process that's unforunate is when we look at Option A of doing nothing, it does not let us consider really all the negative impacts of doing nothing, which include the massive catastrophe of climate change. And so, what we know by looking at where we are in the state of Maryland is that if we don't move forward quickly with as much offshore wind as possible, it's not going to be possible for us to meet our 100% clean energy goals by 2035, it's not going to be possible really for the nation to meet our clean energy goals if we don't have this project as part of the 30 GW that the President has identified as the goal off the coast. I want to mention one other fact, which is that it is really important that, with Option B, we are able to maximize and build throughout the entire lease-arium, both the two current OREC areas, and then the third area which we hope the state will be procuring shortly based on the Power Act which we just passed. And that is especially important because several of us have concerns about the proposed BOEM maps for the next round of lease areas. And while we do hope that BOEM maximizes the area that Maryland can build in, without that certainty, we need to make sure that we are building fully in all of the lease areas which are currently available. So we ask that the Option B, which allows for that, as well as to mitigate any potential problems and maximize the amount of wind that we can build off Maryland's coast.	Thank you for your comment.

Comment No	Comment	Response
TRANS-30_0013_001	However, I'm a resident of Baltimore all my life, the Baltimore area, and I've visited Ocean City growing up, from a young child, up until now. And I do understand our national initiatives to allow ourselves to be more energy efficient overall. And I understand, overall, that when things are new, people don't adapt to them well. But I just want us to understand why we have systems in place that make us understand whether things are safe or not. And BOEM has an existing structure and system in place to establish whether to determine if construction and operations, along with environmental concerns are efficient and effective throughout their analysis process. And they've already had those things in place to determine such. So I understand we don't adapt to things that may be new, but that doesn't mean that we shouldn't adapt because they could be good for us. And I believe there is a lot of economic opportunities for those small fishermen, for those small boaters. Just because they're not used to it, there's a lot of community impact that could help Ocean City -- which is what I love, and I visit at least two, three times a year with my family -- become a better place overall as far as economically, and as far as clean energy. So I would say, therefore, with BOEM completing a thorough analysis of US Wind's COP, I absolutely support Alternative B. And I just simply ask BOEM to do the same.	Thank you for your comment.
TRANS-30_0017_001	I am the managing principal for the Nelson Ideation Group. I am a certified woman-owned firm in the state of Maryland, both at the federal and state level. So to hear this information about what US Wind is doing is very important to me as a business owner, as a resident of Maryland, and as one that literally recycles all the time. I wanted to just come in and give my comments that I am in agreement with Option B, as the Alternative Option B, and I am in full support of what US Wind construction and BOEM is doing. I believe that, as others have said this evening, we have to look at other alternatives in order to keep our planet cool. We can't continue to use fossil fuels. We have to find other alternatives, things that are not going to impact our health as direct as coal and other energy sources provide that we're using now. And I'm just in full support. I'm hoping that we can find some common ground where there isn't any as this project continues to move forward. But I also believe it will be a boon of industry and economic development for both businesses large and small here in the state of Maryland.	Thank you for your comment.
TRANS-30_0018_001	I'm a Maryland Certified MBE. It was described earlier today that fossil fuels, in its descriptions, well, fossil fuels, have an expiration date. And I live in the state of Maryland and I've been here for over 23 years, and I don't want to see that expiration date come true, at least in my lifetime. I am applauding the Biden Administration and the Moore Administration as well for having taken the initiative to address the renewable energy projects. We all, regardless of whether we're for the project or not, have devices and we love our devices. And we need alternative options as to the power that we use, especially with newer homes, newer condominiums, high-rises, et cetera. We need more alternative energy to be able to draw from. I've researched the offshore wind project and how it works. And I am wholeheartedly in support of Alternative B. And I applaud the BOEM institute, the work that they're doing for the project itself. And I would like and request to have US Wind Construction Operation Plans for the Offshore Wind Project move forward at this time.	Thank you for your comment.
TRANS-30_0025_001	I am a small business owner here in the state of Maryland, MDOT Certified MBE, and I am in support of this alternative energy and Plan B. So I'll keep my comments brief, but I am very much in support of it.	Thank you for your comment.

O.8.5 Alternative C - Landfall and Onshore Export Cable Routes

Table O.8-5. General Responses – Alternative C - Landfall and Onshore Export Cable Routes

Comment No	Comment	Response
FDMS_0824_001	The Surfrider Foundation (Surfrider) submits these comments to the Bureau of Ocean Energy Management (BOEM) concerning the "Maryland Offshore Wind Project" (Project), owned by US Wind, Inc., Construction and Operations Plan (COP) Draft Environmental Impact Statement (DEIS). The Surfrider Foundation is a grassroots environmental organization of 80 chapters, 90 youth clubs, and more than 500,000 supporters, activists, and members in the United States, dedicated to the protection and enjoyment of the world's oceans, waves, and beaches, for all people. We submit these comments on behalf of our local Delaware, Ocean City, and Annapolis Chapters. We prefer Alternative C (Landfall and Onshore Export Cable Routes), either C-1 (Towers Beach landfall) or C-2 (3R's Beach landfall), and Alternative E (Habitat Impact Minimization), in that order of importance considering needed energy generation capacity--coupled with--the highest level of mitigation and monitoring possible to reduce negative environmental justice, environmental, and recreational impacts. We are very concerned about the impacts to recreation from the cable landing construction site proposed for either Towers or 3Rs parking lots. Both of those lots are highly used in the spring, summer, and fall months by a wide variety of recreational users, and often fill up to capacity early each day. That construction should take place in the winter months. We are also concerned about the visual impacts from blinking turbine safety lights at night--BOEM must require safety lights that only turn on for low flying aircraft, not continuously.	Thank you for your comment. Mitigation and monitoring measures are provided in Appendix G of the Final EIS.
FDMS_0836_001	The Delaware Center for the Inland Bays (the Center) offers these comments on the Maryland Offshore Wind Project Draft Environmental Impact Statement (DEIS). The Center's mandate is to protect, preserve and restore Delaware's Inland Bays, an area of extraordinary productivity, diverse plant and animal life, robust recreational opportunity, and significant economic value. The watershed is, and has been, highly impacted by excess nutrients associated with agricultural production and rapid residential and commercial development. And, as the lowest-lying part of the lowest-lying state in the Nation, the watershed is extraordinarily vulnerable to rising sea levels, increasing atmospheric temperatures, coastal and inland flooding, storm surges, and shoreline erosion. All this makes our lands and waters uniquely sensitive to novel perturbations and stressors. In response to the submission by US Wind, Inc. (US Wind) of a Construction and Operations Plan (COP) to develop the Maryland Offshore Wind Project, the Center's Science and Technical Advisory Committee (STAC) established a Wind Subcommittee to review the DEIS and provide science-based recommendations to the Center as a basis for these comments. Given the Center's focus on the health and well-being of the Inland Bays, the Wind Subcommittee restricted its review of the project to the impacts associated with Alternative B – the preferred action, as well as the land-based power cable on-shoring options laid out in Alternatives C-1 and C-2. The DEIS is missing some key studies to determine the effect of this activity. Responses to potential impacts on the Inland Bays are generic and vague with no real analysis of the preferred alternative. In the absence of data to confirm there is no impact on Indian River Bay, the Center opposes the water-based export cable route through the Bay as outlined in Alternative B, US Wind's preferred option. Alternative C describes an overland cable route that would avoid the Indian River Bay. Based on the Center's review of this Draft Environmental Impact Statement, we recommend selecting this alternative as part of the Preferred Alternative.	Thank you for your comment. The Final EIS has included additional information on the impacts of proposed activities associated with the Proposed Action (Alternative B) to resources within Indian River Bay.
HANDIN-24_0030_003	I am not bothered by the visual impact	Thank you for your comment.
TRANS-19_0013_002	We appreciate that the applicant and the companies involved in this did decide to look at alternative onshoring areas, and very supportive of going through any river, rather than going through Fenwick Island. So I think that was a good call overall. And again, our focus, we believe, should be on ensuring that habitat loss is minimized rather than focusing exclusively on viewshed concerns.	Thank you for your comment.

Comment No	Comment	Response
TRANS-26_0002_001	I don't quite understand how anyone could approve putting wind turbines that close to shore when it's completely unnecessary. It is not necessary to change the ocean view forever for future generations that have no say in this. And once it's done, it's done. We've industrialized the ocean, and we've changed it forever, and it is unnecessary. It's going to cost a little bit more money to push them offshore, and people are going to make millions and millions of dollars from this. So they make a few million less. How does that stack up against changing the ocean forever, changing the ocean view, destroying the natural beauty of what we've been given to see? As far as the cabling goes, it has no business coming to the shore spot and going through the Indian River Inlet. That also is totally unnecessary. The alternative C1 shows it going into Towers Beach and across land to Dagsboro. That doesn't impact the Indian River Inlet. It doesn't impact all of the homes that are right by 3Rs Road, and it doesn't impact it less. That's what they should be looking at. But that pales in comparison to the jaw-dropping audacity of putting those wind turbines that close to the shore and changing the coastline forever. It should not be allowed. And anyone with any sense or any moral compass or any idea of what is right for future generations would never do this. I don't even understand how this could be considered at this location. I have nothing against renewable energy. The execution of this plan is incredibly flawed. And it was asked for everyone involved except for the people who are going to be making money from it.	The Lessee can only propose WTG sites within their lease area, which extends approximately 23nm (27 statute miles) from shore at the farthest point. Analyses of turbine installation outside of the identified lease area does not meet BOEM's Purpose and Need. BOEM considered reasonable alternatives during the EIS development process that would avoid or minimize adverse impacts in accordance with NEPA implementing regulations. After carefully considering the EIS alternatives, including comments from the public on the DEIS, BOEM has developed a Preferred Alternative as described in Section 2.1.6 of the Final EIS.

O.8.6 Alternative D - Reduce Visual Impact

Table O.8-6. General Responses – Alternative D - Reduce Visual Impact

Comment No	Comment	Response
FDMS_0892_009	We are concerned by the implications of Alternative D - No Surface Occupancy to Reduce Visual Impacts Alternative, and do not endorse this alternative. Alternative D is designed to address visual impacts. The 32 turbines that would be eliminated from the project all lack a PPA. The result of Alternative D is that only the current projects with PPAs (Marwin and Momentum) would move forward with construction, while the 32 turbines associated with the future development project would be eliminated at this time. 28 We have concerns that this elimination is simply a temporary measure to assuage perceived visual concerns and when there is a likely purchaser for the power that will be generated by these 32 turbines, they will be proposed again by the developer. Thus, our understanding of Alternative D is that if this alternative is selected, the future development project of these turbines could only advance through a new COP and NEPA process separate from the US Wind NEPA analysis currently underway. We caution that Alternative D, and a similar approach in future projects, could unnecessarily add additional barriers to development. We support eliminating Alternative D if it is likely that the 32 turbines will be constructed once a PPA has been secured and encourage BOEM to analyze the impacts of constructing those 32 turbines in the FEIS. Therefore, if, at the time the construction of those turbines moves forward, there is significant new information or changed circumstances, a supplemental assessment would likely be sufficient to analyze significant new information. However, eliminating them now from a preferred alternative almost assures that an entire new process will have to occur in order to construct them at a later time.	Thank you for your comment.
TRANS-24_0003_001	I think it's a great idea for generating jobs and, like, helping the economy. I think, you know, like this really is like a path to the future that we need to be on because climate change is real. If we're going to survive in the future generations, it's, like, cool. This is what we need to be doing. So I'm a supporter. With that said, from talking to a lot of the other folks around, I think the key to make this all work and to get Ocean City on board with it is going to be compromised with the visual aspect. I think that for the city to be on board and for this really be a thing, you know, takes off and it's not fought tooth and nail with, like, legal things and, like, wasting money over legal costs because that's a shame. We don't want to waste money with that. So I think to make the process easier and better for everybody, I'm going to compromise with moving with compromise D, but the visual aspect is integral. It's alternative D. I think to get Ocean City down with this we need alternative D. And that's, like, the one that chops off the first one-third of them that are within 10 miles of shore. I don't think that's going to go well. Another cool thing about this is, this is going to ensure not only clean but affordable energy, like, so far into the future. They're going to be freezing some of the rates, so we don't have to live in fear of, like, our utilities skyrocketing. We're going to have, like, clean energy, like, an afforded rate, making jobs. All this stuff sounds amazing to me. Just visual compromise	Thank you for your comment.

Comment No	Comment	Response
FDMS_0805_008	Alternative D reduces the number of positions occupied, to minimize viewshed impacts, while allowing the project to meet existing procurements From a fisheries perspective, we do not have specific viewshed concerns, but support this approach as a way to minimize project size and overall environmental impacts.	Thank you for your comment.

O.8.7 Alternative E - Habitat Impact Minimization

Table O.8-7. General Responses – Alternative E - Habitat Impact Minimization

Comment No	Comment	Response
FDMS_0014_001	Hello. I am a lifelong Marylander. I grew up on the Turkey Point peninsula hiking the trails and enjoying the waters on the headwaters of the Chesapeake Bay, and I still live in that area. I support Alternative E presented in this Draft Environmental Impact Statement (DEIS). I support Alternative E over Alternative B because I do not believe the DEIS' justification as to why impacts on benthic habitat and other ecological issues in the project area are expected to be minor is adequate. The research cited in this DEIS has identified specific areas of concern which were used to devise Alternative E. On the same subject, Appendix E, Section E.1.4 states the following: "Although there is uncertainty regarding the spatial and temporal distribution of benthic (faunal) resources and periods during which they might be especially vulnerable to disturbance, US Wind's surveys of benthic resources and other broad-scale studies provided a suitable basis for generally predicting the species, abundances, and distributions of benthic resources within the geographic analysis area.…Results of benthic monitoring at European wind facilities and the Block Island Wind Farm in the United States provide general knowledge of the overall impacts… combined, if not individually." It seems to me this is effectively saying, 'the ecological characteristics of this area and the impact this project will have on them have not been properly examined, but based on some studies in other places it will probably be fine'. To summarize, this DEIS states that specialists in marine ecology have identified areas of concern, and these areas have not been more closely studied, yet the proposed plan in Alternative B still includes construction in those areas. Unless and until enough study of these areas is made to reasonably forecast the potential impact this project will have on the marine ecosystems we depend on for food, recreation, and ecological services, building in areas of known concern would be foolish. I have noticed a significant amount of opposition to this project stems from concern about the visual impact. I have seen two variations of this concern - the visual appeal or lack thereof, and the impact on natural scenery - and I argue that both of these are misguided and therefore this is not a valid reason to choose Alternative A or D. I studied at Frostburg State University, which has a ridgetop wind farm near its campus. I and many others who have lived in the area, both students and locals, consider that wind farm to be beautiful. I was glad to be able to so frequently see a sustainable energy source near my home. The claim that wind farms are visually unappealing is an individual opinion, and I and many other people living in the greater Delmarva area and supporting businesses on Maryland's shores have a precisely opposite opinion. While I cannot deny that a wind farm does negatively impact natural scenery where such scenery existed prior to construction, in the case of this proposal, the area from which the large majority of concern over visual impact seems to be originating is Ocean City. Ocean City is filled with and surrounded by roadways (some of which have recently been or will in the near future be widened in a questionable attempt to reduce traffic congestion), large industrial and retail facilities, suburban sprawl, boardwalks and other developments directly on and just off the shoreline, and constant traffic from both watercraft and aircraft just offshore. These all have colossal visual impacts and are huge sources of light and noise pollution. Ocean City is already not a natural area or pristine shoreline in any capacity, and the presence of a wind farm on a small share of the horizon will not change that. I would also argue against economic concerns as a reason to choose Alternative A. Climate change and related secondary consequences are already causing undeniable negative quality of life and economic impacts on Marylanders and all across America, ranging from extreme temperatures, to personal and financial damage due to natural disasters and flooding, to poor agricultural yield due to erratic and unpredictable rainfall. Every day we continue to put off acting toward reducing greenhouse gas emissions and mitigating climate change's effects will make those impacts worse. Wind energy is not perfect and many are quick to point out the costs of investing in it, but the economic consequences of not using it, of continuing to use fossil fuel energy sources as our primary means of electrical generation, are far worse. For that reason offshore wind should be considered where possible and executed where viable. This project is no exception. Thank you for your time considering this and all other public comments.	Thank you for your comment. BOEM uses the best available science to determine the potential effects of the Proposed Action, as well as all considered Alternatives. NEPA requires BOEM to identify incomplete or unavailable information. In the Final EIS, this is referred to in Appendix E. Where information may be incomplete or unavailable, BOEM seeks to gather information through the Environmental Studies Program, federal and state partners, or through information available about similar topics in primary literature. BOEM does not believe that there is incomplete or unavailable information on benthic resources that is essential to a reasoned choice among alternatives. BOEM has worked with federal agencies, including USACE, and NMFS to ensure that the Final EIS presents sufficient information to determine whether the Preferred Alternative presented is the least environmentally damaging practicable alternative.

Comment No	Comment	Response
FDMS_0892_031	(more detailed text within the document) We appreciate BOEM's consideration of important habitat features in their alternatives analysis through Alternative E - Habitat Impact Minimization Alternative. Alternative E would result in the removal of 11 WTGs, associated inter-array cables, and the adjusting of the offshore export cable to avoid sensitive benthic habitats. It is our understanding from the developer that Alternative E may have serious implications for the ability of the project to meet its contractual obligations, which would consequently not meet the BOEM's screening criteria for alternatives. we advise BOEM and the developer explore what, if any adjustments must be made to Alternative B so that important benthic habitat features are protected and US Wind can meet its goals and the purpose and need of the action.	Thank you for your comment. US Wind has recently stated that the potential impact to the Project is material and significant with the removal of a minimum of 20 and up to 52 WTG and 1 OSS locations and would not meet the Purpose and Need.
TRANS-19_0014_001	I am in Bethany Beach, Delaware. And I would thank BOEM, and US Wind, and everyone else, the partners who prepared the very thorough report. I would like to strongly urge BOEM not to select Alternative A; no action alternative, for the reasons that we don't have any more time. September 2023 was our warmest September in our 174-year record, and 2023 is shaping up to be the warmest year in NOAA's global climate record. There are many notable climate events. Most important of which is more sea ice records were broken. September 2023 set a record for the lowest level September sea ice extent range on record, beating the previous record low from September 2016. There were 17 named storms, which occurred across the globe in September. Seven of the 17 named storms reached tropical cyclone strength, four reached major tropical cyclone strength, and the global accumulated cyclone energy was 70% of the 1991-2020 average for September. Ten named storms were active in the Atlantic in September, which tied 2010 and 2020 for the most on record. Why does this matter in Delaware? With an average altitude of 60 feet above sea level, Delaware is the lowest state. So therefore, you can connect those dots and say that we are at the very high risk of flooding. In terms of energy, there have been many comments that Delaware won't be getting any benefit from this. I'd like to say that Delaware produces less energy than any other state and used less energy than all but three other states. However, even though the consumption is among the lowest among the lowest because of its small population, we still, per capita, use more energy in part because of energy intensive chemical manufacturing. I'd also like to note that our instate generation typically supplies much less electricity than Delaware needs. We, in 2020, only produced 47% of the electricity that was sold in Delaware. So the rest came from out-of-state power suppliers. So anything that we can do to add to renewable energy portfolio anywhere in our region is a benefit. And I would also like to support to minimize habitat loss alternative.	Thank you for your comment.
FDMS_0805_007	We also support Alternative E, which avoids construction in offshore areas of concern recommended by NOAA Fisheries by removing up to 11 turbines, micrositing, and export cable route adjustments. The complex, high relief features avoided via Alternative E will be severely impacted by development and will not function effectively as habitats or fishing grounds after turbines or cables are installed. Even using the smallest turbines evaluated as part of the project design envelope, it is possible to meet existing procurements while removing these positions.	Thank you for your input. According to US Wind the 2021 benthic infaunal community results suggest no discernable difference between samples collected from within the areas of concern and those collected outside of the areas of concern (when reviewing the non-metric multidimensional scaling [nMDS] ordination), which includes the 16 samples collected from the areas of concern and compares them to the 16 samples collected outside of but nearest to each of the areas of concern. US Wind has recently stated that the potential impact to the Project is material and significant with the removal of a minimum of 20 and up to 52 WTG and 1 OSS locations and would not meet the Purpose and Need.

O.8.8 Bats

Table O.8-8. General Responses – Bats

Comment No	Comment	Response
FDMS_0892_029	(more detailed text within the document) . Monitoring and Adaptive Management Are Critical to Understanding Bat Impacts…BOEM should explicitly require that data from all post-construction monitoring be made promptly accessible to both agencies and the public (including acoustic, radiotelemetry [Motus] and fatality). 2. Adaptive Management and Monitoring for Bats The post-construction monitoring measure for bats included in the DEIS—carcass reports from vessels and structures—will not provide comprehensive information on bat collisions. BOEM should explicitly require Maryland Offshore Wind to commit to deploying collision detection technology, once 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 G-1. Mitigation and monitoring measures that may result from reviews under the statutes listed above are shown in Table G-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 G-1 and G-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 G-1 and G-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 G-1 and G-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.8.9 Benthic Resources

Table O.8-9. General Responses – Benthic Resources

Comment No	Comment	Response
FDMS_0892_032	C. Impacts Under the Proposed Action (more detailed text within the document) As a precaution, BOEM should require US Wind to avoid, to the greatest extent practicable, any known sensitive and specialized habitat, particularly those important for key species such as horseshoe crabs, clam beds, and nesting terns. It is unclear whether BOEM considered requiring an anchoring plan, as has been done with previous developers through the DEIS. We urge BOEM and the developer to implement a precautionary approach to noise mitigation through mitigation measures such as soft-start protocols (already included in proposed mitigation in Appendix G), in addition to monitoring through a benthic monitoring plan 1. Potential Long-Term Impacts from Anchoring 2. Noise Impacts	Mitigation measures are found in Appendix G.
MAILIN_0005_011	From a resource perspective, Alternative D is also a better option than the Preferred Alternative as it reduces WTGs by 32 and OSSs by 1, thereby reducing the offshore impacts to benthic resources. It may however be less beneficial to benthic resource than Alternative A or C as the nearshore impacts remain the same as those in the Proposed Alternative.	Thank you for your comment. BOEM has considered the trade-offs of all Alternatives to determine the Preferred Alternative discussed in the Final EIS.

O.8.10 Biological Resources - General

Table O.8-10. General Responses – Biological Resources – General

Comment No	Comment	Response
FDMS_0022_001 / FDMS_0023_001	It is heart wrenching that we are allowing kills and harassment of our sea life. Not enough research has been done to make such a massive decision that has detrimental impact on our environment and possibly human health. The massive cost of up keep does not yield the savings we will ever see. The turbines should never be allowed. Where are all of the people saying they are great that have experienced and lived with them? There are none. All of the residents regret they ever put them up.	Thank you for your comments. BOEM uses the best available science to determine the potential effects of an action. NEPA requires BOEM to identify incomplete or unavailable information. In the Final EIS, this is referred to in Appendix E. Where information may be incomplete or unavailable, BOEM seeks to gather information through our Studies program, our federal and state partners, or through information available about similar topics.
FDMS_0047_001	Per the US Department of Energy research article titled Environmental Impacts and Siting of Wind Projects out of the Wind Energy Technologies Office, “the effects of offshore wind farms on marine animals and birds are not fully understood. ” What more does BOEM need to slow down the approval of this plan? Our sea life and oceans are just as valuable of a national asset as places such as the Grand Canyon or the Redwood Forest. As outlined in the Maryland Offshore Wind DEIS, there are 4 identified Irreversible Impacts and 8 identified Irretrievable Impacts from moving forward with this project as planned. (Note, Merriam-Webster’s definition of irreversible is not able to be undone or reversed; irretrievable is defined as impossible to regain or recover). These irreversible and irretrievable impacts include Marine Mammals, Birds and Sea Turtles. Just say no to Offshore Wind Farms and protect our most valuable assets.	Thank you for your comments. BOEM uses the best available science to determine the potential effects of an action. The EIS analyzed impacts to birds, finfish, invertebrates, sea turtles, marine mammals, essential fish habitat, and other marine and estuarine resources. NEPA requires BOEM to identify incomplete or unavailable information. In the Final EIS, this is referred to in Appendix E. Where information may be incomplete or unavailable, BOEM seeks to gather information through our Studies program, our federal and state partners, or through information available about similar topics.
FDMS_0053_001	I live in Worcester County and have been a resident over 40 years. I was a high school teacher for that entire time. I support the proposed wind farms off the coasts of Maryland and Delaware. Wind is an important alternative energy source to petroleum. Regarding the draft environmental impact statement, it is important that all government agencies involved do due diligence to assure that the placement of turbines has minimal impact on migratory and resident wildlife, including marine wildlife. It is also important that the wind farm doesn't negatively impact local commercial and recreational fisheries.	Thank you for your comments. BOEM uses the best available science to determine the potential effects of an action. In Section 3 of the Final EIS, impacts to terrestrial, marine, and estuarine resources, and socioeconomic resources are analyzed. Appendix G includes mitigation and monitoring measures that were assessed as part of the analysis.
FDMS_0072_001	We do not want this! Countless whales and dolphins have washed ashore dead from the sonar surveys and there hasn't been a windmill erected yet. The green energy movement is nothing more than a feel good story that won't actually improve anyone's lives. At the end of the day, oil is king. These turbines are ugly, they destroy ocean habitat, and when they break, they can leak oil and other harmful contaminants. Countless birds will also fall victim to the blades. Did I mention the hundreds of whales and dolphins that have been killed by the sonar surveys? Or what about the scallop grounds that have prospered for years and now all the scallops are coming up dead following sonar surveys? It is a sad day when fishermen have to fight the hippies to save the whales and dolphins.	Thank you for your comments. BOEM uses the best available science to determine the potential effects of an action. In Section 3 of the Final EIS, impacts to terrestrial, marine, and estuarine resources, and socioeconomic resources are analyzed.
FDMS_0073_001 / FDMS_0074_001	The endangered species horseshoe crab Is nesting grounds are off the coastal. Waters of the Delaware and Maryland shores. Humans will not survive without them. Too many endangered species of marine and other wildlife pass thru this area. Please do not disrupt them. Humans pollute their space enough already. Please choose another location.	Thank you for your comments. The Atlantic horseshoe crab (*Limulus polyphemus*) is not currently listed under the Endangered Species Act, nor is listed as a threatened or endangered species in Maryland or Delaware. Please see Section 3 of the Final EIS for discussions on the impacts of project activities on terrestrial and marine species including those listed in the Endangered Species Act. Specific information can be found in the USFWS and NMFS Biological Assessment documents for the project.
FDMS_0836_004	1. The DEIS fails to support its claim of minimal biotic impacts. Biotic resource impacts can be direct (taking) or indirect (removal of habitat, food source, alteration of temperature). The effects of disturbance to biota are usually unknown until a disturbance occurs, and has been found to be positive, neutral, or negative. Again, without sufficient monitoring, or independent research prior to the proposed disturbance, the impacts are not known and therefore cannot support the claim—as included in this DEIS—of minimal impact.	BOEM uses the best available science to determine the potential effects of an action. In Section 3 of the EIS, impacts to terrestrial, marine, and estuarine resources, and socioeconomic resources are analyzed. In addition, Appendix G outlines mitigation and monitoring that will occur during the different phases of the Project. Please see the relevant tables in the ES and Section 2 for summarized comparisons of impacts across alternatives and which indicate a range of impact determinations across resources.

Comment No	Comment	Response
MAILIN_0025_002	Finally, there are no studies submitted on the impacts of the proposals on the horseshoe crab; even though the projects would be built directly on top of the Carl N. Shuster, Jr. Horseshoe Crab Sanctuary. In summary, it is our view that the proposed wind projects would result in the industrialization of the coastal horizon along the entire Delaware coast as turbines are projected to be placed in tracts that line the entire Delaware ocean coastline from Lewes to the Maryland state line. This industrialization will have a negative economic impact on our rental income.	BOEM uses the best available science to determine the potential effects of an action. Please see Sections 3.5.2 and 3.5.5 of the Final EIS for discussions on the impacts of noise, EMF, and cable emplacement on invertebrate species including the horseshoe crab.

O.8.11 Birds

Table O.8-11. General Responses – Birds

Comment No	Comment	Response
FDMS_0892_026	Red Knots (more detailed text within the document) Given this shorebird's flight behavior within a relatively narrow migratory route, the wind energy areas off Maryland and Delaware pose particular risks. this species requires specific, dedicated, and sustained monitoring throughout all operational phases of Maryland Offshore Wind Project and adjacent offshore wind projects. neglecting monitoring for other, non-ESA listed bird species around wind energy infrastructure poses a weakness in the DEIS and COP for this project. The DEIS and COP for offshore marine birds are (or could be) informed by several different avian mapping data products: (1) the Mid-Atlantic Baseline Studies Project (MABP), 143 (2) the Mid-Atlantic Renewable Energy Coalition (MDAT) marine bird relative density and distribution models, 144 (3) the Northwest Atlantic Seabird Catalog, and (4) incidental records from eBird. In combination, these sources reveal that the Projects and adjacent wind energy lease areas host a diverse assemblage of diving marine birds seasonally, including sea ducks, acids, and loons, some or all of which occur primarily during the fall, winter, or spring months. 145. Other than behavioral displacement, 149 the assessment and monitoring framework for the DEIS ignores any potential adverse, harmful injuries from acoustic disturbances to diving marine birds due to construction and related operations.150 (143 Williams et al. 2015. 144 Curtice C, Cleary J, Scumchenia E, Halpin PN. 2019. Marine-life Data and Analysis Team (MDAT) technical report on the methods and development of marine-life data to support regional ocean planning and management. Prepared on behalf of the Marine-life Data and Analysis Team (MDAT). 145 MDOSW DEIS, 2021, Appendix F, pp.F-54–F-56.149 MOWP, Draft Environmental Impact Statement (DEIS), Volume 1, Bureau of Ocean Energy Management (BOEM), Table 4.1-1, p.4-1. See also Table F-5 in MOWP, DEIS, Appendix F, p F-6. 150 Monitoring and mitigation for diving birds is nowhere mentioned in conjunction with underwater acoustic disturbances during project construction, e.g., MOWP, COP. 2021. Appendix II-N2, Avian Monitoring Plan. Similarly, injurious impacts from underwater noise are not mentioned as a potential impact producing factor (IPF) on birds. See Table F-5 in MOWP, COP, 2021, Appendix F, pp.F-6.) If time/area closures are not practical, other methods for sound abatement may include: (1) establishing safety zones monitored by visual observers156 or passive acoustics, and that trigger shut-down or low-power operations if large diving marine bird flocks enter these zones, (2) using noise reduction gear like bubble curtains around pile driving when diving marine birds are present, and (3) deploying other noise-source modifications or changes to operational parameters such as soft starts. 157. Similarly, indirect effects to marine birds from redistribution of prey after construction have not been considered in the DEIS. (156 E.g., the scope of responsibilities for Protected Species Observers (PSOs) could be extended to cover marine birds. PSOs are already required in adjacent projects; see Ocean Wind 1 Offshore Wind Farm. 2023. Final Environmental Impact Statement, Appendix H, Mitigation and Monitoring, pp. H-6, H-12. 157 Erbe C, Dunlop R, Dolman S. 2018. Effects of noise on marine mammals. Pp.277–309 on the Effects of anthropogenic noise on animals. Springer, New York, NY.)	A complete discussion of impacts of the Proposed Project on USFWS-listed species, including the red knot is provided in the Project-specific BA submitted to the USFWS. The mitigation and monitoring measures that the applicant has committed to implement are listed in Table G-1. Mitigation and monitoring measures that may result from reviews under the statutes listed above are shown in Table G-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 G-1, G-2, and G-3 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 G-1 and G-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 G-1 and G-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 No	Comment	Response
FDMS_0892_027	(more detailed text within the document) …. We also strongly recommend the use of only red flashing FAA-approved lights and yellow flashing marine navigation lights on the WTGs, instead of constant white light, to further reduce bird attraction. no provision for studying avian response(s) to lights has been made in the monitoring plan. Neither the avian risk assessment nor avian monitoring framework in the DEIS suitably address a potential of high flux density caused by turbine-associated phototaxis. The Mitigation and Monitoring plan for the Projects also 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. • The Mitigation and Monitoring plan fails to detail how all nocturnal bird or bat traffic will be fully monitored. • The Mitigation and Monitoring plan fails to address how micro-scale collision or micro-scale avoidance177 will be detected and addressed. (177 Everaert J. 2014. Collision risk and micro-avoidance rates of birds with wind turbines in Flanders. Bird Study 61:220–230.) • The Mitigation and Monitoring plan fails to describe how individual tracking data will be used to monitor, mitigate, and compensate for harms to non-ESA listed species. • 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. We recommend the following elements for inclusion in the Maryland Offshore Wind Project monitoring framework for birds: 1. Incorporate multi-sensor systems at substations and selected turbines. 2. Use GPS tracking in addition to Motus tracking wherever possible. 3. Evaluate non-ESA listed bird species as potential foci for tracking studies across multiple wind area projects to detect whether and how avoidance, attraction, collision risk, and/or displacement may occur around the Projects and adjoining lease areas. 4. Minimize acoustic disturbance from construction and operations on diving marine birds. 5. Expand monitoring of avian displacement to include detecting avoidance at individual wind turbines across relevant spatial scales. 6. Include a reasonable requirement for timely reporting of all data. 7. 7. Describe acceptable levels of impact and specify mitigation to be taken.	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 G-1. Mitigation and monitoring measures that may result from reviews under the statutes listed above are shown in Table G-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 G-1 and G-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 G-1, G-2, and G-3 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 G-1 and G-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).
HANDIN-26_0029_002	The distance to shore is not that far that there will not be bird strikes? What are the estimates on the acceptable numbers of dead birds?	Section 3.5.3.3 of the Final EIS estimates the potential bird strikes that may be expected. The estimated mortality (extrapolated from onshore WTG mortality data) is relatively low compared to other sources of bird mortality.
MAILIN_0005_046	Please cite the source for the statement "several hundred species representing dozens of avian families follow the Atlantic flyway twice per year."	The cited text does not occur in the Final EIS.

O.8.12 Climate Change

Table O.8-12. General Responses – Climate Change

Comment No	Comment	Response
FDMS_0138_001	Alert to the Climate Change Alarmists, the amount of fossil fuels that this project will consume far exceeds the "carbon savings". How do you build a wind turbine? It takes heavy fossil fueled equipment to mine the ore. The ore must be transported to the smelter which burns massive quantities of fossil fuels to melt the ore into steel. Then it takes additional fossil fuels to form the wind turbines. How do you transport the wind turbines? Land wind turbines take 23 fossil fueled semi trucks to transport ONE turbine! Most of this manufacturing takes place either western USA, China or Scandinavia. Therefore, fossil fueled ships must transport these enormous structures across the oceans. If you are fine with that, how about what it takes to install these monstrosities? It takes either heavy lift helicopters or large cranes which all run on? You guessed it! Fossil fuels. Let's talk about the cables that will need to be installed, how are those manufactured and transported? I think you might begin to see the picture. If you think for a minute that these wind turbines will provide "clean energy" the amount of fossil fuels required to do so far exceeds the "saving the earth" mentality to do so. Land wind turbines must turn 24/7/365 for 20 years to pay off in electric generation all the fossil fuels to build them. In the meantime, horseshoe crabs have been destroyed and the whales are beaching themselves due to the sonar testing taking place. I vote for ZERO off shore wind turbines, this is an environmental disaster in the making.	Thank you for your comment.
FDMS_0296_001	I want to know how the wind turbines stand up to hurricanes? We are told that global warming is making hurricanes stronger every year. Why would we ever put wind turbines in the ocean when hurricanes are becoming stronger? What if we have another Sandy? How will this impact Ocean City and the ocean?	Section 2.3 of the Final EIS provides an assessment of severe weather and natural events.
HANDIN-26_0005_002	How will the windmills affect climate change? what is the data? Can there be more transparency regarding how much energy will be generated, for who and at what expense? it seems less than European models, If the same amount of research and money was spent on solar as an alternative, would it produce more electricity? Can development slow down or developers reduce the number of trees or be responsible for planting more?	Climate change is covered throughout the Final EIS, in each resource section. As stated in the Final EIS Section 3.4.1.5, the Project would offset all greenhouse gas and criteria pollutants generated by its construction, lifetime operations, and eventual decommissioning within 4 years of the start of operations, although most pollutants (including CO2) would be offset in less than one year.
TRANS-30_0042_001	I'm a 35-year resident of Maryland, and I'm a member of Howard County Climate Action, but I'm speaking for myself. Back in 2013, a decade ago, I marched and testified in favor of offshore wind. I am mystified that we still haven't built a single turbine. We need to maximize the amount of offshore wind in order to meet our climate goals immediately. And I support Alternative B. I am concerned about the climate crisis, the warming of the oceans, and sea level rise. I've heard concerns that offshore wind will cause harm to marine life and the fishing industry. But if we don't move quickly to reduce greenhouse gases, we won't have a fishing industry left. For example, more than 10 billion Alaskan Snow Crabs disappeared from the Eastern Bering Sea Shelf region during a period from 2018 to 2021 and is linked to extreme oceanographic events caused by climate change. The gulf stream could collapse as soon as 2025, a new study suggests. And the shutting down of the vital ocean currents, would bring catastrophic climate impacts. Ocean acidity caused by increased CO2 in the oceans affects shellfish, particularly oysters and blue crabs, a huge economic boon to Maryland, makes it more difficult to create viable shells or maintain adequate growth and reproduction. So that industry would be wiped out as well. I think having our beaches swallowed up by the ocean due to sea level rise will definitely cause a loss of tourism. The flooding of homes and insurance companies pulling out of the area, no longer insuring homes and buildings along the coastline will cause significant loss of property values. I urge you to move forward with Alternate Plan B and move as quickly as you can to get offshore wind built. And, also, importing electricity is very expensive from other states, so this will help reduce the cost of our transmission.	Thank you for your comment.

O.8.13 Coastal Habitat and Fauna

Table O.8-13. General Responses – Costal habitad and fauna

Comment No	Comment	Response
HANDIN-24_0032_001	Wind farms last about 20 years, who pays for replacements? After approx. 6 years it pays for itself, then generated energy for approx.19-20 years? Why? Bird threats, difficult to detect long term affects?, How are cable run to mainland? Fossil fuels used to make turbines? what affect does it have on coral, sponges etc.? what about sediment that affects photosynthesis? Noise pollution on sea life? Do you install sound barriers during construction of piles being driven into seafloor? What affect will it have attacking invasive species not in our water? I bet you do not know	Thank you for your comment.
HANDIN-24_0035_001	I would like to see additional study on the following. Environmental impact on fish, sea mammals and all aquatic life, impact on tourism on the Maryland coast? Impact on commercial fishing industry and sport fishing? How do you plan to handle an emergency such as fire on one of these turbines, there have been fire on turbines off the coast of New England and they burn out of control. this is going to ruin our coastline, decimate the fishing industry and tourism and destroy the environment. I am vehemently against this idea, whose pockets are being lined with this.	Thank you for your comment.
HANDIN-26_0001_002	Each turbine will require significant amounts of grease, oil and other chemicals, lastly the impact on Sealife and fishing industry is of grave concern. Please no wind turbines at all or move them 35 miles offshore.	Thank you for your comment.
HANDIN-26_0004_001	I am a homeowner in Fenwick and have been here over 20 years. I do not like the idea of windmills. I don't want to see them. They will destroy property values, kill birds and hurt the whole ecosystem of the ocean. The windmills are an eye soar. They have a limited life. Do a study to see if the windmills killed the horseshoe crabs. I have seen pictures of windmills in the north sea that no longer work! eyesore!	Thank you for your comment.
HANDIN-26_0005_001	Can additional info be provided regarding the equipment for construction and ongoing maintenance? Can data be provided regarding how they're disposed of when done. Can additional analysis be done on the effects of marine life and bird life during construction, operation and repair? can this include noise levels as well?	Thank you for your comment.
HANDIN-26_0010_003	I am concerned about the impact the installation of this project will have on the ocean floor, marine life & view shed. Please consider aborting this project	Thank you for your comment.
HANDIN-26_0013_001	Wind turbines require fossil fuels, rare earth minerals. Each turbine uses 189 gallons of grease, 40 gallons of hydraulic oil, 106 gallons of gear oil, 1,585 gallons of dielectric fluid, 193 gallons of diesel fuel, 243 gallons of Sulphur Hexafluoride, 357 gallons of propylene glycol. This is not green energy. The turbine only has a 20 year life, and the parts cannot be recycled. They are destroying the horseshoe crab population, this should be studied before any permits are issued. Save the whales, reliably study the impact on whales	Thank you for your comment.
HANDIN-26_0015_001	Protect our whales, horseshoe crabs and migrating birds	Thank you for your comment.
HANDIN-26_0023_001	I do not want to see wind turbines on the horizon of our coast. 1. There are better ways to produce energy without destroying our environment. 2. The cost compared to the result leaves much to be desired. 3. The bad components - Concrete in our waters, grease, metals that can deteriorate. 4.Marine life will be affected negatively (that has already happened). 5. China will benefit not the USA	Thank you for your comment.
HANDIN-26_0024_001	Due to unavoidable interference with marine life, visible unsightliness and unforeseeable negative impacts, this project for Bethany Beach and Ocean city must be cancelled. Not only is this unsightly, unnecessary and unneeded, it will be a burden when the windmills fail, get old or ultimately neglected. That is inevitable! property devaluation, loss of tourism, serious health concerns and cost are all valid reasons to halt this project and leave our precious ocean resource alone	Thank you for your comment.

Comment No	Comment	Response
TRANS-19_0013_001	We are here to testify in favor of the offshore wind project moving forward. And would like to see a focus on -- excuse me -- minimal habitat loss. We think the viewshed should be, really, kind of a secondary issue and really should have more focus on ensuring we're doing as much as we can to protect as many climate resiliency and habitat resources that --that we can, and to minimize disruption during construction and onshoring.	Thank you for your comment.
TRANS-30_0004_001	I'm in Delaware where most of the powerlines will be coming through since the state of Maryland has decided that it's not possible to do it in the state. I live here year-round. I am not a visitor like many on this call. I am not part of a lobbyist group, and I'm not inside the beltway with another agenda. I'm just a commonsense property owner, and a businesswoman who would like to elucidate a few facts. Number one; let's put the distance issue to bed. All you have to do is download Boat Beacon on your cellphone. You can see from that where the boats are, the tankers are out on the shore, and you can easily see from your naked eye, they're 17 to 24 miles out, not 11. Two, the cleanliness of offshore wind is at question. These windmills are the largest in the world by three to four times. They required half-a-billion gallons of oil to maintain. Indian River Inlet has the strongest current in North America, so any disaster will come in and just wipe out Indian River Bay. These windmills are placed in areas where there's super high winds, gusting over 70 miles per hour just this year. And then anyone who has seen beach erosion knows that just putting these things one to two feet under the sand is not good. Early adaptors of offshore wind are backing off. Germany is publicly saying it's not effective, it's not stable, and the infrastructure is not there.	Thank you for your comment.
HANDIN-24_0021_001	Very concerned about the eco-system of the ocean during the planning, construction implantation of the wind farms. BOEM and the other federal agencies should be concerned about the devastation to our horseshoe crabs, migratory birds, whales etc., why would we taxpayers want our money used in this manner? why would we want foreign companies building infrastructure off our pristine coast, this wind farm imitative will not lower carbon emission, they will increase ocean water temperature and reduce ocean breezes, radar and rescue operations will be jeopardized	Thank you for your comment.

O.8.14 Commercial Fishing and For-Hire Recreational Fishing

Table O.8-14. General Responses – Commercial Fishing and For-Hire Recreational Fishing

Comment No	Comment	Response
FDMS_0052_001	As a local commercial fisherman my entire life, my livelihood depends on having a healthy and robust ocean ecosystem. The amount of destruction and disruption to the ALL local species, from the largest whales to the tiniest fish , that the surveying let alone the construction of the actual windmills is having and will continue to have is going to KILL the ecosystem. I am passionate about preserving the ocean not only because it is my only source of income, but because I care about the environment. The Atlantic ocean is a integral part of our Maryland coast. I refuse to allow what has happened to the coast off of other states to happen here. There is no long term studies about how the construction and use of windmills will impact our specific coastal species in the next 10-20 years. Why take the risk of ruining such a precious vital part of our coasts ecosystem, is it worth the risk? Are you willing to allow the complete collapse of the commercial fishing industry that is the heart of the Eastern Shore and such a unique treasure that Maryland has been blessed with?! I stand with my other commercial fishing brothers in saying that we are AGAINST THE WINDMILLS, NOT HERE, NOT OUR COAST!!!	Thank you for your comment. The Final EIS discusses potential impacts to the ecosystem, habitats, and several marine species. The large marine ecosystem in the Northeast Atlantic is one of the most studied ecosystems, and none of the Alternative will "kill" the ecosystem. The Final EIS cites studies from regions (i.e., Europe) where offshore wind was installed decades ago, giving an indication of some of the long-term impacts to ecosystems that may occur here.
FDMS_0078_002	BOEM States in Volume 1,3.6.1, “In the context of reasonably foreseeable environmental trends in the area, the incremental impacts contributed by the Proposed Action to the overall impacts on commercial fisheries will be substantial. BOEM anticipates the overall impacts on commercial fisheries and for-hire recreational fishing associated with the Proposed Action, when combined with impacts from ongoing and planned activities, including offshore wind, would be major and long-term because some commercial and for-hire recreational fisheries and fishing operations would experience substantial disruptions indefinitely. Commercial fishing, recreational, and other vessels would choose to avoid the Lease Area altogether with the 30 gigawatt offshore wind goal occupying land twice the size of NJ.	Thank you for your comment. Approval of the Proposed Action would not restrict the legal rights of fishers to fish in the Lease Area except during construction, when fishing may be excluded in safety zones.

Comment No	Comment	Response
FDMS_0149_003	OC is proudly known as the “White Marlin Capital.” It is a popular fishery, attracting some of the best fisherman to the white marlin tournament, and feeding locals delicious seafood. Restrictions around turbines will impede upon this important fishery.	Thank you for your comment. White marlin tournaments are discussed in Section 3.6.1 of the Final EIS.
FDMS_0328_005	Wind Farms Expected to Reduce Clam Fishery Revenue by 15% https://www.rutgers.edu/news/offshore-wind-farms-expected-reduce-clam-fishery- revenue-study-finds?fbclid=IwAR2GBECjEMHKKIMhcv7RA6EmQNytaKl_b0Ap- i4ofgfGTX3NAeQmqrxnjfg	Thank you for your comment. Clam fishery revenues are discussed in Section 3.6.1 of the Final EIS.
FDMS_0728_001	I'm 100% against windfarms. I'm a commercial fishermen from ocean city Maryland. The survey work has destroyed our bottom. It has killed off the animals that can not swim away. Crabs conchs lobster and the little snails and invertebrates that live in the sand. Us wind destroyed 190 of my pots and refuses to pay for them. The compensation plans for the fishermen have not been discussed with any fishermen. The effects of construction will put most commercial fishermen out of business. The effects of windmill and cables on horseshoe crabs has not been studied. Alot of unanswered questions. Let's get this right before you destroy out beautiful ocean.	Thank you for your comment. The surveys used are similar to those used by NMFS for fisheries management. The Final EIS discusses potential impacts to the ecosystem, habitats, marine species, and commercial fishermen using available data from NMFS. Compensation plans are similar to other offshore wind projects in the region.
FDMS_0855_004	Impacts To Human Environment. The federal law authorizing offshore wind projects limits the adverse impact on historic uses of the ocean and these may span from economic effects to personal safety effects. The Proposed Action, when combined with impacts from ongoing and planned activities, including offshore wind, could be major and long-term because some commercial and for-hire recreational fisheries and fishing operations would experience substantial disruptions & perhaps indefinitely due to the gravity of the wind turbine influence. In 2013, Delaware (DNREC 2013) estimated approx. 200 harvesters that concentrate on targeting striped bass, black sea bass, and blue crabs. The DEIS actually concludes commercial fishing will abandon lease areas normally accessed due to the size of the proposed lease area that is equal to twice the size of New Jersey. This abandonment is likely due to safety concerns in working among turbines. This same safety concern would also impact recreational fishing (35, 000 Recur. fishing boats/yr.) which currently exist across the lease area (DNREC 2013). For those fishermen that adapt to the turbine grid, there are other risks that may manifest themselves, e.g.storm or severe weather rescue scenarios.	Thank you for your comment. Potential impacts such as safety for commercial and recreational fishermen when working among turbines are discussed in the Final EIS.
HANDIN-24_0026_001	As a commercial fisherman whose entire livelihood depends on a healthy ocean ecosystem, I cannot support these windmills. The unknown long term destruction and disruption to countless species is too much of a risk to take. How will whales, dolphins, and huge diversity of fish species be affected in the years to come be altered by the construction and use of these windmills? there is not area specific research providing that the benefit of clean energy will outweigh the cost to out ocean and to my and my fellow commercial fisherman's livelihood	Thank you for your comment. The Final EIS acknowledges the unknowns and potential long-term impacts on marine species and commercial fisheries from offshore wind. The Final EIS also cites other research studies where potential impacts from offshore wind on marine species are discussed.
HANDIN-24_0037_001	I am a 50 year old resident. And have been a licensed USCP captain for 40 years. Although I can understand alternative energy I am not in favor of Offshore Wind. I think visibly it will hurt the local economy and harm the fisheries industry	Thank you for your comment.
HANDIN-24_0053_002	There are 6 Endangered Species Act species in the area. These include sturgeon, oceanic whitetip shark, scalloped hammerhead and the endangered giant manta ray. Sturgeon is a big one. Fishermen are regulated because of sturgeon. If BOEM's project negatively impacts sturgeons and causes a decline in population will this in turn cause stricter regulations on the fishing industry as fishermen will be the ones blamed?	Thank you for your comment. BOEM does not have regulatory authority over fisheries and cannot comment on how fishery regulations might change in the future.
MAILIN_0005_177	The DEIS should examine in more detail the economic impact on commercial and recreational fishers related to changed access to fishing areas off the coast of Maryland. The Proposed Project location may limit their access to the fishing grounds regularly frequented, in addition to having a potential adverse impact to fish stocks. The EIS should document existing access to all known fishing grounds, the current routes taken to access these grounds, any resulting change(s) in routes required with the installation of the Proposed Project, potential impact to important commercial and recreational fish populations, and the resulting impact on the small to mid-sized businesses reliant on fishing, including the economic impact (increases in travel time, fuels costs, carbon output, wear and tear on their vessels/equipment with extended travel time and related maintenance, etc.). No record of decision or alternative selection should be made until these impacts are assessed.	Thank you for your comment. The Final EIS examines impacts to small businesses, commercial, and for-hire recreational fisheries, and ports. Routes taken to fishing grounds are examined via VMS data from NMFS. Potential impacts to fish populations are discussed in the finfish, invertebrate, and EFH section of the Final EIS.

Comment No	Comment	Response
TRANS-19_0015_001	I'm in favor of Alternative A. I'm a second-generation fisherman out of Ocean City, Maryland. Three years ago, I committed myself full time to work out of the ocean. If the proposed plans were to go through, not only would my livelihood be affected, but so will all the people's jobs like me would be impacted in a negative manner, more than the positive. There have been multiple outside factors that impacted the commercial fishing industry over time, such as federal and state laws, climate change, and agencies and groups opposing commercial fishing as a whole. The location of these wind turbines directly impacts commercial fisherman as a whole. The placement of these turbines are in spots that many generations of fisherman have worked for almost a century. What not only myself, but other fisherman would agree with me on is that if these proposed plans were to go through, we would need significant compensation. Not only captains and owners, but deckhands and crew, like myself. And we would not need compensation for a year or two, we would need compensation or multiple years. For example, I am a 22-year-yold, just starting in the industry. And if nothing were to come in the way of it, I would very well have 40-plus years of work ahead of me. So since this would be taken away from me, since wind farm would be in the areas that I work, or we work, I would need to be compensated for years to come, along with many other of my colleagues. An additional thing I need to add is not only would commercial fisherman be impacted negatively, but local fish houses and global fish markets as well. It is a trickledown system that I see where one group is negatively impacted, so will the rest, and so on. I would like to close in saying I am opposed to offshore wind farms off the coast of Ocean City, Maryland. It would affect myself and people like me. And I also believe that any kind of disruption in the ocean would be devastating to essential fish habitats along the coast. I am in favor of Alternative A.	Thank you for your comment. The impacts to commercial fishermen and fisheries are discussed in Section 3.6.1 of the Final EIS.

O.8.15 Demographics, Employment, and Economics

Table O.8-15. General Responses – Demographic, employment, and Economics

Comment No	Comment	Response
FDMS_0005_001	After viewing the proposed projects, and more specifically the visual impacts, I am appalled and strongly object to the placement of these turbines so close to the coastline. Overall, I support wind energy, but there is no need to place them within close viewing distance. I own a condo near 81st street, and I feel very sure that my property value will be much decreased, as well as my own enjoyment of our pristine coastline. No one wants to watch a sunrise with these in the background, nor spend time enjoying the beach view with these turbines so strongly in their view. I may be forced to sell my property before these are built. Please move these further out!!	The Lessee can only propose WTG sites within their lease area, which extends approximately 23 nautical miles (27 statute miles) from shore at the farthest point. Analyses of turbine installation outside of the identified lease area does not meet BOEM's Purpose and Need. Under the no action alternative (Alternative A), BOEM would disapprove the COP and the Project described in the COP would not be built in the lease area. The EIS acknowledges that there could be adverse impacts associated with the visibility of the wind turbines. BOEM has cited the available research regarding these potential impacts and acknowledges any limitations of the available research. This research, along with information regarding the proposed project and the affected area, provides a sufficient basis to estimate impacts.

Comment No	Comment	Response
FDMS_0017_001	During a virtual public hearing, a representative from BOEM shared an article in response to concerns about the visual impact of the planned 121 WTG called the Maryland Offshore Wind Project. Sharing this article was incredibly deceptive and illustrates how BOEM researchers and employees are being influenced by false and misleading information to inform such a critical decision. What is flawed about using this article titled Sustainability and Tourism: The Effect of the United States' First Offshore Wind Farm on the Vacation Rental Market by Andrew Carr-Harris and Corey Lange is that it is not representative of the size and scope of the planned WTG in Maryland or in the size and scope of the vacation rental market in Ocean City, Maryland, and Delaware. The article, which was funded by NOAA, suggests that due to the construction of the 5 WTG off of Block Island, there was a significant increase in nightly reservations during July and August, however, this data is flawed. There is a small statistical increase in nightly use at Airbnb's that the authors point out is due to curiosity trips. Curiosity trips by beachgoers to view the 5 WTG in this area that at max are 659 feet tall with a rotor diameter of 541 feet. The Maryland Offshore Wind Project is planning for 121 WTG that are 820 foot tall and 720 feet wide. The size of the WTG and the number of the WTG does not equate or compare and therefore, the use of the study is misleading and false. To the contrary, another research team, Parsons and Firestone, found that wind farms located close to the shore, within 13 miles specifically, will lead to reductions in beach trips and economic losses including loss in tourism and revenue for the city, county and state. Since there are 121 WTG planned within 14 miles from the shore, it will most assuredly negatively impact the economy, shoreline, and visual sight lines of all who visit and use the beaches. Do not build 121 WTG in the ocean off of our coastline. It will negatively impact our economy, and our businesses for decades and will destroy our beautiful ocean view forever.	BOEM cites both studies the commenter mentioned. BOEM acknowledges that there are differences between the studies and the proposed action. BOEM concludes that the proposed action could have both beneficial and adverse impacts on recreation and tourism.
FDMS_0040_001	Totally against this idea! People don't go to Ocean City to look at wind farms! Ocean City is a great beach for many reasons but not wind turbines! Plus they aren't good for marine life. People will go elsewhere to look at a true ocean view which is largely a part of going on vacation at a beach resort. Sitting on your balcony relaxing while looking at the view won't be so great anymore for anyone much less people who pay more for oceanfront condos or hotels. Rentals for those would probably go down because why pay for direct ocean view to look at windmills????	Thank you for your comment. BOEM used the best available information to estimate the scale of any potential adverse impacts of the proposed action on recreation and tourism.
FDMS_0042_001	It will ruin your tourist industry. People come there to see the beauty of the sun rising over the ocean. We will not come to see windmills. We will go to another beach that doesn't have them.	BOEM used the best available information to estimate the scale of any potential adverse impacts of the proposed action on recreation and tourism.
FDMS_0069_001	I am not against the offshore wind farm. But NIMBY. I want it built in a more southerly lease offshore from very sparsely populated areas between south of Chincoteague and the CBBT. WHY DOES Maryland's resort area have to suffer when there are leases off practically uninhabited shore just south of here ? We spare old and stand plus money we were planning on to pay for our elderly care that our kids cannot afford, and have no time to do for us. Transmission capabilities to shore have improved, so put them out of sight way farther out. And way farther south of this populated mid-Atlantic resort area. We live here year-round. But the place swells in population in season. And the population in Southern Delaware and Berlin, MD area is still growing. That will probably stop. And property will fall. We will lose a lot: pay for this project, pay for the electricity, and pay with lost savings and work put into our apartment. I understand the area is in constant threat of sinking from climate change, from droughts and salinity in farmland, extreme storms, etc. I support windfarms. But put them out of sight farther south or way farther offshore out of sight.	The Lessee can only propose WTG sites within their lease area, which extends approximately 23 nautical miles (27 statute miles) from shore at the farthest point. Analyses of turbine installation outside of the identified lease area does not meet BOEM's Purpose and Need. Under the no action alternative (Alternative A), BOEM would disapprove the COP and the Project described in the COP would not be built in the lease area. OEM used the best available information to assess potential adverse economic impacts associated with the proposed action.
FDMS_0134_001	Thank you for the US Wind Time Lapse Video. This is great accurate actual rendering of what Ocean City, MD will be like once the windmills are constructed. Hardley anyone on the beach and no bids or wildlife to be found. Just windmills that only run 40% of the time.	Thank you for your comment.

Comment No	Comment	Response
FDMS_0157_001	Maryland has a naturally beautiful shoreline with tremendous views - which is a "get-away" for many, many people, perhaps even you. Just a place with a view is calming and beautiful. Maryland can stand to push the wind energy facility further offshore to preserve this incredible ocean view. If the Outer Banks of North Carolina and Virginia have done it, then so can the incredible state of Maryland. Maryland relies on much of the income from the tourism that its amazing beach attracts, but if it jeopardizes this income by not acting to move the wind energy facility further off shore and leaving it within sight. It probably has not really been contemplated how many families, individuals, and tourists, will no longer come to OCMD simply because it made the mistake of not keeping the wind energy facility out of view. Many residents who live along the shore or have summer homes along the OCMD shoreline may look to move elsewhere. To kill the calm and beautiful view will be another natural disaster created by stupidity, although it can be prevented. Please do all you can to preserve the OCMD beach and the view that should never be changed. Thank you.	The Lessee can only propose WTG sites within their lease area, which extends approximately 23 nautical miles (27 statute miles) from shore at the farthest point. Analyses of turbine installation outside of the identified lease area does not meet BOEM's Purpose and Need. Under the no action alternative (Alternative A), BOEM would disapprove the COP and the Project described in the COP would not be built in the lease area. BOEM used the best available information to estimate the scale of potential adverse economic impacts of the project.
FDMS_0286_002	I feel additional research is needed to highlight the large negative economic impacts on the local community	Thank you for your comment.
FDMS_0319_001	Offshore wind development creates jobs in a variety of sectors, including construction, manufacturing, operation, and maintenance. Offshore wind jobs are typically good-paying and unionized. A 2021 study by the National Renewable Energy Laboratory found that offshore wind could create over 77,000 jobs in the United States by 2030. The average offshore wind worker earns about 25% higher than the average US worker. Offshore wind jobs are diverse jobs. Offshore wind projects employ workers in a variety of fields. Offshore wind jobs are created all over the country. The offshore wind industry is developing in coastal states across the US, creating jobs in both urban and rural areas.	Thank you for your comment.
TRANS-26_0002_001	There's no impact study on the visual, property values, the impact on fishing, the impact on tourism, the impact on the local economy. These are things that will have devastating consequences on Ocean City if you don't have that. And what's critically important with this is to have that information. They have to say no to this at this point because the visuals they provided are extremely close to Ocean City which is, as someone who is right at 14108 Wight Street, that's where I live, so 142, I can see those windmills ten miles out. It's just devastating. The visuals will be gone. And we'll be in a position where Ocean City as we know it won't exist the same way. Whether they can put together some proposal that puts the windmills so far out and nobody can see them and it won't affect fishing, I don't know if that's possible. But there's substantial concerns for this moving forward, and it absolutely should be shot down now because the public did not have an opportunity to be part of this really until today.	Section 3.6.3.5 in Appendix F of the Final EIS discusses available information about the impact of wind turbines on property values, BOEM has cited the available research regarding the potential adverse economic impacts of the project. BOEM used this research, data on the affected area, and the specifics of the proposed action to develop impact ratings associated with these adverse impacts. The Lessee can only propose WTG sites within their lease area, which extends approximately 23 nautical miles (27 statute miles) from shore at the farthest point. Analyses of turbine installation outside of the identified lease area does not meet BOEM's Purpose and Need. Under the no action alternative (Alternative A), BOEM would disapprove the COP and the Project described in the COP would not be built in the lease area. Final EIS Section 3.6.9 provides an assessment of the Project's visual impacts.
TRANS-30_0043_001	I've been in technology, the forefront of a lot of different kind of technologies in my career. I was actually a first MIS director for a domain registration on the internet, and all that kind of stuff. So I've seen when stuff comes to our world, and then it's 30 years later, it is the world, like the internet was. So what I look for is opportunities for all businesses to grow and take part. The education system can -- we have a strong education program and stuff down here in southern Maryland and whatnot, and we can help grow this industry. And we've been working with US Wind. We've had some meetings down here to make sure people are aware of what's happening. I am from Baltimore originally. My family started in southern Maryland. And so, we've been around the water my entire life. And I'm looking forward to the growth and the industry of US Wind and what it can bring as far as green energy and opportunities for minority businesses.	Thank you for your comment.

Comment No	Comment	Response
TRANS-30_0046_001	I have dedicated the last years to workforce development. And I'm, you know, I'm not an engineer, I'm not a scientist, I'm not an economist, but I did grow up in poverty and I do know that a good job is a pathway out for a lot of really great people, even, you know, a lot of the veterans that live on the shore. And having lived all around Maryland, seen a lot of cities from those in highly dense urban areas, Baltimore, to Annapolis where I was born, all the way out to Hagerstown where I spent my adolescence and went through high school, I've seen the effect of not having access to opportunity on people. I've seen families be torn apart. I went off and studied at Towson University, and in my second year, my best friend went to prison. And I know that having access to good jobs, like those being created by the offshore wind sector is going to make a difference for a lot of families. And when I think about not particularly on the shore, and the long-term nature of these jobs, the opportunity for somebody -- and I know some folks have said, you know, good union jobs, they might, you know, all of the construction jobs would be union jobs under a PLA -- but there's also going to be opportunities for other businesses on the shore to contribute. You know, this is a largely construction and manufacturing driven industry. But there's also going to be tech because there's tech in every sector. There's going to be healthcare opportunities to support these workers. So when you think about the pathways and the opportunities created by offshore wind, don't focus, you know, purely on construction because there's going to be a whole host of services from hospitality to tech to healthcare that are going to wrap around the work being done. So yes, yeah, you can look at this from each side, as the gentleman pointed out earlier, that there is going to be impact one way or the other from these projects. But think about the workforce, think about the impacts on energy security, think about the effect it's going to have on good working people. Thank you. That's all.	Thank you for your comment.
TRANS-30_0047_001	I'm a presidency of spatial GIS. I'm a geoscientist by default. I want to say a couple things in regards to this project overall. I had an opportunity to participate in the foundation of laying the program for industry, and as an industry partner downrange, looking at the impact we spare a lot in Maryland. We're looking for jobs and opportunities for our Marylanders who are here. And I feel that just like machine AIs, it's all something new. We said the same thing about cellphones, we said the same thing about VCRs. There's always impact. There's going to be impact once we change the Redskins Stadium, there's going to be impact when we change Camden Yards. There's always economic or environmental impact on anything that we do, which is called change. And so, I would just ask folks to really focus on a downrange approach. There's going to be a greater need for imagery as we start to go into more geometry AI machine learning, processing. Our electrical grid is already overtasked. We're really producing energy very dirty in this point. And so, I would ask that we really look at that. And, also, look at the economic opportunities. For most people who AI may change, this industry will also give them opportunity for new jobs. And so, we should look at that. Somebody talked about the steel industry. And as you know, we've pivoted from that. The industrial industry is probably a farfetched from where we're at now. We're really in this high-tech environment. And so, there's got to be a drive for that to be produced and to go on. So I'll leave with this quote, "If not, then when?" Thank you.	Thank you for your comment.
TRANS-30_0048_001	It's about renewable clean energy and clean energy jobs. My name is Stephanie Bridgeforth, and I am in complete support of the Maryland Offshore Wind Project. I believe that this project will provide a great supply of renewable energy, clean energy for Maryland. I am particularly excited for this new market of business, and for this excellent opportunity to create energy, clean energy jobs. This project is only going to spark substantial growth in our economy. And for these reasons and more, I am all for it.	Thank you for your comment.
TRANS-19_0016_001	As working in the industry, I'm fully, fully supporting of this offshore wind. As visiting Ocean City, Maryland, as a previous speaker also said, I think it would be a beautiful sight, 15 miles from shore, to see this offshore wind because of the fact that our state has to move quickly to help with this energy usage and clean energy. We need a reliable way to strengthen Maryland's chain and building on this project to put Marylanders to work in clean energy. This is about clean energy. It's not about smokestacks. It's about a beautiful sight along the shore. And so, this is about clean energy jobs. And we can work with the manufacturers we have locally in Marlyand, and other states along the East Coast. It will be a beautiful partnership. And, again, I just keep saying, this will power millions of homes, and clean energy, and clean energy jobs. This is the way the state needs to go to get, again, clean energy, clean energy jobs for our great state and the East Coast.	Thank you for your comment.

Comment No	Comment	Response
TRANS-30_0045_001	I'm also a lifelong resident of Baltimore, Maryland. And my family, my entire family, spent considerable amount of time in Ocean City for vacation throughout the year. On behalf of our union, we want to applaud BOEM for moving forward with US Wind's COP and hope that BOEM will approve their Draft Environmental Impact Statement with Alternative B. The United Steelworkers is the largest international union in the manufacturing sector in North America. We represent over 850,000 members. Our union supports this US Wind Project for two reasons; number one, it addresses climate change and rising sea levels. But just as important, it brings economic impact to the state of Maryland. In August of 2022, US Wind made a major announcement at Tradepoint Atlantic of its plans to build a steel mill that was going to make the monopiles and the monopile foundations and the towers named Sparrows Point Steel Mill. At full capacity, this operation will create about 500 steelworker union jobs. This was good news to those existing communities of Essex, Middle River, Sparrows Point, Dundalk, and the entire Baltimore County region. And the reason I say that is that this site used to be the home of the largest steel mill in the country, in North America, Bethlehem Steel. At one time, we had 34,000 members that made the steel for the Empire State Building, the George Washington Bridge, provided the planks for our military in both World War I, and World War II. It was known as the Beast of the East because of its steelmaking capacity. When that plant finally closed in 2015, it brought devastation to those communities because a lot of those people worked there. With US Wind's announcement in August, they now have hope that -- of the return of steel coming back to, what we called, hallowed ground, Sparrows Point, Maryland. These will be good paying union jobs. And this is not the only job that's going to come because of offshore wind development. We have the opportunity in Maryland to create the next Beast of the East in offshore wind production. We would respectfully urge BOEM to accept US Wind's COP and part of that would be Alternative B. I want to thank you, again, for your time and your effort, and the work that you've put together in allowing us to testify on this issue.	Thank you for your comment.

O.8.16 Electromagnetic Fields (EMF)

Table O.8-16. General Responses – Electromagnetic Fields

Comment No	Comment	Response
HANDIN-26_0024_002	To cause harm to our oceans and lower our property values is not worth the huge cost of this project that is not beneficial. Most importantly it remains to be seen what kind of electromagnetic energy will come out of the huge substations, mega-wires and all other electric cables that are required. This has the unfortunate potential to cause cancer with electromagnetic fields that will be installed	Thank you for your comment.
TRANS-19_0018_002	I have concerns about the distance from the shore being too close at 10 nautical miles. However, alternative D suggests moving the wind farm further, to 15 nautical miles, which also poses concerns as it requires longer and higher subsea cables to interconnect the facility and components to each other and the seafloor, which may increase the electromagnetic fields in the water column and interact with the marine ecosystem. As these wind farms expand in size and increase in distance from the shore, there's an increase in marine noise and vibration from the turbines and the mounting structure and anchoring systems, as well as the emission of electromagnetic fields. This has not been discussed in the presentation.	Thank you for your comment. Sections 3.5.2.5 and 3.5.2.7 in the Final EIS. discuss the potential impacts, including but not limited to Project associated noise, anchoring, presence of structures, and EMFs for the Proposed Action (Alternative B) and Alternative D.
FDMS_0592_003	p.3-122. The Exponent (2023) EMF modeling study is an internal U.S. Wind study as referenced and should be more made available for review.	The Exponent 2023 EMF modeling study conducted by US Wind can be found here, Maryland Offshore Wind Project: Offshore Electric and Magnetic Field Assessment

O.8.17 Environmental Justice

Table O.8-17. General Responses – Environmental Justice

Comment No	Comment	Response
TRANS-30_0049_001	And I want to reiterate and reiterate all the other comments that everyone has made. Keep in mind, ultimately, I believe that BOEM has done a thorough analysis of US Wind's COP. And I support the proposed action. And I ask that BOEM does the same as well. And having reviewed the information, I think ultimately and I'm trying to be as very brief as possible because I don't want to essentially just echo and reiterate all the comments that everyone has made -- but in terms when you're looking at this through an equity lens, the amount of jobs and opportunity to help ultimately build generational wealth, this is a benefit. I don't really see any cons. And the pros from both an economic, from environmental, from an equity perspective, they all point towards support of this.	Thank you for your comment.
TRANS-30_0050_001	I am the NAACP Maryland State Conference Chair for Environmental and Climate Justice. I am here with so many others to give testimony in support of US Wind's Offshore Project, specifically for Alternative B, and BOEM's Draft Environmental Impact Statement for US Wind's Construction and Operations Plan. The Maryland State Conference is especially supportive of BOEM moving forward on Alternative B, the proposed action in the DEIS because that alternative maximizes clean energy generation that will help meet Maryland's aggressive climate change goals. More importantly, and you really need to hear this, this project is a meaningful step toward addressing one of the most insidious, entrenched, and sinister forms of systemic racism, and that is the use of fossil fuel energy. The climate harms, such as increased flooding and excessive heat are concentrated in vulnerable communities, leaving black and brown people to experience these impacts most potently, and leaving us with the least ability to adjust to these untenable conditions. Across Maryland, black and brown communities disproportionately suffer from the local pollutants and other environmental injustices associated with dirty energy. In Baltimore, a city that is 65 percent black, as many as 130 residents per 100,000 die every year from the consequences of air pollution. We have got to make the shift. It is time to turn this big ship around. We at the NAACP are firmly in support of this legislation, not only because of its momentum towards riding the state of dirty fossil fuel energy, but also because of the positive economic impact it will have for the communities we serve. Offshore wind developers are scheduled to make historic investments in and around Sparrows Point. Further, the offshore wind industry has the potential to become an economic driver for communities of color. Offshore wind offers upwards of 40 percent during project development. US Wind, you may know, has been honored by the Maryland Minority Contractors Association with a Best Practice Award for its commitment to minority business enterprises. Increasing our share of clean wind energy will have a positive economic and environmental impact for all of us. We must prioritize the swift transition to a clean economy, and this project is a positive step in that direction. Thank you so much for your work on the DEIS and for your consideration. We ask that you move forthwith in approving US Wind's Construction and Operations Plan and Alternative B.	Thank you for your comment.

O.8.18 Finfish, Invertebrates, and Essential Fish Habitat

Table O.8-18. General Responses – Finshish, invertebrates and essential fish habitat

Comment No	Comment	Response
FDMS_0892_030	Impacts to Benthic Resources, Invertebrates, Finfish, and Essential Fish Habitat (more detailed text within the document), we recommend that BOEM adopt a general rule that encourages micro siting of project infrastructure, where feasible, to protect complex benthic resources that are often associated with high biodiversity. We also advise BOEM and the developer to address the limited scope of measures enumerated to mitigate and monitor benthic resources, invertebrates, finfish, and EFH. The inshore export cable route through Indian River Bay overlaps with HAPC for summer flounder, and while the developer plans to avoid construction within Indian River Bay from April through September to reduce impacts to the species, BOEM has not included monitoring requirements to account for impacts to summer flounder and other focal species.	The Final EIS includes the assessment of Alternative E Habitat Impact Minimization Alternative an alternative to minimize impacts on offshore benthic habitats. Mitigation and monitoring measures that address Finfish, Invertebrates, and EFH are presented in Appendix G of the Final EIS. As noted in Appendix G, additional mitigation measures outside of BOEM's statutory and regulatory authority but could be adopted and imposed by other governmental entities.
HANDIN-24_0014_001	I am a recreational fisherman based out of sunset marina. I strongly support efforts by the Ocean City Reef Foundation, (OCRF), which works to restore Reef & Fishing habitat. It appears that he offshore wind project area overlaps areas of reef replacement by OCRF, concern that OCRF efforts to restore fish habitat will be destroyed (Includes Map)	Thank you for your comment.

Comment No	Comment	Response
HANDIN-24_0053_001	Horseshoe crabs. The northern half of the lease area is located in the horseshore crab reserve. That's unbelievable. The place is supposed to be a reserve. Protected. You can't build and industrial power plant in a nature reserve. The pile driving and cable laying will crush the crabs, which bury in the sand and mud. You will destroy their environment. The cables are buried to attempt to reduce the EMF radiation. But the crabs bury in the mud in the reserve, which means they will be frying from the electric cables. Tell them they can't build in the horseshoe crab reserve, period. A protected nature area, designed to protect the largest coastwide biomass of an important species, should not be turned into an industrial power plant. How could BOEM just site the project there? Why weren't these impacts looked at before signing the lease? Why didn't BOEM get rid of the part of the lease in the horseshoe crab reserve?? WE don't support building any part of the project in that area. And simply because the developer may have a power purchase agreement isn't enough to say "oh well it's too late". It's not too late to disapprove that part of the lease. BOEM didn't do its due diligence prior to leasing to find out that they were actually signing the lease on a horseshoe crab sanctuary. That is BOEM's fault. Now BOEM is supposed to take steps to avoid impacts. And it needs to do so. If the developer took a risk to sign a power contract, too bad. That's a risk they voluntarily took. BOEM has to protect the environment and that includes NOT constructing a giant power plant in a horseshoe crab reserve. The impact of pile driving etc. on invertebrates like horseshoe crabs is also an unknown. Lack of information is not an excuse to say the impacts are minimal. The way to discover those impacts is not to build wanton projects and then determine the destruction later. What lack of info should really do is warrant a precautionary principle. DON'T BUILD AN INDUSTRIAL POWER PLANT IN A NATURE SANCTUARY CREATED FOR A SPECIES YOU CAN'T DETERMINE THE IMPACTS FOR. The fact they are moving forward is reckless and truly infuriating. Electromagnetic Fields alter the migration of flounders and other commercially and recreationally important species. How will BOEM compensate for this? The EMF is likely to alter horseshoe crab migrations as well. The EIS says that overall, there would be offshore wind construction for 6-12 years. That's unacceptable. Can't move every project forward. BOEM says "oh we don't have science on such and such"- like invertebrates. Well, then BOEM should only approve one small project and study it instead of approving all these large projects at lightning speed and then after 12 years of non stop construction say "oops, we hurt the ocean". That's irresponsible.	US Wind conducted a site-specific study of potential EMF impacts. The modeling study found that the electric field produced would be below the reported detection thresholds for electrosensitive marine organisms (Exponent 2023). Five representative cable configurations were modeled to represent the three portions of the cabling for the Project. The inter-array cables were modeled both at the target burial depth of 3.3 feet and where cable protection of 1-foot protective covering would occur. Similar configurations were modeled for the offshore export cables, adding a minimum of 100 ft separation of the cables. Within Indian River Bay, the configuration modeled the four cables separated by 33 feet and buried to 3.3 feet beneath the seafloor. As Section 3.5.2.5 Stated, when operating at peak loading, the maximum level of the magnetic field produced from the Offshore Export Cable Route cables (both offshore and through Indian River Bay) was calculated as 148 mg (14.8 µT) at the seabed, and quickly decreased to 12 mg (1.2 µT) just 3 feet (1 meter) above the seafloor (Exponent 2023). These values are 3.4 and 42 times lower respectively than EMF levels which have shown no impact (Exponent 2023). The maximum EMF levels produced by the inter-array cables at the target burial depth of 3.3 feet (1 meter) was calculated as 49 mg (4.9 µT). At a distance of 10 feet (3 meters) horizontally from all cable types, the EMF decreased to less than 1 mg (0.1 µT) (Exponent 2023).
HANDIN-26_0008_003	The skipjack projects delay highlights the concern of investment, rising costs for labor and materials shows the slim margins of the success of wind powered projects	Thank you for your comment.
HANDIN-26_0029_001	To whom it may concern: I am a Maryland resident with a second home in Fenwick Island, DE. I sit on several committees for the town of Fenwick Island but will speak from the position of a master gardener, naturalist, bird enthusiast, steward of nature. I understand the need to lower carbon emission. I do not push for OSW when other safer for the environment alternatives exist. I am concerned about marine life? how much concrete is required to install 1 turbine, how will that affect marine life? what studies have been done regarding this?	Thank you for your comment. The only concrete that is used in the Proposed Action is for cable protection and these are pre-formed "concrete mattresses". This is discussed in multiple sections of the Final EIS including section 2 and 3.
MAILIN_0005_058	The DEIS references the COP, Volume II, Section 7.1.2.1; US Wind 2023. The COP posted on the website includes information from a 2016 study and not the updated 2021 study. The 2016 study included a limited sampling design incorporating only a small portion of the lease area and, as such, cannot be considered representative and should not be relied on without the 2021 benthic data. If the 2021 data is available, it should be included in the DEIS as an appendix and a summary of it should be added to the body of the document.	Thank you for your comment. The Final EIS has been updated.
MAILIN_0005_059	A reference should be given for the grab sampling data.	Thank you for your comment. The Final EIS does reference these data in the COP Appendix II D1 through D5 - Benthic resource reports.
MAILIN_0005_061	The DEIS states there is no evidence that AC power cables negatively affect commercially and recreationally relevant fish species, but this contradicts an earlier statement that benthic species like skate and lobster are affected. Impacts of EMF on noncommercial species that may be important prey species in the food chain/ecosystem should be addressed in the EIS. No record of decision or alternative selection should be made until BOEM completes this assessment.	Thank you for your comment. The impacts of EMF to skate and lobster are discussed with other species. Those species would not be negatively affected (harm or injury), but rather would avoid the field and/or rise in the water column resulting in behavioral change.

Comment No	Comment	Response
MAILIN_0005_062	Table 3.5.5-4 presents acoustic thresholds for fish. A column with dB and microPa from project construction and operation should be included so that the reader can compare potential injury levels to the noise levels that will occur with the project.	Thank you for your comment. This table provides the ranges for potential impacts to fish based on impulsive and non-impulsive sounds. Reference to this table is discussed in the biological assessment where anticipated noise levels from the project are discussed. These noise levels are also discussed in Section 3 of the Final EIS.
MAILIN_0005_065	It is noted in the DEIS that indirect impacts of structure on multiple trophic levels are not well understood. However, the conclusion is made that impacts will be negligible based on "currently available information" which, it has been acknowledged, is lacking. The DEIS should be revised to indicate that a conclusion on impact cannot be reached given the limited nature of information in this area or caveats clearly identifying the limitation of the data upon which conclusions area made should be added.	Thank you for your comment. Impact determinations are based on the "best scientific information available". The impact determinations here are valid.
MAILIN_0005_066	It is concluded in the DEIS that structures would represent moderate adverse and moderate beneficial impacts. It should be documented whether the benefits outweigh the costs or if the opposite is the case. The DEIS should also include a discussion of the result of moderate impacts on the finfish resources across farms of turbines in all the lease areas.	Thank you for your comment. The Final EIS does address the cumulative impacts - both adverse and beneficial for all resources for the Proposed Action.
MAILIN_0005_067	Export cable route dredging would result in temporary disturbance to a variety of benthic species. The DEIS notes that the proposed dredging would not cause greater impacts than under the current dredging regime. However, the DEIS does not indicate if the proposed project dredging will occur in the same location as the current dredging. Please provide information on existing and proposed dredging, include a map depicting areas of dredging, and a table documenting the differences in depth, duration and dredging methods. Please also include specific information on the habitats in the areas of existing and proposed dredging. Additionally, the DEIS states that disturbance depends on tidal cycle. Please include information on the proposed dredging schedule and how the tidal cycle was considered to minimize impacts.	Thank you for your comment. Additional information on dredging for the proposed project is included in the Final EIS. Specifics of these changes would be addressed by the US Army Corps of Engineers in the dredging application found here: Public Notice US Wind, Inc.- MD Offshore Wind Energy.
MAILIN_0005_069	Species potentially affected by the installation of structures include "summer flounder, Atlantic surf clam, Atlantic sea scallops, calico scallops, and the longfin squid" as each "would have their available habitat reduced, resulting in a moderate impact". The DEIS should address the importance of this habitat that is permanently displaced by structures to the species listed.	Thank you for your comment. The importance of these habitats and the potential impacts from the Proposed Action are discussed in Section 3.5. Effects analyses for these species/habitats are covered in the EFH Assessment being reviewed by NMFS.
MAILIN_0005_070	Impacts per structure may appear to be minor per WTG (distance from structures, hydrodynamics, habitat), but for full build out of the Mid Atlantic and Northeast Wind lease areas do the cumulative impacts rise to a higher level of concern? This question should be answered in the cumulative impacts assessment section.	Thank you for your comment. The Final EIS does discuss the cumulative impacts of the presence of structure - both as a single WTG, full build out of the Proposed Action, and the potential for other Offshore wind projects throughout Section 3 for all resources.
MAILIN_0005_071	Larval impacts to summer flounder and scallops were modeled and determined regionally not significant, but, regarding indirect impacts on primary productivity and higher trophic levels, the DEIS states "impacts on trophic levels are not well understood". The DEIS should be revised to indicate that a conclusion on impact cannot be reached given the limited nature of information in this area or caveats clearly identifying the limitation of the data upon which conclusions area made should be added.	Thank you for your comment. Impact determinations are based on the "best scientific information available". The impact determinations here are valid.
MAILIN_0005_072	Attracting structurally associated assemblages and creating structural habitat is proposed to offset impacts. This conclusion requires cost-benefit analysis comparing the devalued and permanently altered habitat with possible benefits to be performed.	Thank you for your comment. There is a narrative on the beneficial aspects of structure in the Final EIS along with both positive and negative impacts to resources.
MAILIN_0005_073	"As documented in observations of colonial sea squirt (Didemnum vexillum) at the Block Island Wind Farm (HDR 2020), the impacts of invasive species on finfish, invertebrates, and EFH could be strongly adverse, widespread, and permanent if the species were to become established and out compete native fauna or modify habitat". The DEIS does not discuss what invasives could be problematic in the lease areas. Instead, the conclusion is drawn that invasives would become a problem because they currently exist and already present a problem.	Thank you for your comment. Discussion of invasive species and potential impacts from these species are discussed in Section 3 of the EIS.
MAILIN_0005_075	Alternative A & C would result in fewer impacts than the preferred alternative when considering juvenile fish, invertebrates, and EFH.	Thank you for your comment. Comparison of Alternatives is addressed in Section 3 of the Final EIS.
MAILIN_0005_076	Alternative D would result in less impact when compared with the preferred alternative as it reduces the number to WTGs. This might allow more flexibility on WTG placement within the lease area to avoid more productive habitats, further improving outcomes for fish and invertebrates.	Thank you for your comment. Comparison of Alternatives is addressed in Section 3 of the Final EIS.

Comment No	Comment	Response
TRANS-19_0019_001	But a large part of what we've found is that the policy and whatnot that goes on in the East Coast has been employed on the West Coast. So we've got a lot of friends back here -- back in the area as well, and associated businesses, so. The West Coast --or Northwest Coast, Washington Tribes, there's four of them that have usual and accustomed areas. And I won't get into the technical part of that. But there's a lot of treaty rights that are granted with that, that don't occur just with fishing treaty rights on rivers and whatnot that the tribes have. And they are calling for a halt until they can ascertain for certain that there will be no ill impacts to their fisheries and/or the habitat that supports that. And some of this connects to a very important feature of fish species as many of them go through life stage cycles where they are geographically located in different areas from nursey zones offshore, to offshore larval stage when they go with ocean transport, and food, and currents offshore. And then they make their way to where they finish their lifecycle in the adult stage. Same thing with invertebrates. The Dungeness crab is one of those on the West Coast. It would seem that - I just scanned it, so I may have missed it - but it seems that these are not really looked at very well in the NEPA process that you've gone through. We would like to halt operations until there's been a lot more scientific research put in this to fill some of the data gaps.	Thank you for your comment. The NEPA process includes cooperative interaction with NMFS and the Tribal groups to ensure these concerns are addressed.
TRANS-24_0003_001	I support Alternative A. Below is a list of words and phrases that are found through the EIS. How a project of this size can be based on information that is lacking is beyond me. These words and phrases are; limited information, incomplete or unavailable information, uncertainty, could, data not available to evaluate, means to obtain information is unknown or the price is exorbitant, lack of research, is not possible to predict with certainty, population trend data from National Marine Fishery Service are unavailable, specific secondary impacts are not well known, there will always be some level of incomplete information. As a teacher those words would not be acceptable in a fifth grade science class. The northern half of the lease area is located in the horseshoe crab reserve. It's unbelievable. The place is supposed to be a reserve, protected. You can't build an industrial power plant in a nature reserve. The piling driving and cable laying will crush the crabs which bury in the sand and mud. You will destroy their environment. The cables are buried to attempt to reduce the EMF radiation, but the crabs bury in the mud in the reserve which means they will be frying from the electric cable. Tell them they can't build in the horseshoe crab reserve, period. A protected nature area designed to protect the largest coast wide biomass of an important species should not be turned into an industrial power plant. How could BOEM just site the project there? Why aren't these impacts looked at before signing the lease? Why didn't BOEM get rid of the part of the lease in the horseshoe crab reserve? We don't support building any part of the project in that area. And simply because a developer may have a power purchase agreement isn't enough to say, oh, well, it's too late. It's not too late to disapprove that part of the lease. BOEM didn't do its due diligence prior to leasing to find out that they were actually signing the lease for a horseshoe crab sanctuary. That is BOEM's fault. Now BOEM is supposed to take steps to avoid impacts, and it needs to do so. If the developer took a risk to sign a power contract, too bad. That's a risk they voluntarily took. BOEM has to protect the environment, and that includes not constructing a giant power plant in a horseshoe crab reserve. The impact of pile driving on invertebrates like horseshoe crabs is also an unknown. Lack of information is not an excuse to say the impacts are minimal. The way to discover those impacts is not to build wanton projects and then determine the destruction later. What lack of info should really do is warrant a precautionary principle. Don't build an industrial power plant in a nature sanctuary created for a species you can't determine the impacts for. The fact that they are moving forward is reckless and infuriating.	Thank you for your comment. NMFS is an active participant in the Final EIS and their comments and edits are being addressed and incorporated.
FDMS_0791_008	The addition of structures will provide a reef effect for species (e.g., DEIS pages 3-124, 3-199, 3-275, 3-278), particularly black sea bass which is an important recreational and commercial fishery in the Lease area. The DEIS notes “Structures associated with the Project could lead to fish aggregation of structure-oriented species, increasing the opportunities for for-hire recreational fishery resources (DEIS page 3-278)”. Based on the type of fishing gear used in the Lease area, the presence of structures is also likely to benefit fishers deploying pots/traps, for species such as black sea bass. The significant majority of fishing in the Lease area as described in this section of US Wind’s comments uses static gear such as pots/traps.	Thank you for your comment.
FDMS_0592_001	P.3-4, 3-5, Table 3.1.-1 Gear Utilization is listed twice, p.3-4, 3-5 in Table 3.1-1	Thank you for your comment. The first reference was deleted.

O.8.19 General NEPA

Table O.8-19. General Responses – General NEPA

Comment No	Comment	Response
FDMS_0097_001	A plethora of my questions could not be answered at the information session tonight. I was constantly being redirected to different BOEM representatives and then would eventually be told that was a US Wind, Delmarva Power, or DNREC question. Could you please enlighten me on why all of the coordinators/partners involved in this offshore wind farm were not invited to participate and help inform the public to better understand the scope, value, and transparency of the project?	BOEM hosted a series of public meetings to gather comments on the DEIS. Comments outside of the scope of the document should be directed to the entity responsible, rather than BOEM.

O.8.20 Marine Mammals

Table O.8-20. General Responses – Marine Mammals

Comment No	Comment	Response
FDMS_0048_001	Per the NOAA Fisheries report, there is evidence that marine life is in distress off the Atlantic coast. As such, the NOAA Fisheries has posted a 2016 to 2023 humpback whale UNUSUAL MORTALITY EVENT (UME) along the Atlantic Coast. Since 2016, scientists have reported elevated humpback whale mortalities occurring along the Atlantic Coast from Maine to Florida. The NOAA fisheries has therefore declared an unusual mortality event for this particular whale. An unusual mortality event is defined under the Marine Mammal Protection Act as a stranding event that is unexpected, involves a significant die-off of any marine mammal population, and demands immediate response. There are seven criteria that make a mortality event unusual. The criteria for this event include that these mortalities are unusual because there is a "marked increase in the magnitude or a marked change in the nature of morbidity mortality or strandings when compared with prior records" and "the temporal change in morbidity mortality or standings is occurring." As per the Marine Mammal Protection Act, an investigation must occur according to NOAA, may take months or even years to collect data, analyze, and interpret the findings and then put into action a plan to halt this unusual die-off. Unusual Mortality Events called by the NOAA are rare and are not something that should be discounted or glossed over when considering offshore wind farms. The effects of offshore wind farms on marine animals and birds are not fully understood according to the US Department of Energy's Environmental Impacts in Siting of Wind Projects Research and given the unusual mortality event occurring off the coast with humpback whales, all activities associated with the installation offshore wind farms need to be halted. 5. The DEIS will lead directly to a flawed Letter of Authorization (LOA) for Incidental Take of the critically endangered North Atlantic Right Whale (NARW). The critically endangered NARW is generally considered the most imperiled marine mammal native to North America. Indeed, the total NARW population rests at approximately 330 individuals, and that number is dropping due to constant human-caused mortality, low calving rates, highly extended calving intervals, loss of prey species and access to foraging habitat, low and diminishing physical fitness, lack of genetic diversity, and extreme low abundance of reproductive females. Most whale experts agree that unless human-caused mortalities are immediately curtailed to zero, the NARW will become extinct in the next 30 to 60 years. For these reasons, it is imperative that BOEM, through the DEIS, examine closely, carefully, and comprehensively the US Wind project's potential to adversely affect NARW and exacerbate existing threats to the species. Unfortunately, the DEIS fails this basic task, leaving many impacts undisclosed, unstudied, and unmitigated. BOEM states in 3.5.6, "Operations of the wind turbines would result in long-term, low-level, continuous noise in the Project area which could result in behavioral disturbances and auditory masking." Turbines planned for the Project range from 14 MW to 18 MW. "Sound levels measured from direct-drive turbines within this size range do not currently exist in the literature and modeling scenarios are limited to two studies with a high degree of uncertainty." The National Marine Fisheries Service (NMFS) determined the Potential Biological Removal (PBR) for NARW to be 0.7, which is down from 0.9 in 2019. According to NMFS, this means that for the species to recover, the population cannot sustain, on average over the course of a year, the death or serious injury of a single individual due to human causes. Collisions with ships is one of the leading causes of NARW deaths. NMFS has passed restrictions on vessel speeds to reduce NARW risks during the times whales are known to migrate through wind lease areas. The lease area is surrounded by high volume shipping lanes. Operational may drive whales out of the lease areas into the shipping lanes where they may be struck.	All relevant unusual mortality events (UMEs) are discussed in Final EIS Section 3.5.6.1 for humpback whales, minke whales, gray seals, and harbor seals. All data presented on each UME is consistent with the most current available information from the National Marine Fisheries Service (NMFS), found here: Marine Mammal Active and Closed Unusual Mortality Events

Comment No	Comment	Response
FDMS_0078_012	As stated in US Wind application for Incidental Take Document 2023-09194, “An incidental take authorization shall be granted if NMFS finds that the taking will have a negligible impact on the species or stock(s), will not have an immitigable adverse impact on the availability of the species or stock(s) for subsistence uses (where relevant), and if the permissible methods of taking and requirements pertaining to the mitigation, monitoring and reporting of such takings are set forth. NMFS has defined “negligible impact” in 50 CFR 216.103 as an impact resulting from the specified activity that cannot be reasonably expected to, and is not reasonably likely to, adversely affect the species or stock through effects on annual rates of recruitment or survival. the Marine Mammal Protection Agency defines “harassment” as: any act of pursuit, torment, or annoyance, which (i) has the potential to injure a marine mammal or marine mammal stock in the wild (Level A harassment); or (ii) has the potential to disturb a marine mammal or marine mammal stock in the wild by causing disruption of behavioral patterns, including, but not limited to, migration, breathing, nursing, breeding, feeding, or sheltering (Level B harassment)”. By these measures US Wind has failed to meet these standards especially for the Critically Endangered North Atlantic right whale (NARW) and their application should be rejected for the following reasons: · NMFS has established no standards for determining maximum estimated marine mammal abundances allowed in a month when construction will occur · NMFS has not established what version of estimated population abundances should be used · NMFS has not established the current abundance of NARWs · No LOA should be issued until at least one of the planned 14 MW to 18 MW turbines is actually built in the ocean with sound levels measured and reported accurately · No project should receive a LOA until this cumulative effect is fully considered · With no impact from the US Wind project, expected NARW deaths already exceed the level needed to maintain NARW stock. NMFS should not be approving any offshore wind activity that may further impact the NARW. NMFS/NOAA allows applicants to determine protected mammal abundance in an arbitrary and capricious manner The National Marine Fisheries Service (NMFS) along with the National Oceanic and Atmospheric Agency (NOAA) have issued numerous Letters of Authorization (LOA) for incidental take of marine mammals by offshore wind development companies consulting with the applicants during the application and approval process. The agencies have established take limits using species stock estimates and expected species densities in subject lease areas in an arbitrary and capricious manner. Consider two recent LOAs to the current Maryland Offshore Wind Project application in the Table below. (Table 1 in pdf). The agencies have approved recent projects without establishing a maximum allowed monthly estimated density of critically endangered NARW in the month’s construction is allowed. Allowed densities vary by a 28 fold difference, and there is no standard for the version of the source data used. This application gives an estimate of NARW population as 338 animals but each of the other projects uses a higher and different estimate from 346 to 394 animals. NMFS/NOAA should establish a NARW population number to be used in all applications, and a maximum allowed estimated population density for the month’s construction is allowed. No LOAs should be issued until these standards are met. NMFSs’ consideration of incidental take during wind turbine operation is insufficient During construction dozens of mitigation steps are required to protect NARWs. The US Wind application allowing incidental take covers the period from January, 2025, through December, 2029, with construction completed by 2027 with partial operation as soon as 2025. This means the application will also cover incidental take during operation of the wind turbines. As a critically endangered species, the impacts on the NARW are of greatest concern. There are several potential impacts on the whales from high noise levels during construction: 1. Exposure of marine mammals to sound sources can result in, but is not limited to, no response or any of the following observable responses: increased alertness; orientation or attraction to a sound source; vocal modifications; cessation of feeding; cessation of social interaction; alteration of movement or diving behavior; habitat abandonment (temporary or permanent); and in severe cases, panic, flight, stampede, or stranding, potentially resulting in death 2. Avoidance is the displacement of an individual from an area or migration path as a result of the presence of a sound or other stressors and is one of the most obvious manifestations of disturbance in marine mammals. NARW tend to swim and feed near the water surface where zooplankton is abundant, putting them at increased risk of vessel collision (Mayo and Marx 1990; Baumgartner, M.F. , et al. 2017; Parks et al. 2012). There is a high potential of vessel strikes as whales avoid noise harassment by leaving or avoiding a lease area and head into high traffic shipping lanes. See the map below showing the shipping lane abutting the project	The US Wind Incidental Take Authorization application (including supporting materials) is a separate document from the Final EIS, with separate public comment, and may be found here: Incidental Take Authorization: US Wind, Inc. Construction and Operation of the Maryland Offshore Wind Project off of Maryland.

Comment No	Comment	Response
FDMS_0078_012 (cont'd)	3. Behavioral change, such as disturbance manifesting in lost foraging time, in response to anthropogenic activities is often assumed to indicate a biologically significant effect on a population of concern. Five out of six North Atlantic right whales exposed to an acoustic alarm interrupted their foraging dives (Nowacek et al., 2004). 4. Sound can disrupt behavior through masking, or interfering with, an animal's ability to detect, recognize, or discriminate between acoustic signals of interest. North Atlantic right whales have been observed to shift the frequency content of their calls upward while reducing the rate of calling in areas of increased anthropogenic noise (Parks et al., 2007) 5. Sound can induce stress. Rolland et al. (2012) found that noise reduction from reduced ship traffic in the Bay of Fundy was associated with decreased stress in North Atlantic right whales. Correspondingly, increased noise levels can be expected to increase stress diverting energy from other functions 6. Sound may affect marine mammals through impacts on the abundance, behavior, or distribution of prey species (e.g., crustaceans, cephalopods, fish, and zooplankton). The presence and operation of structures such as wind turbines are, in general, likely to result in local and broader oceanographic effects in the marine environment and may disrupt marine mammal prey, such as dense aggregations and distribution of zooplankton. 7. Vessel collisions with marine mammals, also referred to as vessel strikes or ship strikes, can result in death or serious injury of the animal. Wounds resulting from ship strike may include massive trauma, hemorrhaging, broken bones, or propeller lacerations. US Wind expects at least 823 vessel trips/year during operation. US Wind did not request and NMFS is not proposing to authorize take incidental to operation noise. The same potential harmful impacts described above during construction could exist during operation with the primary difference operational noise will be nearly continuous for decades. No turbines approaching the size of the up to 18 megawatt turbines planned for this project have been built in the ocean anywhere on the globe. A study by Stöber and Thomsen (2021) (https://asa.scitation.org/doi/abs/10.1121/10.0003760?journalCode=jas) estimated the operational noise from the larger, more recent generation of direct-drive wind turbines. Their findings demonstrated noise levels could be up to 170 to 177 dB for a 10 megawatt turbine. Furthermore, noise levels where likely to diminish to NOAA Level B harassment levels of 120 dB at about 0.9 miles away from the turbine. Since planned turbine spacing is only on a 0.9 by 1.2 mile grid, noise levels will likely significantly exceed Level B harassment limits throughout the project area and for one mile beyond the project area. (Journal of the Acoustical Society, "How could operational underwater sound from future offshore wind turbines impact marine life?" Uwe Stöber and Frank Thomsen, https://asa.scitation.org/doi/abs/10.1121/10.0003760?journalCode=jas) In addition to the above mentioned concerns, the US Wind application states "NARW's require extremely dense patches of zooplankton to feed efficiently". Also stated is the fact average length of NARWs has decreased 7.3% over the period 1981-2019. Smaller size can impact breeding and nursing. Broad scale hydrodynamic impacts could alter zooplankton distribution and abundance by greater mixing (van Berkel et al. 2020). US Wind admits in their application, "If the presence of Project structures causes a change in ocean circulation, it may cause marine mammals to shift their foraging grounds to account for shifting distributions of prey species." We join in recent statements from lead biologists at the National Marine Fisheries Service (NMFS) who have recommended that offshore wind energy projects be pushed back a minimum of 20 kilometers from areas used by NARW for feeding and other life history activities. This recommendation was set forth in a letter from NMFS to BOEM, dated May 13, 2022, Sean Hayes, chief of the protected species branch at NOAA's National Northeast Fisheries Science Center. As reported in the application, "Abundance estimates, Potential Biological Removal (PBR) values, and Annual Mortality/Serious Injury (M/SI) values were sourced from the most recent NOAA Marine Mammal Stock Assessment Report issued for each species and stock (88 FR 4162, Hayes et al. 2022, 2021, 2020, 2019; Waring et al. 2015). PBR is defined by the MMPA as the maximum number of animals, not including natural mortalities that may be removed from a marine mammal stock while allowing that stock to reach or maintain its optimum sustainable population. Annual M/SI values represent annual levels of human-caused mortality plus serious injury from all sources combined (e.g., commercial fisheries, ship strike)." The NARW PBR estimate given in Table 3.1 is 0.7 while the M/SI value is 8.1. NARW are currently experiencing an unusual mortality event (UME); elevated numbers of dead or seriously injured NARW have been recorded in Canada and the United States since 2017 (NOAA Fisheries 2023a). Throughout this time period, 35 NARW deaths have been reported, as well as 22 serious injuries, and 37 sub-lethal injuries and illnesses (NOAA Fisheries 2023a). In the period of 2016-2020, incidental fishery entanglement mortality and serious injury averaged 5.7 individuals per year, and vessel strike mortality and serious injury averaged 2.4 individuals per year (88 FR 4162). This means, with no impact from the US Wind project, expected NARW deaths already exceed the level needed to maintain NARW stock. NMFS should not be approving any offshore wind activity that may further impact the NARW.	Continued from above

Comment No	Comment	Response
FDMS_0078_012 (cont'd)	Clearly, operational noise poses a serious, and even potentially deadly threat and could result in NARW extinctions. No LOA should be issued until at least one of the planned 18 MW turbines is actually built in the ocean with sound levels measured and reported accurately. Building the project with sound measured only after project is built is unacceptable. NMFS has failed to consider the cumulative impact from the numerous LOAs issued in active NARW habitat The Harassment Permit analysis does not assess cumulative impacts on the affected marine mammals. Instead, it treats the Project as if it were to be installed and operated in a vacuum, where no other impacts exists. In reality the project is adjacent to the Skipjack 1 and 2 Projects, and the Garden State project, and not far from multiple projects off the southern New Jersey coast. All of these projects may be simultaneously be under construction, and will certainly be operational at the same time. Marine mammals avoiding the Marwin and Momentum Wind projects may simply wander into another project and across multiple shipping channels adding to stress and confusion greatly increasing the potential for vessel strikes and entanglement. See the below maps of vessel paths to the north of the Maryland project. NMFS is ignoring this issue. No project should receive a LOA until this cumulative effect is fully considered.	Continued from above
FDMS_0080_001	I am concerned about how this will impact whales and sea life. I have not seen evidence that shows off shore wind farms DO NOT harm the environment. We have seen record number of whale deaths from the same thing up in New York and new jersey. I am all for clean energy but there is better options than destroying our coastlines	To date, no whale mortalities have been attributed to offshore wind activities. All offshore wind vessels operate with trained observers or third-party protected species observers (PSOs) onboard to monitor for, observe, and record the presence of marine mammals and other protected species. Since January 2016, NOAA Fisheries has monitored Unusual Mortality Events (UME) for humpback whales with elevated strandings along the entire East Coast. This UME corresponds to an increase in the humpback whale population in the Atlantic and shifting prey resources, likely as a result of changing ocean conditions related to climate change. Partial or full necropsy examinations were conducted on approximately half of the humpback whales and about 40% these examined had evidence of human interaction, either ship strike or entanglement. Additional information about interactions between offshore energy projects and whales along the US East Coast may be found here: Frequent Questions—Offshore Wind and Whales. BOEM uses the best available science to determine the potential effects of an action. You may find the complete impact analyses for marine mammals in Final EIS Section 3.5.6 *Marine Mammals* and all other biological resources in Final EIS Section 3.5 *Biological Resources.*
FDMS_0328_002	Negative Impacts on Marine Mammals, especially the critically endangered North Atlantic Right Whales (NARW) a. Protected Species Observers (PSOs) can only see whales on the surface within 1500 meters (about a mile) on a clear day in a calm sea. Therefore, PSOs have a high miss rate of marine mammals. b. Passive Acoustic Monitor (PAM) devices can only detect whales when they vocalize. When not vocalizing, whales are not detected. The NARW is often quiet, going days, even weeks, without uttering a sound. Therefore, passive acoustic monitory (PAM) equipment has a significant miss rate which results in many marine mammals going undetected. c. Wind farms will break up the aggregation of zooplankton in the migratory path of the endangered NARW. Zooplankton in dense patches is their only food. d. National Marine Fisheries Service: The critically endangered NARW cannot sustain a single death by human cause in a year to recover. U.S. Wind agrees to "minimization" of harm but not complete avoidance. e. The operational noise impact of hundreds of huge offshore wind turbines on the endangered NARW has never been studied. Block Island, RI only has 5 small turbines. f. Offshore wind projects slow ocean currents, resulting in decreased cycling of dissolved oxygen which is detrimental to marine life. Ref: Journal "Nature Communications" 24 Nov 2022 g. BOEM was warned in May 2022 by NOAA scientist about the dangers to the NARW from wind turbine construction. Sean Hayes, the National Oceanic and Atmospheric Administration's (NOAA) chief of protected species, penned a memo in May 2022 and sent it to Bureau of Ocean Energy Management (BOEM) lead biologist Brian Hooker, copying more than a dozen other scientists from the two agencies. The memo highlighted Hayes' concerns about how offshore wind construction and surveying could disrupt the endangered NARW. https://www.foxnews.com/politics/biden-admin-scientist-raised-alarm-offshore- wind-harming-whales-months-ago	Thank you for your comment. BOEM uses the best available science to determine the potential effects of an action. Potential impacts to whales and dolphins are discussed in Section 3.5.6 of the Maryland Offshore Wind Final EIS, with potential impacts of the Proposed Action with other ongoing activities (for example, environmental baseline) on marine mammals during the various phases of the Project assessed. The potential for impacts to North Atlantic right whales, as well as other species of marine mammals, are fully evaluated as a part of the NEPA process. Further analysis of potential impacts to species listed under the Marine Mammal Protection Act (MMPA) and Endangered Species Act (ESA), including the North Atlantic right whale, is also conducted in consultation with the National Marine Fisheries Service (NMFS) in the form of a Biological Assessment. Best available science (i.e., peer-reviewed scientific publications, scientific working group technical reports, etc.) is referenced in all assessments to support all conclusions made.

Comment No	Comment	Response
FDMS_0384_001	The National Academies of Sciences, Engineering, and Medicine; Division on Earth and Life Studies; Ocean Studies Board; Committee on Evaluation of Hydrodynamic Modeling and Implications for Offshore Wind Development: Nantucket Shoals contributed and published this journal article that must be reviewed and considered before choosing any plan other than Alternative Plan A, which can be found: https://nap.nationalacademies.org/read/27154 According to a summary by Dr. David Wojick, policy analyst at Committee for Constructive Tomorrow, ”off shore wind farms and can reduce the amount of living food sources that whales eat, which can harm the whales on a population level. This is why it is called the dead ocean effect. The threat arises because the world's biggest animals feed on the world's smallest animals. Fifteen-ton Right Whales feed on what is called zooplankton, which are microscopic animals of various sorts. That these huge marine mammals can filter out and live on tons of almost invisible animals is a natural miracle in itself. The threat, to be even more specific, is that the reduced energy in hundreds of wind turbine wakes combined can greatly reduce the zooplankton population. This could lead to malnutrition in the whales or even starvation. It can also require the whales to do a lot more hunting for their food, which can also cause them harm. This is especially true if it increases the risk of ship strikes and fishing gear entanglements, the leading causes of whale deaths.”	As you have noted in your comment, the National Academies of Science, Engineering, and Medicine has published a report titled "Potential Hydrodynamic Impacts of Offshore Wind Energy on Nantucket Shoals Regional Ecology. " Their conclusions, however, indicate "the impacts of offshore wind projects on the North Atlantic right whale and the availability of their prey in the Nantucket Shoals region will likely be difficult to distinguish from the significant impacts of climate change and other influences on the ecosystem", noting the need for continued monitoring and research. This report is specific to the Nantucket Shoals region, located approximately 295 miles (475 kilometers) northeast of the Maryland Offshore Wind Lease Area. As described in Final EIS Section 3.5.6.1, the offshore waters of Maryland, including waters in and around the proposed Project's Lease Area, are used as a migration corridor for the North Atlantic right whale, but are distinct from the species' primary feeding grounds in waters off the Northeast U.S. (including Nantucket Shoals) and eastern Canada.
FDMS_0622_001	https://www.savelbi.org/_files/ugd/a85a2b_fabbf9a348e143209c6301c8d22027d1.pdf?fbclid=IwAR32tTfJNPfIUGVxEdDKgWrCuUKXj-UTDP9a4i-zCMvktjIboIMUXOwSix4 Pay attention folks. Read the data. No offshore wind!!! (29 Pg. Attachment "The Evidence That the Offshore Wind Energy Vessel Surveys are the Cause of the Recent New Jersey Whale Dolphin Deaths")	Thank you for your comment. To date, no whale mortalities have been attributed to offshore wind activities. All offshore wind vessels operate with trained observers or third-party protected species observers (PSOs) onboard to monitor for, observe, and record the presence of marine mammals and other protected species. Since January 2016, NOAA Fisheries has monitored Unusual Mortality Events (UME) for humpback whales with elevated strandings along the entire East Coast. This UME corresponds to an increase in the humpback whale population in the Atlantic and shifting prey resources, likely as a result of changing ocean conditions related to climate change. Partial or full necropsy examinations were conducted on approximately half of the humpback whales and about 40% these examined had evidence of human interaction, either ship strike or entanglement. Additional information about interactions between offshore energy projects and whales along the US East Coast may be found here: Frequent Questions—Offshore Wind and Whales

Comment No	Comment	Response
FDMS_0767_012	Protected species and marine mammals The DEIS rightly finds there will be negative impacts to Mysticetes. That the impacts are only negligible to moderate is questionable. There is a dire need for a cumulative impacts analysis on OSW activities on ALL populations of marine mammals which are known to occur or could occur in U S. waters of the northwest Atlantic Ocean…. Roughly 600,000 marine mammals could be subject to some level of harassment according to the NOAA website listing Incidental Take Authorizations for energy activities other than oil and gas (including renewable energy activities and LNG). There is no conclusive evidence that recent whale and other marine mammals deaths off the Atlantic Coast are related to activities supporting offshore wind (OSW) development; but similarly, there is no conclusive evidence finding such activities are not a contributing factor. The absence of evidence is not evidence of absence. Requiring and conducting timely necropsies on all dead and/or stranded marine mammals would provide the concerned public some much needed answers. These necropsies should require an analysis of the inner ear bones to understand temporary or permanent deafness. A whale that is experiencing deafness will not hear an approaching vessel and may be more susceptible to vessel strikes. Even animals with obvious evidence of a ship strike need to have their inner ears examined to determine whether permanent or temporary deafness were a contributing cause to that animal's death. NMFS must diligently consider if authorization of additional harassment activities ("takes") should be allowed, given the recent mortalities, active UMEs, and lack of a definitive answer regarding the role OSW is playing in those mortalities. BOEM and NMFS are in the press offering statements absolving the OSW industry from any responsibility in the strandings and deaths. On May 12, 2023, a news story was published noting that "CIP and Avangrid JV Vineyard Wind is to deploy and test a secondary bubble curtain during foundation installation for the 800 MW offshore wind project. "19 The bubble curtain is intended to "absorb and dampen sound during foundation installation". This begs the question, if sound was not an issue why is there a need to absorb and dampen it? Questions remain about accountability measures in the event a developer's "takes" exceed the numbers authorized. The fishing industry is held to strict measures, including the closing of a fishery. Negative impacts to local fishermen and coastal communities as a result of a potentially adverse impact to marine mammals (e.g. a vessel strike resulting in death or severe injury) are not mentioned nor evaluated in the DEIS, and should be addressed in the Final EIS. The lack of an adequate analysis of individual and cumulative impacts to these protected mammal species is concerning, given that fishermen are already highly restricted in their ability to harvest due to NARWs protections. The entire fishing industry pays the price to protect highly migratory NARWs, not just those closest to the Project area. Any impact to NARWs results in impacts to fisheries in Maine, impacts in Cape Cod Bay impact fishermen in Southern New England, and so on. These reverberating impacts are not addressed. The DEIS lists a number of marine finfish species which are listed as endangered or threatened under the Endangered Species Act. It is concerning that BOEM "is in the process of assessing the impacts of the Proposed Action on ESA-listed fish species".How is the public supposed to intelligently comment on potential impacts to ESA-listed fish species, when the Agency charged with permitting the activities cannot identify those impacts, nor the potential population-level impacts on those species? Unless and until the true environmental, ecological and social impacts of offshore wind development are identified and better understood, the publication of the DEIS is premature.	Thank you for your comment. Final EIS Section 3.5.6 conducts analysis of all marine mammal species that may be subject to impacts from the proposed Project. Further, a cumulative analysis is assessed for each alternative presented within the Final EIS. However, the purpose of this document on which you are commenting is to address potential impacts related to the development of OCS-A 0490 and is not programmatic in nature. Further, NMFS assesses and authorizes take requests; this Final EIS is not meant to act as an incidental take request (ITR) application. Finally, this Final EIS addresses impact of the Proposed Action (Alternative B) with mitigation applied, which means–relative to your comment on impact pile driving noise–that sound dampening technologies, such as bubble or double curtains, are a required to achieve a 10-dB noise reduction. Impacts are then assessed relative to the application of these measures.

Comment No	Comment	Response
FDMS_0776_001	My concern is how the noise and magnetism from the construction and operation of the turbines affects marine life. The navy proved sonar affects whales. The grey whale is on the endangered list already. Studies in Europe have showed the construction and operation noise negatively affects porpoises. Will bubble curtains be installed around each turbine to protect the dolphins and whales from excessive noise? Has a study been done to determine if the noise and magnetism affects the horseshoe crab, a vital resource for vaccines and other medicines? I am advocate for smart green energy, improving one aspect of the environment to destroy another is unacceptable. These questions need to be researched prior to committing to building turbines because the planning process through sonar and the construction process through pile-driving can have detrimental effects.	Thank you for your comment. A complete assessment of the potential impacts of noise on marine species is included in the Maryland Offshore Wind Final EIS in the following sections: Section 3.5.6 for marine mammals (including all dolphin and whale species that may occur in the Lease Area) and Section 3.5.2 for benthic resources (including the horseshoe crab). Further, the Final EIS also provides a complete assessment of potential impacts due to electric and magnetic fields (EMF) for all marine mammals and benthic resources in the above referenced sections. US Wind will implement sound attenuation technologies such as double bubble curtains and nearfield attenuation devices to reduce the underwater noise impacts from impact pile-driving. While these technologies are expected to achieve at least 10 dB noise reduction, US Wind will target 20 dB noise reduction. Complete details on the sound mitigation (and all other mitigation measures) may be found in Final EIS Appendix G.
FDMS_0787_001	A rash of dead whales washing up on beaches around the mid-Atlantic region in January 2023, including a 33-foot humpback on the Maryland side of Assateague early Monday, shows the devastating impact of offshore wind facilities. A total of six whales washed up along beaches in New Jersey and New York over a roughly one-month period beginning in early December. In each case but one, no outward sign of traumatic injury was noted. This is not conclusive because whales get tangled up in offshore wind cable and drown. They also encounter underwater cable and can get tangled in it, especially in their fins which would not show any signs of impact. Moreover, the blasting of sonar required for these offshore wind facilities damages whales ability to determine direction, and they can get confused. The blasting also impacts fish schools and their migration, leaving whales without food and thus subject to starvation. Maryland joined the growing list when a 33-foot humpback was discovered on the beach at Assateague on the Maryland side of the overs and vehicle area around mile marker 21.8 in January 2023. January is part of when whales reproduce and so this loss to the humpback community is staggering. As the whale deaths continued around the region over the last few weeks, including the humpback on Assateague generated a lot of interest in various local and national news outlets and on social media posts, and subsequently, a lot of finger-pointing. The spike in marine mammal mortality has been linked by more than a few to increased surveying and pre-construction activity off the mid-Atlantic coast by the offshore wind industry. The Worcester County Commissioners voted unanimously to draft a letter to federal officials seeking a temporary halt to offshore wind industry-related activity. Taking it a step further was Cindy Zipf, executive director of the Clean Ocean Action organization, who pointed the finger directly at offshore wind industry activity in the region for the sudden spike in mortality rates. “The wave of dead whales is the ocean sounding the alarm,” she said. “We must heed the warning. These tragic multiple deaths of mostly young, endangered whales are of no apparent cause, however, the only new activity in the ocean is the unprecedented concurrent industrial activity by over 11 companies in the region’s ocean, which allows for the harassment and harm to tens of thousands of marine mammals. Moreover, federal and state agencies have been reckless fast-tracking offshore wind development projects.” More research is desperately needed on submarine cable, cable entanglements, sonar blasts, loud underwater sounds as well as the narrowing of shipping lanes causing greater impact to whale travel. “When US Wind conducted these surveys in 2021 and early 2022, we, like other offshore wind developers, used third-party Protected Species observers, who are trained and approved by NOAA to detect protected species like whales,” US Wind said. “As NOAA Fisheries has noted, mortality risks to whales are primarily caused by commercial fishing gear entanglements and vessel strikes. There is no evidence that the whale strandings have anything to do with current offshore wind activity off the coast.” No studies have been done in 2023 and so US Wind's statement is out of date. A total of four offshore wind energy farms are planned off the coast of Maryland and Delaware in lease areas held by two companies. Those projects are in various stages of the approval process and geotechnical ocean bottom surveying including the use of sonar has been utilized at different times. Stop all offshore wind development off the coast of Maryland NOW !	BOEM uses the best available science to determine the potential effects of an action. Potential impacts to whales and dolphins are discussed in Section 3.5.6 of the Maryland Offshore Wind Final EIS, with potential impacts of the Proposed Action with other ongoing activities (for example, environmental baseline) on marine mammals during the various phases of the Project assessed. This includes an analysis of potential entanglement, vessel strike, and noise-related impacts. To date, no whale mortalities have been attributed to offshore wind activities. All offshore wind vessels operate with trained observers or third-party protected species observers (PSOs) onboard to monitor for, observe, and record the presence of marine mammals and other protected species. Since January 2016, NOAA Fisheries has monitored Unusual Mortality Events (UME) for humpback whales with elevated strandings along the entire East Coast. This UME corresponds to an increase in the humpback whale population in the Atlantic and shifting prey resources, likely as a result of changing ocean conditions related to climate change. Partial or full necropsy examinations were conducted on approximately half of the humpback whales and about 40% of those examined had evidence of human interaction, either ship strike or entanglement. Additional information about interactions between offshore energy projects and whales along the US East Coast may be found here: Frequent Questions—Offshore Wind and Whales.

Comment No	Comment	Response
FDMS_0855_002	Impacts To Sensitive Species. The Draft EIS needs major revisions (w/ definitive assessment) to address the threats to the 2 endangered spp. previously referenced. The NARW is one of the most imperiled marine mammals native to North America with min. numbers estimated at approx. 338. While prior human-caused habitat degradation has been limited, this project & other similar proposed projects will exert significant behavioral changes that can further exacerbate the influence of human-caused mortality, including that of colliding with large vessels. The proposed lease area is surrounded by high-volume shipping lanes, including the entrances to the Chesapeake Bay & the Delaware Bay. The US Wind Project has potential to drive whales out of the lease areas into the shipping lanes where they may be struck. Natl. Marine Fisheries Service (NMFS) & the Natl. Oceanic & Atmospheric Agency (NOAA) have insufficiently worked the protocols to determine the Letter of Authorization (LOA) of Incidental Take for NARW. Both agencies have previously issued numerous LOAs for incidental take of marine mammals by offshore wind development companies. Yet, these agencies have previously established take limits using species stock estimates & expected species densities in various lease areas in an arbitrary and capricious manner. Further, NMFS & NOAA liberally consult with applicants during the LOA application and approval process to influence species impacts. NMFS/NOAA should establish a set NARW population number to be used in all applications, & a maximum allowed estimated population density for the month's construction is allowed (per DT Stevenson, Caesar Rodney Inst., 10/23/23 comment). No LOAs should be issued until these standards are met. Sound can cause stress among marine mammals and likely influences whale prey behavior. Rolland et al. (2012) found that noise reduction from reduced ship traffic in the Bay of Fundy was associated with decreased stress in NARWs. US Wind did not request & NMFS has not proposed to authorize take incidental to operation noise. Because NARWs need dense patches of zooplankton to feed efficiently, it would lend to more credible LOA for a cumulative impacts assessment to be undertaken on the NARW and their prey in relation to turbine noise influences. This project should not receive a LOA until this cumulative effect (i.e., 18 MW turbine noise) is fully considered and quantitatively addressed. Additionally, this LOA (Indic. Take) assessment should be based on utilizing appropriate surveys to determine prey population abundances based on maximum energy generation potential.	BOEM uses the best available science to determine the potential effects of an action. Potential impacts to whales and dolphins are discussed in Section 3.5.6 of the Maryland Offshore Wind Final EIS, with potential impacts of the Proposed Action with other ongoing activities (for example, environmental baseline) on marine mammals, including the North Atlantic right whale, during the various phases of the Project assessed. This includes an analysis of vessel strike and noise-related impacts, including reference to Rolland et al. (2012) in Final EIS Section 3.5.6.3. The US Wind Incidental Take Authorization application (including supporting materials) is a separate document from the Final EIS, with separate public comment, and may be found here: Incidental Take Authorization: US Wind, Inc. Construction and Operation of the Maryland Offshore Wind Project off of Maryland.
FDMS_0875_002	The offshore wind narrative has been that there is no evidence to link these stranding deaths to offshore wind energy development, yet offshore wind companies continue to submit and be approved for requests for Incidental Marine Mammal Take Authorizations. BOEM, NOAA Fisheries, offshore wind developers, nor independent scientists have performed comprehensive enough studies to be able to determine the entire scope of impact of offshore wind turbines on the environment. BOEM's Environmental Impact Statement (EIS) for the Maryland Offshore Wind Project calls for major adverse effects on the North Atlantic Right Whale, visual resources, the cumulative commercial fishing industries and for-hire recreational fishing as well as moderate impact effects on benthic resources, birds, coastal habitats, cultural resources, and recreation and tourism. In 2016, the National Marine Fisheries Service (NMFS) declared an Unusual Mortality Event (UME) for Humpback whales (Megaptera novaeangliae) in the Atlantic Ocean. In 2017, they again declared a UME for the North Atlantic Right Whale (Eubalaena glacialis) in the Atlantic Ocean. Both Unusual Mortality Events' root causes are listed as vessel strikes.In 2016, the same year that offshore wind development started and the Block Island Wind Farm was being constructed, the number of reported whale deaths along the coast more than doubled. From the National Oceanic Atmospheric Administration's (NOAA) research studies, it is accepted that "only about 1/3 of right whale deaths are documented." 1 With an estimated 356 North Atlantic Right Whales left in existence 2 , the majority of the thirty BOEM approved lease areas being situated in the direct migratory path of the NARW, and over seventy whales washing up on the shores of the east coast in 2023, our government agencies the EPA's, NOAA's, NMFS's, and BOEM's (as the lead agency for compliance with the Endangered Species Act) utmost priority should be preserving the North Atlantic Right Whale from extinction.	BOEM uses the best available science to determine the potential effects of an action. Potential impacts to whales and dolphins are discussed in Section 3.5.6 of the Maryland Offshore Wind Final EIS, with potential impacts of the Proposed Action with other ongoing activities (for example, environmental baseline) on marine mammals during the various phases of the Project assessed. The potential for impacts to North Atlantic right whales, as well as other species of marine mammals, are fully evaluated as a part of the NEPA process. Further analysis of potential impacts to species listed under the Marine Mammal Protection Act (MMPA) and Endangered Species Act (ESA), including the North Atlantic right whale, is also conducted in consultation with the National Marine Fisheries Service (NMFS) in the form of a Biological Assessment (BA). This NMFS BA also addresses ESA-listed sea turtle and fish species. Bird species listed under the ESA are further asses in a BA in consultation with the US Fish and Wildlife Service (USFWS). Best available science (i.e., peer-reviewed scientific publications, scientific working group technical reports, etc.) is referenced in all assessments to support all conclusions made. Further information about underwater sound, sound related to offshore wind energy development, and regulations of underwater sound for marine mammals, fishes and invertebrates, and sea turtles is located in Final EIS Appendix B *Supplemental Information*.

Comment No	Comment	Response
FDMS_0875_002 (cont'd)	The surveying of the ocean and construction of wind turbines will continue to lead to large increases in ship traffic. Mid-range sonar mapping has been known to elicit a fear response in marine mammals similar to that which occurs when being hunted by killer whales. The noise has been shown to reduce the amount of food foraging from 50 - 100% dependent upon the species. 3 In response to the 2022 study, published in the Proceedings of the National Academy of Sciences entitled Behavioral responses to predatory sounds predict sensitivity of cetaceans to anthropogenic noise within a soundscape of fear, Patrick Miller, marine Biologist at the University of St. Andrews stated. "Hearing unusual or loud human noises, such as sonar, triggers the same defensive reaction, Miller explains. The whales aren't confusing sonar with killer whale sounds, " he stresses. The cetaceans flee from sonar "likely because it is loud, " he says. "They perceive it as a general threat, and that triggers their decision to escape." 4 With whales being fearful of mid-range sonar decibel levels, impacts from louder activities like pile driving, will certainly elicit at least the same level of fear response. The increase in ship traffic from offshore wind activities coupled with the state of fear that the mammal is in, can likely cause disorientation and greatly increase the possibility of injury or death by vessel collision or ship strike US Wind's Incidental Take request for the OCSA0490 lease area calls for the following mammals classified as endangered on the Endangered Species List: • Six level B takes of the endangered North Atlantic Right whale (Eubalaena glacialis) • Six level A takes and twenty-four takes of the endangered Fin whale (Balaenoptera physalis) • Six level A takes and eighteen takes of the endangered Humpback whale (Megaptera novaeangliae) • Three level A takes and three level B takes of the endangered Sei whale (Balaenoptera borealis) 5 And while incidental take requests are only required for mammals, several other endangered or threatened species are present within Delaware, Maryland, and the coastal waters off them such as the endangered Leatherback Turtle (Dermovhelvs coriacea), the Atlantic Sturgeon (Acipenser oxyrinchus oxyrinchus), the Shortness Sturgeon (Acipenser brevirostrum), the Giant Manta Ray (Mobula birostris) and the threatened Piping Plover (Charadrius melodus) 6 that BOEM, NOAA, and the NMFS should be concerned about. BOEM and the NOAA Fisheries Office of Protected Resources in any granting of incidental take requests of the endangered North Atlantic Right Whale are responsible for being in compliance with the Endangered Species Act. Section 7(a)(2) which "requires each Federal agency to consult with NOAA Fisheries and the USFWS to ensure that any action authorized, funded, or carried out by such agency is not likely to jeopardize the continued existence of any endangered species or threatened species or result in the destruction or adverse modification of critical habitat." Criteria for the authorization of such marine mammal takes are "have no more than a negligible impact on those marine mammal species or stocks; and "not have an unmitigable adverse impact" on the availability of the species or subsistence uses." 7 BOEM's own Environmental Impact Statement for the Maryland Offshore Wind Project itself warns of major adverse effects to the North Atlantic Right Whale. Authorized takes and the continued allowance of offshore wind to develop Atlantic lease projects, will be cause BOEM and NOAA to be in direct violation of the Endangered Species Act. In May of 2022, Sean A. Hayes, PhD , the Chief of Protected Species of NOAA, notified BOEM's Lead Biologist warning that the construction of wind turbines and operation could result in extinction of the North Atlantic Right Whale 8, yet the offshore wind permitting process continues without adequate studies to understand their effects on the environment. A recent study published by Rand Acoustics, recorded audio levels coming off of a survey boat off New Jersey found that acoustic levels were higher than those reported by the government. 9 In September of 2023, The Save the Right Whales Coalition contacted NOAA Fisheries to alert them of the studies' findings. 10 Many of our local and national environmental organizations, whose missions are supposed to involve studying and protecting the health of our waters and ecologically sensitive areas, have now blurred the lines of any ethical code they should be operating by and be held to by residents and their donors. The Maryland Coastal Bays Program 11, the Delaware Center for the Inland Bays 12, and Assateague Coastal Trust 13 are all non-profits that can be traced back as taking money from offshore wind developers. These organizations have accepted money from the very offshore companies that seek to develop the lease areas off the coast of Delaware and Maryland. To compound the situation, Chris Bason, the former Executive Director for the Delaware Center for Inland Bays for over a decade is now employed by Orsted as their Delaware Stakeholder Relations Lead. Dave Wilson, the former Executive Director of the Maryland Coastal Bays program for a decade (and a total of eighteen years of employment with them) now is employed by US Wind as the Development manager for their project in Maryland. Even the recently announced project to Study effects of offshore wind on marine mammals and sea turtles to be completed by the Mystic Aquarium and funded by Eversource-Orsted cannot be considered an unbiased opinion, since Mystic Aquarium in 2021 already accepted grant money from Orsted-Revolution offshore wind developers. 14 I am urging BOEM to call for further independent unbiased studies not tainted by offshore wind money, to be conducted before moving forward any further.	Continued from above

Comment No	Comment	Response
FDMS_0875_002 (cont'd)	References 1. NOAA Fisheries 2017–2023 North Atlantic Right Whale Unusual Mortality Event https://www.fisheries.noaa.gov/national/marine-life-distress/2017-2023-north-atlantic-right-whale-unusual-mortality-event 2. National Oceanic and Atmospheric Administration National Marine Fisheries Service, Population size estimation of North Atlantic right whales from 1990-2022, October 2023 https://www.fisheries.noaa.gov/s3/2023-10/TM314-508-0.pdf 3. P.J. Miller, S. Isojunno, C. Siegal, F.P.A. Lam, P.H. Kvadshein, C. Cure, Behavioral responses to predatory sounds predict sensitivity of cetaceans to anthropogenic noise within a soundscape of fear https://www.pnas.org/doi/10.1073/pnas.2114932119 4. American Association for the Advancement of Science https://www.science.org/content/article/why-whales-flee-sonar-sometimes-their-death?fbclid=IwAR1GT_XfawIFB5EGmNrUtd2OkEp0uhmWZ1Xi5_aeM2n7PPLtYyApMUa9Q1c 6. U.S. Fish & Wildlife Service, Endangered Species https://fws.gov/program/endangered-species 7. NOAA Fisheries Incidental Take Authorizations Under the Marine Mammal Protection Act https://www.fisheries.noaa.gov/permit/incidental-take-authorizations-under-marine-mammal-protection-act 8. Sean Hayes, NOAA letter to Brian Hooker at BOEM 5/13/22 https://static1.squarespace.com/static/61132164df0a2c56cfb0ffbd/t/63f537135e6d424a9d343b24/1677014803900/UR1-2023-000009_10_17_2022.pdf 9. Rand Acoustics LLC, Sonar Vessel Noise Survey, May 8, 2023: Technical Report https://img1.wsimg.com/blobby/go/935d0456-a4c5-443b-9fca-ffa943ac08d3/downloads/RandAcoustics-SonarVesselNoiseSurvey.pdf?ver=1695512769887. 10. Lisa Linowes Letter to NOAA Fisheries to Dr. Richard Spinrad https://static1.squarespace.com/static/61132164df0a2c56cfb0ffbd/t/64fddae8728fa92c0064459c/1694358248598/SRWC+-+NOAA+Letter+2023-09-08+FINAL.pdf 11. Save the Right Whales Coalition Conflicts of Interest Report Environmental Organizations Take Offshore Wind Industry Money, 4/26/22, page 16 https://static1.squarespace.com/static/61132164df0a2c56cfb0ffbd/t/63f5242247e203722874560b/1677009956422/Save+RIght+Whales+COI+Letter+REPORT+-+2022-04-26+FINAL.pdf 12. Save the Right Whales Coalition Conflicts of Interest Report Environmental Organizations Take Offshore Wind Industry Money, 4/26/22, pages 9-10 https://static1.squarespace.com/static/61132164df0a2c56cfb0ffbd/t/63f5242247e203722874560b/1677009956422/Save+RIght+Whales+COI+Letter+REPORT+-+2022-04-26+FINAL.pdf 13. Save the Right Whales Coalition Conflicts of Interest Report Environmental Organizations Take Offshore Wind Industry Money, 4/26/22, page 14 https://static1.squarespace.com/static/61132164df0a2c56cfb0ffbd/t/63f5242247e203722874560b/1677009956422/Save+RIght+Whales+COI+Letter+REPORT+-+2022-04-26+FINAL.pdf10. 14.Save the Right Whales Coalition Conflicts of Interest Report Environmental Organizations Take Offshore Wind Industry Money, 4/26/22, pages 6-7 https://static1.squarespace.com/static/61132164df0a2c56cfb0ffbd/t/63f5242247e203722874560b/1677009956422/Save+RIght+Whales+COI+Letter+REPORT+-+2022-04-26+FINAL.pdf10.	Continued from above
FDMS_0892_015	A. Marine Mammal and Sea Turtle Occurrence and Abundance Estimates (more detailed text within the document). the DEIS does not provide a detailed assessment of all marine mammal species with common/regular occurrence in the Project Area, but instead refers the reader to Volume II, Section 9.0 of the COP for detailed information on marine mammals in the entire geographic analysis area. Descriptions of species-specific occurrence in the Project Area should be provided by BOEM. Ultimately, we recommend that BOEM revise the description of the affected environment section to incorporate more accurate and well-defined designations of occurrence and project-specific abundance estimates based on the Roberts et al. models, 61 and only cite primary sources.	All species with common, regular, and uncommon occurrences are discussed within Final EIS Section 3.5.6.1, with seasonal occurrences (for each species) presented based on the data sources discussed in text, including the use of Roberts et al. models, primary literature, and technical reports. The occurrence and seasonality information presented in the Final EIS is sufficient for the impact analyses conducted. The reader may find additional background species descriptions in the COP useful as another source of supplemental information.

Comment No	Comment	Response
HANDIN-24_0023_001	Our Maryland governor is not listening to the people. The windfarms are not financially sustainable, They already have and will continue to negatively impact the fragile habitats of our underwater creatures including the mammals that are washing up on our beaches	To date, no whale mortalities have been attributed to offshore wind activities. All offshore wind vessels operate with trained observers or third-party protected species observers (PSOs) onboard to monitor for, observe, and record the presence of marine mammals and other protected species. Since January 2016, NOAA Fisheries has monitored Unusual Mortality Events (UME) for humpback whales with elevated strandings along the entire East Coast. This UME corresponds to an increase in the humpback whale population in the Atlantic and shifting prey resources, likely as a result of changing ocean conditions related to climate change. Partial or full necropsy examinations were conducted on approximately half of the humpback whales and about 40% of those examined had evidence of human interaction, either ship strike or entanglement. Additional information about interactions between offshore energy projects and whales along the US East Coast may be found here: Frequent Questions—Offshore Wind and Whales. BOEM uses the best available science to determine the potential effects of an action. You may find the complete impact analyses for marine mammals in Final EIS Section 3.5.6 Marine Mammals.
HANDIN-24_0036_001	More study is needed toward protecting marine life, especially SONAR, study why whales are being hit by boats. Is it because of their echo-location has been damaged from SONAR being used? I don't believe your "Observers" on boats can really detect all the whales in the area. Furthermore how do you detect that SONAR has driven the whales & porpoises out of the tested/observed area?	To date, no whale mortalities have been attributed to offshore wind activities. All offshore wind vessels operate with trained observers or third-party protected species observers (PSOs) onboard to monitor for, observe, and record the presence of marine mammals and other protected species. Since January 2016, NOAA Fisheries has monitored Unusual Mortality Events (UME) for humpback whales with elevated strandings along the entire East Coast. This UME corresponds to an increase in the humpback whale population in the Atlantic and shifting prey resources, likely as a result of changing ocean conditions related to climate change. Partial or full necropsy examinations were conducted on approximately half of the humpback whales and about 40% of those examined had evidence of human interaction, either ship strike or entanglement. Additional information about interactions between offshore energy projects and whales along the US East Coast may be found here: Frequent Questions—Offshore Wind and Whales. BOEM uses the best available science to determine the potential effects of an action. You may find the complete impact analyses for marine mammals in Final EIS Section 3.5.6 *Marine Mammals*. Further information about underwater sound, sound related to offshore wind energy development, and regulations of underwater sound for marine mammals, fishes and invertebrates, and sea turtles is referred to in Final EIS Appendix B *Supplemental Information*.

Comment No	Comment	Response
HANDIN-24_0053_004	BOEM should deconflict all project leases from the migratory route of the endangered North Atlantic Right Whale. It's unacceptable that BOEM sited a string of leases in the migration corridor of this critically endangered species. Since BOEM didn't do its due diligence at the siting stage to avoid such impacts, it must do so now. Smart from the Start- the BOEM process whereby the MD lease and many others were sited that decided to "speed up" offshore wind leasing by not conducting analysis at the outset of the process- is coming back to bite BOEM now. BOEM must disapprove parts of leases that have adverse impacts on marine life, including the documented migratory corridor of a critically endangered species.	Lease areas are developed through consultation with the BOEM State Task Forces, stakeholder feedback, and public comments with the intent of protecting ecologically sensitive areas and minimizing user conflicts while making available appropriate areas for wind development. BOEM uses the best available science to determine the potential effects of an action. Potential impacts to whales and dolphins are discussed in Section 3.5.6 of the Maryland Offshore Wind Final EIS, with potential impacts of the Proposed Action with other ongoing activities (for example, environmental baseline) on marine mammals during the various phases of the Project assessed. The potential for impacts to North Atlantic right whales, as well as other species of marine mammals, are fully evaluated as a part of the NEPA process. To date, the primary factors impacting the recovery of the NARW population are ship strikes and entanglement in fishing gear. Vessel speed limits and marine debris avoidance and elimination measures during construction and operations of the wind farm help to reduce the potential for these factors to impact North Atlantic right whales. Additional analysis of other potential impacts to whales and fish, such as acoustic impacts or the presence of the monopiles during operations, are also evaluated in the Final EIS. Further analysis of potential impacts to species listed under the Marine Mammal Protection Act (MMPA) and Endangered Species Act (ESA), including the North Atlantic right whale, is also conducted in consultation with the National Marine Fisheries Service (NMFS) in the form of a Biological Assessment. BOEM works directly with NMFS in evaluating and reducing these potential impacts to marine mammals as well as to identify appropriate mitigation measures through the NEPA, MMPA and ESA processes. These mitigation measures may be found in Appendix G of the Final EIS.
HANDIN-26_0009_001	I appose the offshore wind farms. They are not green energy, they use oil. There are marine mammals dying from the survey vessels. The survey vessels have also killed off live scallop beds. They will pose extreme danger to cargo ships and all boats in general	To date, no whale mortalities have been attributed to offshore wind activities. All offshore wind vessels operate with trained observers or third-party protected species observers (PSOs) onboard to monitor for, observe, and record the presence of marine mammals and other protected species. Since January 2016, NOAA Fisheries has monitored Unusual Mortality Events (UME) for humpback whales with elevated strandings along the entire East Coast. This UME corresponds to an increase in the humpback whale population in the Atlantic and shifting prey resources, likely as a result of changing ocean conditions related to climate change. Partial or full necropsy examinations were conducted on approximately half of the humpback whales and about 40% of those examined had evidence of human interaction, either ship strike or entanglement. Additional information about interactions between offshore energy projects and whales along the US East Coast may be found here: Frequent Questions—Offshore Wind and Whales. BOEM uses the best available science to determine the potential effects of an action. You may find the complete impact analyses for marine mammals in Final EIS Section 3.5.6 *Marine Mammals*; scallop commercial fishing in Final EIS Section 3.6.1 *Commercial Fisheries and For-Hire Recreational Fishing*; and shipping and vessels in Final EIS Section *Navigation and Vessel Traffic.*
MAILIN_0005_078	The DEIS should include a map that shows the wind farm location and major feeding, breeding, and migration areas for the North American Right Whale (NARW). This would help the reader to visualize how the project relates to these important areas for this endangered species.	The relevant figure in Section 3.5.6 shows the geographic extent of North Atlantic right whale habitat relative to offshore wind lease areas, including OCS-A 0490. The supporting text highlights the species' movement between the two regions of critical habitat, and provide necessary context for the reader (supported by appropriate literature) to how the species uses the Project area. Even more detailed information about habitat usage by endangered species may be found in the Biological Assessment, prepared by BOEM in consultation with the National Marine Fisheries Service (NMFS).

Comment No	Comment	Response
MAILIN_0005_079	There are two species of minke whales. On Table 3.5.6-1, please use the proper common name for the species which is ""Common minke whale".	For consistency with other EISs and BAs, no changes to the common or species name for the minke whale are made to the Final EIS.
MAILIN_0005_080	Sei whales have a very unpredictable pattern of movement, so to be conservative, please indicate on Table 3.5.6-1 that they could be in the project area all year.	The occurrence for sei whales has been reviewed and updated in text (Section 3.5.6.1) as follows: "The species is most likely to occur in the Offshore Project area during the spring, followed by winter, though irregular sightings in other seasons may also occur." Table 3.5.6-1 has likewise been updated to reflect potential winter occurrences.
MAILIN_0005_082	Seasonal migrations may also be determined by other factors, such as predation pressure. This should be added to the EIS.	Agreed. We have made the necessary update to the Final EIS, with the following statement added to Section 3.5.6.1: "It should also be noted that seasonal migrations may also be influenced by other factors, including predation pressures (Corkeron and Connor 1999)."
MAILIN_0005_083	Throughout the DEIS, please capitalize designations of legal status, such as Endangered or Threatened, to distinguish them from general statements about a species status.	Noted. Thank you for your comment.
MAILIN_0005_084	The DEIS states that "However, Nantucket Shoals is located approximately 295 miles (475 kilometers) northeast of the proposed Project area and would not be affected by Project activities." It important to note that effects may extend a long way beyond their origin, so it's important to indicate that the area may be directly affected.	Given the distance referenced, there will be no direct effects to the hydrodynamics unique to Nantucket Shoals or the foraging success of North Atlantic right whales near Nantucket Shoals due to the Maryland Offshore Wind Farm. The complete analysis of potential hydrodynamic impacts of the proposed Project may be found in Final EIS Section 3.5.6. The National Academies of Science, Engineering, and Medicine has published a report titled "Potential Hydrodynamic Impacts of Offshore Wind Energy on Nantucket Shoals Regional Ecology. "Their conclusions, however, indicate "the impacts of offshore wind projects on the North Atlantic right whale and the availability of their prey in the Nantucket Shoals region will likely be difficult to distinguish from the significant impacts of climate change and other influences on the ecosystem", noting the need for continued monitoring and research. The full report may be found here: Potential Hydrodynamic Impacts
MAILIN_0005_085	The DEIS should indicate the time period of the 141 minke whale stranding event	The time period mentioned is included within Section 3.5.6.1, indicating that the unusual mortality event (UME) for minke whales was declared by the National Marine Fisheries Service (NMFS) in January 2017 and is currently ongoing.
MAILIN_0005_087	The reader should be alerted that the sections on acoustic importance and impacts are mainly focused on cetaceans, which use underwater sound as a much more important sense than do pinnipeds or sirenians.	Each marine mammal hearing group is addressed as applicable within the underwater noise sections. No edits necessary.
MAILIN_0005_088	It should be noted that the explanation of how echolocation sounds are produced applies to dolphins and porpoises, and not necessarily to other species (like sperm whales).	The explanation of how odontocetes produce echolocation signals in Section 3.5.6.1.1.1of the Final EIS is applicable for all odontocetes (i.e., toothed whales) which includes sperm whales; the only marine mammal species for which this would not be applicable are Mysticetes (i.e., baleen whales), so the text specifies that only odontocetes produce these echolocation signals.
MAILIN_0005_089	It should be noted that some of the species listed on Table 3.5.6-2 are not present in the study area, so they may not be relevant here, or at least this fact should be pointed out to the reader.	The species listed in Final EIS in the relevant table in Section 3.5.6 are representative for the entire marine mammal geographic analysis area (see relevant figure in section 3.5.6), with relative occurrence in the Project area presented. The text supporting this table identifies and explains this.
MAILIN_0005_090	In the discussion about stressors, it should be noted that biopsy samples can also be used to obtain hormone levels for examining reproductive status and/or stress.	While you are correct that biopsy samples can be used for analysis of hormone levels, this information is not pertinent to the assessment of potential impacts under the proposed Project. Therefore, no edits are necessary in the Final EIS.
MAILIN_0005_091	The potential link between cetacean strandings and geomagnetic phenomena, though controversial, should be discussed in more detail, especially as it is related to EMFs and cable placement.	Thank you for your comment. No edits have been made to the Final EIS as EMF, cable heat, and cable emplacement is fully analyzed within Section 3.5.6 based on the best available science.

Comment No	Comment	Response
MAILIN_0005_092	In the section on Cable emplacement and maintenance and beyond, the DEIS should provide information on the depth to which cables would be buried to minimize EMF effects on marine mammals.	Cable burial depth is provided in Final EIS Section 3.5.6.5 under the *EMF and cable heat* IPF subsection (approximately 3.3 to 6.6 feet [1 to 2 meters]) as well as the complete analysis of potential EMF effects on marine mammals as a result of the proposed Project. This target burial depth has also been added to section 3.5.6.5.1.2.
MAILIN_0005_093	Provide the scientific name of the long-beaked common dolphin, Delphinus delphis bairdii.	The scientific name has been added. Additionally, the common name has been updated to "Eastern North Pacific long-beaked common dolphins" based on current accepted taxonomic species and subspecies names (List of Marine Mammal Species and Subspecies)
MAILIN_0005_094	It is worth noting that Impact Pile-Driving is often called "percussion Piling" in other documents. The reader should be alerted to the fact that these two terms refer to the same pile installation activity.	Percussive, percussion, and impact pile driving are synonymous. BOEM continues to use the phrase "impact pile driving" as using other terms could lead to confusion if not consistent throughout the document.
MAILIN_0005_095	Replace "hump-backed" with "humpback" throughout the document.	Thank you. The previously termed "Indo-Pacific hump-backed dolphin" has been updated to the accepted "Indo-Pacific humpback dolphin" based on current accepted taxonomic species and subspecies names (List of Marine Mammal Species and Subspecies).
MAILIN_0005_096	Where double bubble curtains are mentioned, please provide an explanation of this mitigation method for the reader. It is noted that a bubble jacket around the individual pile being driven, combined with a large bubble curtain around the piling barge may be one of if not the most effective methods of attenuating sound.	Text in Section 3.5.6.5 regarding double bubble curtains has been updated as follows: "US Wind will implement sound attenuation technologies such as double bubble curtains and nearfield attenuation devices to reduce the underwater noise impacts from impact pile-driving. A double bubble curtain is a system of two compressed air systems (air bubble barriers) laid in concentric rings around the source for sound absorption in water. Air is pumped from a separate vessel with compressors into nozzle hoses lying on the seafloor and it escapes through holes that are provided for this purpose. The double layer of air bubbles provides physical barriers to underwater noise which helps reduce the overall level of noise that propagates through the water column."
MAILIN_0005_097	It is important to indicate the direction that vessels are travelling in as those moving perpendicular to migration routes of whales may be more problematic than those moving parallel to the whales.	This is not necessarily true. It cannot be assumed that whales undergoing migrations are travelling in only a north–south orientation, nor can it be assumed that all vessel transits and operations will be oriented east–west. Additionally, vessels that happen to be travelling parallel to the general movements of whales may potentially more problematic because vessel travel at faster rates of speed than migrating whales, so would therefore be able to overtake and encounter more individuals, increasing the total strike risk. However, since this is a merely speculative exercise of the relative movements of whales and vessels and that no assumptions about the relative orientation of either can be made, no edits are necessary to the Final EIS on this topic.
MAILIN_0005_098	The DEIS states that "In the unlikely event of an accidental oil spill, impacts would be sublethal due to quick dispersion, evaporation, and weathering, all of which would limit the amount and duration of exposure of marine mammals to hydrocarbons." Given that it is not possible to know for certain how severe the impact will be, it is suggested that this language be revised to read " ".would LIKELY be sublethal..".	This statement has been revised as follows: "In the unlikely event of an accidental oil spill, quick dispersion, evaporation, and weathering would limit the amount and duration of exposure of marine mammals to hydrocarbons. Direct impacts on marine mammals, therefore, would likely be sublethal."
MAILIN_0005_099	The impacts of geophysical surveys may be a bit underplayed. There is not a significant amount of information on these impacts related to all specific marine mammal types, so, in the interest of being precautionary, it is suggested that the uncertainty be more represented. Furthermore, additional mitigation measures that may be appropriate for high-risk species should be considered and documented in the DEIS.	Thank you for your comment. BOEM uses the best available science (i.e., peer-reviewed scientific publications, scientific working group technical reports, etc.) in its assessment of impacts of the proposed action on marine mammals.
MAILIN_0005_100	Journal names are sometimes abbreviated and sometimes written out in full. Where used, please provide each consistently Additionally, the marine mammal references section has inaccuracies and missing information. References should be checked carefully and corrected where necessary.	Noted. Thank you for your comment.

Comment No	Comment	Response
MAILIN_0005_102	References for characteristics for impulsive noise are a bit confusing as presented, since Finneran 2016 is not the same as the ASA Society document cited. (ANSI S1 .13-2005, Measurement of Sound Pressure Levels In Air). The use of parentheses and the placement of references relative to the bulleted information should be reviewed and revised as necessary.	The Finneran (2016) reference has been removed and the ANSI reference is now presented after the list of impulsive characteristics.
MAILIN_0005_105	It isn't until the discussion of the Down-the-Hole method that the term 'percussion' is used relative to impact pile-driving. It is suggested that 'percussion' be introduced earlier in the pile driving section to allow the reader to better understand the connection. It is also suggested the DEIS mention that NMFS has criteria for Down-the-Hole systems - National Marine Fisheries Services: Acoustic Guidance for Assessment of Down-the Hole {DTH) Systems (https://media.fisheries.noaa.gov/2022-11/PUBL1C%20DTH%20Basic%20Guidance_NovemberIfo202022.pdf) or any revision and/or superseding information on criteria provided by NMFS.	Percussive, percussion, and impact pile driving are synonymous. BOEM continues to use the phrase "impact pile driving" as using other terms could lead to confusion if not consistent throughout the document. Down-the-hole pile driving is not part of the proposed action and thus the information is provided for context only.
MAILIN_0005_106	It is suggested that the recently published work from the ECHO program by Findlay et al. 2023 which documents how small reductions in cargo vessel speed substantially reduce noise impacts to marine mammals - Science Advances 9(25):eadf 2987 be included in the DEIS.	BOEM's Center for Marine Acoustics (CMA) will update the Acoustic Background information for future projects and NEPA analyses, as appropriate.
MAILIN_0005_107	It is suggested that the peer-reviewed paper, Kyhn, L.A., S. Sveegaard, and J. Tougaard. 2014. Underwater noise emissions from a drillship in the Arctic. Marine Pollution Bulletin 86 {1-2):424-433 and the information it presents be used in impact assessments and included in the DEIS.	This cited paper focuses on drill ships operating for oil exploration which uses a much larger drill than what would be used for US Wind and is therefore not comparable to the potential foundation relief drilling activities proposed for the project in the EIS. Rather, Austin et al. (2018) was found to be a more applicable reference of noise for the US Wind project and is included in the Final EIS.
MAILIN_0005_108	It is suggested that, along with McQueen et al. 2018, Suedel et al. 2019. Evaluating Effects of Dredging-Induced Underwater Sound on Aquatic Species: A Literature Review. ERDC/EL TR-19-18 be used in impact assessments and included in the DEIS.	BOEM's Center for Marine Acoustics (CMA) will update the Acoustic Background information for future projects and NEPA analyses, as appropriate.
MAILIN_0005_109	It is suggested that the recently published paper by Laute, A. et al. 2023. Underwater sound of three unoccupied aerial vehicles at varying altitudes and horizontal distances. Journal of the Acoustical Society of America 153(6):3419-3427 be used in impact assessments and included in the DEIS.	This cited paper deals with drones and ambient noise; the potential increase in noise would not affect animals underwater due to reflection at the ocean's surface. Several studies have shown AUVs are not a concern to surfacing whales or even sea turtles. Since use of drones and AUVs are not considered to be a source of impact under the proposed Project, no edits to the Final EIS text are necessary.
MAILIN_0005_111	Considering the highly endangered and declining status of the NARW, a specific section on the potential impacts on this species should be included in the final EIS. The potential impact on right whale feeding habitat was not adequately covered in the DEIS so it should be revised. The expertise of one or more biological oceanographers should be sought to help determine if this indeed is a critical concern for the NARW. No record of decision or alternative selection should be made until this is determined.	Given their current status, North Atlantic right whales (NARWs) are specifically addressed throughout Final EIS Section 3.5.6, *Marine Mammals*. Additional supporting assessments are provided in subsections specific to ESA-listed species (including the NARW) for impacts of each alternative. Further, all impact determinations are additionally delineated to specifically call out impacts to the NARW for each IPF for each alternative. Additional detailed analyses (and species/habitat information) is provided in BOEM's Biological Assessment (BA), produced in consultation with the National Marine Fisheries Service (NMFS). NARW habitat usage within the vicinity of the Lease Area is discussed in Final EIS Section 3.5.6.1, stating, "The offshore waters of Maryland, including waters in and near the Project area, are used as a migration corridor for the species and are considered a Biologically Important Area (BIA) for their migrations between feeding grounds off the northeastern U.S. and calving grounds off the southeastern U.S. (LaBrecque et al. 2015). " Overall foraging habitat usage (which is located outside of the proposed Project area) is further described within Section 3.5.6.1. Additionally, the following statement has been added: "Although individuals may utilize U.S. mid-Atlantic waters for behaviors other than just migrating, such as feeding in some instances (Whitt et al. 2013), these waters are not main foraging grounds for the species and any feeding that may occur is expected to be isolated. " BOEM uses the best available science (i.e., peer-reviewed scientific publications, scientific working group technical reports, etc.) to conduct all analyses, which are referenced in all assessments to support all conclusions made.

Comment No	Comment	Response
MAILIN_0005_224	The Operational Noise from the utilization of WfGs requires further study (in terms of WTG design characteristics and the relationship with underwater noise). It is understood that Operational Noise data is being collected on WfGs. Once available, this new data should be used to reassess impacts and revise mitigation as needed.	Thank you for your comment. BOEM uses the best available science (i.e., peer-reviewed scientific publications, scientific working group technical reports, etc.) in its assessment of impacts of the proposed action on marine mammals.
MAILIN_0005_226	The reviewer agrees with most of the statements (Section B.2.3 Construction and Installation) and references provided by the author in this section. However, since the sections pertaining to impact and vibratory pile driving show examples of measurement, it is recommended to also use the measurements reported by Guan et al. 2022 for the down-the-hole (DTH) pile driving technique such as: "The maximum sound exposure levels (SEL) measured at 10 m for the entire DTH pile drilling event ranged from 185 and 193 dB re 1 µPa2s."	BOEM concurs with this suggestion; the following statement has been added to Section B.2.3.1: "The maximum sound exposure levels (SEL) measured at 10 m for the entire DTH pile drilling event ranged from 185 to 193 dB re 1 µPa2s (Guan et al 2022)."
TRANS-24_0022_001	I'm a lifelong resident in the Berlin, Ocean City area. And the information that I'm going to share is from some information that was sent to Jessica Stromberg with the Bureau of Ocean Energy Management. And it's from save the whales. org site. A few items are the corresponding states, this project presents an existential threat to the endangered North Atlantic white whale. One important issue is the noise that this wind farm project will make that will interfere with all the activity of the whales. The effects of this project will be detrimental to whales. You can read more information about this from save the whales site. The location that was picked off the coast of Massachusetts and Rhode Island was the highest density of national Atlantic white whales. This information also points out the spike in whale deaths in December of 2022 and January of 2023. This was at the same time of the activity of the seafloor exploration for wind development use. The information included in this to Stromberg also said this activity has -- by the wind development use, has not been given any serious consideration. Requests from the public to look into these deaths have not been met with any response. To the people here today, please take the time to pay attention to this. To the bureau of Ocean Energy Management, I'm here today to say please look into this before you become responsible for destroying other marine life. Please realize when you go to meet your maker after this life, you will have to answer to him for your part in this.	To date, no whale mortalities have been attributed to offshore wind activities. All offshore wind vessels operate with trained observers or third-party protected species observers (PSOs) onboard to monitor for, observe, and record the presence of marine mammals and other protected species. Since January 2016, NOAA Fisheries has monitored Unusual Mortality Events (UME) for humpback whales with elevated strandings along the entire East Coast. This UME corresponds to an increase in the humpback whale population in the Atlantic and shifting prey resources, likely as a result of changing ocean conditions related to climate change. Partial or full necropsy examinations were conducted on approximately half of the humpback whales and about 40% of these examined had evidence of human interaction, either ship strike or entanglement. Additional information about interactions between offshore energy projects and whales along the US East Coast may be found here: Frequent Questions—Offshore Wind and Whales. BOEM uses the best available science to determine the potential effects of an action. You may find the complete impact analyses for marine mammals in Final EIS Section 3.5.6 Marine Mammals.
TRANS-30_0041_001	I want to express my opposition to the plan of the Bureau of Ocean Energy Management to expand offshore windmill construction in the Atlantic Ocean off the coast of Maryland. There are numerous troubling facts concerning this effort by the Administration, including its impact on endangered species, rising costs, and the lack of exploration of alternative sources of energy. Firstly, these offshore wind projects are likely having a detrimental impact on the numerous endangered species, including the North Atlantic Right Whale. Recently, reports have highlighted a concerning trend in which numerous whales have been washing up on the shores of New York and New Jersey. While some deny a connection between offshore windmills and the spike in whale deaths, it's important to note that there is no conclusive evidence either way as sufficient studies have not been undertaken. Proceeding with such a major construction projection, without waiting for more detailed studies to be performed, raises concerns about the prioritization of big donor profits over environmental protection.	BOEM uses the best available science to determine the potential effects of an action. Potential impacts to whales and dolphins are discussed in Section 3.5.6 of the Maryland Offshore Wind Final EIS, with potential impacts of the Proposed Action with other ongoing activities (for example, environmental baseline) on physical, biological (including marine mammals), socioeconomic, and cultural resources during the various phases of the Project assessed. The potential for impacts to North Atlantic right whales, as well as other species of marine mammals, are fully evaluated as a part of the NEPA process. Further analysis of potential impacts to species listed under the MMPA and ESA, including the North Atlantic right whale, is also conducted in consultation with NMFS in the form of a Biological Assessment. To date, no whale mortalities have been attributed to offshore wind activities. All offshore wind vessels operate with trained observers or third-party PSOs onboard to monitor for, observe, and record the presence of marine mammals and other protected species. Since January 2016, NOAA Fisheries has monitored Unusual Mortality Events (UME) for humpback whales with elevated strandings along the entire East Coast. This UME corresponds to an increase in the humpback whale population in the Atlantic and shifting prey resources, likely as a result of changing ocean conditions related to climate change. Partial or full necropsy examinations were conducted on approximately half of the humpback whales and about 40% of these examined had evidence of human interaction, either ship strike or entanglement. Additional information about interactions between offshore energy projects and whales along the US East Coast may be found here: Frequent Questions—Offshore Wind and Whales.

Comment No	Comment	Response
FDMS_0117_001	“In a paper by NRDC’s Joel Reynolds, titled “Submarine’s, Sonar, and the death of Whales”, published by William and Mary Environmental Law and Policy Revue [vol. 32:759] in 2008, Reynolds writes; “There is no longer a serious scientific debate about the connection between sound and marine mammal mortality. A range of experts, from the international Whaling Commission’s {IWC} Scientific committee [2004 report] to the U.S. Navy’s own commissioned scientists, have agreed that the evidence linking mass strandings to mid-frequency sonar is “convincing” and “overwhelming”. Consultants retained by the Navy concluded that the evidence of sonar causation is in our opinion, completely convincing and that therefore there is a serious issue of how best to avoid/minimize future beaching events. Potentially related strandings have occurred repeatedly around the world, with stranded animals found with bleeding around the brain, emboli in the lungs, and lesions in the liver and kidneys, symptoms resembling a severe case of decompression sickness, or the “bends”. Because these injuries occurred in the water, before the animals stranded, scientists are concerned that Whales turning up on shore may represent only the tip of the iceberg, with substantially larger numbers dying off-shore. Other sources of noise, such as the airguns used in seismic surveys, may have similar effects.”	The cited paper from Reynolds (2008) is specific to sonar used by the U.S. Navy which is not the same as the proposed geophysical survey sources used for offshore wind and, specifically, the US Wind Project. The lowest frequency sonar devices used in HRG surveys would be the CHIRP sources and they are higher and more diverse in frequency; CHIRPS also differ in source level, or purpose. CHIRPs used in HRG surveys are more comparable to CHIRP systems used for fish finding devices than to Navy sonar.
HANDIN-24_0013_001	This presentation was VERY disappointing!!! No information, staff was less informed than attendees. BOEM & NOAA are leading the destruction. Destroying horseshoe crab sanctuary, industrializing a major migratory route of birds, whales, marine mammals and fish, no environmental benefits - only destruction	Thank you for your comment. BOEM uses the best available science to determine the potential effects of an action. You may find the complete impact analyses for marine mammals in Final EIS Section 3.5.6 Marine Mammals; horseshoe crabs in Final EIS Section 3.5.2 Benthic Resources; birds in Final EIS Section 3.5.3 Birds; and fish in Final EIS Section 3.5.5 Finfish, Invertebrates, and Essential Fish Habitat.

O.8.21 Mitigation and Monitoring

Table O.8-21. General Responses – Mitigation and monitoring

Comment No	Comment	Response
FDMS_0824_004	BOEM must analyze potential and mitigate the impacts on all marine mammal populations that utilize offshore wind lease areas and surrounding areas, as required under the Marine Mammal Protection Act and the Endangered Species Act. Mitigation measures for certain activities, such as pile driving must be undertaken to best ensure the protection of the health of the species and the ocean ecosystem. BOEM must analyze and mitigate impacts to water quality and habitat from offshore wind projects. During installation of the turbine foundations and power cables, sediment will become suspended and impact the marine environment, especially if the sediment contains any toxic materials from historical offshore dumping. Careful analysis of turbine siting should be conducted to minimize the impact from such pollution during construction. Impacts from any fluids released from turbines during operation, such as lubricating oils and coolants, must be monitored and mitigated to the greatest extent possible. Offshore wind development may cause negative impacts to bird and bat populations from collisions with turbines and habitat displacement. Rotor speed, rotor size, the amount of turbines, turbine location, turbine lighting and the cumulative impact of other turbine projects, are all factors that BOEM must examine and mandate mitigation measures to reduce negative impacts as much as possible. These factors can greatly affect the level of negative interaction between turbines and birds and bats. Offshore wind development may also displace bird and bat populations from foraging and migration grounds or cause avoidance of wind farms altogether. 14 15 16 Impacts of avoidance should be examined through an ecosystem based management lens to determine the overall footprint of this disturbance, with careful monitoring and evaluation mechanisms clearly communicated in a transparent and public manner in place to address any adjustments that might help mitigate negative outcomes. BOEM must continue to monitor and mitigate impacts from electromagnetic fields (EMFs) created by power cords connecting turbines to each other and to land. Many ocean species can detect EMFs, and some have been shown to change their behavior because of EMFs, including fish, sharks, turtles, and marine mammals. 17 BOEM must also analyze and mitigate impacts to air and water quality from construction and maintenance vehicles, including pollutant emissions and chemical leachates. (18 19) During the Horizontal Directional Drilling (HDD) segment of the Project when the power cable comes ashore, BOEM must monitor closely for release of drilling fluids and mandate only the use of nontoxic and natural drilling fluids. Likewise, any lubricants, greases, oils, or coolants used on the turbines themselves must be as nontoxic as possible and closely monitored for any leakage. For each of the environmental impacts listed above, BOEM must analyze and mitigate them seasonally, as different species have varied sensitivities at different times of the year. Mitigation options to address seasonal movements of marine species must be assessed. Future developers of these leases must release a detailed construction schedule so that BOEM and the public can assess the effects on marine species. The cumulative impact from other planned offshore wind projects must also be addressed, as the offshore wind energy industry is poised to grow exponentially in the next decade. (18 BOEM. Environmental Risks, Fate, and Effects of Chemicals Associated with Wind Turbines on the Atlantic Outer Continental Shelf. 2013. Available at: http://www.boem.gov/ESPIS/5/5330.pdf 19 Sotaventogalicia.Nd. Nontoxic, biodegradable, and renewable lubricants for wind turbines. Available at: http://www.sotaventogalicia.com/en/projects/non-toxic-biodegradable-and-renewable-lubricants-for-wind-turbines)	Thank you for your comment. Impact analyses are provided in Section 3, and mitigation measures are provided in Appendix G.
FDMS_0892_033	(more detailed text within the document) Given the importance of the horseshoe crab and the overlap between the lease area and the preserve, BOEM should require US Wind to implement an adaptive monitoring framework to analyze any impacts to the species and respond accordingly.	Thank you for your input. BOEM describes mitigation and monitoring measures in Appendix G.
MAILIN_0005_164	On Table G-2, p.G-27. last line of table, the biological resources measure refers to "Project Design Criteria and Best Management Practices for Protected Species" published by BOEM. It is recommended that the actual full title is stated in this measure: "Project Design Criteria and Best Management Practices for Protected Species Associated with Offshore Wind Data Collection. " This document was last revised in Nov 2011 and not Sept 2011 as stated in the measure.	Text has been revised in Appendix G.

Comment No	Comment	Response
MAILIN_0005_166	What the 'I below' in the following refers to is unclear; please revise: "For all vessels operating north of the Virginia/North Carolina border, between June 1 and November 30, US Wind would have a trained lookout posted on all vessel transits during all phases of the project to observe for sea turtles. The trained lookout would communicate any sightings, in real time, to the captain so that the requirements in I below can be implemented. "	Thank you, the text has been edited.
MAILIN_0005_167	In Table G-2, DNREC is missing (it's there for Table G-1, but not Table G-2). In the table's footnotes, 'Interior' needs to be capitalized for "Department of the Interior" and MMPA is Marine Mammal Protection Act, not Marine Mammals Protection Act	Thank you for your comment, these edits have been made in the Final EIS.

O.8.22 Planned Activities Scenario

Table O.8-22. General Responses – Planned Activities Scenario

Comment No	Comment	Response
MAILIN_0005_009	Areas where dredging and where installation by horizontal directional drilling will be required should be further documented to better understand the differing levels of impact along the cable routes associated with the two methods of installation.	The description of horizontal directional drilling is presented in Section 2.1.2.1 Offshore and Inshore Facilities and impacts of cable installation and maintenance associated with HDD within each resource is presented in Sections 3.4 Physical Resources, 3.5 Biological Resources and 3.6 Socioeconomic Conditions and Cultural Resources of the Final EIS.
MAILIN_0005_013	The DEIS should fully address the cumulative impact of the entire buildout of wind energy lease areas along the Atlantic coast. While development of individual lease areas may not have population level effects, if all lease areas off the coast of Ocean City and beyond are built and operational, what are the impacts?	Adjacent lease areas are evaluated as part of the cumulative impacts section. Adjacent lease areas are also evaluated for some resources when the GAA overlaps with the surrounding lease areas.
MAILIN_0005_227	Operational noise (from project vessels involved in marine construction), in particular, vessels making use of dynamic positioning for station-keeping or mooring purposes, for operational noise, speed reduction is not a viable mitigation measure as vessels are stationary or near-stationary. It is recommended that the number of vessels using dynamic positioning at any given time be limited.	The sound sources related to offshore wind activities is presented in Appendix B, Section B.2.3.2 that include dynamic positioning vessels. Vessel speed restrictions is a mitigation measure specifically intended to reduce the risk of vessel strike to marine mammals during transits.
MAILIN_0005_228	It appears that the Project Sponsor has incorporated current best practices to minimize impacts. However, as indicated in the DEIS, impacts will occur. One option to further reduce the potential for impacts related to the project's construction would be to extend the construction period, thereby reducing the noise intensity: fewer vessels operating at the same time. This approach would extend the time to complete construction which could result in fiscal impacts. However, while noise levels at any given time would be reduced, the construction noise duration would be extended. A second option would be to address vessel generated noise at the design stage, during the installation of onboard machinery incorporating appropriate vibration control measures and/or during operation modifications and maintenance measures	The impacts presented in the Final EIS are based on the construction schedule and campaigns described in the COP and reflect the potential spatial and temporal nature of the impacts.
MAILIN_0005_231	The following comment pertains to the "Application for a Letter of Authorization under the Marine Mammal Protection Act for the Maryland Offshore Wind Project". The section on the anticipated impacts of vessel noise (Section 7.2.3 Vessel Noise) is abbreviated, and additional references are recommended for a full understanding of the topic: Erbe, C., Marley, S.A., Schoeman, R., Smith, J.N., Trigg, LE., & Embling, C.B. (2019). The Effects of Ship Noise on Marine Mammals-A Review. Frontiers in Marine Science. McKenna, M.F., Ross, D., Wiggins, S.M., & Hildebrand, J.A. (2012). Underwater radiated noise from modern commercial ships. The Journal of the Acoustical Society of America, 1311, 92- 103.	The Lessee is responsible for the preparation of the Application for a Letter of Authorization for the Maryland Offshore Wind Project. Supplemental information on the sound sources related to offshore wind activities is presented in Appendix B, Section B.2.3.2 that include vessel noise.

O.8.23 Project Design Envelope

Table O.8-23. General Responses – Project design envelope

Comment No	Comment	Response
FDMS_0043_001	Please do not allow the wind farms at Ocean city or Assateague Island! We don't need them for energy, and they will most certainly change the views and whether or not my family and I will want to visit I understand the propellers are ending up in landfills which cause a bigger problem for the environment! Thank you	Final EIS Section 3.6.9 and Appendix H present simulations of the Project and evaluation of the Project's seascape/landscape and visual impacts, including impacts on Ocean City. The available information regarding decommissioning of the MD offshore wind project is available in Section 7 of the COP. This section states that decommissioned components will be transported to shore for recycling and/or disposal.
FDMS_0102_001	All sensible people support clean energy like offshore wind. But, equally, anyone who can see would say the proposed placement(s) of the turbines is way too close to shore. Implementing as proposed would irretrievably ruin that beautiful horizon. Move them out of sight or forget it! It's not like you can or ever would fix this grievous mistake after they're installed.	The Lessee can only propose WTG sites within their lease area, which extends approximately 23 nautical miles (27 statute miles) from shore at the farthest point. Analyses of turbine installation outside of the identified lease area does not meet BOEM's Purpose and Need. Under the no action alternative (Alternative A), BOEM would disapprove the COP and the Project described in the COP would not be built in the lease area.
FDMS_0150_001	I support US Wind's 1) positive impact to the local economy, 2) the "green energy" impact, and 3) your precautions to protect wildlife; **BUT** I will NEVER support this project unless the turbines are NOT VISIBLE from the beach. I live and work in Ocean City, and the eyesore of wind turbines on the horizon absolutely kills this project for me. Please move them out further away and not visible from the beach. Thank you.	The Lessee can only propose WTG sites within their lease area, which extends approximately 23 nautical miles (27 statute miles) from shore at the farthest point. Analyses of turbine installation outside of the identified lease area does not meet BOEM's Purpose and Need. Under the no action alternative (Alternative A), BOEM would disapprove the COP and the Project described in the COP would not be built in the lease area.
FDMS_0156_001	Please push the windmills past the horizon so it doesn't ruin the view of everyone in Ocean City.	The Lessee can only propose WTG sites within their lease area, which extends approximately 23 nautical miles (27 statute miles) from shore at the farthest point. Analyses of turbine installation outside of the identified lease area does not meet BOEM's Purpose and Need. Under the no action alternative (Alternative A), BOEM would disapprove the COP and the Project described in the COP would not be built in the lease area.

Comment No	Comment	Response
FDMS_0283_001	How many wind turbines fail each year? What are the dangers to wildlife at sea? What are the dangers to wildlife in the air? How noisy are the wind turbines? How does this noise affect the wildlife in the air? How does the noise affect the wildlife in the ocean? How does the noise affect people on the land? What is wind turbine syndrome? What are you doing about the noise pollution the wind turbines cause. How are you protecting the sea life from oil leaks? How does this noise affect sea animals? How does this noise affect people on the beach/shore? What is the construction cost of the wind turbines? How much oil/fuel is needed to keep the wind turbines running? How unreliable/unpredictable are wind turbines. How long do the wind turbines need to spin to break even from the cost of construction? How much synthetic fluids are used? What is the cost of the synthetic fluids used? Wind turbines decrease the property value, what are you doing about this? How do the wind turbines affect the physical environment? How does the oil lubrication affect the environment? How much radiation from the wind turbines? How does the electromagnetic emissions from wind turbines affect human health? How does the electromagnetic emissions from wind turbines affect sea life? How does the electromagnetic emissions affect wildlife in the air? Do wind turbines interfere with internet? Do the wind turbines cause reflections (ghosting) for reception of TV, radio, cable, etc..? What are you doing about the interference of reception?	Thank you for your comments. Specific information regarding project design is provided in US Wind's COP, and the Final EIS, Section 3, assesses impacts to various physical, biological, and socioeconomic resources from project activities.

Comment No	Comment	Response
FDMS_0381_001	What is the percentage decrease in tourism for OC MD after turbines are put in? How are the wind turbines going to affect the planes? How are the wind turbines going to affect water ways? How are the wind turbines going to affect the shipping lanes? How is the Shuster Horseshoe Crab Sanctuary being protected? What is the name of the company who owns the wind turbines? Where is the company located that wants to build the wind turbines? Once the wind turbines expire how do you remove them from the ocean? How much does the construction cost? How much does the ongoing maintenance cost? What are the effects of the shading of the turbines? How are the red blinking lights going to affect the sea animals? How is light pollution going to affect the animals? How long until the wind turbines produce a profit? What is the break-even time for the wind turbines? How much is my electric bill going to increase? With the salt air how long do you estimate the wind turbines to last? Do you recycle the blades that need replacing? How do you recycle the parts of the wind turbines? I heard the blades cannot be recycled; they are put in landfills. What landfill are you putting these large blades in? How does filling landfills affect the environment?	Thank you for your comments. Specific information regarding project design is provided in US Wind's COP, and the Final EIS, Section 3, assesses impacts to various physical, biological, and socioeconomic resources from project activities.
FDMS_0382_001	Who owns the leased ocean area where the turbines are proposed to be built? How long is the lease contracted for the turbines? What happens when the lease is over? When the turbines life is over who is removing them? How much does it cost to remove the turbines from the ocean? Does the pounding of construction of the ocean floor create earthquakes? Does the pounding of the ocean floor cause future tsunamis? How are the ocean waves going to be affected?	The leased area is owned by the Federal Government. Generally, each lease has a preliminary term of 6 months in which to submit a Site Assessment Plan to BOEM. A Site Assessment Plan describes the activities (e.g., installation of meteorological towers and buoys) a Lessee plans to perform for the assessment of the wind resources and ocean conditions of its commercial lease. After a Site Assessment Plan is approved, the Lessee will have up to 4 and 1/2 years in which to submit a Construction and Operations Plan, which provides a detailed plan for the construction and operation of a wind energy project on the lease. After a Construction and Operations Plan is approved, the Lessee will have an operations term of 25 years. At the end of the Project's operational life, it will be decommissioned in accordance with a detailed Project decommissioning plan that will be developed in compliance with applicable laws, regulations, and best management practices (BMPs) at that time. It is expected that as part of decommissioning, US Wind shall survey and use its best efforts to remove the installed cable protection measures that are within two feet of the seabed surface. However, if, at the time of decommissioning, after gathering input from the appropriate regulatory agency(is), it may be agreed that it is in the best interest of the federal and state agencies to allow any such equipment to remain. BOEM's regulations are designed to ensure that a lessee or grantee can efficiently decommission their offshore wind facilities on the OCS Those regulations require the Lessee to provide financial assurance to cover decommissioning costs. BOEM requires leaseholders to prepare conceptual decommissioning plans when their project is first proposed and requires more detailed plans for evaluation at the time decommissioning is requested.

Comment No	Comment	Response
FDMS_0401_001	What type of blades are being used on the wind turbines? How long/years is the lease? What happens when the lease is over? Who is cleaning up the ocean after the company leaves? How are you protecting the bats from flying into the wind turbines? How are you protecting the birds from flying into the wind turbines? What are your calculations on how many animals will be hurt during construction? What are your calculations on how much home values will decrease? What are your calculations on how much tourist revenue will be lost? How fast do the wind turbines spin? Is the material being used on the wind turbines approved? The size and number of wind turbines changed, who authorized this change? What is to stop the company from changing again. What type of cable is being put in? How is the cable installed in the ocean?	Thank you for your comments. Specific information regarding project design is provided in US Wind's COP, and the Final EIS, Section 3, assesses impacts to various physical, biological, and socioeconomic resources from project activities.
TRANS-19_0017_001	I have concerns because the pristine coastline is going to look like an industrial facility. It would seem like a compromise would be to move the project or the windmills further off the coast, like they had talked about they were going to do at Martha's Vineyards, so that we could still get the energy, but at the same time, not destroy our coastline.	The Lessee can only propose WTG sites within their lease area, which extends approximately 23 nautical miles (27 statute miles) from shore at the farthest point. Analyses of turbine installation outside of the identified lease area does not meet BOEM's Purpose and Need. Under the no action alternative (Alternative A), BOEM would disapprove the COP and the Project described in the COP would not be built in the lease area.
TRANS-19_0017_004	And another thing that I have concerns about is that they continue to change the size and the scope of the project. You know, from a certain number of feet. They keep increasing. They initially went through with the certain height, and then they keep going back for modifications. It's like they're not prepared or they don't have a plan. They just want to ram this thing down our throats. And the time requirements to review the new submissions, seems like it's impossible with the thousands of pages to review.	The PDE approach is designed to allow for refinements of the project design. However, the height of the WTGs analyzed in the EIS are based on the COP submitted to BOEM by US Wind. Earlier project designs that may have been explored by US Wind are out of the scope of NEPA and were not analyzed in this EIS.
TRANS-24_0003_001	I just need one sentence. And the sentence is, as long as it is visible from my oceanfront balcony, I'm 100 percent opposed. If they go out 26 miles where it's not visible, I'm a hundred percent in support. But no ability to then move from 26 miles inward to 11.1 is what they're saying now. And if they build these, I will be a non-property owner in Ocean City. I will move	The Lessee can only propose WTG sites within their lease area, which extends approximately 23 nautical miles (27 statute miles) from shore at the farthest point. Analyses of turbine installation outside of the identified lease area does not meet BOEM's Purpose and Need. Under the no action alternative (Alternative A), BOEM would disapprove the COP and the Project described in the COP would not be built in the lease area.

Comment No	Comment	Response
TRANS-26_0002_001	What I saw on those boards far exceeded any expectation I had. The impact of the horizon, the ocean, is criminal. What you're going to see is an industrial park lying on the beach. And we have an oceanfront house which we just purchased last year. We're going to renovate it. Now, we don't know what the hell we're going to do because our view is gone. It will be gone at sunrise. It will be gone at sunset. And they're close enough to wipe out the afternoon. Nobody wants to lay on the beach look and at an industrial park. You come to the beach to get away from all this. And it's, like, come on. It's all about money. Just move them out. We're all for renewable energy. We're all for it, but we don't want to stare at that. Move them off shore. Get them out 30 miles. There will be no impact at 30 miles. We know that because up in the Hamptons in New York where they have juice, they were successful in doing that. Down here in Fenwick and Ocean City, Maryland, 12 miles off shore? I saw the photographs. Come on. Who can live with that? It's going to be too late when they're up. They'll never go back down. And they're going to have more and more. It's going to ruin the beach. Who ruins the beach? I mean, they ruined the beach in Okinawa during World War II. Who gives anyone the right to change that scape, that God-given landscape which was a gift for us to get away? Who has the right to ruin that? Where are we supposed to go. Death Valley? Sahara Desert? What's left? The woods? I like the woods, too, but it's nothing like the beach. The beach is here, and you can't ruin the beach. It's against all moral principle to take the beach and ruin it for countless miles of the eastern seaboard. It's awful. What I saw today, I don't know what we are going to do. We might have to sell our house before we even renovate it. One year we've been in it. We've been waiting for this house for years and years. Finally it comes up. I'm done. I don't have anything else to say.	The Lessee can only propose WTG sites within their lease area, which extends approximately 23 nautical miles (27 statute miles) from shore at the farthest point. Analyses of turbine installation outside of the identified lease area does not meet BOEM's Purpose and Need. Under the no action alternative (Alternative A), BOEM would disapprove the COP and the Project described in the COP would not be built in the lease area.

O.8.24 Purpose and Need

Table O.8-24. General Responses – Purpose and Need

Comment No	Comment	Response
FDMS_0771_002	CABLE LANDFALL INTO DELAWARE In the interest of the very short time provided for public comments on this 562-page DEIS, I want to focus my initial comments on an area I see as of paramount concern – the onshore "landfalling" of US Wind's ultra-high-power cables into the proposed landfall locations – highly populated Delaware public beaches and sensitive marine ecosystems. 1. CABLE LANDFALL INTO DELAWARE, AND IN PARTICULAR TO THE PUBLIC BEACH AT 3RS ROAD, IS DETRIMENTAL TO BIOLOGICAL, ENVIRONMENTAL, PHYSICAL AND HUMAN RESOURCES. IT IS ALSO VERY LIKELY TO BE THE SUBJECT OF LEGAL CHALLENGES. ENTRY INTO DELAWARE AND DELAWARE LANDS IS NOT AN APPROPRIATE NOR LEGALLY/CONTRACTUALLY JUSTIFIED, FOR THIS MARYLAND PROJECT, AND NO PART OF THE PROJECT SHOULD PHYSICALLY IMPACT DELAWARE (VIA TARGETING DELAWARE LANDS AND WATERS FOR LANDFALL) FOR THE FOLLOWING REASONS: • This Project proceeds under one or more commercial leases. The "Lease Area" according to US Wind's proposal and drawings, and BOEM is solely "an area offshore Maryland." No Delaware entity has entered into any agreements or leases with US Wind. No financial consideration has been given to Delaware. • US Wind obtained their lease through a Maryland bid program. The US Wind project was approved by and is subject to the Maryland Public Service Commission, and all of the electric power will be received by consumers in Maryland. • US Wind proposes "to construct and operate a commercial scale offshore wind energy facility in the Lease Area." The Lease area is Maryland, yet the COP sets forth US Wind's unilateral decision (any blessing by Maryland being of no significance) to enter and impact Delaware waters and lands to have its cables buried within the Delaware seabed and make landfall in Delaware (many miles from the Lease area) and then be again routed underground (through either roadways or the Delaware Bay and wetlands) to Delaware power substations so that the energy can be again routed underground through Delaware and sent to Maryland. • US Wind has informally represented (although problematically not documenting support in the COP) that Maryland power substations are "too small" to accept the amounts of energy coming ashore and that their grid is old and subject to "faults." Importantly, Maryland put out the bid for a Maryland Project, presumably cognizant of its own inland power capabilities. • Even if Maryland substations may have issues (and it is far from clear that the Delaware substations do not), US Wind offers no reasons why it cannot improve them as part of the Project and/or step the incoming power down in Maryland to levels workable for delivery to Maryland substations, in keeping with the scope of the Project and the Lease Area. • The COP itself represents that the Project is for the benefit of the State of Maryland and fulfillment of its energy goals • US Wind's original targeted area for landfall in Delaware is 3Rs Road, a popular public fishing and recreational beach, in very close proximity to a large number of residential properties and public and private beaches. The noise, economic and possible public health impacts, including unstudied effects of EMF radiation, of bringing four 230 kV super-high-voltage export cables onshore under the Delaware public beach at 3-Rs Road (which is an active fishing location and site for recreation by children and families) is singularly inappropriate, and it should be required that US Wind find an onshoring location in Maryland for its Maryland wind project. • Transmission cables from the Block Island offshore wind project became exposed several years ago despite the burial of 6' or more, including on a recreational beach. US Wind states that their high voltage electric cables with at least 1,100 mW of capacity will be buried as shallow as 3.3 feet (1 meter). • It should be noted that US Wind moved the onshore location to Delaware when Maryland residents complained. This is a Maryland Project and the benefits are in Maryland; the infrastructure along with its accompanying risks, intrusion and detriments should not be "offshored" to people in Delaware who were barely, if at all, consulted, and who will receive no long-term benefit. • Under the circumstances, federal approval of a Project causing permanent, detrimental alteration of Delaware lands and natural resources dedicated to the public use and enjoyment, as well as detrimental impacts on private properties, might properly be legally challenged on jurisdictional grounds and/or as a taking.	The lease that makes up the Maryland Offshore Wind project was executed in December of 2014 after a nearly four-year period of analysis by the Bureau of Ocean Energy Management with input from both the States of Maryland and Delaware. In 2009 and 2010, the States of Delaware and Maryland, respectively, created Renewable Energy Task Forces to analyze the offshore renewable leasing opportunities for their respective state. At the time, the two states pursued the process separately, resulting in separate efforts to lease offshore Maryland. This resulted in the lease area that makes up the Maryland Offshore Wind project. After the lease was executed, the Lessee, US Wind, identified the Delmarva Power and Light (DPL) Substation adjacent to the NRG Indian River Power Plant near Millsboro, Delaware, as the preferred interconnection point to the regional electric grid. This point of interconnection leads to the Lessee's proposal of cable landfall locations in the State of Delaware, which are analyzed in the Final EIS.

Comment No	Comment	Response
FDMS_0771_002 (cont'd)	LANDFALL "ALTERNATIVES" DISCUSSED IN THE DEIS It is appreciated that Alternatives (resulting in Alternative C) were considered to address comments "requesting an alternative to minimize impacts on Indian River Bay." (See §2.1.3). Unfortunately, while Alternative C is described as: "the Landfall and Onshore Export Cable Route Alternative ("Landfall Alternative")" it is not a "Landfall Alternative" at all, as it does nothing to address the dangers and inappropriateness of having US Wind's ultra-high-power cables, which still make initial landfall via Delaware beaches and shallow ocean waters. It also does not address the concern that Delaware is being merely used as a way station (and EMF dumping ground) for a project which will inure solely to the benefit of Maryland and private non-Delaware stakeholders. It is also questionable whether the impact of the various "onshore export cable routes" will result in any less disruption and environmental damage as cables within the inland bays would, as the routes traverse many highly populated areas. THE "MARYLAND ALTERNATIVE" It is also noted that the proposition set forth in my 7-8-22 comments to the NOI for EIS, that landfall should be made in Maryland – a seemingly logical position for a Maryland contract and lease agreement – is listed as an "Alterative considered but not analyzed in detail" (Table 2-6). First, no source is referenced to document US Wind's alleged "extensive evaluation" of landfall locations other than the Delaware beaches, and none was apparent in the COP. Assuming as true that the POI's south of Delaware (in Maryland) "have significant power flow congestion issues" or a "relatively weak…local electric grid", those factors should have been considered when the Project was initially conceptualized and proposed by US Wind, when the Maryland PSC Bid program was issued, and it should have been considered whether these proposed lease area(s) were even feasible in the first place. The fact that costly upgrades may be needed to the Maryland transmission system to host their own landfall (and this may be likely even once the cables enter Maryland at any time) is a Maryland and U.S. Wind problem. It is not a BOEM problem or a Delaware problem to solve, and it is certainly not grounds to approve a highly-detrimental interstate offshoring, particularly at locations (state park beaches) where such activity would pose great disruption and risks to both humans and the environment – when this problem should have been addressed by the stakeholders in interest at the outset. Delaware citizens and Delaware as a sovereign state with little to no interest in this project should not be forced to bear the burden of compensating for (and being harmed by) another State's entering into an ill-considered project which it cannot support with its own infrastructure. The simple answer to this problem from BOEM's point of view, is to reject the Proposed Action at this time (No Action Alternative). Of particular concern is BOEM's deferential language in the DEIS toward US Wind in discussion of how BOEM evaluated alternatives. Essentially BOEM states that certain alternatives were not considered because they might adversely affect the lease agreement (between Maryland and the private company US Wind), US Wind's "goals" and/or US Wind's contractual obligations under the Lease or otherwise. Anyone remotely familiar with contract law (even in the context of public contracts) understands that sometimes a party will make a deal that turns out to be a bad deal, or more difficult than expected after the contract is entered into. What happens next is either: agreed upon changes; greater expense or delay, or breach. What should NOT happen is for a federal agency to allow a Project not in the public interest or detrimental to the agency's scope of responsibility, to proceed as presented simply because to deny it would cause contractual difficulty to private or third parties. While wind projects tout economic benefits from the creation of "clean" new power sources, the project will likely have an adverse effect on water quality. • There is a significant carbon footprint that results from the mining and manufacturing of the actual components of a wind farm that, too some degree, offsets the environmental benefits. • Particularly with respect to Delaware's concerns with deep and close sea dredging and drilling, and burial of high-powered electrical cables, adverse effects may reasonably be expected to the waters and soils of Delaware. Particularly notable in this regard is US Wind's preferred plan of (assuming a 3Rs landfall, which should be denied), the cables then being run directly through the adjacent bay, with its thriving ecosystem, to reach land points further inland, again in Delaware, for this Maryland-driven project, of even the "Alternative C" of further invading highly populated tourist and residential land areas in Delaware • The landfall portion of the Project (even under Alternative C) will likely adversely affect the Delaware beaches' fragile dunes and possibly cause erosion of the near seabed. • Obviously, there is the risk for permanent ocean pollution if any of the system components become nonfunctional, contaminated3, or at the end of the Project's useful life.	Continued from above

O.8.25 Recreation and Tourism

Table O.8-25. General Responses – Recreation and Tourism

Comment No	Comment	Response
FDMS_0824_002	[1] Ocean recreation and tourism is the largest and most economically significant ocean use sector in the United States. Tourism, and the recreation it relies on, adds about $1 and $3 billion in GDP to the Delaware and Maryland economies every year, respectively. 4 Surfrider's recreation study showed that millions of Delaware and Maryland beach goers spend an average of $47 and $102 per person per coastal visit, respectively. 5 These activities are also critical to a sense of place, culture, and quality-of-life in many coastal communities. Accordingly, decisions regarding the potential siting of offshore wind energy development must avoid or minimize impacts to recreational uses and associated values. [2] BOEM should examine the potential for impacts to short-period, long-period, and wind driven waves from this Project. Modeling of impacts to waves at European offshore wind projects found that waves were insignificantly affected, but similar analyses for this Project should determine whether there are expected impacts to wave height, shape, peel angle, frequency, pattern, speed, and quality. (6 7 8 9) 6 Navitus Bay Development. Navitus Bay Wind Park Environmental Statement: Non-Technical Summary (Report No.6.3). 2014. Available at: tethys.pnnl.gov/sites/default/files/publications/Navitus-Bay-Wind-ES.pdf 7 Rampion Offshore Wind Farm. Environmental Statement. December 2012. Available at: www.rampion offshore. com/environmental-statement/8 Alari and Raudsepp. Simulation of Wave Damping Near Coast due to Offshore Wind Farms. Journal of Coastal Research 28(1), 143-148. January 2012. Available at: doi.org/10.2112/JCOASTRES-D-10-00054.1 9 Scrubby Sands Offshore Wind Farm: Coastal Processes Monitoring. July 2006. Available at: tethys.pnnl.gov/sites/default/files/publications/Scroby_Sands_Coastal_Processes.pdf [3] BOEM should analyze what impacts the Project, especially the power cable routes, will have on sand available for beach fill projects. There is already a very limited supply of beach quality sand within economical pumping distance of the beaches in Delaware and Maryland. If the Project creates impediments to mining this high quality sand, then governments may be forced to use lower quality (coarser) sand which can lead to dangerous (and not surfable) shore breaks. This situation is already happening in Ocean City, Maryland, to the detriment of swimming and surfing. Beyond recreational effects, such changes could impact biota as well.	[1] Final EIS Section 3.6.8 has been updated to incorporate these references, as appropriate. [2] Predicted hydrodynamic effects on wind-driven waves and currents as well as direct impacts on ocean currents from offshore wind structure foundations are described in Final EIS Sections 3.5.2. and 3.5.5 under the presence of structures IPF. Effects on waves have not been specifically modeled for the BOEM has relied on the best available scientific information to predict hydrodynamic effects around offshore wind energy areas due to the presence of WTG foundations. BOEM acknowledges the information provided in the comment--specifically that existing studies did not identify significant impacts on wave patterns. [3] The Marine Minerals discussions in Final EIS section 3.6.7 address impacts on sand resources.
HANDIN-26_0029_003	I am concerned about the viewshed. I think an unobstructed view of the ocean is worth protecting, what studies have been done that provide opinions on the viewshed during the peak summer season from an economic impact on tourism?	Section 3.6.8 of the Final EIS provides summarizes the relevant available studies regarding the effects of offshore wind turbines on recreation and tourism. Impact on visual resources is further addressed in Section 3.6.9.

O.8.26 Visual Resources

Table O.8-26. General Responses – Visual Resources

Comment No	Comment	Response
FDMS_0034_001	The town of Ocean City, Maryland is a very special place that millions of people visit every year to cherish the view of the sensational Atlantic Ocean. Please do not destroy our beautiful view by placing these big ugly hazardous monstrosities, destroying the very view that we all love.	Final EIS Section 3.6.9 and Appendix H present simulations of the Project and evaluation of the Project's seascape/landscape and visual impacts, including impacts on Ocean City.
FDMS_0037_001	As an oceanfront condo unit owner, I oppose the installation of wind turbines for multiple reasons, however, the biggest reason….where else in the Ocean city area (or most places for that matter) can you look out and see nothing man-made? Please don't ruin this very unique and beautiful experience!	Thank you for your comment. The Final EIS Section 3.6.9 and Appendix H present simulations of the Project and evaluation of the Project's seascape/landscape and visual impacts, including impacts on Ocean City.

Comment No	Comment	Response
FDMS_0133_001	The fight we want to fight is not whether or not to put up the turbines, it's how far to put them offshore. 10 miles out is totally unreasonable and there's absolutely no reason why they cannot be out in the ocean further so they aren't such an eyesore to the community who enjoys looking at the ocean and seeing nothing but water. We don't want to stare at a wind farm in the middle of a sunrise! There's no point even watching one anymore if that's the case. This will hurt all property owners on the shoreline and will hurt businesses that are finally just coming out of the covid pandemic. We can't afford to have the tourists avoid coming to Ocean City because of these turbines - and they will avoid it. The community begs you to please reconsider the distance of these turbines. Our new motto is "go green but avoid being seen. "	The Lessee can only propose WTG sites within their lease area, which extends approximately 23 nautical miles (27 statute miles) from shore at the farthest point. Analyses of turbine installation outside of the identified lease area does not meet BOEM's Purpose and Need. Under the no action alternative (Alternative A), BOEM would disapprove the COP and the Project described in the COP would not be built in the lease area. BOEM's analysis of the impacts of the proposed project on property values and recreation/tourism are in Sections 3.6.3 (Demographics, Employment, and Economics) and Section 3.6.8 (Recreation and Tourism).
FDMS_0141_001	I am deeply concerned and devastated by the news about the installation of the wind turbines off the coast of Ocean City Maryland. Not only does hearing this make me feel sick to my stomach, but having to look across the water and see 121 wind turbines ruining our view makes me so upset. It will destroy the value of property in the area. I have grown up my whole life spending my entire summer living in Ocean City. Not only me, but my mother and father also spent their teenage years working and living in Ocean City. Having wind turbines as an eyesore to the beautiful ocean is such a mistake. Why would we do something like this? Ruining the main natural beauty we have in Maryland. I wish you could understand how upsetting and devastating this is for families that live in this area and people who have grown up coming to Ocean City their whole lives. Please take this project elsewhere and listen to the people who live here. This place is my home, my safe space. I am fully a Maryland girl and I love my state so much. I attend the University of Maryland currently and I have never felt the need to email my senator until I heard this news. This is outrageous and is not supported by the people of Ocean City. Please listen to us and please understand, this is not only coming from me but it is coming from my peers, coworkers, and family. Ocean city Maryland only makes its money during the summers when the beach and the ocean are the main reasons why people come to visit the city. If we choose to ruin the main reason why people come it would economically be such a mistake. This will ruin our city and make it a place people will not want to go. They will spend their extra money elsewhere. No one wants to see wind turbines in the ocean. Think about how much this will decline tourism and the property cost of Ocean City Maryland. This will damage animal welfare. 15 miles offshore?!! THAT IS WAY TOO CLOSE. This will This is going to cause irreversible damage, please listen to the people. (Included a screenshot of a petition page in opposition)	Thank you for your comment. BOEM's analysis of the impacts of the proposed action on tourism is in Section 3.6.8 (Recreation and Tourism). The Lessee can only propose WTG sites within their lease area, which extends approximately 23 nautical miles (27 statute miles) from shore at the farthest point. Analyses of turbine installation outside of the identified lease area does not meet BOEM's Purpose and Need. Under the no action alternative (Alternative A), BOEM would disapprove the COP and the Project described in the COP would not be built in the lease area.
FDMS_0148_001	I am writing with concerns that I have as an Ocean front homeowner in Ocean city MD about the distance of the wind turbines. The view of the ocean horizon is a picturesque view that needs to not be altered in any way. People live to view sunrises or the beautiful ocean skyline. I am all for generating energy and saving money but not at a cost. Why can't these wind turbines be placed 26 nautical miles out so they can not be seen by the naked eye??? The town of Ocean City has been fighting to have them relocated to 26 nautical miles from shore. This has been our position for the past 7 years. Please consider keeping them 26 nautical miles away. Why do we have to have them at our location can't they be located at another coastal point where it is not a vacation area. The town of OC will be losing large amount of money when people stop traveling to vacation to look at wind turbines in the distance. I am for the generating energy but not at a cost to myself as an ocean front home owner.	Thank you for your comment. The Lessee can only propose WTG sites within their lease area, which extends approximately 23 nautical miles (27 statute miles) from shore at the farthest point. Analyses of turbine installation outside of the identified lease area does not meet BOEM's Purpose and Need. Under the no action alternative (Alternative A), BOEM would disapprove the COP and the Project described in the COP would not be built in the lease area. Final EIS Sections 3.6.3 (Demographics, Employment, and Economics) and 3.6.8 (Recreation and Tourism) discuss the impacts raised by the commenter.
FDMS_0173_001	PLEASE DONOT Place these wind farms in Ocean City, Maryland. It will destroy tourism, and the prices of the ocean front condos. No one wants to look at these, please save our view. It will also destroy our fisheries. If in fact, these have to be placed in our ocean place them so far out where no one can see them. Placing these wind farms in Plain view will destroy our tourism, our fisheries and our real estate values. I have been coming to Ocean City all of my life and the infinity of the view is what is so beautiful. Taking away that view and placing those ugly wind farms will do nothing but destroy our beautiful Ocean City Maryland.	Thank you for your comment. Final EIS Sections 3.6.3 (Demographics, Employment, and Economics) and 3.6.8 (Recreation and Tourism) discuss the impacts raised by the commenter. The Lessee can only propose WTG sites within their lease area, which extends approximately 23 nautical miles (27 statute miles) from shore at the farthest point. Analyses of turbine installation outside of the identified lease area does not meet BOEM's Purpose and Need. Under the no action alternative (Alternative A), BOEM would disapprove the COP and the described in the COP would not be built in the lease area.

Comment No	Comment	Response
HANDIN-24_0004_001	Good evening. I am a resident of Worcester County and the City Manager for Ocean City, Maryland. Ocean City will have extensive comments on this Draft Environmental Impact Statement which we believe falls well short of meeting even the most minimal requirements required by law. For the purpose of this evening, I will concentrate on two sections of the report: visual impacts and socioeconomic impacts. Although by BOEM's own admission, the visual renderings provided by US Wind do not conform with your own standards and are too small to show the true impact of the project, BOEM still finds that even using these flawed representations, the project will have a MAJOR impact on the developed beaches including Ocean City. BOEM finds in appendix H that for intensely developed beach front areas such as Ocean City: "Ocean views are highly prized and sought in beachfront communities" and then finds "The Project would be clearly distinct and would detract from the character of the open ocean horizon".	Thank you for your comment
HANDIN-26_0001_001	This offshore wind project will permanently scar our beautiful shores, polluting natures habitat. The windmills are too tall and too close to the coast. Our daytime skyline will be ugly and constant red blinking lights will be a source of light pollution impacting wildlife and serenity of the horizon during sunrises and moonrises. Wind power is inefficient and not a clean source of energy.	Thank you for your comment. As stated in Section 3.6.9 and in multiple other locations throughout the Final EIS, the Project has committed to voluntarily implementing an Aircraft Detection Lighting System (ADLS) that only activates aviation hazard lighting when aircraft approach the wind farm. This was estimated to occur during approximately 0.1 percent of annual nighttime hours.
HANDIN-26_0008_004	Appeasing the public of their view of the coastline can be addressed simply by locating the projects further off the coast.	The Lessee can only propose WTG sites within their lease area, which extends approximately 23 nautical miles (27 statute miles) from shore at the farthest point. Analyses of turbine installation outside of the identified lease area does not meet BOEM's Purpose and Need. Under the no action alternative (Alternative A), BOEM would disapprove the COP and the Project described in the COP would not be built in the lease area.
HANDIN-26_0019_001	I would think a study that would remove the focus of this proposed project to land instead of the sea could be a more positive approach. No one who comes to the coastal area wants to look at wind turbines when they're enjoying a beautiful ocean view. There are plenty of farms in the area that are for sale and would be a great alternative instead of having the myriad of housing developments which everyone here also feels poorly towards. I know a great deal of research has been done by BOEM and it is much appreciated. Yet it's useless if people just don't want this.	The Lessee can only propose WTG sites within their lease area, which extends approximately 23 nautical miles (27 statute miles) from shore at the farthest point. BOEM's authority is restricted to the offshore area of U.S. Outer Continental Shelf while other Federal, state, and local jurisdictions regulate onshore renewable energy development. Alternatives to the Maryland Offshore Wind Proposed Action are limited to the lease area.
HANDIN-26_0022_001	The impact the project is going to have on the visual beauty of the shoreline will negatively affect homeowners and their property values. The photo simulations do no accurately portray what will be seen of the windfarm based on the height they will be. I strongly urge the project to be moved further offshore or to be discontinued.	The photo simulations provided in Appendix H of the Final EIS were prepared pursuant to BOEM's guidance, available at Assessment of Seascape, Landscape, and Visual Impacts of Offshore Wind Energy Developments on the Outer Continental Shelf of the United States. When viewed at the correct resolution and distance, these simulations provide, to the greatest reasonable degree, an accurate depiction of the Project in the seascape and landscape. The Lessee can only propose WTG sites within their lease area, which extends approximately 23 nautical miles (27 statute miles) from shore at the farthest point.

Comment No	Comment	Response
TRANS-26_0011_001	Thank you for this opportunity to respond to the draft EIS for more wind and momentum to US Wind projects totaling over one gigawatt in capacity. These projects will be built off the coast of Delaware, 15 miles from Fenwick Island at the closest point. A lot of very loud voices are disparaging the appearance and visual impact of these proposed turbines. But do their numbers justify the attention that they are drawing to their negative arguments? We think not. Let me share an experience I had with a trip to Europe last year. The sole purpose of the trip was to check out offshore wind projects that laid off the shores of the UK, Denmark and Sweden. My day trip to Sweden was a last-minute decision fueled by the recommendation of two Swiss ladies who had recently been there. Following some pretty cool wind turbine imitations, I was able to convey to the bus driver where I wanted to go. So she see dropped me off at the appropriate place. I walked on for about two miles and finally arrived at an S front path along the shore where you could easily see the turbines. I had read that the turbines were 4.3 miles from shore and stood at 385 feet above the water. They were on my right. And on my left was a nice upper middle class housing development. As I walked along the path I met two unrelated folks each walking a dog. I asked each of these people in this noncommittal manner as possible what they thought of the turbines. Did their presence harm their property values? Both of them ignored my question about property values, and both responded with identical sentences, we don't see them. Well, you could see them. But what they meant is that the turbines were an innocuous part of the landscape. I had similar responses from onshore folks whom I queried in both Nysted, Denmark, and in Brighton, England. The turbines in the Rampion Wind Farm, eight miles from the shore and standing 459 feet above the water, are barely visible and only if the sky is very clear and the sun is shining on them in just the right way. Same with the turbines just six miles off the coast of Nysted. The Danish turbines were only 226 feet tall. I never managed to see these turbines at all because the skies were cloudy for both days I was there. The white turbines blend easily into the pale blue sky. Moving across the Atlantic to Delaware, let's look at a study paid for by the Nature Conservancy and implemented by a disinterested professional polling firm. The study weighted toward Kent and Sussex Counties shows that 77 percent of people believe that the development of offshore wind power projects in Delaware should be encouraged or strongly encouraged. Less than ten percent believe that it should be discouraged. While the poll did not specify reasons either approval or disapproval, it's obvious that responses would have been different if respondents had believed that the turbines were esthetically untenable. Researchers at the University of Rhode Island find a causal relationship between increased tourism and the five turbine Block Island Wind Farm. Professor Lange finds the appeal of the wind farm probably lies in its ability to attract tourists or those who want to simply check out a wind farm. Professor Jeremy Firestone, director of the Center for Research in Wind at the University of Delaware, finds that communities are generally in favor of offshore wind. In 2007, Firestone and Kempton published a peer-reviewed paper that described a poll in which visual simulations of wind farms not in existence were shown to Delaware residents. Over 90 percent of the folks who responded said they like an offshore wind option for Delaware even if it costs a dollar to $30 more each month on their electricity bill. Additional polls conducted by Professor Firestone corroborate these findings with people who live closer to shore usually voicing more negativity. While this latter Firestone study refers to a Delaware project, the projects we're discussing today are largely for the benefit of the people of Maryland, the general direction of the comments is of great interest to us. My personal experience as well as the research referenced above all point to the fact that most of us really want to see the development of a clean source of energy and are not unduly put off by appearances. We urge BOEM to take a similar approach as they review the possibility of giving a green light to the two US Wind projects being discussed.	Thank you for your comment.

O.8.27 Sea Turtles

Table O.8-27. General Responses – sea turtles

Comment No	Comment	Response
MAILIN_0005_114	Where double bubble curtains are mentioned, please provide an explanation of this mitigation method for the reader. It is noted that a bubble jacket around the individual pile being driven, combined with a large bubble curtain around the piling barge may be one of if not the most effective methods of attenuating sound.	The text in Section 3.5.7.5 of Appendix F has been updated as follows "US Wind also proposes to implement sound attenuation technologies such as double bubble curtains and nearfield attenuation devices to reduce the underwater noise impacts from impact pile-driving. A double bubble curtain is a system of two compressed air systems (air bubble barriers) laid in concentric rings around the source for sound absorption in water. Air is pumped from a separate vessel with compressors into nozzle hoses lying on the seafloor and it escapes through holes that are provided for this purpose. The double layer of air bubbles provides physical barriers to underwater noise which helps reduce the overall level of noise that propagates through the water column." Your comment regarding the placement of the bubble curtains has also been noted.
MAILIN_0005_115	It is important to indicate the direction that vessels are travelling in as those moving perpendicular to migration routes of turtles may be more problematic than those moving parallel to the whales.	It cannot be assumed that animals undergoing migrations are travelling in only a north–south orientation, nor can it be assumed that all vessel transits and operations will be oriented east–west. Additionally, vessels that happen to be travelling parallel to the general movements of individuals may actually be more problematic because vessel travel at faster rates of speed than migrating sea turtles, so would therefore be able to overtake and encounter more individuals, increasing the total strike risk. However, since this is a merely speculative exercise of the relative movements of turtles and vessels and that no assumptions about the relative orientation of either can be made, no edits are necessary to the Final EIS on this topic.
MAILIN_0005_116	The DEIS states that "In the unlikely event of an accidental oil spill, impacts would be sublethal due to quick dispersion, evaporation, and weathering, all of which would limit the amount and duration of exposure of marine mammals to hydrocarbons." Given that it is not possible to know for certain how severe the impact will be, it is suggested that this language be revised to read " .would LIKELY be sublethal..".	This statement does not appear in the sea turtle section and has been addressed in the marine mammal section.
MAILIN_0005_118	Journal names are sometimes abbreviated and sometimes written out in full. Where used, please provide each consistently. Additionally, the sea turtle references section has inaccuracies and missing information. References should be checked carefully and corrected where necessary.	Noted. Thank you for your comment.
MAILIN_0005_123	It isn't until the discussion of the Down-the-Hole method that the term 'percussion' is used relative to impact pile-driving. It is suggested that 'percussion' be introduced earlier in the pile driving section to allow the reader to better understand the connection. It is also suggested the DEIS mention that NMFS has criteria for Down-the-Hole systems - National Marine Fisheries Services: Acoustic Guidance for Assessment of Down-the Hole {DTH) Systems (https://media.fisheries.noaa.gov/2022-11/PUBL1C%20DTH%20Basic%20Guidance_NovemberIfo202022.pdf) or any revision and/or superseding information on criteria provided by NMFS.	Percussive, percussion, and impact pile driving are synonymous. BOEM continues to use the phrase "impact pile driving" as using other terms could lead to confusion if not consistent throughout the document. Down-the-hole pile driving is not part of the proposed action and thus the information is provided for context only.
MAILIN_0005_124	It is suggested that the recently published paper by Betke and Bellman. 2023. Operational underwater noise from offshore wind farms. In: The Effects of Noise on Aquatic Life: Principles and Practical Considerations be considered in impact assessments and included in the DEIS.	This report was reviewed but no information was found that could meaningfully enhance the discussion of impacts to sea turtles in Section 3.5.7.3 of Appendix F for sea turtles, as well as Section B.2.4.3 of Appendix B where WTG operational noise is described in detail.
MAILIN_0005_127	It is suggested that the referral to Table B-5 "The behavioral threshold recommended NMFS (2023b) is an SPL of 175 dB re 1 µPa (Finneran et al. 2017; McCauley et al. 2000) (Table B-5)." be move to the end of this sentence work by the US Navy (Finneran et al. 2017) which was based on exposure studies (e.g., McCauley et al.2000) now serve as the foundation of present-day thresholds for PTS, TTS, and behavioral responses and are recommended by NMFS (2023b)." to cover all thresholds and not just the behavioral threshold.	BOEM's Center for Marine Acoustics (CMA) will update the Acoustic Background information for future projects and NEPA analyses, as appropriate.

Comment No	Comment	Response
MAILIN_0005_128	On table B-5, the NMFS threshold report (2023) could be cited in the footnote since those numbers are also presented in the table.	While the thresholds are aggregated in the NMFS document you reference, the citations BOEM uses are made to the original source.
MAILIN_0005_129	In section B.5.1, Thresholds for Auditory injury, the DEIS should also include a sentence to indicate that the PTS for non-impulsive is set at 220 (Table B-5).	Thank you for your comment. BOEM worked closely with NMFS in developing this analysis.
MAILIN_0005_130	In Section B.5.3, Thresholds for Non-Auditory Injury, the DEIS refers to Table B-3, which is located earlier in the appendix under marine mammals. The Table B-3 header needs to reflect that it applies to sea turtles as well as marine mammals or the same table with a different header should be included in the sea turtle section. A footnote should be added to that table to define "m" (mass) and "d" (distance) and to indicate from where the mass and depth information is pulled (i.e., Department of Navy 2017). A caveat should also be included noting that the information presented in the Department of Navy (2017) document might not apply to younger/smaller life stages of sea turtle, since Department of Navy talks about the information not being reflective of animals under the size of 100 kg.	Thank you for your comment. BOEM worked closely with NMFS in developing this analysis.
MAILIN_0005_131	For technical reports and electronic journals, providing access locations would be very helpful to the reader. For example, the Dept of Navy (2017) reference should have a link.	Noted. Thank you for your comment.
MAILIN_0005_132	The discussion of rare sea turtle nesting in the Project Area includes only loggerhead turtles based on nest locations in both Delaware and Maryland. This section should also include the green turtle nest in Delaware at Henlopen from Aug 2011 that is mentioned in App F, Section 3.5.7 Sea Turtles (even if this is only one state for nesting).	This paragraph has been edited to include the green sea turtle.
MAILIN_0005_134	The Large Marine Ecosystems are not labeled on Figure 3.5.7-1 (Appendix F). They are described in the text but should be denoted on the figure if referral is made to the figure. The LMEs are referred to in the main text of the DEIS (Volume 1, Section 3.5.5) as the Northeast Continental Shelf Large Marine Ecosystem and Southeast Continental Shelf Large Marine Ecosystem. There is a lack of consistency across the DEIS for the referral to the LMEs by name.	For consistency with other sections of this Final EIS and other EISs, large marine ecosystem names are not included in the figure for each geographic analysis area. No changes made.
MAILIN_0005_136	The DEIS does not include a reference to information that specifically calls out the likelihood for hard-shell turtle presence in the Project Area is May-Nov (cold-stunning of hard-shell turtles occurring from Oct-Jan). NMFS has a great table "Section 7 Presence Table: Sea Turtles in the Greater Atlantic Region" with useful information that is a good referral. Please incorporate this reference and the relevant information into the DEIS.	Data on the occurrences of sea turtles within the Project area has been reviewed and edited. Citation to the Marine Geospatial Ecology Lab (Duke University) mapping is now provided in text.
MAILIN_0005_137	The DEIS provides limited information on preferred prey items for only some of the sea turtle species included in the document. The first mention of what some sea turtles might eat is on p.F-133 in the analysis of the presence of structures. Knowledge of preferred prey helps in understanding habitat usage and behavioral patterns that might be expected in the Project Area. Such information is critical for assessment of indirect impacts to sea turtle species for the Proposed Action and should be added.	Thank you for your comment. Descriptions of sea turtle prey have been added to Section 3.5.7.1 for each species.
MAILIN_0005_138	Data sources include PSO data from G&G surveys in 2015 and 2016 but no referral is made to 2021 surveys that are mentioned in the COP prepared for this project. In looking at the list of appendices to the COP. it appears that this is still considered confidential data. If it is possible to include in the DEIS what sightings in general were made, that would benefit the reader.	Your comment is noted. These data sources can only be included in the Final EIS if made public; until then, confidential data cannot be added.
MAILIN_0005_139	State status for sea turtles is presented for Maryland, but not for Delaware. Information on the sea turtle's status in Delaware should be added.	State status of sea turtles is not relevant to this analysis under NEPA. Therefore, the Maryland state status has been removed from the relevant table in Section 3.5.7.
MAILIN_0005_140	The DEIS states "All five species are listed as either threatened or endangered under the Endangered Species Act. " This is a bit incorrect as written, since all loggerhead turtles in the US were, in 2011, defined as distinct population segments (DPS). Some wordsmithing might be needed to refer to the loggerhead turtle as the Northwest Atlantic Ocean DPS and then after that, they can just be referred to as M loggerhead turtle". The NE Atlantic DPS would not be expected in the Proposed Action Area. A similar modification is needed for the green turtle, which is the North Atlantic DPS.	The appropriate distinct population segments have been added to the text in discussion of their listing statuses under the Endangered Species Act for loggerhead and green sea turtles.

Comment No	Comment	Response
MAILIN_0005_142	The sentence "Sea turtles in the Atlantic often travel long distances . making them a common faunal group found in offshore and nearshore environments of Maryland, " is a bit misleading as presented since it is not intuitive as written that the long-distance movements explain sea turtles being a common faunal group in these waters. The sentence also does not acknowledge that there is seasonality in occurrence for the hard-shell turtle species in this area. Please revise.	Thank you for your comment. This statement has been reviewed and edited to include reference to seasonality. Their occurrence and generalized pattern of migration is discussed elsewhere in Section 3.5.7.1.
MAILIN_0005_143	To make it easier for the reader, it is suggested that there be consistency in referral to the surveys and how they are referenced, particularly as they relate to Table 3.5.7-1. It is further suggested that the table/text reflect the Barco surveys are VAQF and the Maryland surveys are referred to in the table as MABS.	References in the footnotes of the relevant table in Section 3.5.7 have been updated as follows: "2 Source: Barco et al. (2015) monthly aerial surveys of the Maryland Wind Energy Area and surrounding waters between 2013 and 2015 reported by the VAQF. 3 Source: Williams et al. (2015) boat and aerial based surveys conducted in the vicinity of the Maryland Wind Energy Area between 2012 and 2014 conducted as part of the MABS Project" Additionally, all text has been updated to be consistent with referrals to these projects.
MAILIN_0005_144	On table 3.5.7-1, the footnotes define the occurrence categories, but missing is a description for 'rare'. The footnote includes 'extralimital', but there is extralimital occurrence listed in the table. Scientific names need to be italicized. Including density(ies) in the area would be insightful, particularly if presented seasonally.	Data on the occurrences of sea turtles within the Project area has been reviewed and edited, and the occurrence of hawksbill considered "rare;" a definition of this term is now provided in the footnote. Species names italicized. Species densities are not added but are interpreted through occurrence definitions.
MAILIN_0005_147	For the sentence, "Most sea turtles encountered within the Project area would most likely be migrating or foraging and occur in highest numbers from spring through fall, " providing month ranges also would be informative.	This statement has been edited as follows: "Most sea turtles encountered within the Project area would most likely be migrating or foraging and occur in highest numbers from May through November (Marine Geospatial Ecology Lab 2023). "
MAILIN_0005_148	On page F-110, the writeup on turtle basking behavior should be revised for clarity. There is a difference between hard-shell turtle physiology and leatherback turtle physiology. Leatherbacks are better able to regulate their body temperature. The text included mixes leatherback turtle basking information (Dodge et al.) with that of the hard-shells but does not specifically call out the information as being for leatherbacks. The Freitas et al. (2018) citation has the wrong year, it was published in 2019 and is correct in Appendix K-references. As for the vessel strike-related information, please consider moving this to the impacts analysis.	The discussion on basking has been removed and the text related to cold stunning has been edited accordingly, with reference only to hardshell species expected to occur within the Project area (loggerhead, Kemp's ridley, and green sea turtles.
MAILIN_0005_149	The following sentence was copied/pasted from another part of the DEIS, but not completely edited "Table F-9 in this Appendix identifies potential IPFs, issues, and indicators to assess impacts coastal habitat and fauna" should be "Table F-9 in this Appendix identifies potential IPFs, issues, and indicators to assess impacts to sea turtles. "	Noted. The appropriate edit has been made.
MAILIN_0005_150	On Table F-9, noting that vessel noise is part of the construction category/analysis is suggested.	The list of activities/IPFs contributing to underwater noise effects for both construction and operations have been added to the first column of Table F-9.
MAILIN_0005_152	In the section on accidental releases, while adequate information is presented for assessment of impacts related to accidental releases directly to sea turtles, it does not make mention of indirect impacts to turtles via impacts to their prey. Please revise accordingly.	Effects on fish and invertebrates are discussed in detail in Section 3.5.5 of the EIS, and effects on benthic species are discussed in detail in Section 3.5.2 of the Final EIS. References to these sections were added to the accidental releases discussion for sea turtles to direct the reader for additional information
MAILIN_0005_154	In the EMF and Cable Heat section, information on indirect effects to turtles via impacts to their prey should be included, for example, crabs being responsive to EMF. The DEIS should also note that EMF could attract sharks, which are known turtle predators.	Effects of EMF on fish and invertebrates are discussed in detail in Section 3.5.5 of the Final EIS, and a reference to this section was incorporated into the EMF discussion for sea turtles in Appendix F.
MAILIN_0005_156	Indirect effects to sea turtles via impacts on prey are not discussed. The prey of sea turtles-jellyfish and benthic mollusks-are similar to zooplankton in having a reduced capability of moving away from sources of noise impact. There have been few studies of noise impacts on these species, but those should be mentioned in the DEIS.	Effects on fish and invertebrates are discussed in detail in Section 3.5.5 of the EIS, and effects on benthic species are discussed in detail in Section 3.5.2 of the EIS. These sections are referenced in relation indirect effects on sea turtle prey in Appendix F of the EIS, and the sea turtles IPFs were reviewed to incorporate specific references to these sections where appropriate.

Comment No	Comment	Response
MAILIN_0005_158	The DEIS includes information on fish aggregations providing foraging opportunities. None of the sea turtle species focus on fish as primary prey though they will opportunistically take fish from fishing gear and in the case of loggerheads, have been seen in the wild preying on schooling fish. The DEIS text focusing on fish aggregations as it pertains to sea turtles should be modified. Mussels are mentioned as an example of encrusting organisms that are prey for sea turtles. It is suggested that language relating to gastropods and bivalve mollusks being the primary prey for the loggerhead (of which mussels are one type) be added. Loggerheads are known to prey on mussels on lines at mussel aquaculture locations.	Thank you for your comment. The discussion on fish aggregations has been removed and the text on artificial reef effect/prey resources has been reviewed.
MAILIN_0005_160	The DEIS includes language about how physical structures would not affect turtle migration. It does not, however, discuss how the combination of physical structure and sound might become an added 'barrier' to movements.	Thank you for your comment. The format of the EIS is to address the potential impacts of each impact producing factor (IPF) individually, followed by conclusions that address cumulative impacts. Noise as a result of operating WTGs is addressed in Section 3.5.7.5.
MAILIN_0005_161	The DEIS does not mention that artificial habitats may increase susceptibility of sea turtles to cold stunning if they remain in the Project Area past a time that they would normally migrate out of the area.	While it is true that artificial habitats may aggregate sea turtles due to increased foraging opportunities, there is currently no data available that suggests that this behavior puts them at heightened risk for cold stunning. Since this is speculative at best, no edits have been made to the Final EIS.
MAILIN_0005_162	The DEIS does not mention that large-scale offshore wind farms can reduce the wind stress at the sea surface, which could affect wind-driven upwelling, nutrient delivery, and ecosystem dynamics. This should be considered in the document.	The discussion on hydrodynamic effects has been edited and expanded within Section 3.5.7.3.1 to include and consider these potential effects, among others.
MAILIN_0005_165	Regarding the Northeast Sea Turtle Disentanglement Network, the more appropriate term is NMFS' "Greater Atlantic Region Sea Turtle Disentanglement Network, " particularly since we are dealing with the mid-Atlantic region.	The Northeast Sea Turtle Disentanglement Newtok is not referenced in text. No edits necessary.
MAILIN_0005_170	If available, a copy of RPS. 2023. US Wind High Resolution Geophysical and Geotechnical Survey Protected Species Observer Report [cited in the marine mammal take permit application] should be provided. It would be helpful to the reader if PSO sighting data from 2021 surveys were available.	Your comment is noted. These data sources can only be included in the Final EIS once made public; until then, confidential data cannot be added.
MAILIN_0005_222	The reviewer disagrees with the referred noise thresholds of 166 and 180 dB re 1 µPa RMS) for sea turtles on behavioral disturbance. Although data on behavioral reactions to sound sources is limited, a common and popular noise threshold used for behavioral disturbance is 175 dB re 1 µPa RMS according to multiple peer-reviewed publications. Text in the DEIS should be revised to remove 166dB and 1 B0dB leaving 175dB. For more details on noise thresholds for sea turtles refer to: (a) National Marine Fisheries Service (NMFS). 2023a. Summary of Endangered Species Act Acoustic Thresholds (Marine Mammals, Fishes, and Sea turtles) January 2023. Marine Mammal Acoustic Technical Guidance I NOAA Fisheries (Accessed 1 November 2023) (b) GARFO, Great Atlantic Region Fisheries Office. 2018. "Technical Guidance: Greater Atlantic Regional Fisheries Office. " Section 7 Effects Analysis: Acoustics in the Greater Atlantic Region I NOAA Fisheries I NOAA Fisheries (Accessed 1 November 2023)	Thank you for your comment. The text in the appendix is correct. The study cited reports a response at 166 dB.
MAILIN_0005_223	Although effects due to Vessel Noise from the passage of project vessels will likely be temporary and short-term in duration. Cumulative exposure in sea turtles should be considered for the duration of use of dynamic positioning (DP) systems and documented in the EIS.	The assessment of vessel noise in Section 3.5.7.5 of Appendix F includes noise produced by DP vessels anticipated for use throughout the construction and O&M phase of the US Wind project. Because the exact vessels the project would use are not known at this time, a conservative approach was taken in the assessment and the loudest potential noise levels produced by all construction and O&M vessels associated with the project were considered in the impact assessment. Additionally, all available information regarding sea turtle responses to vessel noise and other similar noise sources are included in Section 3.5.7 of Appendix F of the Final EIS.

Comment No	Comment	Response
MAILIN_0005_230	Table B-4 is missing a behavioral response threshold. The DEIS should add a last column with the behavioral disturbance threshold (SPL 150 dB re 1µPa) as shown in Table B-5 (for sea turtles) and the main DEIS document (Table 3.5.5-4). See table below. Table 2: Fish Behavioral Disturbance Onset for exposure to piledriving sound Fish Hearing Group/Behavior Disturbance Onset SPL (dB re 1 µPa) Fish without swim bladders (Group 1)/150 Fish with swim bladder not involved in hearing (Group 2)/150 Fish with swim bladder involved in hearing (Group 3)/150 Eggs and Larvae/150 Fish greater than or equal to 2g/150 Fish less than or equal to 2g/150	Thank you for your comment. The 150 dB SPL criteria for fish apply to all fish and does not change with each row in the table. This information is provided in Section B.4.2.

O.8.28 Socio-Economic Resources - General

Table O.8-28. General Responses – Socio economic resources

Comment No	Comment	Response
FDMS_0094_001	This project will kill the city's economy. Why destroy Ocean City for 2.2 gig of energy? This sounds short sighted and frankly ill-conceived. A coastal city is as worth as what its amenities and sceneries are worth. Why would the city even entertain such a nonsensical project?	Thank you for your comment.
FDMS_0323_001	While I am pro clean energy, I am against this project as currently planned. As landowner/taxpayer in Ocean City, MD and in Baltimore County, I find it distressing that information about the impact on energy in the state of Maryland as well as in communities on the Eastern Shore of Maryland resulting from this project is difficult to find. • What will the project deliver weekly/monthly/annually as a percentage of all energy for the state of Maryland? How much "dirty" energy will the project reduce? • What will the impact be on our energy bill? • What is the cost of the project and the expected ROI? I have seen articles on how wind energy projects in other areas are upside down on costs. How will a project of this size pay for itself and what is the expected timeframe? How will on-going maintenance and repairs of the turbines be funded? Who or what entity will be responsible for maintenance and repairs? If the project fails, what is the plan for decommissioning? I saw reports of cases where failed turbines are left standing idle because they are too expensive to remove so they are left as a scare on the landscape. We have learned that Maryland does not have a facility to receive and store the energy generated by the Ocean City turbines, so it will be sent to Delaware. What percentage of the energy generated will go to the State of Maryland and how will it be distributed regionally? Can someone provide specific proof-of-performance case study examples of the impact of other, existing offshore wind projects on the energy grid, the environment, and the lives of the people in the community?	Final EIS Section 3.6.3 has been revised to include additional information regarding electricity usage in Maryland and on potential electricity bill impacts. The cost of the project and the return on investment (ROI) are not known at this stage. Some relevant data regarding Maryland's electricity usage can be accessed at: Maryland Electricity Profile 2022 , Offshore Wind in Maryland Legislation, and Maryland PSC Decision Expands Offshore Wind Development ORECs Awarded to Two Offshore Wind Applicants . Maintenance and repairs will be the responsibility of the applicant, with oversight by the Bureau of Safety and Environmental Enforcement (BSEE). The overwhelming share of costs for an offshore wind project are realized in the construction phase. The cost for operations and maintenance is relatively low compared to construction and will occur when the project is realizing revenue from the sale of offshore wind electricity. Offshore wind turbines receive preventive maintenance and checks throughout the operations period. BSEE is charged with oversight of facility decommissioning. A Lessee is required to decommission their facility within 2 years following termination of the lease pursuant to 30 CFR 285.902. A Lessee's decommissioning application must be submitted to BSEE prior to decommissioning. The decommissioning application will either be approved, approved with conditions, or disapproved. The lease that makes up the Maryland Offshore Wind project was executed in December of 2014 after a nearly four-year period of analysis by the Bureau of Ocean Energy Management with input from both the States of Maryland and Delaware. In 2009 and 2010, the States of Delaware and Maryland, respectively, created Renewable Energy Task Forces to analyze the offshore renewable leasing opportunities for their respective state. At the time, the two states pursued the process separately, resulting in separate efforts to lease offshore Maryland. This resulted in the lease area that makes up the Maryland Offshore Wind project. After the lease was executed, the Lessee, US Wind, identified the Delmarva Power and Light (DPL) Substation adjacent to the NRG Indian River Power Plant near Millsboro, Delaware, as the preferred interconnection point to the regional electric grid.

Comment No	Comment	Response
HANDIN-26_0003_001	How will this wind project effect electric rates? What is the benefit to Delaware residents? What is the visual impact?	The Lessee has reached agreements with the State of Maryland regarding the wholesale electricity prices associated with the MarWin and Momentum Wind project phases. The resulting effects on retail electricity prices will depend on the prices of alternate sources of electricity in the future, along with other factors. The Maryland Public Service Commission can provide more information regarding the potential effect of the project on retail electricity prices. Section 3.6.9 and Appendix H of the Final EIS discuss visual impacts.
HANDIN-26_0016_001	I am against windmills along our beautiful coastline, and it does make sense economically when compared to onshore locations when operations and maintenance costs are considered accurately, onshore locations also have better wind conditions than here	Thank you for your comment.
HANDIN-26_0027_001	I am opposed to offshore wind farms. I do not believe they will be profitable without other government subsidies. The construction is going to be much more expensive than land based. Construction and maintenance will be unimaginably expensive and dangerous. In the end their life, 10 years? We will be stuck with no workings towers, obstructing navigation. I am a sailor. And it will be very dangerous for me to sail in this area	Thank you for your comment. Offshore wind turbines are designed for an operations life of 20-30 years which may be extended longer depending on environmental factors and the level of maintenance that occurs. This Final EIS analyzes a project lifespan of 35 years. Section 3.6.6 of the Final EIS describes the Project's impacts on navigation and vessel traffic, including the potential impacts from the presence of structures such as WTGs and OSS.

O.8.29 Wetlands and Waters of the U. S.

Table O.8-29. General Responses – Wetlands and waters of the U.S.

Comment No	Comment	Response
FDMS_0836_003	1. The DEIS provides an incomplete assessment of dredging impacts. This section includes no analysis of impact of dredging to fringing wetlands on the estuary once the channel is dredged and should be revised to include this information and analysis. • The HWR memo not mention dredging that may need to be done to accommodate jet plow barge and supply vessel drafts and should be revised to include this information. • The assumptions for Impacts to Water Quality are based upon the original sediment transport modeling previously presented by US Wind to the Center's STAC Wind Subcommittee. The Subcommittee had significant questions regarding that effort, requested further clarification, and has not received specific responses to its questions. As such, the assumptions and subsequent conclusions provided in this report related to sediment transport and related plumes impacting habitats and fauna may not be accurate. Additional sediment modeling is recommended to lend needed credibility to the evaluations of this report. 2.The DEIS fails to adequately account for other statutes and regulations in the DEIS. Subsection 3.5.8 - WETLANDS AND OTHER WATERS OF THE UNITED STATES2 – The DEIS focused on Section 404 of the Clean Water Act. This is one of the many regulations that come into play regarding working in and around wetlands and other regulated waters. These need much more consideration and discussion in the DEIS. Other regulations should be recognized and discussed, including but not limited to: • The Rivers and Harbors Act of 1899, with special attention given to Sections 10, and possibly 13 and 14 • Section 401 of the Clean Water Act • Section 307(c) of the Coastal Zone Management Act of 1972, as amended • National Environmental Policy Act of 1969 • The Fish and Wildlife Act of 1956 • Migratory Marine Game-Fish Act • Fish and Wildlife Coordination Act • National Historic Preservation Act of 1966 • Marine Mammal Protection Act of 1972 • Section 402 of the Clean Water Act (for adjacent upland area) If these regulations are addressed elsewhere in the DEIS, then that portion of the document should be referenced and the authors should limit reiterations of selected portions of that review. Lastly, the DEIS barely mentioned State regulations and omitted Sussex County codes. 3. The DEIS relies on an inappropriate database to formulate its landcover assumptions (see discussions under 3.5.8) The DEIS uses projected regional resource impact trends (unrelated to the project) as part of the assessment. All other permitting agencies focus, almost strictly, on the impacts of the proposed work/project. This use of projected regional trends to define proposed project impacts is both novel and inappropriate. 4. This section is highly focused on wetlands, and nearly omitted a similar level of discussion on open water systems, which is the predominant resource disturbed under the proposed alternative. The focus of this section should more comprehensively address the open water system. 5. This section of the DEIS relies on the National Wetland Inventory (NWI) maps as the basis of the impact assessments. First, as noted above, open water systems were essentially omitted from the assessment. Second, the intended purpose of the NWI mapping is stated as follows: "The U.S. Fish and Wildlife Service (USFWS) established the National Wetlands Inventory (NWI) to provide resource managers with information on the location, extent, and types of wetlands and deepwater habitats. The objective of NWI mapping is to produce medium resolution information on the location, type, size of these habitats such that they are accurate at the product scale of 1:12,000 (1:63,360 in Alaska). It is not designed or intended to yield legal or regulatory products, but may be used to support management decision-making processes." This inventory provides medium resolution for landscape scale trends analysis. It was not intended to be used to evaluate specific local utility line route alternative analyses. It is an inappropriate database to use for this type of localized evaluation. 6. The section offered generic definitions of wetlands and related natural resources. When there is a regulatory definition for a term (e.g., wetlands), it should be stated and explained to provide an accurate foundation for subsequent evaluations. 7. This section of the DEIS offers a highly subjective discussion of the impacts associated with the alternatives, with insufficient supporting data.	The USACE is a cooperating agency and 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). A complete list of required permits and approvals that will be required for the project are provided in Appendix A of the Final EIS.

O.8.30 General Support

Table O.8-30. Comments reflecting general support.

Comment No	Comment	Response
FDMS_0864_001	The American Waterways Operators (AWO) is the tugboat, towboat and barge industry's advocate, resource, and united voice for safe, sustainable, and efficient transportation on America's waterways, oceans, and coasts. Our industry is the largest segment of the nation's 40,000-vessel domestic maritime fleet and moves 665 million tons of cargo each year safely and efficiently. On behalf of AWO's more than 300 member companies, we appreciate the opportunity to comment on the draft Environmental Impact Statement (EIS) for the Offshore Maryland Wind Project. AWO members lead the maritime industry in safety, security, and environmental sustainability. We are committed to working with federal and state agencies to advance these shared objectives. Our commitment to sustainability includes strong support for the development of renewable energy resources. However, it is critical that such projects not produce navigational hazards that put vessels and their crews at risk or obstruct the movement of commodities on which the nation's economy depends. It is with these concerns in mind that we have worked closely with the Bureau of Ocean Energy Management and the U.S. Coast Guard on previous requests for comment on wind energy development areas. In previous comments to BOEM, AWO has urged that offshore export cable routes avoid anchorages and, when crossing a fairway, should be placed perpendicularly. The proposed route appears to do just that. It avoids the Indian River Anchorage and crosses the Cape Charles to Delaware Bay Anchorage at nearly right angles. This should be standard practice, and we appreciate that this cable route follows these guidelines. We ask that BOEM require other developers to follow similar routing guidelines in their Construction and Operations Plans. In closing, AWO actively supports the development of offshore wind energy, which we view as a win-win for environmental sustainability and increased economic opportunities. Establishing safe routes for navigation and developing lease areas which avoid conflicts will ensure that this new maritime industry can grow while maintaining mariner and navigation safety. Thank you again for the opportunity to comment. I would be pleased to provide additional comments or further information as you see fit.	Thank you for your comment.
HANDIN-26_0007_001	We had a glimpse of clean energy usage during COVID - meaning what is could look like. We need clean energy independence and more power for electric vehicles. The benefits to our fishing will be a great bonus	Thank you for your comment.
MAILIN_0033_001	I write this letter in support of US Wind's offshore wind projects and, specifically, for Alternative B (Proposed Action) in BOEM's Draft Environmental Impact Statement ("DEIS") for US Wind's Construction and Operations Plan ("COP"). In 2021, President Biden established a new national goal of deploying 30 gigawatts (GW) of offshore wind by 2030, and in March 2023, Maryland's Governor Wes Moore established a new state goal of deploying 8.5 GW of offshore wind by 2031, a goal that was codified by the Maryland General Assembly just one month later. These national and state goals recognize the importance of bringing clean energy like offshore wind online as quickly as possible to combat global climate change, create good-paying jobs, and establish a domestic supply chain that will benefit union workers and minority-owned businesses for generations to come. I applaud BOEM moving forward with the environmental review of US Wind's COP and the comprehensive and thorough analysis that went into the DEIS. I am especially supportive of Alternative B, the Proposed Action, as that Alternative maximizes clean energy generation that will help meet Maryland's and the nation's offshore wind goals. Specifically, Alternative B would allow for the construction of up to 2.2 GW of offshore wind energy in US Wind's lease area off the coast of Maryland, including MarWin, Momentum Wind, and the remaining capacity in the lease area. Approving Alternative B would maximize both clean energy generation in US Wind's lease area and bolster the many economic benefits that would flow from such generation, including the buildout of Sparrows Point Steel in my legislative district in Baltimore County, Maryland. Sitting on nearly 100 acres of waterfront at Tradepoint Atlantic in Baltimore County, Maryland, the Sparrows Point Steel site was once home to Bethlehem Steel, the largest steel production facility in the world, and has a special historical relevance to the United Steelworkers, who will support manufacturing there. Thank you for your work on the DEIS. I respectfully request that you move swiftly in approving US Wind's COP and Alternative B (Proposed Action).	Thank you for your comment.

Comment No	Comment	Response
MAILIN_0034_001	As State Senator serving the residents of Maryland's 8th Legislative District in Baltimore County since 1995, I am pleased to submit this letter in support of US Wind's offshore wind projects and, specifically, for Alternative B (Proposed Action) in BOEM's Draft Environmental Impact Statement ("DEIS") for US Wind's Construction and Operations Plan ("COP"). In 2021, President Biden established a new national goal of deploying 30 gigawatts (GW) of offshore wind by 2030, and in March 2023, Maryland's Governor Wes Moore established a new state goal of deploying 8.5 GW of offshore wind by 2031, a goal that was codified by the Maryland General Assembly just one month later. These national and state goals recognize the importance of bringing clean energy like offshore wind online as quickly as possible to combat global climate change, create good-paying jobs, and establish a domestic supply chain that will benefit union workers and minority-owned businesses for generations to come. I applaud BOEM moving forward with the environmental review of US Wind's COP and the comprehensive and thorough analysis that went into the DEIS. I am especially supportive of Alternative B, the Proposed Action, as that Alternative maximizes clean energy generation that will help meet Maryland's and the nation's offshore wind goals. Specifically, Alternative B would allow for the construction of up to 2.2 GW of offshore wind energy in US Wind's lease area off the coast of Maryland, including MarWin, Momentum Wind, and the remaining capacity in the lease area. Approving Alternative B would maximize both clean energy generation in US Wind's lease area and bolster the many economic benefits that would flow from such generation, including the buildout of Sparrows Point Steel in the County I represent, Baltimore County, Maryland. Sitting on nearly 100 acres of waterfront at Tradepoint Atlantic in Baltimore County, Maryland, the Sparrows Point Steel site was once home to Bethlehem Steel, the largest steel production facility in the world, and has a special ED historical relevance to the United Steelworkers, who will support manufacturing there. Thank you for your work on the DEIS. I respectfully request that you move swiftly in approving US Wind's COP and Alternative B (Proposed Action), Should you have any questions, please call my office at 410-841-3620.	Thank you for your comment.

O.8.31 General Opposition

Table O.8-31. Comments reflecting general opposition.

Comment No	Comment	Response
FDMS_0557_001	Worcester County in Maryland is the only portion of the state that will directly be impacted by this project. So much more than an eyesore and a potential detriment to tourism, the surveying and construction of the foundations are directly harming our local commercial fishermen. Thousands of dollars in gear and catch have already been lost during the survey phase. Will the benthic species be able to survive this process? How about EMF and vibrations through the sea floor? How about when the cable gets buried? How much damage will be done to species along that path? And then there is the way these companies have gone about this project in general. Way beyond bait and switch. The turbines are now closer, taller, and more of them than ever proposed. Not to mention they have thrown money at every agency that would take it for their compliance. I am all for greener energy but destroying our oceans is not the answer.	Thank you for your comment.
FDMS_0614_001	This is only going to drive up the cost of energy/electricity. Very inefficient use of resources.	Thank you for your comment.
FDMS_0762_001	My review of the 562-page draft Environmental Impact Statement (EIS), released on Oct. 6, 2023, has further convinced me that the potential negative impacts of offshore wind energy development off Maryland's Coast outweigh the many promised benefits of this expensive project. From its beginning in 2017, I have expressed concern over the unintended consequences of these proposed offshore wind projects in this location and those concerns have only increased over time. The EIS just released addresses most of those and more on Page 4-1, entitled "Unavoidable Adverse Impacts of the Proposed Action", an evaluation required by 40CFR 1502.16(a0(2). Those unavoidable adverse impacts listed on the EIS include and are not limited to water quality, birds, invertebrates, essential fish habitat, marine mammals, commercial fisheries and for-hire recreation fishing, demographics, employment and economics, environmental justice, navigation and vessel traffic, recreation and tourism, and visual resources. Visual Resources: According to the EIS, the overall impacts associated with the Proposed Action when combined with the impacts from ongoing and planned activities, including other offshore wind activities, would result in major impacts associated with the presence of structures, lighting, and vessel traffic. The visibility of the Project would introduce a major level of character change to the view; attract, hold, and dominate the viewer's attention; and have a moderate to major effect on the viewer's visual experience. The viewer receptor sensitivity/susceptibility/value is medium to high.	Thank you for your comment.

Comment No	Comment	Response
FDMS_0762_001 (cont'd)	PROMISED BENEFITS VS. ADVERSE IMPACTS Wind Turbine Developers take the position that there may be some minor disruptions but the "good" outweighs the "bad". The so-called good consists of clean, safe domestic energy and clean energy jobs, promotion of renewable energy to combat climate change and provide electricity that is affordable, reliable, safe, secure, and clean, and increased habitat for certain fish species. However, a closer look at these "benefits" reveals the following: The production of clean, and safe energy is not fully born out by the facts presented in the EIS when you consider possible oil spills and loss of blade(s) and turbine tower collapse(s) during a hurricane. Estimates of huge numbers of jobs may have been overstated at best. While there are some during construction, the operation and maintenance numbers are vastly smaller. Offshore Wind projects are not the sole source of alternative energy to fight Climate Change, their costs are actually higher in the early years and are not totally reliable. In Texas, a cold snap froze turbines, shutting off electricity. The report provides no comparison to solar, nuclear, or hydrogen. Despite the promised benefits resulting from wind turbine projects, actual results from neighboring projects have delivered the opposite. More and more of them such as New York and New Jersey are closing down their projects, claiming to be victims of supply chain issues and inflation causing higher costs of construction, making the projects impractical. Yet, these same offshore wind energy developers claim to still be pursuing the project(s) in Maryland. This makes no sense. Maryland has the same potential supply chain issues and inflation costs as its neighboring states, making the case that they must be counting on increasingly higher subsidized financial aid from the State of Maryland which will come from Maryland taxpayers, which does not fulfill the promise of affordable electricity. As time goes on, existing projects in Europe are proving that there are other negative impacts that had not been recognized previously such as "wind-wake" which significantly reduces efficiency and projected energy output. Sweden is rejecting its decision to base green energy results on wind and has switched to small nuclear plants as a safer, cheaper, and more stable source of renewable energy. Additionally, a sizable number of dead whales and dolphins have washed ashore since the beginning of seismic testing off New Jersey and Delaware, it can be concluded that wind turbine project supporters have completely ignored their required responsibility to conserve our natural resources, protect the environment, and prevent waste. In summary, the data presented in the Bureau of Ocean Management's own Environmental Impact Statement of US Wind's offshore wind energy project, which compares the potential benefits against the potential negative impacts, leaves me convinced that the proposed offshore wind energy projects should not proceed as planned. The unavoidable risks as outlined in BOEM's own EIS report of the proposed 123-structure offshore wind energy project off of Maryland's Coast are simply unacceptable and threaten Maryland's Shore way of life. As noted above and until the many serious questions that have been raised in multiple areas have been addressed, I am joining with my federal, State, local, and private sector partners to call for a pause in the licensing and development of all offshore wind projects off Maryland's coast	Continued from above
FDMS_0886_001	(The comment letter was logged as a mail-in submission.)	Thank you for your comment.
FDMS_0888_001	The proposed location of the US Wind turbines will have a horrific and destructive impact on my business. Our company renovates and sell residential homes in coastal communities, primarily Ocean City, MD. By taking away the view of the endless ocean horizon and replacing it with enormous man made structures, you will be effectively killing the economy of a seasonal town that relies exclusively on tourism for its economy. When these tourist find that the beach of Ocean City is no longer a place to experience natural beauty, but is instead a front row seat at a power plant, they will certainly go to other locations that offer unadulterated views. I know you, the person reading this, will do the same if / when given the choice. Please don't make us the unwilling victim's of this project's misguided hubris. When people no longer want to visit OC, my company and my family's livelihood will cease to exist. The buys of our homes will evaporate and whike making US Wind's executives rich, the project will kill the spirit of our town and certainly kill the viability of our small business and countless others like it. Please do the right thing and relocate the lease of this project to beyond the visible shorline so that the fate of our small town is not decided by one horrible mistake.	Thank you for your comment.
HANDIN-24_0001_001	Agrees on the importance of alternative wind energy. Owns a business on the boardwalk in Ocean City. Speaks to residents and visitors daily who will leave the town never to return if industrial turbines are permitted in the waters, who will win when the last shop closes, when equity is lost in homes, whales die.	Thank you for your comment.
HANDIN-24_0038_001	Alternative A - NO Windmills	Thank you for your comment.

Comment No	Comment	Response
HANDIN-24_0041_001	The environmental impact is not worth the reward. The turbines will not last in the harsh salt environment. The cost of the electric to the consumer is going to be higher than it is now. I am highly against wind turbines off the Maryland and Delaware coast .	Thank you for your comment.
TRANS-24_0006_001	I represent District 38 which includes Ocean City, all of Worcester County, Somerset County and more than half of Wicomico County. And I'm here to comment on the environmental impact statement on US Wind's offshore energy project. I support the goal of clean alternative energy but not at the cost of safety, economic sustainability, undue hardship on fisheries and risk to homeland security and other adverse impacts. Reviewing this 562-page environmental impact statement reinforces my concerns, especially under Section 4, potential unavoidable adverse impacts which 19 of them are highlighted in this report. We talk about safety issues. There are serious safety issues dealing with navigation. It reduces the effectiveness of radar and search and rescue missions. The second safety issue, the risk of chemical spills during maintenance of the offshore windmills. Third safety issue, damage from hurricanes. Can you imagine the hurling tower blade, anywhere from 115 to 300-foot blade hurling in the ocean and the damage and lives that can take out. The collapse of a tower, again, serious safety issues. And then just the disruption to the commercial fishing industry which is already struggling in this state and in this region. It negatively impacts marine life and humans with the hydraulic impact hammers during a three-year construction process. I also want to highlight other major impacts associated with the presence of structures, lighting and vessel traffic. BOEM's own report points out a moderate to major effect on the viewer's visual experience, the adverse time impacts. How long will the damage be caused ranges anywhere from three years during construction to 35 years to the life of the project. With so many anticipated negative impacts, why would we move forward with taxpayer money on a project of 123 structures? Even BOEM's own report concludes mitigation is not possible in many cases. I remain extremely concerned that in this haste and zeal to support alternative energy that the result is accepting these numerous anticipated negative impacts while throwing caution to the wind. And I would also respectfully ask that BOEM give my constituents the courtesy of a real public comment hearing.	Thank you for your comment.
TRANS-30_0052_001	I've been polling thousands of visitors and residents since first hearing about the threat of industrial wind turbines in our waters. The results of my informal polling are horrifying and guarded. For thousands of community residents who raise families here, the millions of visitors who create generational memories on our pristine coastline, and for the countless numbers of endangered marine life in and around our waters. For all of us, this is home. But suddenly, there are quite literally dark clouds forming on our horizon, casting a shadow over this unique national treasure. Our home and all its residents are facing a grave threat. The intentions of foreign corporations to use American tax-payer dollars to construct hundreds of monstrous industrial turbines on our coastlines are disastrous to our home and its inhabitants. As we watch dozens and dozens of whales and other precious sea life being tortured and killed off the nearby beaches of New Jersey by turbines companies, it's a clear warning of what we can expect here. The horrifying effects of whales have been scientifically proven by the National Resources Defense Council when studying the Navy causing whale death. And the range of experts from the International Whaling Commissions committee to the US Navy's own commissioned scientist have agreed that the evidence linking mass strandings to seismic technology is convincing and overwhelming. We all agree on the importance of alternative energy, but there must be a net societal and economic benefit. Offshore turbines are societal and economic disasters if placed in front of Ocean City. So who wins? When the foreign corporations leave, after they've stuffed up every subsidy and left these decaying structures in our water, who wins? When the last whale is dead, when the last boardwalk shop is closed, when the last family leaves the beach, when the last resident loses the value in their home, who wins? And those losses will be irreversible. Will we let corporations and politicians exploit our concern for the environment and use it against us, playing us for fools under the guise of saving the planet or going green, while they lick their chops ready to slaughter our defenseless sea animals and destroy thousands of acres of precious seafloor for their profit? Not here. This is the Eastern Shore, we're fishermen, we're farmers, boaters, and we're surfers. We are the environmentalists, and we will not let this happen to our home.	Thank you for your comment.

O.9 List of Commenters by Name and Submission ID

Table O.9-1. Commenter names and submission ID

Commentor Name	Submission ID Number
A A	FDMS_0705
A Sakalay	FDMS_0687
A Sakalay	FDMS_0691
A Sakalay	FDMS_0695
A Sakalay	FDMS_0889
Aaeron Robb	FDMS_0469
Aidan Smart	FDMS_0871
Al Hunter	FDMS_0398
Al Pflugrad	FDMS_0636
Alan Greenglass	FDMS_0137
Alan Lund	FDMS_0044
Alan Lund	FDMS_0045
Alan Rittmeyer	FDMS_0494
Alan Wojtalik	FDMS_0464
Alba Tirado	FDMS_0530
Albert Garcia-Romeu	FDMS_0481
Albert Watkins	FDMS_0028
Albert Watkins	FDMS_0362
Alexis Klun	FDMS_0141
Alison Monroe	FDMS_0639
Allen Joseph	FDMS_0294
Amanda Griffin	FDMS_0495

Commentor Name	Submission ID Number
Amanda Poskaitis	FDMS_0571
Amanda Poskaitis	TRANS-30_0038
Amy Coyne	FDMS_0305
Amy Seaman	TRANS-24_0004
Amy Slutkin	FDMS_0747
Ana James	FDMS_0021
Andrea Abrecht	FDMS_0713
Andrea LeWinter	FDMS_0450
Andrew Ireland	FDMS_0540
Andrew Slutkin	FDMS_0746
Angela Lathram	TRANS-24_0018
Angela Lathroum	FDMS_0644
Angela Lathroum	TRANS-30_0056
Angelo Masullo Jr.	FDMS_0275
Angelo Masullo Jr.	FDMS_0276
Angelo Masullo Jr.	FDMS_0277
Angelo Masullo Jr.	FDMS_0278
Ann Riley	FDMS_0601
Anna Hurd	FDMS_0518
Anna Hurd	FDMS_0520
Annabel Lesher	FDMS_0516
Anne Bastian	FDMS_0436
Anne Hodges	HANDIN-26_0021
Anne Marie Zwycewicz	FDMS_0576

Commentor Name	Submission ID Number
Anne Sturm	FDMS_0467
Antoinette Rucker	TRANS-30_0060
Arlo Hemphill	TRANS-30_0065
Arthur Ransier	TRANS-30_0046
asharp@delawareipl.org*	FDMS_0145
Ashley Daley	FDMS_0688
Ashley Schreiber	FDMS_0038
Audrey Blackwell	TRANS-19_0030
Audrey Suhr	FDMS_0627
Austin Ensor	TRANS-19_0020
Austin Stahl	FDMS_0599
Ayanna Khan	FDMS_0611
Ayelet Hines	FDMS_0470
Ayres, Jenkins, Gordy & Almand P.A	HANDIN-24_0018
B Mattox	FDMS_0309
B McKinley	FDMS_0106
Bailey Fuller	FDMS_0769
Barbara and Spencer Everett	MAILIN_0029
Barbara Schmeckpeper	FDMS_0502
Barbara White	FDMS_0670
Barbara Winner	FDMS_0577
Basil Hanlon	FDMS_0407
Ben Flamm	FDMS_0491
Ben Nottingham	FDMS_0855

Commentor Name	Submission ID Number
Benjamin Brooks	TRANS-30_0001
Benjamin Wechsler	FDMS_0792
Bernadette Monari	FDMS_0124
Bernard Nebel	FDMS_0498
Bernard White	FDMS_0128
Beth Beach	FDMS_0025
Beth Chajes	FDMS_0827
Beth Gismondi	TRANS-24_0016
Beth GismondiGismondi	FDMS_0784
Beth Willard	FDMS_0323
Bethany Gregg	FDMS_0006
Bethany Gregg	TRANS-30_0023
Betsy Singer	FDMS_0625
Bettie and Tome Dunkin	HANDIN-26_0015
Bettie Dunkin	FDMS_0799
Betty Schaake	FDMS_0580
Beverly	TRANS-26_0004
Beverly Antonio	FDMS_0517
Bill Allan	FDMS_0374
Bill Becker	FDMS_0645
Bill Haggerty	FDMS_0380
Bill McMurray	TRANS-30_0040
Bill Murray	FDMS_0101
Bill Ripple	FDMS_0615

Commentor Name	Submission ID Number
Birgit Sharp	FDMS_0482
Bob Heim	FDMS_0761
Bob Hendricks	FDMS_0375
Bonnie Barker	FDMS_0036
Bonnie Belsinger	FDMS_0304
Bonnie Hoyas	FDMS_0090
Bonnie Preziosi	FDMS_0393
Bonwyn Preis	TRANS-26_0003
Borja Rodriguez	FDMS_0539
Brad Bunting	HANDIN-24_0046
Brandon Bauer	FDMS_0378
Brenda Barbato	FDMS_0113
Brendan Xittanley	HANDIN-26_0028
Brian Crosby	FDMS_0794
Brian Ditzler	TRANS-30_0032
Brian Feldman	MAILIN_0009
Brian Gilliland	FDMS_0793
Brian Keck	FDMS_0708
Brian Mills	FDMS_0298
Brian Prosachik	FDMS_0667
Brian Vahey	FDMS_0864
Bridgette Hargrove	FDMS_0851
Brittain Hanlon	FDMS_0764
Brittany Baker	MAILIN_0011

Commentor Name	Submission ID Number
Brittany Pridgeon	FDMS_0164
Bronwyn Betz	FDMS_0056
Bruce Cohen	FDMS_0646
Bryan Douglas	FDMS_0559
Byron Olson	FDMS_0757
C.J. Trombino	FDMS_0288
Cam Campbell	FDMS_0063
Candace Conway	FDMS_0593
Carel Hedlund	FDMS_0483
Carla Nelson Chambers	TRANS-30_0017
Carol Appleby	FDMS_0547
Carol Lazio	FDMS_0005
Carol Sotilli	TRANS-19_0034
Carol Sottili	FDMS_0558
Carole Ann McMenamin	FDMS_0295
Carolyn Ridgway	FDMS_0657
Caryn Abbott	TRANS-24_0008
Catherine Asbell	TRANS-24_0022
Catherine Lowry	FDMS_0459
Cathy Hutchins	FDMS_0416
Caulin Labka	HANDIN-24_0010
CD	HANDIN-24_0016
Cecelia M	FDMS_0363
Cecelia Pietrusko	FDMS_0619

Commentor Name	Submission ID Number
Center for the Inland Bays	FDMS_0836
cgladstone1@gmail.com	FDMS_0355
Chad Dixon	TRANS-30_0026
Chad White	FDMS_0668
Charles Carroll	FDMS_0849
Charles Covell	FDMS_0366
Charles Hastings	FDMS_0796
Charles Huber	FDMS_0443
Charles Landan	HANDIN-24_0026
Charles Landon	FDMS_0052
Charles Meneveau	FDMS_0497
Charles Stegman	TRANS-24_0020
Charlie Garlow	FDMS_0433
Charlie Garlow	TRANS-26_0009
Charlotte Cook	FDMS_0485
Cheryl Middleton	HANDIN-24_0035
Cheryl Middleton	TRANS-24_0011
Chip Raynor	FDMS_0032
Chris Kayhoe	FDMS_0285
Chris Kayhoe	FDMS_0638
Chris Sheesley	FDMS_0509
Christina Rinaldi	FDMS_0810
Christina Rinaldi	FDMS_0811
Christine Rigney	FDMS_0740

Commentor Name	Submission ID Number
Christopher Connelly	TRANS-26_0005
Christopher Moore and Cate O'Keefe	FDMS_0805
Christopher Moore and Cate O'Keefe	MAILIN_0032
Christopher Shields	FDMS_0072
Christy Cosgrove	FDMS_0357
Ciera Miller	TRANS-30_0024
Cindy Dillon	TRANS-24_0021
Cindy Ellis	TRANS-19_0002
Cindy Sansone	HANDIN-24_0036
Claire Maurer	FDMS_0293
Claire Simmers	TRANS-19_0014
Clare Heiser	FDMS_0904
ClaudiaClaudia Gausepohl	FDMS_0162
Clinton Macsherry	FDMS_0136
Colleen L. Wilson	HANDIN-24_0021
Colleen L. Wilson	HANDIN-24_0022
Colleen Wilson	FDMS_0660
Colleen Wilson	HANDIN-26_0020
Colleen Wilson and Susan Brennan	FDMS_0887
Coralie Pryde	TRANS-30_0028
Cori Flynt	FDMS_0346
Courtney Milne	FDMS_0376
Courtney Wright	MAILIN_0038
Cowl Mcbuire	HANDIN-24_0029

Commentor Name	Submission ID Number
Craig Malone	FDMS_0742
Craig Rucker	FDMS_0010
Craig Thalmann	FDMS_0322
Crystal Butler	FDMS_0510
Crystal Stokowski	FDMS_0085
Crystal Stokowski	FDMS_0086
Crystal Stokowski	FDMS_0087
Crystal Stokowski	FDMS_0095
Crystal Stokowski	FDMS_0096
Crystal Stokowski	FDMS_0097
Crystal Stokowski	FDMS_0098
Crystal Stokowski	FDMS_0099
Crystal Stokowski	FDMS_0100
D Gousha	FDMS_0585
Dana simson	FDMS_0103
Daniel Hanlon	FDMS_0756
Daniel McCormick	HANDIN-24_0020
Daniel McGaughey	FDMS_0402
Daniel Murphy	MAILIN_0002
Daniel Porter	FDMS_0807
Daniel Prus	MAILIN_0031
Daniel Robinson	FDMS_0118
Daniel Robinson	HANDIN-24_0001
Daniel Robinson	TRANS-30_0052

Commentor Name	Submission ID Number
Dannielle Lipinski	FDMS_0488
Danny Imwold	TRANS-30_0058
Danny Oliver	FDMS_0560
Danny Schaible	TRANS-30_0064
Danny Walburn	HANDIN-24_0048
dannyocmd@yahoo.com*	FDMS_0117
Darrly Barnes	FDMS_0603
Dave Arndt	TRANS-19_0033
David Band	FDMS_0534
David Buckingham	FDMS_0574
David Diefenderfer	FDMS_0750
David Fielder	FDMS_0455
David Hartman	FDMS_0779
David Lawson	TRANS-19_0031
David McCarthy	FDMS_0170
David McCarthy	FDMS_0533
David Neuberger	FDMS_0460
David Ricksecker	FDMS_0153
David Sacks	FDMS_0591
David T. Stevenson	FDMS_0078
David w. Heindel	MAILIN_0007
David Wood	FDMS_0335
David Wood	FDMS_0336
Dawn Cervellino	FDMS_0845

Commentor Name	Submission ID Number
Dawn Schmitz	FDMS_0280
Deanna Harkins	FDMS_0451
Deanne Fairall	FDMS_0738
Debbie L	FDMS_0665
Deborah Brown	FDMS_0825
Deborah Cohn	FDMS_0165
Deborah Cohn	TRANS-30_0035
Deborah Handelman	FDMS_0307
Deborah Kates	FDMS_0671
Deborah Stanley	HANDIN-24_0038
Debra Bennitt	FDMS_0418
Deidra Trass	MAILIN_0012
Denise Cunningham	FDMS_0697
Denise Heald	FDMS_0681
Denise McCarthy	FDMS_0171
Denise Monroe	FDMS_0661
Dennis Lewis	MAILIN_0010
Dennis Supik	FDMS_0279
Derek Bland	FDMS_0607
Derek Dunn	TRANS-19_0012
Diane Hanson	TRANS-19_0026
Diane Magula	HANDIN-24_0044
Diane Stollenwerk	FDMS_0744
Dick Williams	FDMS_0132

Commentor Name	Submission ID Number
Dominic Maida	FDMS_0777
Don Flood	MAILIN_0035
Donald Jackson	FDMS_0743
Donna Distasio	FDMS_0759
Donna Stafford-Benvenuts	HANDIN-24_0006
Dorothy Daniel	FDMS_0388
Dorothy Lane	FDMS_0353
Doug and Michelle Shuff	FDMS_0692
Douglas Lopez	FDMS_0812
Douglas Miller	FDMS_0689
Douglas Sedon	FDMS_0477
Douglas Thran	FDMS_0700
Dr Theodore Spickler	HANDIN-26_0014
Dr.s David Secor, Helen Bailey, and Vyacheslav Lyubchich	FDMS_0592
Drake Chandler	FDMS_0716
Dustyn Thompson	TRANS-19_0013
Ed Dudley	FDMS_0313
Edward Bishop	FDMS_0674
Edwin Kriel	FDMS_0015
Eileen Coffee	FDMS_0597
Eileen Dudley	FDMS_0073
Eileen Dudley	FDMS_0074
Eileen Sweeney	TRANS-26_0007
Ekaterina Kan	FDMS_0621

Commentor Name	Submission ID Number
Ekaterina Mikhaylova	FDMS_0114
Elaine Davis	FDMS_0865
Eliabeth Patten	FDMS_0881
Elisabeth Curtz	FDMS_0548
Elissa Reineck	FDMS_0130
Elizabeth Frazee	FDMS_0579
Elizabeth Mullen	FDMS_0458
Elizabeth Reineck	FDMS_0149
Elizabeth Rinaldi	FDMS_0815
Elizabeth Ross	FDMS_0631
Elizabeth Shrader	FDMS_0454
Elizabeth Unger	MAILIN_0013
Elke Wharton	FDMS_0783
Ellen Taylor	FDMS_0414
Ellen Taylor	FDMS_0415
Emily Bright Alvarez	TRANS-26_0008
Emily Bryant-Álvarez, Marina Feeser, and Amy Adamo	FDMS_0824
Emily Knearl	TRANS-30_0063
Emily Simon	TRANS-30_0062
Enyinna Anthony	TRANS-30_0006
Eric Klun	FDMS_0144
Eric Levinson	FDMS_0648
Eric Milaly	HANDIN-24_0039
Eric Schline	FDMS_0333

Commentor Name	Submission ID Number
Eric Schuetz	FDMS_0360
Ernest Pittarelli	FDMS_0417
Ethan Shepherd	FDMS_0318
Evan Vaughan	FDMS_0834
Evan Vaughn	TRANS-30_0015
Ezio Mattiace	FDMS_0582
F Hansen	FDMS_0007
Frank Benvenuto	TRANS-24_0015
Frank Davey	FDMS_0143
Franklin Gould	FDMS_0447
Fred Contino	FDMS_0421
G. Countryman-Mills	FDMS_0438
G. Greason	HANDIN-26_0005
Gabriel Fishbein	FDMS_0493
Gareth Hinds	FDMS_0471
Gary Dunevant	FDMS_0596
Geoff Flaherty	FDMS_0157
George and Frances Alderson	FDMS_0553
Georgette Greason	FDMS_0768
Ginger Burris	FDMS_0754
Ginger Burris	FDMS_0755
Ginger Fleming	FDMS_0364
Glenn Doxzon	FDMS_0797
Gloaria Nelson	FDMS_0860

Commentor Name	Submission ID Number
Gloria Insley	MAILIN_0028
Gloria Nelson	FDMS_0786
Grace Dixon	FDMS_0790
Grady Smart	FDMS_0878
Greg Arena	FDMS_0515
Gregg Baldassarre	FDMS_0385
Gregg Rosner	FDMS_0431
Gregory Aniumas	HANDIN-24_0003
Gregory Donahue	HANDIN-24_0041
Gregory Poulos	FDMS_0863
Harriet McMahon	FDMS_0749
Harry Mentonis	FDMS_0122
Hector Cooley	TRANS-30_0018
Hector J Medina Gomez	FDMS_0583
Henry Liu	FDMS_0409
Henry Liu	TRANS-19_0021
Henry Liu	TRANS-30_0002
Herbert Jones	MAILIN_0014
Hilary Gibson	FDMS_0545
Hoffy Hoffman	MAILIN_0037
Holly Tuleya	HANDIN-26_0017
Howard Lynch	HANDIN-26_0009
Howard Skelton	FDMS_0448
Irina Fedorova	FDMS_0110

Commentor Name	Submission ID Number
Isaac Marcelin	FDMS_0094
J F	FDMS_0641
J R	FDMS_0423
J. Greg and Kathleen K Callman	TRANS-24_0009
Jaci Friedlander	FDMS_0300
Jaci Friedlander	FDMS_0301
Jacky Grindrod	FDMS_0120
Jacob Kessell	FDMS_0781
Jake Robinson	FDMS_0898
Jamahl Evans	TRANS-30_0041
James Bew	FDMS_0609
James Bullard	TRANS-30_0037
James Connell	FDMS_0606
James Daniel	FDMS_0389
James Finnegan	FDMS_0640
James Hahn	FDMS_0728
James Hedrick	FDMS_0565
James Jefferson	HANDIN-24_0043
James K.	FDMS_0041
James L Rapp	FDMS_0379
James McWhinney	FDMS_0001
James Rapp	TRANS-19_0032
James Ross Stansfield	FDMS_0440
James Tully	FDMS_0602

Commentor Name	Submission ID Number
Jamie DeMarco	TRANS-30_0009
Jan Maltbie	FDMS_0084
Jane Bell	FDMS_0630
Jane English	MAILIN_0015
Jane Wilkinson	FDMS_0521
Janet Banky	FDMS_0325
Janet Banky	FDMS_0326
Janet Eshbach	FDMS_0765
Janet Gingold	FDMS_0457
Janet Hess	FDMS_0555
Janet Redman	FDMS_0139
Janet Stein	FDMS_0297
Janice Bortner	TRANS-26_0006
Janis Alcorn	FDMS_0489
Janssen Evelyn	TRANS-30_0049
Jarrod Klunk	FDMS_0377
Jason Dodson	HANDIN-24_0033
Jay Levy	FDMS_0536
JD Wells	FDMS_0308
Jean Benhoff	FDMS_0274
Jean Marsiglia	HANDIN-26_0025
Jean Phillips	FDMS_0394
Jeanene Gwin	TRANS-19_0001
Jeanette Robinson	FDMS_0478

Commentor Name	Submission ID Number
Jeannie Powell	FDMS_0400
Jeff Hill	FDMS_0707
Jeff Silva	TRANS-19_0011
Jeff White	HANDIN-24_0042
Jeffrey Chandross	FDMS_0610
Jeffrey Grybowski	FDMS_0791
Jeffrey Phillips	FDMS_0053
Jeffrey Shields	FDMS_0817
Jenni Coopersmith	FDMS_0566
Jennifer Blunt	FDMS_0026
Jennifer Descoteau	FDMS_0399
Jennifer Holmes (Secretary signed the letter:Shawn Garvin)	FDMS_0838
Jennifer Merritt	FDMS_0092
Jennifer Neal	FDMS_0068
Jennifer Pawloski	FDMS_0875
Jennifer Rios	TRANS-19_0004
Jennifer Vaccaro	FDMS_0511
Jenny Brucker	FDMS_0751
Jenny Gibeault	FDMS_0018
Jenny Taylor	FDMS_0561
Jeri Roth	FDMS_0504
Jessi Waxman	FDMS_0842
Jill Gaumer	TRANS-30_0066
Jim Strong	TRANS-19_0009

Commentor Name	Submission ID Number
Jim Strong	TRANS-30_0045
JL Patten	FDMS_0890
jmjnkhere@gmail.com*	FDMS_0024
JoAnn Warren	FDMS_0320
Joanne Lettis	FDMS_0760
Joanne Rodriguez	FDMS_0043
Jodi Wick	FDMS_0538
jodi@interfaithchesapeake.org	FDMS_0397
Joe Catanese	FDMS_0903
Joe Hernandez	FDMS_0679
Joe Rector	FDMS_0840
John Allan	FDMS_0552
John Bernot	FDMS_0302
John Brant	FDMS_0158
John Brown	FDMS_0798
John Byrne	FDMS_0046
John Collins	FDMS_0642
John Collins	FDMS_0846
John Collins	HANDIN-26_0027
John Combs	TRANS-19_0029
John Davis	FDMS_0867
John Fehrenbach	FDMS_0852
John Groutt	HANDIN-24_0012
John Irwin	FDMS_0649

Commentor Name	Submission ID Number
John Lowe	HANDIN-26_0011
John Marks	TRANS-30_0054
John Martin	HANDIN-26_0008
John McCoy	FDMS_0826
John Mcfalls	HANDIN-24_0011
John McLaughlin	TRANS-19_0005
John Mericle	FDMS_0569
John Olivieri	FDMS_0862
John Olivieri	FDMS_0899
John Patten	FDMS_0879
John Patterson	FDMS_0446
John Walker	TRANS-19_0007
Johnna Thompson	HANDIN-24_0002
Johnny Ray Salling	MAILIN_0033
Jolie McShane	FDMS_0138
Jonathan Chase	FDMS_0731
Jonathan Chase	FDMS_0732
Jonathan Meade	MAILIN_0004
Joscelyn Paine	FDMS_0373
Joseph Garger	FDMS_0900
Joseph Jankowski	TRANS-19_0010
Joseph McHugh	FDMS_0077
Joseph Sarji	FDMS_0745
Joseph Spisak	FDMS_0780

Commentor Name	Submission ID Number
Joyce Harris	FDMS_0527
Joyce Howes	FDMS_0386
Joyes P Maguire	HANDIN-24_0045
Judith Templeton	FDMS_0472
Julianna Jones	TRANS-30_0013
Julie Abrams	FDMS_0882
Julie Lee	FDMS_0808
Julie Maritn	HANDIN-26_0024
Julie Schuetz	FDMS_0358
Karen Cannon	FDMS_0652
Karen Neville	FDMS_0588
Kate Little	TRANS-30_0008
Kate Mikhaylova	FDMS_0116
Kate Reynolds	FDMS_0412
Katherine Masten	TRANS-19_0027
Katherine McCloskey	FDMS_0107
Katherine White	FDMS_0542
Katherine Willie	FDMS_0462
Kathleen & Burke Pieper	HANDIN-24_0007
Kathleen Burns	FDMS_0365
Kathleen Harper	TRANS-30_0057
Kathryn Masten	FDMS_0814
Kathy Hessler	FDMS_0658
Kathy Klausmeier	MAILIN_0034

Commentor Name	Submission ID Number
Kathy Phillips	FDMS_0054
Kathy Schreiber	FDMS_0070
Kathy Schreiber	FDMS_0273
Kathy Tobin	FDMS_0854
Katie Fry Hester	TRANS-30_0027
Keith McCutcheon	FDMS_0051
Kelly Behrens	FDMS_0803
Kelly Hetrick	TRANS-30_0003
Kendrick Faison	TRANS-30_0047
Kenneth Mitchell	FDMS_0549
Kenneth Moreau	FDMS_0651
Kenneth Wolf	TRANS-24_0023
Keota Silaphone	FDMS_0391
Kerrie Bunting	TRANS-30_0053
kerrie@oceanpineschamber.org	FDMS_0557
Kevin McPherson	FDMS_0387
Kevin Murphy	FDMS_0011
Kevin Parker	FDMS_0563
Kevin Patti	FDMS_0526
Kevin Pumphrey	FDMS_0737
Kevin Walton	TRANS-30_0011
Kevin Wilson	FDMS_0795
Kim Abplanalp	FDMS_0543
Kim Abplnalp	TRANS-30_0031

Commentor Name	Submission ID Number
Kim Pezza	FDMS_0121
Kim Quillin	FDMS_0058
Kimberly Bassich	FDMS_0383
Kimberly Guay	FDMS_0410
Kimberly Winn	FDMS_0802
Kirk Falls	FDMS_0392
Kolya Braun-Greiner	FDMS_0544
Kori Majeed	MAILIN_0016
Krista Kurth	FDMS_0442
Kristian Gunnulfsen	FDMS_0327
Kristin Cook	FDMS_0519
Kurt Schwarz	FDMS_0475
Lacey Levitt	FDMS_0444
Ladd Layton	FDMS_0065
Lane Johnson	FDMS_0767
Lari S Taylor	FDMS_0581
Larry Ryan	TRANS-30_0067
Laura Concannon	TRANS-19_0023
Laura M. Getschel	HANDIN-26_0013
Lawrence Brown	FDMS_0430
Lawrence Frey	FDMS_0524
Lawrence Ryan	FDMS_0342
Len Silber	FDMS_0034
Leo Shapiro	FDMS_0437

Commentor Name	Submission ID Number
Leonard G Geschel Jr	HANDIN-26_0004
Leslie Miles	FDMS_0546
LeslieLeslie Long	FDMS_0818
Linda Bystrak	FDMS_0079
Linda Bystrak	FDMS_0479
Linda Kangrga-Monroe	FDMS_0572
Linda M. Scholato	HANDIN-26_0023
Linda Prus	MAILIN_0026
Linda Silversmith	FDMS_0507
Lindsay Meeks	FDMS_0718
Lisa Barkanic	FDMS_0306
Lisa Kerr	FDMS_0850
Lisa Lange	FDMS_0675
Lisa Tossey	FDMS_0859
Liz Feighner	TRANS-30_0042
Lizbeth Lear	FDMS_0406
Local	FDMS_0390
Local	FDMS_0614
Lois Twilley	FDMS_0676
Loretta Ober	FDMS_0022
Loretta Ober	FDMS_0023
Lorig Charkoudian	FDMS_0147
Lorig Charkoudian	TRANS-30_0012
Lou Ann Caldwell	FDMS_0337

Commentor Name	Submission ID Number
Lydia Hadfield	FDMS_0119
Lydia Hadfield	FDMS_0501
Lydia Luca	FDMS_0424
Lynn Parsons	TRANS-30_0029
M Jones	FDMS_0351
M. Scott Chismar	FDMS_0635
Maggie McGraw	FDMS_0104
Maggie Passwaters	FDMS_0866
Manuel Melendez	FDMS_0329
Marc A. Weiss	FDMS_0167
Marcella Bowell	FDMS_0632
Margaret Crumlish	FDMS_0830
Marge Gold	FDMS_0039
Margot Defrance	TRANS-30_0004
Maria Covell	FDMS_0159
Maria Palmer	FDMS_0872
Maria Rochfort	FDMS_0748
Marianne Comfort	FDMS_0698
Marilou Merrill	FDMS_0429
Mark Bathrick	FDMS_0395
Mark Haviland	FDMS_0340
Mark Marderwald	FDMS_0726
Mark Monroe	FDMS_0662
Mark Paddack	FDMS_0622

Commentor Name	Submission ID Number
Mark Spencer Cropper	FDMS_0066
Mark Wilson	FDMS_0568
Marly L.Reese	HANDIN-24_0019
Marney Bruce	FDMS_0490
Marsha McLaughlin	FDMS_0474
Martin Branagan	HANDIN-24_0008
Martin Sonnenberg	FDMS_0628
Martin Weil	FDMS_0828
Mary and Mark Marozza	TRANS-24_0019
Mary Beth Carozza	FDMS_0762
Mary Beth Carozza	TRANS-24_0006
Mary Covell	FDMS_0367
Mary DeHahn	FDMS_0369
Mary Douglas	HANDIN-26_0030
Mary Ellen Klock	FDMS_0844
Mary G	FDMS_0806
Mary Jolliffe	FDMS_0042
Mary Ochse	FDMS_0426
Mary Smith	FDMS_0341
Mary Yancey	FDMS_0425
Maryanne Johnson	FDMS_0321
MaryBeth Feeney	FDMS_0829
Mary-Jeanne Marken	FDMS_0452
Maryland League of Conservation Voters	FDMS_0801

Commentor Name	Submission ID Number
Matt Covell	FDMS_0154
Matt Covell	FDMS_0880
Matt Davis	FDMS_0413
Matt Felber	FDMS_0420
Matt smith	FDMS_0770
Matthew Amey	FDMS_0895
Matthew Barila	FDMS_0080
Matthew Lynch	HANDIN-26_0018
mattmcguigan@live.com	FDMS_0348
Maureen Fawley	FDMS_0487
Maureen Whippen	FDMS_0004
Maureen Worrell	FDMS_0432
Maurice Edwards	TRANS-30_0036
May Kay Cummins-Knob	HANDIN-24_0015
Megan Breslin	FDMS_0600
Megan Outten	FDMS_0057
Megan Staczek	FDMS_0127
Melanie Miller	TRANS-19_0016
Melissa A Smyth	FDMS_0727
Melissa Danielson	FDMS_0169
Melissa Danielson	TRANS-19_0018
Michael Cunningham	FDMS_0672
Michael Mellott	FDMS_0663
Michael Moeller	FDMS_0869

Commentor Name	Submission ID Number
Michael Nagy	FDMS_0292
Michael Papa	FDMS_0775
Michael Pentony	MAILIN_0003
Michael Velikanov	FDMS_0620
Michael Wick	FDMS_0161
Micheal Alagna	HANDIN-24_0014
Micheal Hoy	HANDIN-26_0002
Michele Ferrante	FDMS_0296
Michelle Fonte	FDMS_0766
Michelle Parsons	FDMS_0669
Mike Clancy	FDMS_0608
Mike Keough	FDMS_0741
Mike Mellott	FDMS_0664
Mike Okoniewski	TRANS-19_0019
Mike Poole	HANDIN-24_0025
Minda Nardone	FDMS_0778
Miriam Lloyd	FDMS_0589
Mirinda Jackson	TRANS-30_0033
Missy Williams	FDMS_0704
Moira Cyphers	TRANS-30_0005
Molly Hauck	FDMS_0422
Molly Hauck	FDMS_0476
Molly W.	FDMS_0071
Monica Brooks	TRANS-30_0020

Commentor Name	Submission ID Number
Monique Kiser	MAILIN_0017
Morgan Turz	HANDIN-24_0047
Nancy Duerling	FDMS_0461
Nancy Hannigan	FDMS_0033
Nancy Koran	FDMS_0587
Natalie C. Magdeburger	MAILIN_0006
Natalie C. Magdeburger	FDMS_0816
Nathan K	FDMS_0150
Neal Wadsworth	FDMS_0848
Niall O'Malley	FDMS_0873
Nicholas Prince	FDMS_0030
Nick Marrocco	TRANS-19_0017
Nick Marroco	TRANS-19_0022
Nicole Jackson	FDMS_0281
Nicole Jackson	MAILIN_0018
Nicole Jackson	TRANS-30_0019
Nikki Wojtalik	FDMS_0528
Noah Bressman	FDMS_0324
Norma Jean Curreri	TRANS-24_0014
Norwood Truipt	HANDIN-26_0003
Omar Siddique	FDMS_0492
Owen White	FDMS_0831
P N	FDMS_0405
P. Galati	HANDIN-26_0019

Commentor Name	Submission ID Number
pa.meyer@comcast.net*	FDMS_0129
Paige MacSorley	FDMS_0037
Pam McCurdy	HANDIN-24_0005
Pam Minor	TRANS-30_0043
Pam Pridgeon	HANDIN-24_0013
Pamela Costanzi	FDMS_0012
Pamela Mcgregor	FDMS_0506
Pat Berg	FDMS_0730
Pat Schrawder (on behalf of Senator Mary Beth Carozza)	TRANS-30_0059
Patricia & Miles Weigold	FDMS_0839
Patricia Dahlberg	MAILIN_0027
Patricia Fouse	FDMS_0468
Patricia Garcia	FDMS_0126
Patricia Greene	FDMS_0352
Patricia Simpson	FDMS_0550
Patricia Trombino	FDMS_0289
Patricia Westwater	FDMS_0804
Patrick Lynch	FDMS_0059
Patti Griffith	FDMS_0624
Patti Miller	HANDIN-24_0023
Paul Eisenberg	FDMS_0503
Paul Soule	HANDIN-24_0037
Paul Willard	FDMS_0370
Paula Beall	FDMS_0439

Commentor Name	Submission ID Number
Peggy Meyer	FDMS_0003
Peggy Schultz	TRANS-26_0011
Penny Amici	FDMS_0752
Peter Ahnert	FDMS_0853
Peter McLean	FDMS_0562
Peter Yungbluth	FDMS_0578
Philip Smith	FDMS_0427
Philippe Ourisson	FDMS_0505
PN	FDMS_0419
Popper, Arthur	FDMS_0009
Ra'Shaun Jones	FDMS_0316
Ralph Ifeagwu	TRANS-30_0007
Randi	FDMS_0112
Randy Cain	FDMS_0820
Raymond Fager	FDMS_0843
Rbarock	FDMS_0605
Rebecca Benson	FDMS_0062
Rebecca Howe	HANDIN-24_0034
Rebecca Rehr	TRANS-30_0061
Rebecca Samawicz	FDMS_0069
Regina Littwin	FDMS_0486
Rev Julia Hart	FDMS_0445
Rev. Dr. Fried L. Malcolm	HANDIN-24_0030
Rich King	HANDIN-26_0007

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Rick	TRANS-24_0012
Rick Meehan	FDMS_0819
Rick Meehan	TRANS-24_0007
Rick Nesie	FDMS_0773
Rico Albacarys	FDMS_0496
Rico Albacarys	TRANS-19_0006
Riley Smart	FDMS_0870
Rinita Buford	MAILIN_0019
Riobin Yates	HANDIN-26_0026
Rob Moroney	HANDIN-24_0017
Rob Nicholson	TRANS-19_0028
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Robin Dax	FDMS_0537
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Rosemary B. Hoy	HANDIN-26_0001
Rosemary Wyse	FDMS_0499
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Save The Horseshoe Crab	FDMS_0075
Scott Allen	TRANS-30_0014
Scott Bell	FDMS_0633
Scott Bell	FDMS_0634
Scott Malpede	FDMS_0734
Scott Malpede	FDMS_0735
Scott Richards	FDMS_0067
Scott Skogmo	FDMS_0168
Scott Wilson	TRANS-30_0039
Sean Gray	FDMS_0123
Sean Reeser	FDMS_0014
Sean Urban	FDMS_0344
Seanna Covell	FDMS_0155
Shane Warren	TRANS-30_0025
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Shannon Campbell	FDMS_0049
Shannon Campbell	FDMS_0050
Shannon Campbell	FDMS_0064
Shannon Campbell	FDMS_0081
Shannon Campbell	FDMS_0111
Shannon Campbell	FDMS_0166
Shannon Campbell	FDMS_0176
Shannon Campbell	FDMS_0384
Shannon Campbell	FDMS_0901
Shannon Snow	FDMS_0441
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Sharon Fall	FDMS_0711
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Sharon Pinder	FDMS_0858
Sharon Yuloff	TRANS-30_0068
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Stephen Lasek	FDMS_0682
Stephen Nelson	FDMS_0473
Stephen Thompson	HANDIN-24_0009
Steve Dilken	HANDIN-24_0032
Steve Heiger	FDMS_0371
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Susan Brennan	HANDIN-26_0010
Susan Brennan	HANDIN-26_0029
Susan Dickerson	FDMS_0514
Susan G. Carpenter	TRANS-24_0001
Susan Leach	FDMS_0703
Susan Mannion	FDMS_0282
Susan Ostrowski	TRANS-30_0055
Susan Sims	FDMS_0616
Susan Stevens	FDMS_0772
Suzanne Breiseth	FDMS_0643
Suzanne Leveille	FDMS_0500
Suzanne Pattee	FDMS_0896
Sylvia Lockwood	FDMS_0874
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Teresa Williams	MAILIN_0022
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Terry Grogan	FDMS_0368
Thea Chandross	FDMS_0613
Theodore Reichhart	FDMS_0841
Theodore Spickler	TRANS-19_0025
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Thomas Riley	FDMS_0876
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Tina Rhea	FDMS_0567
TJ Proctor	MAILIN_0023
Todd Allen	FDMS_0082
Todd Tereska	TRANS-19_0024
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Tom Czop	FDMS_0109
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Viktor Tamarin	FDMS_0152
Vincent Corbo	FDMS_0659
Vivian Jennings	FDMS_0408
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Walter Weiss	TRANS-30_0016
Wanda Prather	FDMS_0623
Wayne Carson	FDMS_0525
Wayne Hartman	FDMS_0902
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Wendy gortiss	HANDIN-24_0040
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