WIND ENERGY COMMERCIAL LEASE ON THE ATLANTIC OUTER CONTINENTAL SHELF OFFSHORE MAINE

BIOLOGICAL ANALYSIS

Prepared using IPaC

Generated by David Bigger (david.bigger@boem.gov)

August 16, 2024

The purpose of this document is to assess the effects of the proposed project and determine whether the project may affect any federally threatened, endangered, proposed, or candidate species. If appropriate for the project, this document may be used as a biological assessment (BA), as it is prepared in accordance with legal requirements set forth under Section 7 of the Endangered Species Act (16 U.S.C. 1536 (c)).

In this document, any data provided by U.S. Fish and Wildlife Service is based on data as of March 29, 2024.

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WIND ENERGY COMMERCIAL LEASE ON THE ATLANTIC OUTER CONTINENTAL SHELF OFFSHORE MAINE BIOLOGICAL ASSESSMENT

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1 DESCRIPTION OF THE ACTION

1.1 PROJECT NAME

Wind Energy Commercial Lease on the Atlantic Outer Continental Shelf Offshore Maine

1.2 EXECUTIVE SUMMARY

In accordance with Section 7 of the Endangered Species Act (ESA) of 1973, as amended (16 United States Code [U.S.C.] §§ 1531 et seq.), this document transmits the Bureau of Ocean Energy Management's (BOEM's) Biological Assessment (BA) of the effects of the Proposed Action on ESA listed species and designated critical habitat that occur within the Action Area. The Proposed Action for this BA the issuance of commercial leases within the Wind Energy Area (WEA) in the Gulf of Maine and to grant rights-of-way (ROWs) and rights-of-use and easement (RUEs) in the region of the outer continental shelf (OCS) of the Gulf of Maine. BOEM's issuance of these leases and grants is needed to (1) confer the exclusive right to submit plans to BOEM for potential development, such that the lessees and grantees develop plans for BOEM's review and will commit to site characterization and site assessment activities necessary to determine the suitability of their leases and grants for commercial offshore wind production or transmission, and (2) impose terms and conditions intended to ensure that site characterization and assessment activities are conducted in a safe and environmentally responsible manner.

The issuance of a lease by BOEM to the lessee conveys no right to proceed with development of a wind energy facility; the lessee acquires only the exclusive right to submit one or more plans to conduct this activity. If a lessee proposes to construct a commercial wind energy facility, the lessee would be required to submit a Construction and Operation Plan (COP) to BOEM for review and approval. BOEM would then conduct a project-specific NEPA review and would initiate project-specific ESA consultation with FWS, which would include the lessee's proposed transmission line(s) to shore.

Under the Proposed Action, BOEM would potentially issue up to 15 leases that may cover the entirety of the WEA, easements associated with each lease, and grants for subsea cable corridors and associated offshore collector/converter platforms. The ROWs, RUEs, and potential easements would all be located within the OCS offshore Maine, Massachusetts, and New Hampshire and may include corridors that extend from the WEA to the onshore energy grid. This BA analyzes the reasonably foreseeable effects to ESA-listed species and designated critical habitat from activities that are anticipated to occur from the Proposed Action, including site assessment activities on leases and site characterization activities on the leases, grants, and potential easements. Site assessment activities would most likely include the temporary placement of meteorological (met) buoys and oceanographic devices.

The timing of lease issuance, as well as weather and sea conditions, would be the primary factors influencing timing of site characterization and site assessment activities. It is assumed that lessees would begin survey activities as soon as possible after receiving a lease and preparing plans for submission to BOEM, and when sea states and weather conditions allow for site characterization and site assessment activities. The most suitable sea states and weather conditions would occur during late spring and summer months. Lessees have up to 5 years to perform site characterization activities before they must submit a construction and operations plan (COP) (30 CFR § 585.235(a)(2))1.

1.3 EFFECT DETERMINATION SUMMARY

SPECIES (COMMON NAME) OR CRITICAL HABITAT	SCIENTIFIC NAME	LISTING STATUS	PRESENT IN ACTION AREA	EFFECT DETERMINATION
American Chaffseed	Schwalbea americana	Endangered	No	NE
Atlantic Salmon	Salmo salar	Endangered	No	NE
Monarch Butterfly	Danaus plexippus	Candidate	Yes	NE
Northeastern Beach Tiger Beetle	Habroscelimorpha dorsalis dorsalis	Threatened	No	NE
Northern Long-eared Bat	Myotis septentrionalis	Endangered	Yes	NLAA
Piping Plover	Charadrius melodus	Threatened	Yes	NLAA
Plymouth Redbelly Turtle = Plymouth Redbelly Cooter	Pseudemys rubriventris bangsi	Endangered	No	NE
Roseate Tern	Sterna dougallii dougallii	Endangered	Yes	NLAA
Rufa Red Knot	Calidris canutus rufa	Threatened	Yes	NLAA
Sandplain Gerardia	Agalinis acuta	Endangered	No	NE
Seabeach Amaranth	Amaranthus pumilus	Threatened	No	NE
Tricolored Bat	Perimyotis subflavus	Proposed Endangered	Yes	NLAA
Atlantic Salmon critical habitat	Salmo salar	Final	No	NE

1.4 PROJECT DESCRIPTION

1.4.1 LOCATION

LOCATION
Maine, Massachusetts, and New Hampshire

1.4.2 DESCRIPTION OF PROJECT HABITAT

The habitat for the Proposed Action will occur offshore Maine in the Gulf of Maine on the U.S. Outer Continental Shelf (OCS).

The Gulf of Maine is a semi-enclosed sea in the Atlantic Ocean, bordered by the coastlines of Massachusetts, New Hampshire, Maine, New Brunswick, and Nova Scotia. It is an ecologically diverse region with unique benthic features and oceanographic circulation patterns that contribute to flourishing and productive marine resources, which in turn support culturally significant fisheries and recreational activities.

1.4.3 PROJECT PROPONENT INFORMATION

Provide information regarding who is proposing to conduct the project, and their contact information. Please provide details on whether there is a Federal nexus.

REQUESTING AGENCY

Department of Interior

Bureau of Ocean Energy Management

FULL NAME
Robert Baldwin

STREET ADDRESS
1902 Reston Metro Plaza

CITY	STATE	ZIP
Reston	VA	20190

PHONE NUMBER	E-MAIL ADDRESS
3123167050	robert.baldwin@icf.com

LEAD AGENCY

Lead agency is the same as requesting agency

1.4.4 PROJECT PURPOSE

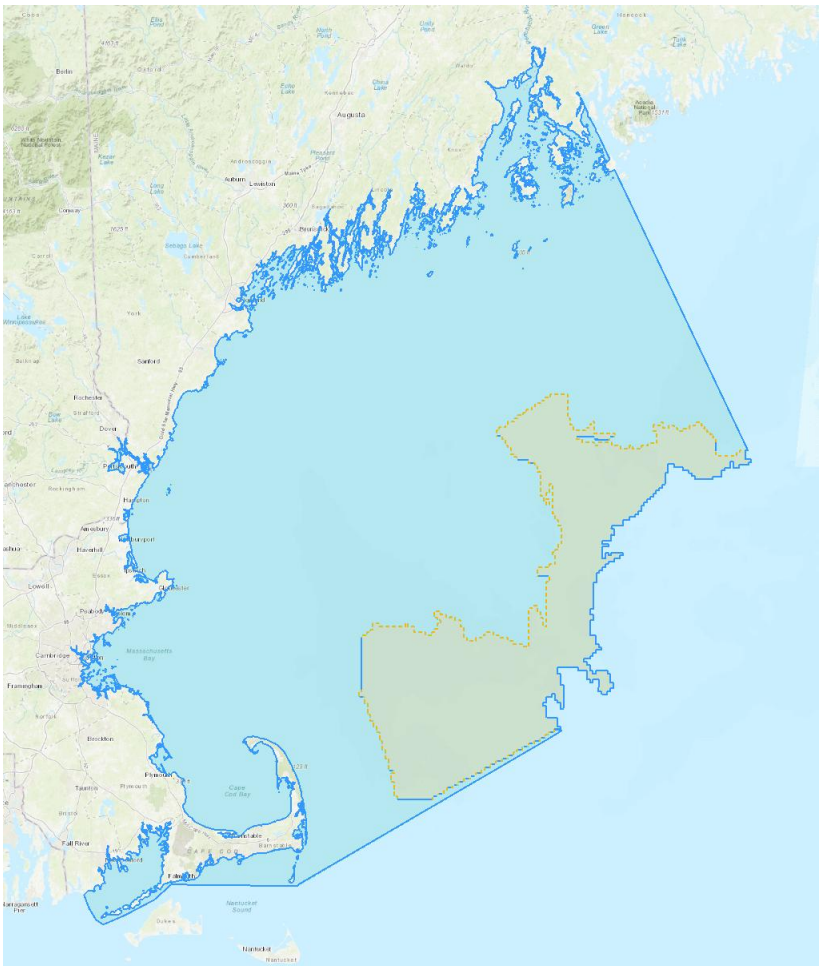
The purpose of the Proposed Action is to issue commercial leases within the WEA and to grant of rights-of-way (ROWs) and rights-of-use and easement (RUEs) in the region of the outer continental shelf (OCS) of the Gulf of Maine. BOEM's issuance of these leases and grants is needed to (1) confer the exclusive right to submit plans to BOEM for potential development, such that the lessees and grantees develop plans for BOEM's review and will commit to site characterization and site assessment activities necessary to determine the suitability of their leases and grants for commercial offshore wind production or transmission, and (2) impose terms and conditions intended to ensure that site characterization and assessment activities are conducted in a safe and environmentally responsible manner.

The Proposed Action is to offer for lease all or some of the WEA for commercial wind energy development and to grant ROWs and RUEs in support of wind energy development. Under the Proposed Action, BOEM would potentially issue leases that may cover the entirety of the WEA, easements associated with each lease, and grants for subsea cable corridors and associated offshore collector/converter platforms. The ROWs, RUEs, and potential easements would all be located within the OCS offshore Maine, Massachusetts, and New Hampshire and may include corridors that extend from the WEA to the onshore energy grid. This BA analyzes the reasonably foreseeable effects of activities that are anticipated to occur from the Proposed Action, including site assessment activities on leases and site characterization activities on the leases, grants, and potential easements. Site assessment activities would most likely include the temporary replacement of meteorological (met) buoys and oceanographic devices.

1.4.5 PROJECT TYPE AND DECONSTRUCTION

This project is a offshore wind area commercial lease issuance project.

1.4.5.1 PROJECT MAP



LEGEND

Project footprint

Layer 1: Conduct offshore biological survey, conduct offshore geophysical survey, conduct offshore geotechnical survey, install acoustic doppler current profiler, install meteorological buoy

Layer 2: Vessel transit

1.4.5.2 CONDUCT OFFSHORE BIOLOGICAL SURVEY

ACTIVITY START DATE
April 01, 2025

ACTIVITY END DATE
August 31, 2030

STRESSORS

- Change in air emissions
- Change in artificial lighting
- Increase in boat traffic
- Increase in noise
- Change in routine vessel discharge

DESCRIPTION
Description: Lessees would conduct biological surveys including benthic habitat surveys, visual avian surveys from aircraft and boats, ultrasonic bat surveys, marine surveys within their respective lease areas. BOEM does not yet know the exact leases or lessors associated with the project and hence cannot exactly characterize the timing, location, vessels and ports which would be used. Rather, relevant assumptions have been made based on the wind energy capacity goals of the area and the expected number of leases needed to meet these goals.

Additional survey details including assumed activity frequency and timing, vessel types, and equipment or methods can be found in Section 2.4.3, Table 2-7 of the Environmental Assessment included as a supplemental document.

1.4.5.3 CONDUCT OFFSHORE GEOPHYSICAL SURVEY

ACTIVITY START DATE
April 01, 2025

ACTIVITY END DATE
August 31, 2030

STRESSORS

- Change in air emissions
- Change in artificial lighting
- Increase in noise
- Change in routine vessel discharge

DESCRIPTION
Description: Lessees would conduct high-resolution geophysical surveys of the WEA. The surveys would collect bathymetrical (seafloor depth), morphological (topography), and geological data to inform various charting, interpretation, analyses, and reporting efforts for the eventual wind energy project, including assessment of archaeological resources. BOEM does not yet know the exact leases or lessors associated with the project and hence cannot exactly characterize the timing, location, vessels and ports which would be used. Rather, relevant assumptions have been made based on the wind energy capacity goals of the area and the expected number of leases needed to meet these goals.

Activity Frequency: 727 total vessel trips transiting approximately 92,675 km. Assumed to occur April - August due to weather conditions.

Ports (Assumed): Searsport, ME; Portland, ME; Portsmouth, NH; Boston, MA; Salem, MA; New Bedford, MA

Vessel type: 24-hour vessel, with length of approximately 164 feet (50 meters) and 12-hour vessel, with length of approximately 49 feet (15 meters).

Equipment or method: Multibeam echosounder, magnetometer, side-scan sonar, shallow and medium penetration sub-bottom profiler.

1.4.5.4 CONDUCT OFFSHORE GEOTECHNICAL SURVEY

ACTIVITY START DATE
April 01, 2025

ACTIVITY END DATE
August 31, 2030

STRESSORS

- Change in air emissions
- Change in artificial lighting
- Change in noise
- Change in routine vessel discharge

DESCRIPTION
Lessees would conduct geotechnical surveys of the wind energy area and cable corridors. The surveys would sample or test seabed characteristics to inform design specifications of and locations suitable for placement of anchors and cable infrastructure. BOEM does not yet know the exact leases or lessors associated with the project and hence cannot exactly characterize the timing, location, vessels and ports which would be used. Rather, relevant assumptions have been made based on the wind energy capacity goals of the area and the expected number of leases needed to meet these goals.

Activity Frequency: Variable dependent upon the type of technology used to collect the sample. Reliable estimates are not available at this time.

Ports (Assumed): Searsport, ME; Portland, ME; Portsmouth, NH; Boston, MA; Salem, MA; New Bedford, MA

Equipment or method: Shallow geotechnical coring (piston or vibracores) and cone penetration testing. The number and location of test sites would be determined based on the results of the geophysical reconnaissance survey, likely up to several hundred test sites.

1.4.5.5 INSTALL ACOUSTIC DOPPLER CURRENT PROFILER

ACTIVITY START DATE
April 01, 2025

ACTIVITY END DATE
August 31, 2030

STRESSORS

- Change in air emissions
- Change in artificial lighting
- Change in noise
- Change in routine vessel discharge

DESCRIPTION
Acoustic Doppler Current Profilers (ACDPs) would likely be installed on met buoys on the ocean floor therefore their installation would be the same.

Description: Installation, operation and maintenance, and decommissioning of met buoys for characterizing wind conditions are part of the assumptions/scenario for the Proposed Action. Met buoys are anchored to the seafloor at fixed locations and regularly collect observations from many different atmospheric and oceanographic sensors. This BA assumes that a maximum of two buoys per lease would be installed; thus, with an assumed 15 leases within the WEA, a total of 30 buoys are considered (two met buoys per lease area). The type of buoy chosen usually depends on its intended installation location and measurement requirements. For example, a smaller buoy in shallow coastal waters may be moored using an all-chain mooring. On the OCS, a larger discus-type or boat-shaped hull buoy may require a combination of a chain, nylon, and buoyant polypropylene materials designed to endure many years of ocean service. The other relevant lease issuance EAs listed in Table 2-1 provide evaluations of various met buoy schematics and met buoy and anchor systems, including hull type, height, and anchoring methods. These EAs also describe activities related to installation, operation and maintenance, and decommissioning of the met buoys. Buoy types that are typically deployed are also described by the National Data Buoy Center (NDBC 2012).

1.4.5.6 INSTALL METEOROLOGICAL BUOY

ACTIVITY START DATE
April 01, 2025

ACTIVITY END DATE
August 31, 2030

STRESSORS

- Change in air emissions
- Change in artificial lighting
- Increase in noise
- Change in routine vessel discharge

DESCRIPTION
Description: Installation, operation and maintenance, and decommissioning of met buoys for characterizing wind conditions are part of the assumptions/scenario for the Proposed Action. Met buoys are anchored to the seafloor at fixed locations and regularly collect observations from many different atmospheric and oceanographic sensors. This BA assumes that a maximum of two buoys per lease would be installed; thus, with an assumed 15 leases within the WEA, a total of 30 buoys are considered (two met buoys per lease area). The type of buoy chosen usually depends on its intended installation location and measurement requirements. For example, a smaller buoy in shallow coastal waters may be moored using an all-chain mooring. On the OCS, a larger discus-type or boat-shaped hull buoy may require a combination of a chain, nylon, and buoyant polypropylene materials designed to endure many years of ocean service. The other relevant lease issuance EAs listed in Table 2-1 provide evaluations of various met buoy schematics and met buoy and anchor systems, including hull type, height, and anchoring methods. These EAs also describe activities related to installation, operation and maintenance, and decommissioning of the met buoys. Buoy types that are typically deployed are also described by the National Data Buoy Center (NDBC 2012).

1.4.5.7 VESSEL TRANSIT

ACTIVITY START DATE
April 01, 2025

ACTIVITY END DATE
August 31, 2030

STRESSORS

- Change in artificial lighting
- Change in boat traffic
- Change in routine vessel discharge

DESCRIPTION
Vessel traffic associated with the Proposed Action would be split between ports in Maine, Massachusetts, and New Hampshire. Vessels could use the following general port locations: Searsport, Maine; Portland, Maine; Portsmouth, New Hampshire; Boston, Massachusetts; Salem, Massachusetts; and New Bedford, Massachusetts. There will be 4,800 estimated vessel trips.

1.4.6 ANTICIPATED ENVIRONMENTAL STRESSORS

Describe the anticipated effects of your proposed project on the aspects of the land, air and water that will occur due to the activities above. These should be based on the activity deconstructions done in the previous section and will be used to inform the action area.

1.4.6.1 ANIMAL FEATURES

Individuals from the Animalia kingdom, such as raptors, mollusks, and fish. This feature also includes byproducts and remains of animals (e.g., carrion, feathers, scat, etc.), and animal-related structures (e.g., dens, nests, hibernacula, etc.).

1.4.6.2 PLANT FEATURES

Individuals from the Plantae kingdom, such as trees, shrubs, herbs, grasses, ferns, and mosses. This feature also includes products of plants (e.g., nectar, flowers, seeds, etc.).

1.4.6.3 AQUATIC FEATURES

Bodies of water on the landscape, such as streams, rivers, ponds, wetlands, etc., and their physical characteristics (e.g., depth, current, etc.). This feature includes the groundwater and its characteristics. Water quality attributes (e.g., turbidity, pH, temperature, DO, nutrients, etc.) should be placed in the Environmental Quality Features.

1.4.6.4 ENVIRONMENTAL QUALITY FEATURES
Abiotic attributes of the landscape (e.g., temperature, moisture, slope, aspect, etc.).

1.4.6.4.1 CHANGE IN AIR EMISSIONS

ANTICIPATED MAGNITUDE

This stressor is not expected to occur; the following explanation has been provided:

Vessel activity over the 5-year span of activities associated with the Proposed Action is expected to be relatively small compared to existing vessel traffic at the ports and between the shore and the WEA. Therefore, this stressor is not anticipated to have an impact on ESA-listed species within the proposed action area.

CONSERVATION MEASURES

- Coordinate with USFWS to identify appropriate mitigation measures

STRUCTURES AND ACTIVITIES

- Install meteorological buoy
- Conduct offshore biological survey
- Conduct offshore geotechnical survey
- Install acoustic doppler current profiler
- Conduct offshore geophysical survey

1.4.6.5 LANDFORM (TOPOGRAPHIC) FEATURES
Topographic (landform) features that typically occur naturally on the landscape (e.g., cliffs, terraces, ridges, etc.). This feature does not include aquatic landscape features or man-made structures.

1.4.6.6 SOIL AND SEDIMENT
The topmost layer of earth on the landscape and its components (e.g., rock, sand, gravel, silt, etc.). This feature includes the physical characteristics of soil, such as depth, compaction, etc. Soil quality attributes (e.g, temperature, pH, etc.) should be placed in the Environmental Quality Features.

1.4.6.7 HUMAN ACTIVITIES
Human actions in the environment (e.g., fishing, hunting, farming, walking, etc.).

1.4.6.7.1 CHANGE IN ARTIFICIAL LIGHTING

ANTICIPATED MAGNITUDE

This stressor is not expected to occur; the following explanation has been provided:

Vessel activity over the 5-year span of activities associated with the Proposed Action is expected to be relatively small compared to existing vessel traffic at the ports and between the shore and the Wind Energy area. Therefore, this stressor is not anticipated to have an impact on ESA-listed species within the proposed action area.

CONSERVATION MEASURES

- Coordinate with USFWS to identify appropriate mitigation measures
- To the extent practicable, minimize lighting to reduce potential attraction of birds and bats to vessels and aircraft

STRUCTURES AND ACTIVITIES

- Install meteorological buoy
- Conduct offshore biological survey
- Conduct offshore geotechnical survey
- Install acoustic doppler current profiler
- Conduct offshore geophysical survey
- Vessel transit

1.4.6.7.2 CHANGE IN BOAT TRAFFIC

ANTICIPATED MAGNITUDE

This stressor is not expected to occur; the following explanation has been provided:

Vessel activity associated with the Proposed Action is expected to be relatively small compared to existing vessel traffic at the ports and between the shore and the WEA. Therefore, this stressor is not anticipated to have an impact on ESA-listed species within the proposed action area.

CONSERVATION MEASURES

- Coordinate with USFWS to identify appropriate mitigation measures
- Use approved OSRP mitigation measures, as necessary, to prevent birds from going to affected areas including chumming, hazing, and relocating to unaffected areas
- Bird deterrents

STRUCTURES AND ACTIVITIES

- Vessel transit

1.4.6.7.3 CHANGE IN NOISE

ANTICIPATED MAGNITUDE

This stressor is not expected to occur; the following explanation has been provided:

Vessel activity over the 5-year span of activities associated with the Proposed Action is expected to be relatively small compared to existing vessel traffic at the ports and between the shore and the Wind Energy area. Therefore, this stressor is not anticipated to have an impact on ESA-listed species within the proposed action area.

CONSERVATION MEASURES

- Coordinate with USFWS to identify appropriate mitigation measures

STRUCTURES AND ACTIVITIES

- Conduct offshore geotechnical survey
- Install acoustic doppler current profiler

1.4.6.7.4 INCREASE IN BOAT TRAFFIC

ANTICIPATED MAGNITUDE

This stressor is not expected to occur; the following explanation has been provided:

Vessel traffic increase will be minimal compared to the vessel traffic already occurring in the region.

CONSERVATION MEASURES

- Acoustic detector for bats
- Motus wildlife tracking system
- Bird deterrents
- Avian and bat annual reporting

STRUCTURES AND ACTIVITIES

- Conduct offshore biological survey

1.4.6.7.5 INCREASE IN NOISE

ANTICIPATED MAGNITUDE

This stressor is not expected to occur; the following explanation has been provided:

Vessel activity over the 5-year span of activities associated with the Proposed Action is expected to be relatively small compared to existing vessel traffic at the ports and between the shore and the Wind Energy area. Therefore, this stressor is not anticipated to have an impact on ESA-listed species within the proposed action area.

CONSERVATION MEASURES

- Coordinate with USFWS to identify appropriate mitigation measures

STRUCTURES AND ACTIVITIES

- Install meteorological buoy
- Conduct offshore biological survey
- Conduct offshore geophysical survey

1.4.6.8 MISCELLANEOUS

Miscellaneous should only be used if the created feature does not fit into one of the other categories or if the creator is not sure in which category it should be placed.

1.4.6.8.1 CHANGE IN ROUTINE VESSEL DISCHARGE

ANTICIPATED MAGNITUDE

This stressor is not expected to occur; the following explanation has been provided:

Vessel activity over the 5-year span of activities associated with the Proposed Action is expected to be relatively small compared to existing vessel traffic at the ports and between the shore and the Wind Energy area. Therefore, this stressor is not anticipated to have an impact on ESA-listed species within the proposed action area.

CONSERVATION MEASURES

- Coordinate with USFWS to identify appropriate mitigation measures
- Use approved OSRP mitigation measures, as necessary, to prevent birds from going to affected areas including chumming, hazing, and relocating to unaffected areas

STRUCTURES AND ACTIVITIES

- Install meteorological buoy
- Conduct offshore biological survey
- Conduct offshore geotechnical survey
- Install acoustic doppler current profiler
- Conduct offshore geophysical survey
- Vessel transit

1.5 ACTION AREA

LEGEND

Project footprint

Stressor location

1.6 CONSERVATION MEASURES

1.6.1 ACOUSTIC DETECTOR FOR BATS

DESCRIPTION

The Lessee must install acoustic detectors for bats on survey vessels to supplement the data captured by buoys and are important to capture bat activity at the margins of or in proximity to the Research Lease Area, especially in the areas closest to land. The USFWS will provide a bat survey and monitoring protocol for the applicant to use as guidelines for acoustic detections.

STRESSORS

- Increase in boat traffic

1.6.2 AVIAN AND BAT ANNUAL REPORTING

DESCRIPTION

The Lessee must provide an annual report to both the Lessor and USFWS using the contact information provided as an Enclosure to this lease, or updated contact information as provided by the Lessor. This report must document any dead or injured birds or bats found during activities conducted in support of plan submittal. The first report must be submitted within 6 months of the start of the first survey conducted in support of plan submittal, and subsequent reports must be submitted annually thereafter until all surveys in support of plan submittal have concluded and all such birds and bats have been reported. If surveys are not conducted in a given year, the annual report may consist of a simple statement to that effect. An annual report must be provided to BOEM and USFWS documenting any dead (or injured) birds or bats found on vessels and structures during construction, operations, and decommissioning. The report must contain the following information: the name of species, date found, location, a picture to confirm species identity (if possible), and any other relevant information. Carcasses with Federal or research bands must be reported to the United States Geological Survey Bird Band Laboratory, available at https://www.usgs.gov/labs/bird-banding-laboratory. Additionally, annual reporting of injured or dead listed species will be recorded in the Injury & Mortality Reporting (IMR) system (https://ecos.fws.gov/imr/welcome).Survey Results and Data: The Lessee must provide the results of avian surveys and data to BOEM and USFWS with its plans.

STRESSORS

- Increase in boat traffic

1.6.3 BIRD DETERRENTS

DESCRIPTION

To minimize the attraction of birds on data buoys, the Lessee must install bird deterrent devices (e.g., anti-perching), where appropriate.

STRESSORS

- Change in boat traffic
- Increase in boat traffic

1.6.4 COORDINATE WITH USFWS TO IDENTIFY APPROPRIATE MITIGATION MEASURES

DESCRIPTION

Coordinate with USFWS.

STRESSORS

- Change in air emissions
- Change in artificial lighting
- Change in boat traffic
- Change in noise
- Change in routine vessel discharge
- Increase in noise

DIRECT INTERACTIONS

- collisions
- disturbance

1.6.5 MOTUS WILDLIFE TRACKING SYSTEM

DESCRIPTION

To help address information gaps on offshore movements of birds and bats, including ESA-listed species, the Lessee must install Motus stations on meteorological or environmental data buoys in coordination with USFWS' Offshore Motus network.

STRESSORS

- Increase in boat traffic

1.6.6 TO THE EXTENT PRACTICABLE, MINIMIZE LIGHTING TO REDUCE POTENTIAL ATTRACTION OF BIRDS AND BATS TO VESSELS AND AIRCRAFT

DESCRIPTION

LIGHTING: ANY LIGHTS USED TO AID MARINE NAVIGATION BY THE LESSEE DURING CONSTRUCTION, OPERATIONS, AND DECOMMISSIONING ACTIVITIES MUST MEET USCG REQUIREMENTS FOR PRIVATE AIDS TO NAVIGATION (HTTPS://WWW.NAVCEN.USCG.GOV/SITES/DEFAULT/FILES/PDF/AIS/CG_2554_PATON.PDF) AND BOEM'S GUIDELINES FOR LIGHTING AND MARKING OF STRUCTURES SUPPORTING RENEWABLE ENERGY DEVELOPMENT (HTTPS://WWW.BOEM.GOV/2021-LIGHTING-AND-MARKING-GUIDELINES). FOR ANY ADDITIONAL LIGHTING, THE LESSEE MUST USE SUCH LIGHTING ONLY WHEN NECESSARY, AND THE LIGHTING MUST BE HOODED DOWNWARD AND DIRECTED, WHEN POSSIBLE, TO REDUCE UPWARD ILLUMINATION AND ILLUMINATION OF ADJACENT WATERS.

STRESSORS

- Change in artificial lighting

DIRECT INTERACTIONS

- collisions
- disturbance

1.6.7 USE APPROVED OSRP MITIGATION MEASURES, AS NECESSARY, TO PREVENT BIRDS FROM GOING TO AFFECTED AREAS INCLUDING CHUMMING, HAZING, AND RELOCATING TO UNAFFECTED AREAS

DESCRIPTION

THE LESSEE MUST USE APPROVED OIL SPILL RESPONSE PLAN (OSRP) MITIGATION MEASURES, AS NECESSARY, TO PREVENT BIRDS FROM GOING TO AFFECTED AREAS INCLUDING CHUMMING, HAZING, AND RELOCATING TO UNAFFECTED AREAS.

STRESSORS

- Change in boat traffic
- Change in routine vessel discharge

1.7 PRIOR CONSULTATION HISTORY

This BA is based upon BOEM's experience with similar actions proposed in the Gulf of Maine: On March 24, 2011, BOEM requested informal ESA Section 7 consultation (consultation) with FWS for lease issuance and site assessment activities off New Jersey, Delaware, Maryland, and Virginia. On June 20, 2011, FWS concurred with BOEM's determinations that the risk to the roseate tern, piping plover, Bermuda petrel, and red knot regarding lease issuance, associated site characterization and site assessment activities was "small and insignificant" and, therefore, not likely to adversely affect (NLAA) the three ESA listed species and one candidate species. On February 12, 2014, BOEM requested informal consultation with FWS for lease issuance and site assessment activities off North Carolina, South Carolina, and Georgia. On March 17, 2014, the Service concurred with BOEM's determination that commercial wind lease issuance and site assessment activities on the Atlantic OCS may affect, but will NLAA the Bermuda petrel, black-capped petrel, Kirland's warbler, roseate tern, piping plover, and red knot. On July 27, 2016, BOEM requested informal consultation with FWS for the construction, operation, and decommissioning of a single met tower off New York in what is now OCS-A 0512. On September 14, 2016, FWS concurred with BOEM's NLAA determination for roseate tern, red knot, and piping plover and a no effect (NE) determination for the NLEB. On August 10, 2021, BOEM requested informal consultation with USFWS for lease and grant issuance and site assessment activities on the Atlantic OCS of the New York Bight. On March 15, 2021, USFWS concurred with BOEM's determination that commercial wind lease issuance and site assessment activities would NLAA the Bermuda petrel, roseate tern, piping plover, and red knot and a NE determination for the NLEB. On May 15, USFWS concurred with BOEM's determination that research lease issuance in the Gulf of Maine and site assessment activities would NLAA the roseate tern, piping plover, and red knot, and a NLAA determination for the NLEB.

1.8 OTHER AGENCY PARTNERS AND INTERESTED PARTIES

The following are agencies involved in the development of the Environmental Assessment under NEPA. Cooperating agencies include the Bureau of Safety and Environmental Enforcement, National Marine Fisheries Service and the United States Coast Guard. Participating agencies include the U.S. Army Corps of Engineers, USFWS, and the National Parks Service. The Passamaquoddy Tribe Joint Tribal Council also signed an MOU to participate as a cooperating tribal nation.

1.9 OTHER REPORTS AND HELPFUL INFORMATION

Avoidance, Minimization, and Mitigation Measures

This section outlines the standard operating conditions (SOCs) to minimize or eliminate potential impacts to ESA-listed and candidate bird species. These SOCs appear in Chapter 5 of the draft EA, and are considered part of the proposed action and could be incorporated as stipulations to any future lease:

1. Any lights used to aid marine navigation by the lessee during construction, operations, and decommissioning of a meteorological buoy must meet USGS requirements for private aids to navigation [https://www.uscg.mil/forms/cg/CG_2554.pdf] and BOEM's Guidelines for Lighting and Marking of Structures Supporting Renewable Energy Development [https://www.boem.gov/2021-lighting-and-marking-guidelines]. For any additional lighting, the lessee must use such lighting only when necessary, and the lighting must be hooded downward and directed when possible, to reduce upward illumination and illumination of adjacent waters.

2. To help address information gaps on offshore movements of birds and bats, including ESA-listed species, installation of Motus stations on meteorological or environmental data buoys in coordination with U.S. Fish and Wildlife Service's Offshore Motus network.

3. To minimize the attraction of birds, the Lessee must install bird deterrent devices (e.g., anti-perching), where appropriate.

4. An annual report shall be provided to BOEM and FWS documenting any dead (or injured) birds or bats found on vessels and structures during construction, operations, and decommissioning. The report must contain the following information: the name of species, date found, location, a picture to confirm species identity (if possible), and any other relevant information. Carcasses with Federal or research bands must be reported to the United States Geological Survey Bird Band Laboratory, available at https://www.pwrc.usgs.gov/bbl/.

5. The lessee must provide the results of avian surveys and data to BOEM and FWS with its plans. Based on the information regarding the proposed activities (see Section 1) within the WEA, no additional mitigations for ESA- listed and ESA candidate species are necessary.

RELEVANT DOCUMENTATION

- Gulf of Maine Commercial Lease USFWS BA supplemental document

2 SPECIES EFFECTS ANALYSIS

This section describes, species by species, the effects of the proposed action on listed, proposed, and candidate species, and the habitat on which they depend. In this document, effects are broken down as direct interactions (something happening directly to the species) or indirect interactions (something happening to the environment on which a species depends that could then result in effects to the species).

These interactions encompass effects that occur both during project construction and those which could be ongoing after the project is finished. All effects, however, should be considered, including effects from direct and indirect interactions and cumulative effects.

2.1 AMERICAN CHAFFSEED

This species has been excluded from analysis in this environmental review document.

JUSTIFICATION FOR EXCLUSION

The project activity has no onshore components.

2.2 ATLANTIC SALMON

This species has been excluded from analysis in this environmental review document.

JUSTIFICATION FOR EXCLUSION

We can not rule out the presence of Atlantic salmon in the action area; however, the action area of the project is entirely in marine and estuarine waters and any Atlantic salmon present are under the jurisdiction of the NMFS. Impacts to Atlantic salmon will be addressed in consultation with NMFS. The Service has directed BOEM to exclude Atlantic salmon from further analysis in the Consultation Package Builder on this basis by answering "yes" to the question asking if we can rule out the presence of Atlantic salmon within the project's action area.

2.3 MONARCH BUTTERFLY

2.3.1 STATUS OF THE SPECIES

This section should provide information on the species' background, its biology and life history that is relevant to the proposed project within the action area that will inform the effects analysis.

2.3.1.1 LEGAL STATUS

The Monarch Butterfly is federally listed as 'Candidate' and additional information regarding its legal status can be found on the ECOS species profile.

2.3.1.2 RECOVERY PLANS

Available recovery plans for the Monarch Butterfly can be found on the ECOS species profile.

2.3.1.3 LIFE HISTORY INFORMATION

Note - the monarch is a candidate species and not yet listed or proposed for listing. Consultation with U.S. Fish and Wildlife Service under section 7 of the Endangered Species Act is not required for candidate species, like the monarch. We encourage agencies, however, to take advantage of any opportunity they may have to conserve the species.

For information on monarch conservation, visit https://www.fws.gov/initiative/pollinators/monarchs, http://www.mafwa.org/?page_id=2347, and, for the West, https://wafwa.org/committees-working-groups/monarch-working-group/.

Adult monarch butterflies are large and conspicuous, with bright orange wings surrounded by a black border and covered with black veins. The black border has a double row of white spots, present on the upper side of the wings. Adult monarchs are sexually dimorphic, with males having narrower wing venation and scent patches. The bright coloring of a monarch serves as a warning to predators that eating them can be toxic.

During the breeding season, monarchs lay their eggs on their obligate milkweed host plant (primarily Asclepias spp.), and larvae emerge after two to five days. Larvae develop through five larval instars (intervals between molts) over a period of 9 to 18 days, feeding on milkweed and sequestering toxic chemicals (cardenolides) as a defense against predators. The larva then pupates into a chrysalis before emerging 6 to 14 days later as an adult butterfly. There are multiple generations of monarchs produced during the breeding season, with most adult butterflies living approximately two to five weeks; overwintering adults enter into reproductive diapause (suspended reproduction) and live six to nine months.

In many regions where monarchs are present, monarchs breed year-round. Individual monarchs in temperate climates, such as eastern and western North America, undergo long-distance migration, and live for an extended period of time. In the fall, in both eastern and western North America, monarchs begin migrating to their respective overwintering sites. This migration can take monarchs distances of over 3,000 km and last for over two months. In early spring (February-March), surviving monarchs break diapause and mate at the overwintering sites before dispersing. The same individuals that undertook the initial southward migration begin flying back through the breeding grounds and their offspring start the cycle of generational migration over again.

IDENTIFIED RESOURCE NEEDS

Milkweed

Obligate host plant

2.3.1.4 CONSERVATION NEEDS

East of the Rocky Mountains, most monarch butterflies migrate north in successive generations from overwintering areas in central Mexico to as far north as southern Canada. As they migrate north, monarch butterflies mate and deposit their eggs and die. The offspring typically survive 2 to 5 weeks in the adult stage, moving north generation by generation as temperatures warm and plants flower. After three to four generations, the population reaches the northern United States and southern Canada; the final generation makes the return migration in the fall to overwintering sites. Monarch butterflies may travel over 1,864 miles (3,000 kilometers) during the fall migration for over two months. Unlike previous generations, the last generation of each year lives for about 8 months over winter and begins the multi-generational migration the following spring (NJDEP 2017). The preferred habitat for monarchs is open meadows, fields, and wetland edges with the presence of milkweed and flowering plants (Mass Audubon 2022). While overwintering, the eastern North American population prefers a specific microclimate of oyamel fir tree roosts found within mountainous regions in central Mexico (USFWS 2022).

2.3.2 ENVIRONMENTAL BASELINE

*The environmental baseline describes the species' health **within the action area only** at the time of the consultation, and does not include the effects of the action under review. Unlike the species information provided above, the environmental baseline is at the scale of the Action area.*

2.3.2.1 SPECIES PRESENCE AND USE

The eastern North American monarch population has been observed both in Massachusetts, New Hampshire, and Maine during the spring and fall migration period. As stated above, monarchs rely on their obligate host plant, Asclepias, which is known to occur within Maine, New Hampshire, and Massachusetts. Monarchs are known to traverse the open water and may occur within the Potential Action Area.

2.3.2.2 SPECIES CONSERVATION NEEDS WITHIN THE ACTION AREA

IPFs from the site characterization and assessment of the proposed Project will not impact monarch butterflies. Monarch butterflies have been documented offshore on oil platforms in the Gulf of Mexico, 72 miles south of the Louisiana coastline potentially utilizing the structures as a safe haven to cross from Louisiana to northeastern Mexico each fall (Ross 1998). Although monarchs are far-ranging fliers, they are easily blown off course, likely by storms, into offshore waters.

2.3.2.3 HABITAT CONDITION (GENERAL)

The eastern North American monarch population has been observed both in Massachusetts, New Hampshire, and Maine during the spring and fall migration period. As stated above, monarchs rely on their obligate host plant, Asclepias, which is known to occur within Maine, New Hampshire, and Massachusetts. Monarchs are known to traverse the open water and may occur within the Potential Action Area.

2.3.2.4 INFLUENCES

Deforestation and lack of obligate host species, milkweed.

2.3.2.5 ADDITIONAL BASELINE INFORMATION

No additional information to add.

2.3.3 EFFECTS OF THE ACTION

This section considers and discusses all effects on the listed species that are caused by the proposed action and are reasonably certain to occur, including the effects of other activities that would not occur but for the proposed action.

2.3.3.1 INDIRECT INTERACTIONS

Provide a brief overview of what the applicable science has discovered regarding the species and its response to the stressors that each project activity may cause. This should include an explanation of the pathways and mechanisms that have potential to translate environmental change (impact) into response and effects to individuals.

2.3.3.2 DIRECT INTERACTIONS

No direct interactions leading to effects on species are expected to occur from the proposed project.

Justification:

No direct interactions leading to effects on species are expected to occur from the proposed project.

2.3.4 CUMULATIVE EFFECTS

Cumulative impacts were not analyzed for this project

2.3.5 DISCUSSION AND CONCLUSION

DETERMINATION: NE

2.4 NORTHEASTERN BEACH TIGER BEETLE

This species has been excluded from analysis in this environmental review document.

JUSTIFICATION FOR EXCLUSION

The proposed action does not have any onshore components.

2.5 NORTHERN LONG-EARED BAT

2.5.1 STATUS OF THE SPECIES

This section should provide information on the species' background, its biology and life history that is relevant to the proposed project within the action area that will inform the effects analysis.

2.5.1.1 LEGAL STATUS

The Northern Long-eared Bat is federally listed as 'Endangered' and additional information regarding its legal status can be found on the ECOS species profile.

2.5.1.2 RECOVERY PLANS

Available recovery plans for the Northern Long-eared Bat can be found on the ECOS species profile.

2.5.1.3 LIFE HISTORY INFORMATION

The northern long-eared bat is a medium-sized bat about 3 to 3.7 inches in length but with a wingspan of 9 to 10 inches. As its name suggests, this bat is distinguished by its long ears, particularly as compared to other bats in its genus, Myotis, which are actually bats noted for their small ears (Myotis means mouse-eared). The northern long-eared bat is found across much of the eastern and north central United States and all Canadian provinces from the Atlantic coast west to the southern Northwest Territories and eastern British Columbia. The species range includes 37 states. White-nose syndrome, a fungal disease known to affect bats, is currently the predominant threat to this bat, especially throughout the Northeast where the species has declined by up to 99 percent from pre-white-nose syndrome levels at many hibernation sites. Although the disease has not yet spread throughout the northern long-eared bats entire range (white-nose syndrome is currently found in at least 25 of 37 states where the northern long-eared bat occurs), it continues to spread. Experts expect that where it spreads, it will have the same impact as seen in the Northeast.

IDENTIFIED RESOURCE NEEDS

Hibernacula

Humidity: high, noise: low, with minimal distrubance, temperature: 0-9 degrees celsius, time of year: august through april, type: caves, mines, sewers, and spillways

Insects

Type: lepidoptera (moths and butterflies), coleoptera (beetles), trichoptera (caddisflies), diptera (flies), spiders, lepidopterous larvae

Open water

Type: streams, rivers, ponds, wetlands, lakes, road ruts

Travel corridors

Location: between forest patches and type: riparian corridors, wooded paths, hedgerows, fence rows

Trees

Size: > or equal to 3 inch dbh, spatial arrangement: within 1000 feet of forest, structure: cracks, crevices, cavities, exfoliating bark, time of year: april through august, type: dead, nearly dead, living tree with dead parts, and living with appropriate structure

2.5.1.4 CONSERVATION NEEDS

White-nose syndrome is the primary threat to this species. Protection of hibernacula and maternity colonies are conservation priorities.

2.5.2 ENVIRONMENTAL BASELINE

*The environmental baseline describes the species' health **within the action area only** at the time of the consultation, and does not include the effects of the action under review. Unlike the species information provided above, the environmental baseline is at the scale of the Action area.*

2.5.2.1 SPECIES PRESENCE AND USE

BOEM anticipates limited use of the offshore environment by the northern long-eared bat, and exposure to the Wind Energy Area, if it occurs at all, is anticipated to be minimal. U.S. Geological Survey North American Bat (NABat) Status and Trends data indicate that northern long-eared bat summer occupancy is lower along the Atlantic coast and higher in interior areas (Udell et al. 2022). Of the offshore survey campaigns for bats on the Atlantic in other lease areas (Kitty Hawk, CVOW-commercial, US Wind, Atlantic Shores South, Empire Wind, Revolution Wind, Sunrise Wind, and Beacon), there was only one of potential detection of Northern long eared bat during geo surveys for South Fork Wind by 2 acoustic bat detectors were deployed on the Fugro Enterprise vessel railing from July 14 to November 15, 2017. During the offshore construction of the Block Island Wind Farm, bats were monitored with acoustic detectors on boats; no northern long-eared bats were detected among the 1,546 bat passes. (Stantec 2018). There are no records of northern long-eared bats on the OCS, and the available bat survey data suggest there is little evidence of use of the offshore environment (Pelletier et al. 2013; ESS Group, Inc. 2014; Hatch et al. 2013; Sjollema et al. 2014; Smith and McWilliams 2016; Dowling et al. 2017). Although BOEM is not aware of any bat surveys in the proposed lease area, it is extremely unlikely that North long-eared bats use the lease areas.

2.5.2.2 SPECIES CONSERVATION NEEDS WITHIN THE ACTION AREA

There are no anticipated conservation needs within the action area. BOEM anticipates limited use of the offshore environment by the northern long-eared bat, and exposure to the Wind Energy Area, if occurs, is anticipated to be minimal. The USGS's NABat Status and Trends data indicate that northern long-eared bat summer occupancy is lower along the Atlantic coast and higher in interior areas (Udell et al. 2022). Of all the offshore surveys for bats on the Atlantic, there is only one of potential detection of Northern long eared bat during geo surveys for South Fork Wind by 2 acoustic bat detectors were deployed on the Fugro Enterprise vessel railing from July 14 to November 15, 2017. During the offshore construction of the Block Island Wind Farm, bats were monitored with acoustic detectors on boats; no northern long-eared bats were detected among the 1,546 bat passes. (Stantec 2018). There are no records of northern long-eared bats on the OCS, and the available bat survey data suggest there is little evidence of use of the offshore environment (Pelletier et al. 2013; ESS Group, Inc. 2014; Hatch et al. 2013; Sjollema et al. 2014; Smith and McWilliams 2016; Dowling et al. 2017). Given that the action area is the offshore environment, no conservation needs identified within action area.

2.5.2.3 HABITAT CONDITION (GENERAL)

As previously stated, although there have been no surveys conducted for NLEB within the wind energy area, there are no records of northern long-eared bats on the OCS, and the available bat survey data suggest there is little evidence of use of the offshore environment (Pelletier et al. 2013; ESS Group, Inc. 2014; Hatch et al. 2013; Sjollema et al. 2014; Smith and McWilliams 2016; Dowling et al. 2017). Habitat condition of the action area is not relevant, because this species transits over it.

2.5.2.4 INFLUENCES

Consultation Package Builder guide from FWS does not provide any additional description for what should be included. Text deleted and left blank.

2.5.2.5 ADDITIONAL BASELINE INFORMATION

BOEM anticipates limited use of the offshore environment by the northern long-eared bat, and exposure to the Wind Energy Area, if occurs, is anticipated to be minimal. The USGS's NABat Status and Trends data indicate that northern long-eared bat summer occupancy is lower along the Atlantic coast and higher in interior areas (Udell et al. 2022). Of all the offshore surveys for bats on the Atlantic, there is only one of potential detection of Northern long eared bat during geo surveys for South Fork Wind by 2 acoustic bat detectors were deployed on the Fugro Enterprise vessel railing from July 14 to November 15, 2017. During the offshore construction of the Block Island Wind Farm, bats were monitored with acoustic detectors on boats; no northern long-eared bats were detected among the 1,546 bat passes. (Stantec 2018). There are no records of northern long-eared bats on the OCS, and the available bat survey data suggest there is little evidence of use of the offshore environment (Pelletier et al. 2013; ESS Group, Inc. 2014; Hatch et al. 2013; Sjollema et al. 2014; Smith and McWilliams 2016; Dowling et al. 2017).

2.5.3 EFFECTS OF THE ACTION

This section considers and discusses all effects on the listed species that are caused by the proposed action and are reasonably certain to occur, including the effects of other activities that would not occur but for the proposed action.

2.5.3.1 INDIRECT INTERACTIONS

Provide a brief overview of what the applicable science has discovered regarding the species and its response to the stressors that each project activity may cause. This should include an explanation of the pathways and mechanisms that have potential to translate environmental change (impact) into response and effects to individuals.

2.5.3.2 DIRECT INTERACTIONS

DIRECT INTERACTION	CONSERVATION MEASURES	INDIVIDUALS IMPACTED	IMPACT EXPLANATION
Collisions	Coordinate with USFWS to identify appropriate mitigation measures To the extent practicable, minimize lighting to reduce potential attraction of birds and bats to vessels and aircraft	No	The small size and low profile make it extremely unlikely that bats would collide with the buoys (discountable). Aircraft traffic during site characterization activities could pose a collision threat to federally listed bats that may be in the area of aircraft use. General aviation traffic accounts for approximately two bird strikes per 100,000 flights (Dolbeer et al. 2019), and the number of bat strikes is approximately 100 times fewer than bird strikes (Dolbeer et al 2021). Because aircraft flights associated with the Project are expected to be minimal in strikes with bats comparison to baseline conditions, aircraft strikes with federally listed bats are highly unlikely to occur. The species' exposure to vessels is expected to be minimal if exposure were to occur at all. Therefore, risk of collision with vessels is unlikely to occur. Because few, if any, northern long-eared bats are expected to be in the Action Area collisions are considered unlikely to occur.

2.5.4 CUMULATIVE EFFECTS

Cumulative effects are not analyzed for this project as no ESA-listed species is anticipated to be adversely affected by any undertaking.

2.5.5 DISCUSSION AND CONCLUSION

DETERMINATION: NLAA

2.6 PIPING PLOVER

2.6.1 STATUS OF THE SPECIES

This section should provide information on the species' background, its biology and life history that is relevant to the proposed project within the action area that will inform the effects analysis.

2.6.1.1 LEGAL STATUS

The Piping Plover is federally listed as 'Threatened' and additional information regarding its legal status can be found on the ECOS species profile.

2.6.1.2 RECOVERY PLANS

Available recovery plans for the Piping Plover can be found on the ECOS species profile.

2.6.1.3 LIFE HISTORY INFORMATION

Size: 18 cm (7.25 in) in length. Color: Breeding season: Pale brown above, lighter below; black band across forehead; bill orange with black tip; legs orange; white rump. Male: Complete or incomplete black band encircles the body at the breast. Female: Paler head band; incomplete breast band. Winter coloration: Bill black; all birds lack breast band and head band.

IDENTIFIED RESOURCE NEEDS

Beaches

Multiple types

Invertebrates

Type: freshwater, marine, and terrestrial invertebrates and type: small invertebrates: crabs, worms, flies, beetles, spiders, sand hoppers, clams, and ostracods

Mud and algal flats

Type: absent or sparse vegetation

Sandbar

Substrate structure and characteristics

Type: debris (wrack) - organic materials such as driftwood, seashells, or seaweed and type: sand, sand and shell, gravel

Vegetation density

Percent cover: less than 50%

2.6.1.4 CONSERVATION NEEDS

The breeding range of the Atlantic coast population includes the Atlantic coast of North America from Canada to North Carolina. The piping plover breeding season extends from April through August, with piping plovers arriving at breeding locations in mid-March and into April. In spring, adult Atlantic coast piping plovers arrive at breeding locations in proximity to the Action Area beginning in mid-March and nest from April through August. Post-breeding staging in preparation for migration extends from late July through September, rarely into October (USFWS 1996; Loring et al. 2020). Piping plover breeding habitat consists of generally undisturbed, sparsely vegetated, flat, sand dune–beach habitats such as coastal beaches, gently sloping foredunes, sandflats, and washover areas to which they are restricted (USFWS 1996, 2009). Nest sites are shallow, scraped depressions in a variety of substrates situated above the high-tide line (USFWS 1996). Piping plovers forage in the intertidal zone. Foraging habitat includes intertidal portions of ocean beaches, washover areas, mudflats, and sandflats, as well as shorelines of coastal ponds, lagoons, and saltmarshes where they feed on beetles, crustaceans, fly larvae, marine worms, and mollusks (USFWS 1996).

2.6.2 ENVIRONMENTAL BASELINE

*The environmental baseline describes the species' health **within the action area only** at the time of the consultation, and does not include the effects of the action under review. Unlike the species information provided above, the environmental baseline is at the scale of the Action area.*

2.6.2.1 SPECIES PRESENCE AND USE

Piping plovers are present in Massachusetts, New Hampshire, and Maine during their breeding season and spring and fall migratory seasons which occur from late March through mid-October. A recent Very High Frequency (VHF)-tracking study modeled the movement of piping plovers in Rhode Island and Massachusetts and found that most piping plovers were modeled flying directly across the mid-Atlantic from breeding areas in southern New England and all individuals tracked during the migratory departure exhibited a south–southwest trajectory (Loring et al. 2019). A limitation of the technology is that the detection range of a telemetry station was about 20 km, so detections between stations were modeled to predict the migratory flight paths (see Figure 6 in Loring et al., 2020). The furthest modeled offshore flight path is approximately 160 km from the Submerged Lands Act (SLA) boundary at approximately 3 nautical miles from the mouth of Delaware Bay. North of the study area, it is possible Canadian piping plovers could migrate through the Gulf of Maine. During the spring migration, a pilot study was conducted where 10 plovers were fitted with transmitters in the Bahamas; the only two plovers that had enough data for analysis flew to Florida and South Carolina and traveled north along the Atlantic coast (see Loring et al. (2019, Appendix I, Figure J-1). The migration period lasted for a period of several weeks and included low visibility conditions, during which the two birds were not detected north of Montauk, New York (Loring et al. 2019). Based on available research of piping plovers offshore, they may be present within the WEA during migration.

2.6.2.2 SPECIES CONSERVATION NEEDS WITHIN THE ACTION AREA

Piping plovers are present in Massachusetts, New Hampshire, and Maine during their breeding season and spring and fall migratory seasons which occur from late March through mid-October. A recent Very High Frequency (VFH)-tracking study documented the movement of piping plovers in Rhode Island and Massachusetts and found that most piping plovers fly directly across the mid-Atlantic from breeding areas in southern New England and all individuals tracked during the migratory departure exhibited a south–southwest trajectory (Loring et al. 2019). Given the action area is the offshore environment, no conservation needs identified within action area.

2.6.2.3 HABITAT CONDITION (GENERAL)

Piping plover habitat within the action area is only anticipated to potentially occur during spring and fall migratory seasons which occur from late march through mid-October. Habitat condition of the action area is not relevant, because this species transits over it.

2.6.2.4 INFLUENCES

Consultation Package Builder guide from FWS does not provide any additional description for what should be included. Text deleted and left blank.

2.6.2.5 ADDITIONAL BASELINE INFORMATION

N/A

2.6.3 EFFECTS OF THE ACTION

This section considers and discusses all effects on the listed species that are caused by the proposed action and are reasonably certain to occur, including the effects of other activities that would not occur but for the proposed action.

2.6.3.1 INDIRECT INTERACTIONS

Provide a brief overview of what the applicable science has discovered regarding the species and its response to the stressors that each project activity may cause. This should include an explanation of the pathways and mechanisms that have potential to translate environmental change (impact) into response and effects to individuals.

2.6.3.2 DIRECT INTERACTIONS

No direct interactions leading to effects on species are expected to occur from the proposed project.

Justification:

Species only migrates over the action area during spring and fall seasons well above buoys and boats.

2.6.4 CUMULATIVE EFFECTS

Cumulative effects were not analyzed for this project.

2.6.5 DISCUSSION AND CONCLUSION

DETERMINATION: NLAA

2.7 PLYMOUTH REDBELLY TURTLE = PLYMOUTH REDBELLY COOTER

This species has been excluded from analysis in this environmental review document.

JUSTIFICATION FOR EXCLUSION

The proposed action does not have any onshore components.

2.8 ROSEATE TERN

2.8.1 STATUS OF THE SPECIES

This section should provide information on the species' background, its biology and life history that is relevant to the proposed project within the action area that will inform the effects analysis.

2.8.1.1 LEGAL STATUS

The Roseate Tern is federally listed as 'Endangered' and additional information regarding its legal status can be found on the ECOS species profile.

2.8.1.2 RECOVERY PLANS

Available recovery plans for the Roseate Tern can be found on the ECOS species profile.

2.8.1.3 LIFE HISTORY INFORMATION

The roseate tern is about 40 centimeters in length, with light-gray wings and back. Its first three or four primaries are black and so is its cap. The rest of the body is white, with a rosy tinge on the chest and belly during the breeding season. The tail is deeply forked, and the outermost streamers extend beyond the folded wings when perched. During the breeding season the basal three-fourths of the otherwise entirely black bill and legs turn orange-red.

IDENTIFIED RESOURCE NEEDS

Coastal islands

Time of year: april-september and type: active common tern breeding colony

Coastal shore

Type: flat, sandy and type: sandbar, tidal sand flat, beach, shoal

Coastal tidal zone

Type: intertidal zone, subtidal zone and type: shallow water area (<10m), submerged sandbar, submerged shoal, submerged mudflat

Common tern flock

Time of year: april-september and type: active common tern breeding colony

Fish

Species: american sand lance (ammodytes americanus) and other small schooling marine fish

Sandbar

Type: sandbar, tidal sand flat, beach, shoal

Substrate structure and characteristics

Location: coastal island breeding colony, substrate size: coarse, time of year: april-september, type: rocks, boulders, driftwood, wooden boards, revetments, nest boxes, tires, drebris, type: sand, sand and shell, and gravel

Vegetation density

Density: 80%, location: coastal island breeding colony, spatial arrangement: clumped, species: native coastal, and time of year: april - september

Vegetation structure

Multiple types

2.8.1.4 CONSERVATION NEEDS

The northeastern roseate tern population breeds on small islands or on sand dunes at the ends of barrier beaches along the Atlantic coast, occurring in mixed colonies with common terns (Sterna hirundo). The population is currently restricted to a small number of colonies on predator-free islands from Nova Scotia to Long Island, New York, with over 90 percent of remaining individuals breeding at just three colony locations (Bird Island and Ram Island in Buzzards Bay, Massachusetts, and Great Gull Island in Long Island Sound, New York) (Nisbet et al. 2014; Loring et al. 2019; USFWS 2020b). Historically, the northeastern roseate tern population was known to breed as far south as Virginia, but the species currently does not breed south of Long Island, New York (USFWS 1998). Declines have been attributed largely to low productivity, partially related to predators and habitat loss and degradation, although adult survival is also unusually low for a tern species (USFWS 2010b). A recent USFWS 5-year review has shown that the historical population size in northeastern North America was estimated at 8,500 pairs in the 1930s (USFWS 2020b). In 2019, the range-wide breeding population was estimated at 4,374 breeding pairs at peak period count. Since 2016 the U.S. roseate tern breeding population has exceeded 4,000 breeding pairs annually. However, this conservation need is outside of action area.

2.8.2 ENVIRONMENTAL BASELINE

*The environmental baseline describes the species' health **within the action area only** at the time of the consultation, and does not include the effects of the action under review. Unlike the species information provided above, the environmental baseline is at the scale of the Action area.*

2.8.2.1 SPECIES PRESENCE AND USE

About 200 to 250 roseate tern pairs nest on Maine coastal islands in the early spring (April-May). During the nesting season, they feed primarily in near-shore habitats on sand lance. Roseate tern foraging areas are not well known but can be 10 or 15 miles or greater from nesting islands (USFWS Maine n.d.). In the Gulf of Maine, roseate terns were recently documented roseate terns foraging a maximum of 32.5 miles offshore from breeding colonies (Yakola and Lyons 2023). Although some of these roseate terns were tracked close to potential Research Lease area in the Gulf of Maine (Yakola and Lyons 2023), none of the roseate terns were tracked in the proposed commercial lease areas. In conclusion, based on the behavioral and foraging ecology, and survey data, roseate tern activity is expected within the offshore Action Area. It is possible that small numbers of breeding and non-breeding terns, including 2-year-old birds and adults, may pass through the Action Area in spring, late summer, and early fall to rest on the water or travel to adjacent foraging habitat on barrier islands in Maine. Some individuals may also pass through the offshore Action Area during the spring and fall migration.

2.8.2.2 SPECIES CONSERVATION NEEDS WITHIN THE ACTION AREA

Conservation need is outside of action area.

2.8.2.3 HABITAT CONDITION (GENERAL)
Left blank for this consultation as advised by FWS in comment response letter on 06/29/2024.

2.8.2.4 INFLUENCES
Consultation Package Builder guide from FWS does not provide any additional description for what should be included. Text deleted and left blank.

2.8.2.5 ADDITIONAL BASELINE INFORMATION
Left blank for this consultation as advised by USFWS on 6/29/2024.

2.8.3 EFFECTS OF THE ACTION
This section considers and discusses all effects on the listed species that are caused by the proposed action and are reasonably certain to occur, including the effects of other activities that would not occur but for the proposed action.

2.8.3.1 INDIRECT INTERACTIONS
Provide a brief overview of what the applicable science has discovered regarding the species and its response to the stressors that each project activity may cause. This should include an explanation of the pathways and mechanisms that have potential to translate environmental change (impact) into response and effects to individuals.

2.8.3.2 DIRECT INTERACTIONS

DIRECT INTERACTION	CONSERVATION MEASURES	INDIVIDUALS IMPACTED	IMPACT EXPLANATION
Disturbance	Coordinate with USFWS to identify appropriate mitigation measures To the extent practicable, minimize lighting to reduce potential attraction of birds and bats to vessels and aircraft	No	Vessel and survey noise from site assessment and site characterization activities could disturb roseate terns on the water, but they would likely acclimate to the noise or move away, potentially resulting in a temporary loss of habitat (BOEM 2012). Any noise-related effects on the federally listed bird species in the vicinity would be temporary and localized. Therefore, potential effects from noise may affect the roseate tern but adverse impacts would be unlikely to occur (discountable)

DIRECT INTERACTION	CONSERVATION MEASURES	INDIVIDUALS IMPACTED	IMPACT EXPLANATION
			and the size of any impact, were it to occur, would be too small to be measured or evaluated (insignificant).

2.8.4 CUMULATIVE EFFECTS

Cumulative effects are not analyzed for this project as no ESA-listed species is anticipated to be adversely affected by any undertaking.

2.8.5 DISCUSSION AND CONCLUSION

DETERMINATION: NLAA

2.9 RUFA RED KNOT

2.9.1 STATUS OF THE SPECIES

This section should provide information on the species' background, its biology and life history that is relevant to the proposed project within the action area that will inform the effects analysis.

2.9.1.1 LEGAL STATUS

The Rufa Red Knot is federally listed as 'Threatened' and additional information regarding its legal status can be found on the ECOS species profile.

2.9.1.2 RECOVERY PLANS

Available recovery plans for the Rufa Red Knot can be found on the ECOS species profile.

2.9.1.3 LIFE HISTORY INFORMATION

Length: 25-28 cm. Adults in spring: Above finely mottled with grays, black and light ochre, running into stripes on crown; throat, breast and sides of head cinnamon-brown; dark gray line through eye; abdomen and undertail coverts white; uppertail coverts white, barred with black. Adults in winter: Pale ashy gray above, from crown to rump, with feathers on back narrowly edged with white; underparts white, the breast lightly streaked and speckled, and the flanks narrowly barred with gray. Adults in autumn: Underparts of some individuals show traces of the "red" of spring.

IDENTIFIED RESOURCE NEEDS

Beaches

Type: barrier island beaches and type: sandy beaches

Coastal shore

Type: flat, sandy and type: sandbar, tidal sand flat, beach, shoal

Horseshoe crabs

Mass: 30,000 horseshoe crab eggs/per day/per red knot

Invertebrates

Type: freshwater, marine, and terrestrial invertebrates

Mollusks

Small islands

Type: marsh islands

Vegetation

2.9.1.4 CONSERVATION NEEDS

Conservation need is outside of action area.

2.9.2 ENVIRONMENTAL BASELINE

*The environmental baseline describes the species' health **within the action area only** at the time of the consultation, and does not include the effects of the action under review. Unlike the species information provided above, the environmental baseline is at the scale of the Action area.*

2.9.2.1 SPECIES PRESENCE AND USE

The rufa red knot is known to pass through coastal habitats along Maine, New Hampshire, and Massachusetts during the spring and fall migration, with a greater number of individuals passing through during the fall (BOEM 2013). A telemetry study by Loring et al. (2018) found that red knots that migrated during early fall departed from the Atlantic coast in a southeast direction, likely heading to long-distance wintering destinations in South America. In addition, rufa red knots that migrated during late fall traveled southwest across the Mid-Atlantic Bight, likely heading to short distance wintering destinations in the southeastern United States and Caribbean. Interestingly, rufa red knots migrated through federal waters of the Atlantic Outer Continental Shelf during evenings with fair weather and a tailwind blowing in their direction of travel.

Only a small portion of rufa population uses the Atlantic coast during the southward migration. Most of the knots (254 out of 388) that were tagged at stop over sites in James Bay and Mingan Islands Canada headed directly south over open ocean (Loring et al. 2018). In spring, the vast majority of rufa red knots fly directly overland from stopover areas in Delaware Bay to breeding areas in Hudson Bay Canada. The results from Loring et al. (2018) overall indicate that most individuals followed a coastal migratory route and probability to exposure in the WEA is low. Little red knot activity is expected, but there are many unknowns in red knot movement through the Gulf of Maine.

2.9.2.2 SPECIES CONSERVATION NEEDS WITHIN THE ACTION AREA

There are no anticipated conservation needs within the action area. BOEM anticipates limited use of the offshore environment by the species, and exposure to the Wind Energy Area, if occurs, is anticipated to be minimal.

2.9.2.3 HABITAT CONDITION (GENERAL)

Left blank for this consultation as advised by FWS on 6/29/2024.

2.9.2.4 INFLUENCES

Consultation Package Builder guide from FWS does not provide any additional description for what should be included. Text deleted and left blank.

2.9.2.5 ADDITIONAL BASELINE INFORMATION

N/A

2.9.3 EFFECTS OF THE ACTION

This section considers and discusses all effects on the listed species that are caused by the proposed action and are reasonably certain to occur, including the effects of other activities that would not occur but for the proposed action.

2.9.3.1 INDIRECT INTERACTIONS

Provide a brief overview of what the applicable science has discovered regarding the species and its response to the stressors that each project activity may cause. This should include an explanation of the pathways and mechanisms that have potential to translate environmental change (impact) into response and effects to individuals.

2.9.3.2 DIRECT INTERACTIONS

No direct interactions leading to effects on species are expected to occur from the proposed project.

Justification:

Red knots pass over the action area during fall migration and possibly some during spring migration at altitudes well above low profile buoys and vessels. Collisions with aircraft is extremely rare and extremely unlikely to occur to during aerial surveys in the gulf.

2.9.4 CUMULATIVE EFFECTS

Cumulative impacts were not analyzed for this project.

2.9.5 DISCUSSION AND CONCLUSION

DETERMINATION: NLAA

2.10 SANDPLAIN GERARDIA

This species has been excluded from analysis in this environmental review document.

JUSTIFICATION FOR EXCLUSION

The proposed action does not have any onshore components.

2.11 SEABEACH AMARANTH

This species has been excluded from analysis in this environmental review document.

JUSTIFICATION FOR EXCLUSION

The proposed action does not have any onshore components.

2.12 TRICOLORED BAT

2.12.1 STATUS OF THE SPECIES

This section should provide information on the species' background, its biology and life history that is relevant to the proposed project within the action area that will inform the effects analysis.

2.12.1.1 LEGAL STATUS

The Tricolored Bat is federally listed as 'Proposed Endangered' and additional information regarding its legal status can be found on the ECOS species profile.

2.12.1.2 RECOVERY PLANS

Available recovery plans for the Tricolored Bat can be found on the ECOS species profile.

2.12.1.3 LIFE HISTORY INFORMATION

The tricolored bat is a small insectivorous bat that is distinguished by its unique tricolored fur and often appears yellowish to nearly orange. The once common species is wide ranging across the eastern and central United States and portions of southern Canada, Mexico and Central America. During the winter, tricolored bats are often found in caves and abandoned mines, although in the southern United States, where caves are sparse, tricolored bats are often found roosting in road-associated culverts where they exhibit shorter torpor bouts and forage during warm nights. During the spring, summer, and fall, tricolored bats are found in forested habitats where they roost in trees, primarily among leaves of live or recently dead deciduous hardwood trees, but may also be found in Spanish moss, pine trees, and occasionally human structures. Tricolored bats face extinction due primarily to the rangewide impacts of white-nose syndrome, a deadly disease affecting cave-dwelling bats across the continent. White-nose syndrome has caused estimated declines of more than 90 percent in affected tricolored bat colonies across the majority of the species range. To address the growing threat of white-nose syndrome to the tricolored bat and other bats across North America, the U.S. Fish and Wildlife Service is leading the White-nose Syndrome National Response Team, a coordinated effort of more than 150 non-governmental organizations, institutions, Tribes, and state and federal agencies. Together we are conducting critical white-nose syndrome research and developing management strategies to minimize impacts of the disease and recover affected bat populations. For more information on white-nose syndrome, please see: https://www.whitenosesyndrome.org/ For more information on tricolored bats, please see: https://www.fws.gov/species/tricolored-bat-perimyotis-subflavus

IDENTIFIED RESOURCE NEEDS

Hibernacula

Humidity: high, noise: low, with minimal distrubance, temperature: 0-9 degrees celsius, time of year: august through april, type: caves, mines, sewers, and spillways

Macroinvertebrates

Lepidoptera (moths and butterflies), coleoptera (beetles), trichoptera (caddisflies), diptera (flies), spiders, lepidopterous larvae

Travel corridors

Location: between forest patches and type: riparian corridors, wooded paths, hedgerows, fence rows

Trees

Size: > or equal to 3 inch dbh, spatial arrangement: within 1000 feet of forest, structure: cracks, crevices, cavities, exfoliating bark, time of year: april through august, type: dead, nearly dead, living tree with dead parts, and living with appropriate structure

2.12.1.4 CONSERVATION NEEDS

White-nose syndrome is the primary threat to this species. Protection of hibernacula and maternity colonies are conservation priorities. Given that the action area is the offshore environment, no conservation needs identified within the action area.

2.12.2 ENVIRONMENTAL BASELINE

*The environmental baseline describes the species' health **within the action area only** at the time of the consultation, and does not include the effects of the action under review. Unlike the species information provided above, the environmental baseline is at the scale of the Action area.*

2.12.2.1 SPECIES PRESENCE AND USE

Few tricolored bats are expected to be found on the OCS. BOEM anticipates limited use of the offshore environment by the tricolored, and exposure to the Wind Energy Area. The USGS's NABat Status and Trends data indicate that tricolored bat summer occupancy is lower nalong the Atlantic coast and higher in interior areas (Udell et al. 2022). Tri-colored bats are relatively rare in offshore areas and are seldom observed offshore during monitoring studies (Solick and Newman 2021). Further, tri-color bat offshore detections are rare among other species detected. In Stantec (2020), 4.1% of the total recorded bat passes at Block Island were labeled tricolored bat (80 out of 1,974 bat passes assigned to species). In the Gulf of Maine, acoustic monitoring detected tricolored bat 12-14km from shore (Solick and Newman 2021; Peterson et al. 2014), and during a 6-year acoustic survey effort at 24 sites, only 0.04% of the total recorded bat passes in the Gulf of Maine were labeled tricolored bat (39 out of 110,100 bat passes) (Stantec, 2016). Nine of the 24 sites had tricolored bat detections on coastal islands that were 10-30 km off the coast of the mainland (Stantec, 2016). Although no surveys have been specifically conducted for tricolored bats within the Wind Energy Area, available regional monitoring surveys suggest that tricolored bats may potentially be present on rare instances.

2.12.2.2 SPECIES CONSERVATION NEEDS WITHIN THE ACTION AREA

Given that the action area is the offshore environment, no conservation needs identified within the action area.

2.12.2.3 HABITAT CONDITION (GENERAL)

Left blank for this consultation as advised by USFWS on 6/29/2024.

2.12.2.4 INFLUENCES

Few tricolored bats are expected to be found on the OCS.

2.12.2.5 ADDITIONAL BASELINE INFORMATION

Left blank for this consultation as advised by USFWS on 6/29/24.

2.12.3 EFFECTS OF THE ACTION

This section considers and discusses all effects on the listed species that are caused by the proposed action and are reasonably certain to occur, including the effects of other activities that would not occur but for the proposed action.

2.12.3.1 INDIRECT INTERACTIONS

Provide a brief overview of what the applicable science has discovered regarding the species and its response to the stressors that each project activity may cause. This should include an explanation of the pathways and mechanisms that have potential to translate environmental change (impact) into response and effects to individuals.

2.12.3.2 DIRECT INTERACTIONS

DIRECT INTERACTION	CONSERVATION MEASURES	INDIVIDUALS IMPACTED	IMPACT EXPLANATION
Auditory disturbance		Yes	zero
Collisions	Coordinate with USFWS to identify appropriate mitigation measures To the extent practicable, minimize lighting to reduce potential attraction of birds and bats to vessels and aircraft	No	Bat activity in the Atlantic Coast has declined dramatically 11 nautical miles (nm) (20.3 kilometers [km]) from shore (Sjollema et al. 2014), and it is generally considered unlikely that any bats would travel 15 nm (27.8 km) or more from land over open water to forage (Peterson 2016; Sjollema et al. 2014). The nearest shoreline and mainland areas from the Wind Energy Area (WEA) boundary is between 20 and 76 nautical miles (nm) away. Due to the scarcity of bats offshore in the WEA, the limited amount of added vessel traffic, and relatively small number of buoys installed in relation to the total WEA and their low profile, collisions between bats and boats or meteorological buoys are extremely unlikely to occur (discountable).

2.12.4 CUMULATIVE EFFECTS

Cumulative effects are not analyzed for this project as no ESA-listed species is anticipated to be adversely affected by any undertaking.

2.12.5 DISCUSSION AND CONCLUSION

DETERMINATION: NLAA

3 CRITICAL HABITAT EFFECTS ANALYSIS

3.1 ATLANTIC SALMON CRITICAL HABITAT

This critical habitat has been excluded from analysis in this environmental review document.

JUSTIFICATION FOR EXCLUSION

The Action Area is outside of this critical habitat and it is not expected that vessels will transit upriver and enter designated Atlantic salmon critical habitat. Additionally, no activities that would disturb any of the identified PBFs would occur within or adjacent to any rivers with designated Atlantic salmon critical habitat. Therefore, the potential for adverse effects from the Proposed Action is discountable.

4 SUMMARY DISCUSSION AND CONCLUSION

4.1 SUMMARY DISCUSSION

Bats: Given the rarity of the Northern Long-eared Bat and Tricolored bat on the Atlantic OCS and their ecology and habitat requirements, it is extremely unlikely that these would venture so far from land and on to the OCS and into the Gulf of Maine WEA. It is possible that some bats may be exposedto anthropogenic noise associated with vessels and aircraft during site characterization and assessment activities within the Action Area; however, noise from these activities would be infrequent, temporary, and highly localized (discountable). The small size and low profile make it extremely unlikely that bats would collide with the buoys (discountable). Aircraft traffic during site characterization activities could pose a collision threat to federally listed bats that may be in the area of aircraft use. General aviation traffic accounts for approximately two bird strikes per 100,000 flights (Dolbeer et al. 2019), and the number of bat strikes is approximately 100 times fewer than bird strikes (Dolbeer et al 2021). Because aircraft flights associated with the Project are expected to be minimal in strikes with bats comparison to baseline conditions, aircraft strikes with federally listed bats are highly unlikely to occur. Therefore, potential effects from aircraft-related collisions are extremely unlikely to occur (discountable). Birds: Vessel and survey noise from site assessment and site characterization activities could disturb offshore bird species, but they would likely acclimate to the noise or move away, potentially resulting in a temporary loss of habitat (BOEM 2012). Any noise-related effects on federally listed bird species in the vicinity would be temporary and localized. Therefore, potential effects from noise may affect the roseate tern, but adverse impacts would be unlikely to occur (discountable). (https://null) Aircraft traffic during site characterization activities could pose a collision threat to federally listed birds that may be in the area of aircraft use. General aviation traffic accounts for approximately two bird strikes per 100,000 flights (Dolbeer et al. 2019). Because aircraft flights associated with the Project are expected to be minimal in comparison to baseline conditions, aircraft strikes with federally listed birds are highly unlikely to occur. Birds do occasionally collide into vessels, typically at night during inclement weather, BOEM is not aware of any records of piping plovers, red knots or roseate terns colliding into vessels or evidence that these birds are attracted to artificial lights. Regardless, this BA includes conservation measures to minimize lighting (see 1.6.6). Therefore, potential effects from aircraft-related and vessel collisions are extremely unlikely to occur (discountable).

4.2 CONCLUSION

Bats (Northern Long-Eared Bat and Tricolored Bat):

Few, if any, northern long-eared bats and tricolored bats are expected in the Action Areas, and the potential effects associated with the proposed activities described above are extremely unlikely to occur (discountable) and the size of any impact, were it to occur, would be too small to be measured or evaluated. For these reasons, BOEM anticipates that the Proposed Action is not likely to adversely affect the northern long-eared bat or the tricolored bat. Birds (Roseate Tern, Piping Plover, and Rufa Red Knot): The occurrence of these bird species in the Action Area is possible but expected in very small numbers, and the potential effects associated with the proposed activities described above are extremely unlikely to occur (discountable) and the size of any impact, were it to occur, would be too small to be measured or evaluated. For these reasons, BOEM anticipates that the Proposed Action is not likely to adversely affect the roseate tern, piping plover, and red knot.