

• The request for renewal must include the following:

(1) An explanation that the activities to be conducted under the requested renewal IHA are identical to the activities analyzed under the initial IHA, are a subset of the activities, or include changes so minor (*e.g.*, reduction in pile size) that the changes do not affect the previous analyses, mitigation and monitoring requirements, or take estimates (with the exception of reducing the type or amount of take).

(2) A preliminary monitoring report showing the results of the required monitoring to date and an explanation showing that the monitoring results do not indicate impacts of a scale or nature not previously analyzed or authorized.

• Upon review of the request for renewal, the status of the affected species or stocks, and any other pertinent information, NMFS determines that there are no more than minor changes in the activities, the mitigation and monitoring measures will remain the same and appropriate, and the findings in the initial IHA remain valid.

Dated: October 3, 2024.

Kimberly Damon-Randall,

*Director, Office of Protected Resources,
National Marine Fisheries Service.*

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DEPARTMENT OF COMMERCE

National Oceanic and Atmospheric Administration

[RTID 0648-XE296]

Takes of Marine Mammals Incidental to Specified Activities; Takes of Marine Mammals Incidental to Marine Site Characterization Surveys Off Rhode Island and Massachusetts

AGENCY: National Marine Fisheries Service (NMFS), National Oceanic and Atmospheric Administration (NOAA), Commerce.

ACTION: Notice; issuance of an incidental harassment authorization.

SUMMARY: In accordance with the regulations implementing the Marine Mammal Protection Act (MMPA) as amended, notification is hereby given that NMFS has issued an incidental harassment authorization (IHA) to Bay State Wind, LLC (Bay State Wind), to incidentally harass marine mammals during marine site characterization surveys off the coast of Rhode Island and Massachusetts in the Bureau of Ocean Energy Management (BOEM)

Commercial Lease of Submerged Lands for Renewable Energy Development on the Outer Continental Shelf (OCS) Lease Area OCS-A 0500 and the associated export cable route (ECR) area.

DATES: The authorization is effective from October 6, 2024, to October 5, 2025.

ADDRESSES: Electronic copies of the application and supporting documents, as well as a list of the references cited in this document, may be obtained online at: <https://www.fisheries.noaa.gov/national/marine-mammal-protection/incidental-take-authorizations-other-energy-activities-renewable>. In case of problems accessing these documents, please call the contact listed below.

FOR FURTHER INFORMATION CONTACT: Rachel Hilt, Office of Protected Resources, NMFS, (301) 427-8401.

SUPPLEMENTARY INFORMATION:

Background

The MMPA prohibits the “take” of marine mammals, with certain exceptions. Sections 101(a)(5)(A) and (D) of the MMPA (16 U.S.C. 1361 *et seq.*) direct the Secretary of Commerce (as delegated to NMFS) to allow, upon request, the incidental, but not intentional, taking of small numbers of marine mammals by U.S. citizens who engage in a specified activity (other than commercial fishing) within a specified geographical region if certain findings are made and either regulations are proposed or, if the taking is limited to harassment, a notice of a proposed IHA is provided to the public for review.

Authorization for incidental takings shall be granted if NMFS finds that the taking will have a negligible impact on the species or stock(s) and will not have an unmitigable adverse impact on the availability of the species or stock(s) for taking for subsistence uses (where relevant). Further, NMFS must prescribe the permissible methods of taking and other “means of effecting the least practicable adverse impact” on the affected species or stocks and their habitat, paying particular attention to rookeries, mating grounds, and areas of similar significance, and on the availability of the species or stocks for taking for certain subsistence uses (referred to in shorthand as “mitigation”); and requirements pertaining to the monitoring and reporting of the takings. The definitions of all applicable MMPA statutory terms cited above are included in the relevant sections below.

History of Request

On October 6, 2022, NMFS issued an IHA to Ørsted (parent company of Bay State Wind) to take marine mammals incidental to marine site characterization surveys in Lease Areas OCS-A 0486, 0487, 0500 off the coasts from New York to Massachusetts and along potential ECRs to landfall locations between Raritan Bay (part of the New York Bight) and Falmouth, Massachusetts (87 FR 61575; October 12, 2022). On May 26, 2023, NMFS received a request for a renewal of that initial IHA because Ørsted’s marine site characterization surveys under the initial IHA had not yet been completed and more time was required. The renewal IHA was issued on September 29, 2023 (88 FR 62337, October 5, 2023). Ørsted has complied with all the requirements (*e.g.*, mitigation, monitoring, and reporting) of the previous IHAs in Lease Areas OCS-A 0486, 0487, and 0500.

On March 27, 2024, NMFS received a request from Bay State Wind for an IHA to take marine mammals incidental to conducting marine site characterization surveys off the coasts of Rhode Island and Massachusetts. This request was limited to planned survey activity in OCS-A 0500 (*i.e.*, Ørsted’s planned Bay State Wind development) and the associated ECR area. Following NMFS’ review of the application, Bay State Wind submitted a revised version on June 10, 2024. Following additional review of the application, Bay State Wind submitted another revised version on July 29, 2024, which was deemed adequate and complete on August 1, 2024. Bay State Wind’s request is for take of 17 species of marine mammals, by Level B harassment only. Neither Bay State Wind nor NMFS expect serious injury or mortality to result from this activity and, therefore, an IHA is appropriate. There are no changes from the proposed IHA to the final IHA.

Description of the Activity and Anticipated Impacts

Overview

Bay State Wind will conduct marine site characterization surveys, including high-resolution geophysical (HRG) surveys and geotechnical surveys, in BOEM Lease Area OCS-A 0500, and the associated ECR. The purpose of the marine site characterization surveys is to collect data concerning seabed (geophysical, geotechnical, and geohazard), ecological, and archeological conditions within the footprint of the offshore wind facility development. Surveys are also conducted to support engineering

design and to map unexploded ordnance (UXO). Underwater sound resulting from Bay State Wind's proposed activities, specifically HRG surveys, has the potential to result in incidental take of 17 species, in the form of Level B harassment only.

Dates and Duration

While the exact dates have not yet been established, the activities are planned to begin as soon as possible upon issuance of an IHA, if appropriate. The activity is expected to require up to 350 survey days across a maximum of four vessels operating concurrently over

the course of a single year ("survey day" defined as a 24-hour activity period in which the assumed number of line kilometers (km) are surveyed). Vessel days are defined as the number of days any single vessel is in operation regardless of any other vessel operations (*i.e.*, if two vessels are working concurrently within the same 24-hour period, each vessel would be counted as having a vessel day for a total of two vessel days even though the activity occurs within a single 24-hour period). The number of anticipated survey days was calculated as the number of days

needed to reach the overall level of effort required to meet survey objectives assuming any single vessel covers, on average 70 line km per 24-hour operations.

Specific Geographic Region

The survey activities will occur within the Lease Area and potential ECRs off the coasts of Rhode Island and Massachusetts (figure 1). Water depths in the Lease Area and potential ECRs extend out from shoreline to approximately 90 meters (m).

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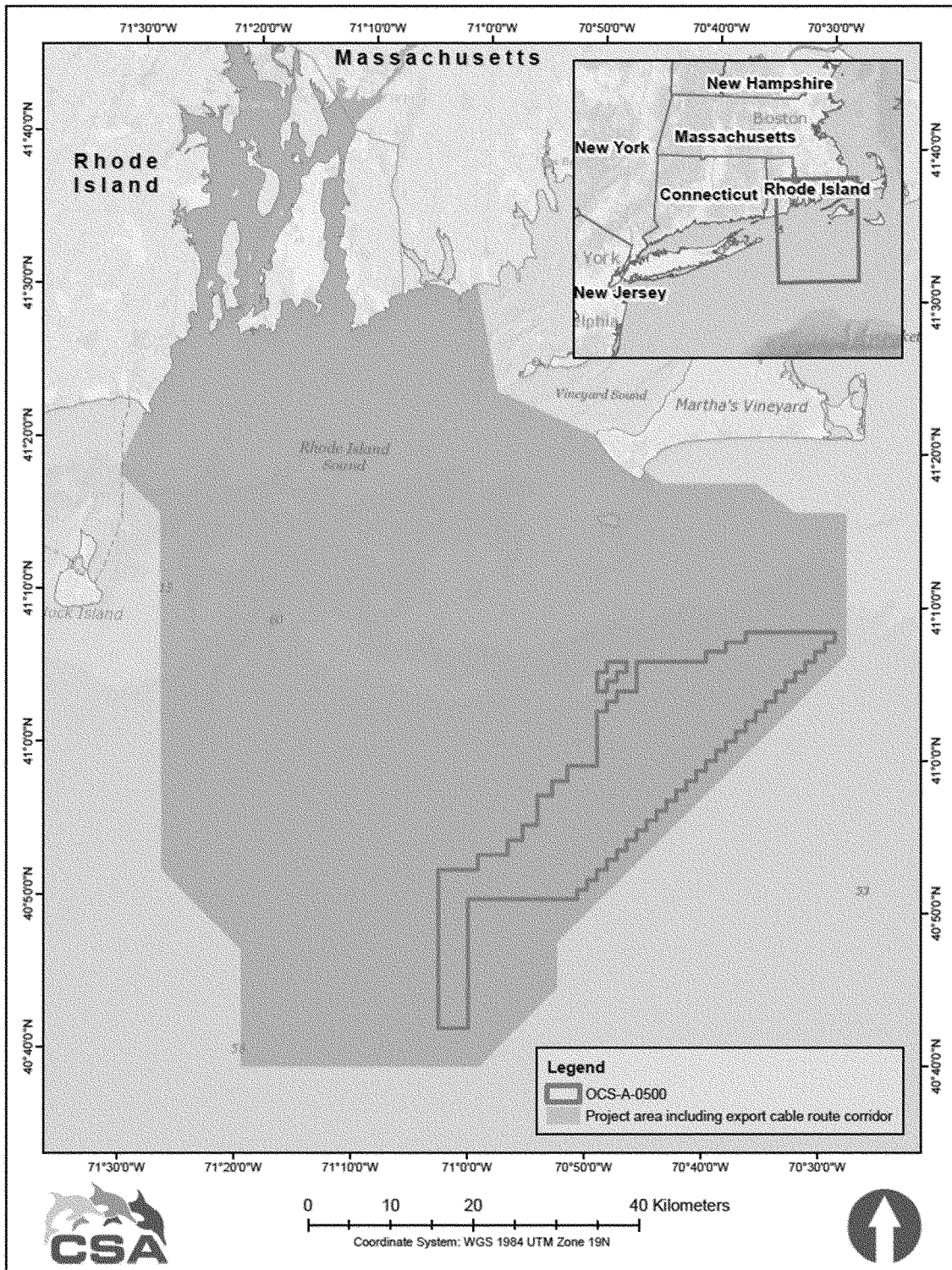


Figure 1. Lease Area and potential ECRs for the site characterization surveys, indicated in gray, which includes the Lease Area and the potential export cable route area.

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Detailed Description of the Specified Activity

A detailed description of the planned site characterization surveys is provided

in the **Federal Register** notice for the proposed IHA (89 FR 67597, August 21, 2024). The nature of the specified activities, including the types of HRG equipment planned for use (e.g.,

CHIRPs, boomers, and sparkers), daily trackline distances (70 line km per 24-hr period), and number of survey vessels (up to four operating concurrently), are identical to those described in the previous notice.

Comments and Responses

A notice of NMFS' proposal to issue an IHA to Bay State Wind was published in the **Federal Register** on August 21, 2024 (89 FR 6759). That notice described, in detail, or referenced descriptions of Bay State Wind's activity, the marine mammal species that may be affected by the activity, the anticipated effects on marine mammals and their habitat, estimated number and manner of take, and proposed mitigation, monitoring and reporting measures.

During the 30-day public comment period, NMFS received one substantive comment letter, from the Wampanoag Tribe of Gay Head (Aquinnah) (Tribe). We reiterate here that NMFS' proposed action concerns only the authorization of marine mammal take incidental to the planned surveys—NMFS' authority under the MMPA does not extend to the surveys themselves or to wind energy development more generally. Comments from the Wampanoag Tribe of Gay Head (Aquinnah) (Tribe)'s letter considered out of scope include (1) a request that NMFS fully study the implications of the Vineyard Wind blade failure on marine mammals “prior to any further federal action concerning offshore wind farms,” (2) general opposition to authorization of take incidental to any activities associated with offshore wind development until “the Coast Guard has finished establishing shipping safety fairways,” a statement that “offshore wind development needs to be balanced with navigational safety,” and criticism of NMFS and BOEM for allegedly “improperly segmenting offshore wind activities in the Atlantic Ocean.” All substantive comments, and NMFS' responses, are provided below. The comments and recommendations are available online at: <https://www.fisheries.noaa.gov/national/marine-mammal-protection/incidental-take-authorizations-other-energy-activities-renewable>. Please see the comment submissions for full details regarding the recommendations and supporting rationale.

Comment 1: The Tribe asserted generally that NMFS is not appropriately complying with Executive Order 13175, which requires meaningful government-to-government consultation with tribes on matters that have implications for tribes.

Response: NMFS is committed to engaging with the Tribe moving forward. However, for the reasons included in this notice, we disagree that no IHAs for HRG surveys should be renewed in the New York Bight pending engagement with the Tribe.

Comment 2: The Tribe stated they do not agree that use of a Categorical Exclusion (CE) under National Environmental Policy Act (NEPA) is appropriate, suggesting that NMFS must conduct additional analysis of the cumulative impact of projects in the Massachusetts and Rhode Island offshore area, especially to Endangered Species Act (ESA)-listed species, and particularly to the North Atlantic right whale (NARW).

Response: NMFS disagrees with the commenter's statement and has determined that the issuance of the IHA qualifies to be categorically excluded from further NEPA review. A CE is a category of actions that an agency has determined does not individually or cumulatively have a significant effect on the quality of the human environment and is appropriately applied for such categories of actions so long as there are no extraordinary circumstances present that would indicate that the effects of the action may be significant. Extraordinary circumstances are situations for which NOAA has determined further NEPA analysis is required because they are circumstances in which a normally excluded action may have significant effects. A determination of whether an action that is normally excluded requires additional evaluation because of extraordinary circumstances focuses on the action's potential effects and considers the significance of those effects in terms of both context (consideration of the affected region, interests, and resources) and intensity (severity of impacts). Potential extraordinary circumstances relevant to this action include: (1) adverse effects on species or habitats protected by the MMPA that are not negligible; (2) highly controversial environmental effects; (3) environmental effects that are uncertain, unique, or unknown; and (4) the potential for significant cumulative impacts when the proposed action is combined with other past, present, and reasonably foreseeable future actions.

The relevant NOAA CE associated with issuance of incidental take authorizations is CE B4, “Issuance of incidental harassment authorizations under section 101(a)(5)(A) and (D) of the MMPA for the incidental, but not intentional, take by harassment of marine mammals during specified activities and for which no serious

injury or mortality is anticipated.” This action falls within CE B4. In determining whether a CE is appropriate for a given incidental take authorization, NMFS considers the applicant's specified activity and the potential extent and magnitude of takes of marine mammals associated with that activity along with the extraordinary circumstances listed in the Companion Manual for NOAA Administrative Order (NAO) 216–6A and summarized above.

The evaluation of whether extraordinary circumstances (if present) have the potential for significant environmental effects is limited to the decision NMFS is responsible for, which is issuance of the incidental take authorization. Potential effects of NMFS' action are limited to those that would occur due to the authorization of incidental take of marine mammals. NMFS prepared numerous EAs analyzing the environmental impacts of the categories of activities encompassed by CE B4, which resulted in Findings of No Significant Impacts (FONSI) and, in particular, numerous EAs prepared in support of issuance of IHAs related to similar survey actions are part of NMFS' administrative record supporting CE B4. These EAs demonstrate the issuance of a given incidental harassment authorization does not affect other aspects of the human environment because the action only affects the marine mammals that are the subject of the incidental harassment authorization.

Specifically for this action, NMFS independently evaluated the use of the CE for issuance of Bay State Wind's IHA, which included consideration of extraordinary circumstances. As part of that analysis, NMFS considered whether this IHA issuance would result in cumulative impacts that could be significant. In particular, the issuance of an IHA to Bay State Wind is expected to result in minor, short-term behavioral effects on marine mammal species due to exposure to underwater sound from site characterization survey activities. Behavioral disturbance is possible to occur intermittently in the vicinity of Bay State Wind's survey area during the 1-year timeframe. Level B harassment will be reduced through use of mitigation measures described herein. Additionally, as discussed elsewhere, NMFS has determined that Bay State Wind's activities fall within the scope of activities analyzed in Greater Atlantic Regional Fisheries Office's (GARFO's) programmatic consultation regarding geophysical surveys along the U.S. Atlantic coast in the three Atlantic Renewable Energy Regions (completed June 29, 2021; revised September 2021), which concluded surveys such as those

planned by Bay State Wind are not likely to adversely affect ESA-listed species or adversely modify or destroy critical habitat. Accordingly, NMFS has determined that the issuance of this IHA will result in no more than negligible (as that term is defined by the Companion Manual for NAO 216–6A) adverse effects on species protected by the ESA and the MMPA.

Further, the issuance of this IHA will not result in highly controversial environmental effects or result in environmental effects that are uncertain, unique, or unknown because numerous entities have been engaged in site characterization surveys that result in Level B harassment of marine mammals in the United States. This type of activity is well documented; prior authorizations and analysis demonstrates issuance of an IHA for this type of action only affects the marine mammals that are the subject of the specific authorization and, thus, no potential for significant cumulative impacts are expected, regardless of past, present, or reasonably foreseeable actions, even though the impacts of the action may not be significant by itself. Based on this evaluation, we concluded that the issuance of the IHA qualifies to be categorically excluded from further NEPA review.

The commenters did not provide any new or compelling evidence that suggests that wind energy development activities have the potential to negatively impact NARW. NMFS recognizes and appreciates the importance of the NARW as an integral part of traditional lifeways and cultural practices. However, NMFS emphasizes that there is no credible scientific evidence available suggesting that mortality and/or serious injury or Level A harassment is a potential outcome of the planned survey activity, and no additional evidence was presented by the commenter. NMFS notes there have never been reports of any serious injuries or mortalities of any marine mammal associated with site characterization surveys. The best available science indicates that Level B harassment, or disruption of behavioral patterns, may occur as a result of Bay State Wind's specified activities. This point has been well supported by other agencies, including the BOEM and the Marine Mammal Commission (Marine Mammal Commission Newsletter, Spring 2023). In addition, a recent study by Thorne and Wiley (2024) reviewed spatiotemporal patterns of strandings,

mortalities, and serious injuries of humpback whales along the U.S. east coast from 2016–2022 and found vessel strikes to be the major driver in the increase of humpback whale strandings, mortalities, and serious injuries. Based upon the spatiotemporal analysis, no evidence was found that offshore wind development played a role in the increased number of strandings over time; for example, spatiotemporal patterns between strandings and site assessment surveys did not seem associated. In fact, the potential for vessel strike increased from 2016–2022 in association with increased container vessel traffic that overlapped with whales in new and shallow foraging areas. This potential for vessel strike also seemed to increase with the increased presence of juvenile humpback whales foraging off the Mid-Atlantic States. Under the IHA, NMFS requires Bay State Wind to abide by vessel speed restrictions and maintain separation distances between vessels and marine mammals that are intended to minimize the risk of any potential vessel strikes. The impacts of Level B harassment (*i.e.*, behavioral disturbance) are expected to have a negligible impact on the NARW population as well as other potentially impacted marine mammal populations. NMFS has made the required findings based on the best scientific information available and has included mitigation measures to effect the least practicable adverse impacts on NARWs and other potentially impacted marine mammals. There is an active unusual mortality event (UME) for NARWs that began in June 2017. Overall, preliminary findings support human interactions, specifically vessel strikes and entanglements, as the cause of death for the majority of right whales. NMFS will continue to gather data to help us determine the cause of death for stranded whales. Vessel strikes and entanglement in fishing gear continue to be the greatest human threats to large whales.

Description of Marine Mammals in the Area of Specified Activities

A detailed description of the species likely to be affected by Bay State Wind's marine site characterization surveys, including brief introductions to the species and relevant stocks as well as available information regarding population trends and threats, and information regarding local occurrence, were provided in sections 3 and 4 of the application, the **Federal Register** notice

of the proposed IHA (89 FR 67597, August 21, 2024), and the **Federal Register** notice of the proposed IHA for the 2022 IHA (87 FR 52515, August 26, 2022) addressing Lease Areas OCS–A 0486, 0487, and 0500. NMFS fully considered all of this information, and we refer the reader to these descriptions, instead of reprinting the information. Additional information regarding population trends and threats may be found in NMFS' Stock Assessment Reports (SARs; <https://www.fisheries.noaa.gov/national/marine-mammal-protection/marine-mammal-stock-assessments>) and more general information about these species (*e.g.*, physical and behavioral descriptions) may be found on NMFS' website (<https://www.fisheries.noaa.gov/find-species>).

Table 1 lists all species or stocks for which take is expected and proposed to be authorized for this activity and summarizes information related to the population or stock, including regulatory status under the MMPA and (ESA) and potential biological removal (PBR), where known. 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 (as described in NMFS' SARs). While no serious injury or mortality is anticipated or authorized here, PBR and annual serious injury and mortality from anthropogenic sources are included here as gross indicators of the status of the species or stocks and other threats.

Marine mammal abundance estimates presented in this document represent the total number of individuals that make up a given stock or the total number estimated within a particular study or survey area. NMFS' stock abundance estimates for most species represent the total estimate of individuals within the geographic area, if known, that comprises that stock. For some species, this geographic area may extend beyond U.S. waters. All managed stocks in this region are assessed in NMFS' U.S. Atlantic and Gulf of Mexico SARs. All values presented in table 1 are the most recent available at the time of publication, including, as applicable, from the draft 2023 SARs (available online at: <https://www.fisheries.noaa.gov/national/marine-mammal-protection/marine-mammal-stock-assessments>).

TABLE 1—SPECIES LIKELY IMPACTED BY THE SPECIFIED ACTIVITIES¹

Common name	Scientific name	Stock	ESA/MMPA status; strategic (Y/N) ²	Stock abundance (CV, N _{min} , most recent abundance survey) ³	PBR	Annual M/SI ⁴
Order Cetartiodactyla—Cetacea—Superfamily Mysticeti (baleen whales)						
N Atlantic Right Whale	<i>Eubalaena glacialis</i>	Western Atlantic	E, D, Y	340 (0, 337, 2021) ⁵	0.7	27.2
Humpback Whale	<i>Megaptera novaeangliae</i>	Gulf of Maine	- , - , N	1,396 (0, 1380, 2016)	22	12.15
Fin Whale	<i>Balaenoptera physalus</i>	Western North Atlantic	E, D, Y	6,802 (0.24, 5,573, 2021)	11	2.05
Sei Whale	<i>Balaenoptera borealis</i>	Nova Scotia	E, D, Y	6,292 (1.02, 3,098, 2021)	6.2	0.6
Minke Whale	<i>Balaenoptera acutorostrata</i>	Canadian Eastern Coastal	- , - , N	21,968 (0.31, 17,002, 2021)	170	9.4
Order Cetartiodactyla—Cetacea—Superfamily Odontoceti (toothed whales, dolphins, and porpoises)						
Sperm Whale	<i>Physeter macrocephalus</i>	North Atlantic	E, D, Y	5,895 (0.29, 4,639, 2021)	9.28	0.2
Long-Finned Pilot Whale ⁶	<i>Globicephala melas</i>	Western North Atlantic	- , - , N	39,215 (0.30, 30,627, 2021)	306	5.7
Striped Dolphin	<i>Stenella coeruleoalba</i>	Western North Atlantic	- , - , N	48,274 (0.29, 38,040, 2021)	529	0
Atlantic White-Sided Dolphin	<i>Lagenorhynchus acutus</i>	Western North Atlantic	- , - , N	93,233 (0.71, 54,443, 2021)	544	28
Bottlenose Dolphin	<i>Tursiops truncatus</i>	Western North Atlantic Off-shore.	- , - , N	64,587 (0.24, 52,801, 2021) ⁷	507	28
Common Dolphin	<i>Delphinus delphis</i>	Western North Atlantic	- , - , N	93,100 (0.56, 59,897, 2021)	1,452	414
Atlantic Spotted Dolphin	<i>Stenella frontalis</i>	Western North Atlantic	- , - , N	31,506 (0.28, 25,042, 2021)	250	0
Risso's Dolphin	<i>Grampus griseus</i>	Western North Atlantic	- , - , N	44,067 (0.19, 30,662, 2021)	307	18
White-Beaked Dolphin	<i>Lagenorhynchus albirostris</i>	Western North Atlantic	- , - , N	536,016 (0.31, 415,344, 2016)	4,153	0
Harbor Porpoise	<i>Phocoena phocoena</i>	Gulf of Maine/Bay of Fundy	- , - , N	85,765 (0.53, 56,420, 2021)	649	145
Order Carnivora—Superfamily Pinnipedia						
Harbor Seal	<i>Phoca vitulina</i>	Western North Atlantic	- , - , N	61,336 (0.08, 57,637, 2018)	1,729	339
Gray Seal ⁸	<i>Halichoerus grypus</i>	Western North Atlantic	- , - , N	27,911 (0.20, 23,624, 2021)	1,512	4,570

¹ Information on the classification of marine mammal species can be found on the web page for The Society for Marine Mammalogy's Committee on Taxonomy (<https://marinemammalscience.org/science-and-publications/list-marine-mammal-species-subspecies>).

² ESA status: Endangered (E), Threatened (T)/MMPA status: Depleted (D). A dash (-) indicates that the species is not listed under the ESA or designated as depleted under the MMPA. Under the MMPA, a strategic stock is one for which the level of direct human-caused mortality exceeds PBR or which is determined to be declining and likely to be listed under the ESA within the foreseeable future. Any species or stock listed under the ESA is automatically designated under the MMPA as depleted and as a strategic stock.

³ NMFS marine mammal stock assessment reports online at: <https://www.fisheries.noaa.gov/national/marine-mammal-protection/marine-mammal-stock-assessment-reports-region>. CV is coefficient of variation; N_{min} is the minimum estimate of stock abundance.

⁴ These values, found in NMFS's SARs, represent annual levels of human-caused mortality plus serious injury from all sources combined (e.g., commercial fisheries, ship strike). Annual mortality and serious injury (M/SI) often cannot be determined precisely and is in some cases presented as a minimum value or range. A CV associated with estimated mortality due to commercial fisheries is presented in some cases.

⁵ The current SAR includes an estimated population (N_{best} 340) based on sighting history through December 2021 (NMFS, 2024). In October 2023, NMFS released a technical report identifying that the NARW population size based on sighting history through 2022 was 356 whales, with a 95 percent credible interval ranging from 346 to 363 (Linden, 2023). Total annual average observed NARW mortality during the period 2017–2021 was 7.1 animals and annual average observed fishery mortality was 4.6 animals. Numbers presented in this table (27.2 total mortality and 17.6 fishery mortality) are 2016–2020 estimated annual means, accounting for undetected mortality and serious injury.

⁶ Key uncertainties exist in the population size estimate for this species, including uncertain separation between short-finned and long-finned pilot whales, small negative bias due to lack of abundance estimate in the region between US and the Newfoundland/Labrador survey area, and uncertainty due to unknown precision and accuracy of the availability bias correction factor that was applied.

⁷ Estimates may include sightings of the coastal form.

⁸ NMFS' stock abundance estimate (and associated PBR value) applies to the U.S. population only. Total stock abundance (including animals in Canada) is approximately 394,311. The annual M/SI value given is for the total stock.

Marine Mammal Hearing

Hearing is the most important sensory modality for marine mammals underwater, and exposure to anthropogenic sound can have deleterious effects. To appropriately assess the potential effects of exposure to sound, it is necessary to understand the frequency ranges marine mammals are able to hear. Not all marine mammal species have equal hearing capabilities (e.g., Richardson *et al.* 1995; Wartzok and Ketten, 1999; Au and Hastings,

2008). To reflect this, Southall *et al.* (2007, 2019) recommended that marine mammals be divided into hearing groups based on directly measured (behavioral or auditory evoked potential techniques) or estimated hearing ranges (behavioral response data, anatomical modeling, *etc.*). Note that no direct measurements of hearing ability have been successfully completed for mysticetes (*i.e.*, low-frequency cetaceans). Subsequently, NMFS (2018) described generalized hearing ranges for

these marine mammal hearing groups. Generalized hearing ranges were chosen based on the approximately 65-decibel (dB) threshold from the normalized composite audiograms, with the exception for lower limits for low-frequency cetaceans where the lower bound was deemed to be biologically implausible and the lower bound from Southall *et al.* (2007) retained. Marine mammal hearing groups and their associated hearing ranges are provided in table 2.

TABLE 2—MARINE MAMMAL HEARING GROUPS [NMFS, 2018]

Hearing group	Generalized hearing range *
Low-frequency (LF) cetaceans(baleen whales)	7 Hz to 35 kHz.
Mid-frequency (MF) cetaceans(dolphins, toothed whales, beaked whales, bottlenose whales)	150 Hz to 160 kHz.
High-frequency (HF) cetaceans(true porpoises, <i>Kogia</i> , river dolphins, <i>Cephalorhynchid</i> , <i>Lagenorhynchus cruciger</i> & <i>L. australis</i>).	275 Hz to 160 kHz.

TABLE 2—MARINE MAMMAL HEARING GROUPS—Continued
[NMFS, 2018]

Hearing group	Generalized hearing range *
Phocid pinnipeds (PW) (underwater)(true seals)	50 Hz to 86 kHz.
Otariid pinnipeds (OW) (underwater)(sea lions and fur seals)	60 Hz to 39 kHz.

* Represents the generalized hearing range for the entire group as a composite (*i.e.*, all species within the group), where individual species' hearing ranges are typically not as broad. Generalized hearing range chosen based on ~65-dB threshold from normalized composite audiogram, with the exception for lower limits for LF cetaceans (Southall *et al.* 2007) and PW pinniped (approximation).

For more detail concerning these groups and associated frequency ranges, please see NMFS (2018) for a review of available information.

Potential Effects of Specified Activities on Marine Mammals and Their Habitat

A description of the potential effects of the specified activity on marine mammals and their habitat for the activities for which take is proposed here may be found in the **Federal Register** notice of the proposed IHA for the initial authorization proposed (87 FR 52515, August 26, 2022). At present, there is no new information on potential effects that would change our analysis.

Estimated Take of Marine Mammals

This section provides an estimate of the number of incidental takes authorized through the IHA, which will inform NMFS' consideration of "small numbers," the negligible impact determinations, and impacts on subsistence uses.

Harassment is the only type of take expected to result from these activities. Except with respect to certain activities not pertinent here, section 3(18) of the MMPA 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).

Authorized takes will be by Level B harassment only, in the form of disruption of behavioral patterns for individual marine mammals resulting from exposure to certain HRG sources. Based on the nature of the activity and the anticipated effectiveness of the mitigation measures (*i.e.*, shutdown measures, vessel strike avoidance procedures) discussed in detail below in the Mitigation section, Level A harassment is neither anticipated nor authorized.

As described previously, no serious injury or mortality is anticipated or authorized for this activity. Below we describe how the take numbers are estimated.

For acoustic impacts, generally speaking, we estimate take by considering: (1) acoustic thresholds above which NMFS believes the best available science indicates marine mammals will likely be behaviorally harassed or incur some degree of permanent hearing impairment; (2) the area or volume of water that will be ensonified above these levels in a day; (3) the density or occurrence of marine mammals within these ensonified areas; and, (4) the number of days of activities. We note that while these factors can contribute to a basic calculation to provide an initial prediction of potential takes, additional information that can qualitatively inform take estimates is also sometimes available (*e.g.*, previous monitoring results or average group size). Below, we describe the factors considered here in more detail and present the take estimates.

Acoustic Thresholds

NMFS recommends the use of acoustic thresholds that identify the received level of underwater sound above which exposed marine mammals would be reasonably expected to be behaviorally harassed (equated to Level B harassment) or to incur permanent threshold shift (PTS) of some degree (equated to Level A harassment).

Level B Harassment—Though significantly driven by received level, the onset of behavioral disturbance from anthropogenic noise exposure is also informed by varying degrees by other factors related to the source or exposure context (*e.g.*, frequency, predictability, duty cycle, duration of the exposure, signal-to-noise ratio, distance to the source), the environment (*e.g.*, bathymetry, other noises in the area, predators in the area), and the receiving animals (hearing, motivation, experience, demography, life stage, depth) and can be difficult to predict (*e.g.*, Southall *et al.* 2007, 2021; Ellison *et al.* 2012). Based on what the available

science indicates and the practical need to use a threshold based on a metric that is both predictable and measurable for most activities, NMFS typically uses a generalized acoustic threshold based on received level to estimate the onset of behavioral harassment. NMFS generally predicts that marine mammals are likely to be behaviorally harassed in a manner considered to be Level B harassment when exposed to underwater anthropogenic noise above root-mean-squared pressure received levels (RMS SPL) of 120 dB (referenced to 1 micropascal (re 1 µPa)) for continuous (*e.g.*, vibratory pile driving, drilling) and above RMS SPL 160 dB re 1 µPa for non-explosive impulsive (*e.g.*, seismic airguns) or intermittent (*e.g.*, scientific sonar) sources. Generally speaking, Level B harassment take estimates based on these behavioral harassment thresholds are expected to include any likely takes by temporary threshold shift (TTS) as, in most cases, the likelihood of TTS occurs at distances from the source less than those at which behavioral harassment is likely. TTS of a sufficient degree can manifest as behavioral harassment, as reduced hearing sensitivity and the potential reduced opportunities to detect important signals (conspecific communication, predators, prey) may result in changes in behavior patterns that would not otherwise occur.

Bay State Wind's activity includes the use of impulsive (*i.e.*, boomers and sparkers) and non-impulsive (*i.e.*, CHIRP SBPs) sources, and therefore the RMS SPL thresholds of 160 dB re 1 µPa is applicable.

Level A harassment—NMFS' Technical Guidance for Assessing the Effects of Anthropogenic Sound on Marine Mammal Hearing (Version 2.0; Technical Guidance, 2018) identifies dual criteria to assess auditory injury (Level A harassment) to five different marine mammal groups (based on hearing sensitivity) as a result of exposure to noise from two different types of sources (impulsive or non-impulsive).

These thresholds are provided in the table below. The references, analysis,

and methodology used in the development of the thresholds are described in NMFS' 2018 Technical Guidance, which may be accessed at: <https://www.fisheries.noaa.gov/national/marine-mammal-protection/marine-mammal-acoustic-technical-guidance>.

On May 3, 2024, NMFS published (89 FR 36762) and solicited public comment on its draft Updated Technical Guidance, which includes updated thresholds and weighting functions to inform auditory injury estimates, and is intended to replace the 2018 Technical

Guidance referenced above, once finalized. The public comment period ended on June 17, 2024, and although the Updated Technical Guidance is not final, we expect the Updated Technical Guidance to represent the best available science once it is.

Bay State Wind's HRG surveys include the use of impulsive (*i.e.*, boomers and sparkers) and non-impulsive (*i.e.*, CHIRP SBPs). However, as discussed above, NMFS has concluded that Level A harassment is not a reasonably likely outcome for marine mammals exposed to noise from

the sources for use here, and the potential for Level A harassment is not evaluated further in this document. The pending update to the Technical Guidance would not change NMFS' determination regarding the likelihood of take by Level A harassment. Please see Bay State Wind's application (section 1.4) for details of a quantitative exposure analysis exercise, (*i.e.*, calculated Level A harassment isopleths and estimated Level A harassment exposures). No take by Level A harassment is anticipated or authorized by NMFS.

TABLE 3—THRESHOLDS IDENTIFYING THE ONSET OF PERMANENT THRESHOLD SHIFT

Hearing group	PTS onset acoustic thresholds* (received level)	
	Impulsive	Non-impulsive
Low-Frequency (LF) Cetaceans	Cell 1: $L_{pk,flat}$: 219 dB; $L_{E,LF,24h}$: 183 dB	Cell 2: $L_{E,LF,24h}$: 199 dB.
Mid-Frequency (MF) Cetaceans	Cell 3: $L_{pk,flat}$: 230 dB; $L_{E,MF,24h}$: 185 dB	Cell 4: $L_{E,MF,24h}$: 198 dB.
High-Frequency (HF) Cetaceans	Cell 5: $L_{pk,flat}$: 202 dB; $L_{E,HF,24h}$: 155 dB	Cell 6: $L_{E,HF,24h}$: 173 dB.
Phocid Pinnipeds (PW) (Underwater)	Cell 7: $L_{pk,flat}$: 218 dB; $L_{E,PW,24h}$: 185 dB	Cell 8: $L_{E,PW,24h}$: 201 dB.
Otariid Pinnipeds (OW) (Underwater)	Cell 9: $L_{pk,flat}$: 232 dB; $L_{E,OW,24h}$: 203 dB	Cell 10: $L_{E,OW,24h}$: 219 dB.

* Dual metric acoustic thresholds for impulsive sounds: Use whichever results in the largest isopleth for calculating PTS onset. If a non-impulsive sound has the potential of exceeding the peak sound pressure level thresholds associated with impulsive sounds, these thresholds should also be considered.

Note: Peak sound pressure (L_{pk}) has a reference value of 1 μ Pa, and cumulative sound exposure level (L_E) has a reference value of 1 μ Pa²s. In this table, thresholds are abbreviated to reflect American National Standards Institute (ANSI) standards (American National Standards Institute, 2013). However, peak sound pressure is defined by ANSI as incorporating frequency weighting, which is not the intent for this Technical Guidance. Hence, the subscript "flat" is being included to indicate peak sound pressure should be flat weighted or unweighted within the generalized hearing range. The subscript associated with cumulative sound exposure level thresholds indicates the designated marine mammal auditory weighting function (LF, MF, and HF cetaceans, and PW and OW pinnipeds) and that the recommended accumulation period is 24 hours. The cumulative sound exposure level thresholds could be exceeded in a multitude of ways (*i.e.*, varying exposure levels and durations, duty cycle). When possible, it is valuable for action proponents to indicate the conditions under which these acoustic thresholds will be exceeded.

Ensonified Area

Here, we describe operational and environmental parameters of the activity that are used in estimating the area ensonified above the acoustic thresholds, including source levels and transmission loss coefficient.

NMFS has developed a user-friendly methodology for determining the rms sound pressure level at the 160-dB isopleth for the purpose of estimating the extent of Level B harassment isopleths associated with HRG survey equipment (NMFS, 2020). This methodology incorporates frequency and some directionality to refine estimated ensonified zones. Bay State Wind used NMFS's methodology, using the source level and operation mode of the equipment planned for use during the survey, to estimate the maximum ensonified area over a 24-hour period, also referred to as the harassment area (table 4). Potential takes by Level B harassment are estimated within the ensonified area (*i.e.*, harassment area) as an SPL exceeding 160 dB re 1 μ Pa for impulsive sources (*e.g.*, sparkers, boomers) within an average day of activity.

The harassment zone is a representation of the maximum extent of the ensonified area around a sound source over a 24-hour period. The harassment zone was calculated for mobile sound sources per the following formula:

$$\text{Harassment Zone} = (\text{Distance}/\text{day} \times 2r) + \pi r^2$$

where r is the linear distance from the source to the isopleth for Level A or Level B thresholds and day = 1 (*i.e.*, 24 hours).

The estimated potential daily active survey distance of 70 km was used as the estimated areal coverage over a 24-hour period. This distance accounts for the vessel traveling at roughly 4 knots (kn) (2.1 m/second) and only for periods during which survey equipment that may result in take of marine mammals is in operation. A vessel traveling 4 kn (2.1 m/second) can cover approximately 110 km per day; however, based on data from 2017, 2018, and 2019 surveys, survey coverage over a 24-hour period is closer to 70 km per day. For daylight only vessels, the distance is reduced to 35 km per day; however, to maintain the potential for 24-hour surveys, the

corresponding Level B harassment zones provided in table 4 were calculated for each source category based on the Level B threshold distances in table 3 with a 24-hour (70 km) operational period.

NMFS considers the data provided by Crocker and Fratantonio (2016) to represent the best available information on source levels associated with HRG equipment and, therefore, recommends that source levels provided by Crocker and Fratantonio (2016) be incorporated in the method described above to estimate isopleth distances to harassment thresholds. In cases when the source level for a specific type of HRG equipment is not provided in Crocker and Fratantonio (2016), NMFS recommends that either the source levels provided by the manufacturer be used, or, in instances where source levels provided by the manufacturer are unavailable or unreliable, a proxy from Crocker and Fratantonio (2016) be used instead. Table 2 shows the HRG equipment types that may be used during the surveys and the source levels associated with those HRG equipment types.

Based upon modeling results, of the HRG survey equipment planned for use by Bay State Wind that has the potential to result in Level B harassment of marine mammals, the Applied Acoustics Dura-Spark UHD and GeoMarine Geo-Source sparker would produce the largest Level B harassment

isopleth (141 m) or Harassment Zone. Estimated distances to Level B harassment isopleths for all sources evaluated here, including the sparkers, are provided in table 4. Although Bay State Wind does not expect to use sparker sources on all planned survey days, Bay State Wind assumes for

purposes of analysis that the sparker would be used on all survey days. This is a conservative approach, as the actual sources used on individual survey days may produce smaller harassment distances.

TABLE 4—DISTANCE TO LEVEL B HARASSMENT THRESHOLDS [160 dB rms]

Source	Distance to Level B harassment threshold (m)
Boomers	76
Sparkers	141

Marine Mammal Occurrence

In this section we provide information about the occurrence of marine mammals, including density or other relevant information which will inform the take calculations.

Habitat based density models produced by the Duke University Marine Geospatial Ecology Laboratory (Roberts *et al.* 2016, 2023) represent the best available information regarding marine mammal densities in the Lease Area and potential ECRs. The density data presented by Roberts *et al.* (2016, 2023) incorporate aerial and shipboard line-transect data from NMFS and other organizations and incorporate data from 8 physiographic and 16 dynamic oceanographic and biological covariates, and control for the influence of sea state, group size, availability bias, and perception bias on the probability of making a sighting. These density models were originally developed for all cetacean taxa in the U.S. Atlantic (Roberts *et al.* 2016). In subsequent years, certain models have been updated based on additional data as well as certain methodological improvements. More information is available online at <https://seamap.env.duke.edu/models/Duke/EC>. Marine mammal density estimates in the Lease Area and potential ECRs (animals/km²) were obtained using the most recent model results for all taxa (Roberts *et al.* 2023). The updated models incorporate sighting data, including sightings from NOAA’s Atlantic Marine Assessment Program for Protected Species (AMAPPS) surveys.

For exposure analysis, density data from Roberts *et al.* (2023) were mapped using a geographic information system (GIS). Density grid cells that included any portion of the Lease Area and potential ECRs were selected for all survey months (see figure 4 of Bay State Wind’s application). The densities for

each species as reported by Roberts *et al.* (2023) for each of the Lease Area and ECR were averaged by month; those values were then used to calculate the mean annual density for each species within the Lease Area and potential ECRs. Estimated mean monthly and annual densities (animals per km²) of all marine mammal species that may be taken by the survey are shown in table 6 of Bay State Wind’s application. Please see table 5 for density values used in the exposure estimation process.

Due to limited data availability and difficulties identifying individuals to species level during visual surveys, individual densities are not able to be provided for all species and they are instead grouped into “guilds” (Roberts *et al.* 2023). These guilds include pilot whales, common bottlenose dolphins, and seals.

Long- and short-finned pilot whales are difficult to distinguish during shipboard surveys so individual habitat models were not able to be developed. However, as discussed in section 4.2.3 of Bay State Wind’s application, all pilot whales in the Lease Area and potential ECRs are assumed to be long-finned pilot whales, so the densities and subsequent takes would apply only to this species.

The density models do not distinguish between common bottlenose dolphin stocks due to limited data regarding distributions of these stocks. As discussed in section 4.2.7 of Bay State Wind’s application, only the western North Atlantic offshore stock is expected to occur in the Lease Area and potential ECRs. Therefore, the densities in table 5 and subsequent take calculations would only apply to this stock of bottlenose dolphins.

Gray seals and harbor seals are reasonably identifiable during shipboard visual surveys; therefore, it is expected that some sightings will be

assigned to species rather than to the generalized seal guild. Additionally, seals tend to occur in very small numbers when away from haul out areas; therefore, sighting events are not likely to constitute large numbers of animals. For these reasons, the seal guild density was split evenly between both gray and harbor seal species.

TABLE 5—AVERAGE ANNUAL MARINE MAMMAL DENSITY ESTIMATES

Species	Average annual density (km ²)
Low-frequency Cetaceans	
Fin whale	0.0022
Sei whale	0.0006
Minke whale	0.0056
Humpback whale	0.0014
North Atlantic right whale	0.0022
Mid-frequency cetaceans	
Sperm whale	0.0002
Atlantic white-sided dolphin ..	0.0143
Atlantic spotted dolphin	0.0006
Common bottlenose dolphin (Offshore)	0.0093
Long-finned pilot whale	0.0016
Risso’s dolphin	0.0006
Common dolphin	0.0846
Striped dolphin	0.0000
White-beaked dolphin	0.0000
High-frequency Cetaceans	
Harbor porpoise	0.0423
Pinnipeds¹	
Gray seal	0.0845
Harbor seal	0.0845

¹ Seal species are not separated in the Roberts (2022) data therefore densities were evenly split between the two species expected to occur in the Lease Area and potential ECRs.

Take Estimation

Here we describe how the information provided above is synthesized to produce a quantitative estimate of the take that is reasonably likely to occur and is authorized.

Level B harassment events were estimated by multiplying the average annual density of each species within the Lease Area and potential ECRs (table

5) by the largest harassment zone (141 m; table 4). That result was then multiplied by the number of survey days in that Lease Area or ECR (350 survey days), and rounded to the nearest whole number to arrive at estimated take. This final number equals the instances of take for the entire operational period. It was assumed the sparker systems were operating all 350

survey days as it is the sound source expected to produce the largest harassment zone. A summary of this method is illustrated in the following formula with the resulting take of marine mammals is shown below in table 6:

$$\text{Estimated take} = \text{Species Density} \times \text{Harassment Zone} \times \# \text{ of survey days}$$

TABLE 6—TOTAL ESTIMATED AND REQUESTED TAKE NUMBERS
[By Level B harassment only]

Species	Abundance	Estimated Level B takes	Requested Level B takes	Max percent population
Low-frequency Cetaceans:				
Fin whale	6,802	15	15	0.22
Sei whale	6,292	4	4	0.06
Minke whale	21,968	39	39	0.18
Humpback whale	1,396	10	10	0.72
North Atlantic right whale	340	15	15	4.41
Mid-frequency Cetaceans:				
Sperm whale	5,895	2	2	0.03
Atlantic white-sided dolphin	93,233	99	99	0.11
Atlantic spotted dolphin	31,506	4	4	0.01
Common bottlenose dolphin (offshore stock)	64,587	65	65	0.10
Long-finned pilot whale	39,215	11	11	0.03
Risso's dolphin	44,067	4	4 (14)	0.03
Common dolphin	93,100	586	586 (1,485)	1.60
Striped dolphin	48,274	0	0 (46)	0.10
White-beaked dolphin	536,016	0	0 (12)	0.00
High-frequency Cetaceans:				
Harbor porpoise	85,765	293	293	0.34
Pinnipeds:				
Seals:				
Gray seal	27,911	586	586	2.10
Harbor seal	61,336	586	586	0.96

Additional data regarding average group sizes from survey effort in the region was considered to ensure adequate take estimates are evaluated. Take estimates for several species were adjusted based upon observed group sizes in the area. The adjusted take estimates for these species are indicated in bold in table 6. These calculated take estimates were adjusted for these species as follows:

- *Striped dolphin*: No takes were calculated for this species (table 6), but data from AMAPPS data indicate this species was observed in the RI-MA Wind Energy Area (WEA) (Palka *et al.* 2017) where this Project Lease Area is located. Therefore, 1 group of 46 was added to the requested takes, based on a sighting of 1 group of 46 from AMAPPS data (Palka *et al.* 2017).

- *Risso's dolphin*: Only 4 takes were calculated but based on two reported detections with a total of 14 individuals of this species in PSO monitoring reports for projects in the RI-MA WEA where this Project Lease Area is located (Bay State Wind, 2019; Smultea

Environmental Sciences, 2020), the take number was increased to 14.

- *Common dolphin*: The Applicant requested to increase their take numbers from 586 to 1,485 based on PSO data where 4,457 individuals were observed in the estimated Level B harassment zone over a total of 1,300 survey days (Smultea Environmental Sciences, 2020). The survey is only 350 survey days which is approximately 1/3 of the survey days considered in the PSO data, so the number of takes has been recalculated to 1/3 of the 4,457 detections which equates to 1,485.

- *White-beaked dolphin*: no takes were calculated but based on reported detections of this species in 2 PSO monitoring reports for projects in the RI-MA WEA where this Project Lease Area is located (EPI Group, 2021; RPS, 2021), 1 group of 12 was added to the requested takes.

Mitigation

In order to issue an IHA under section 101(a)(5)(D) of the MMPA, NMFS must set forth the permissible methods of taking pursuant to the activity, and

other means of effecting the least practicable impact on the species or stock and its habitat, paying particular attention to rookeries, mating grounds, and areas of similar significance, and on the availability of the species or stock for taking for certain subsistence uses (latter not applicable for this action). NMFS regulations require applicants for incidental take authorizations to include information about the availability and feasibility (economic and technological) of equipment, methods, and manner of conducting the activity or other means of effecting the least practicable adverse impact upon the affected species or stocks, and their habitat (50 CFR 216.104(a)(11)).

In evaluating how mitigation may or may not be appropriate to ensure the least practicable adverse impact on species or stocks and their habitat, as well as subsistence uses where applicable, NMFS considers two primary factors:

(1) The manner in which, and the degree to which, the successful implementation of the measure(s) is

expected to reduce impacts to marine mammals, marine mammal species or stocks, and their habitat. This considers the nature of the potential adverse impact being mitigated (likelihood, scope, range). It further considers the likelihood that the measure will be effective if implemented (probability of accomplishing the mitigating result if implemented as planned), the likelihood of effective implementation (probability implemented as planned), and;

(2) The practicability of the measures for applicant implementation, which may consider such things as cost and impact on operations.

NMFS requires that the following mitigation measures be implemented during Bay State Wind's marine site characterization surveys. Pursuant to section 7 of the ESA, Bay State Wind will also be required to adhere to relevant Project Design Criteria (PDC) of the NMFS' GARFO programmatic consultation (specifically PDCs 4, 5, and 7) regarding geophysical surveys along the U.S. Atlantic coast (<https://www.fisheries.noaa.gov/new-england-mid-atlantic/consultations/section-7-take-reporting-programmatics-greater-atlantic#offshore-wind-site-assessment-and-site-characterization-activities-programmatic-consultation>).

Marine Mammal Shutdown Zones

Marine mammal shutdown zones will be established around impulsive HRG survey equipment (e.g., sparkers and boomers) for all marine mammals. Shutdown zones will be monitored by PSOs based upon the radial distance from the acoustic source rather than being based around the vessel itself. An immediate shutdown of impulsive HRG survey equipment will be required if a whale is sighted at or within the corresponding marine mammal shutdown zones to minimize noise impacts on the animals. If a shutdown is required, a PSO will notify the survey crew immediately. Vessel operators and crews will comply immediately with any call for shutdown. The shutdown zone may or may not encompass the Level B harassment zone. Shutdown zone distances are as follows:

- A 500 m shutdown zone for NARWs for use of impulsive acoustic sources (e.g., boomers and/or sparkers) and non-impulsive, non-parametric sub-bottom profilers; and
- A 100-m shutdown zone for use of impulsive acoustic sources for all other marine mammals, with the exception of small delphinids, *i.e.*, those belonging to the genera *Delphinus*, *Lagenorhynchus*, *Stenella*, or *Tursiops*, and pinnipeds.

Shutdown will remain in effect until the minimum separation distances (detailed above) between the animal and noise source are re-established. If a marine mammal enters the respective shutdown zone during a shutdown period, the equipment may not restart until that animal is confirmed outside the clearance zone as stated previously in the pre-start clearance procedures. These stated requirements will be included in the site-specific training to be provided to the survey team.

Pre-Start Clearance

Marine mammal clearance zones will be established at the following distances around the HRG survey equipment and monitored by PSOs:

- 500 m for NARWs and all other ESA-listed whales;
- 100 m for non-ESA listed large whales; and
- 50 m for dolphins, seals, and porpoises.

Bay State Wind will implement a 30-minute pre-start clearance period prior to the initiation of ramp-up of specified HRG equipment. During this period, clearance zones will be monitored by PSOs, using the appropriate visual technology. Ramp-up may not be initiated if any marine mammal(s) is within its respective clearance zone. If a marine mammal is observed within a clearance zone during the pre-start clearance period, ramp-up may not begin until the animal(s) has been observed exiting its respective exclusion zone or until an additional time period has elapsed with no further sighting (*i.e.*, 15 minutes for small odontocetes and seals, and 30 minutes for all other species). Monitoring will be conducted throughout all pre-clearance and shutdown zones as well as all visible waters surrounding the sound sources and the vessel. All marine mammals detected will be recorded as described in the Monitoring and Reporting section.

Ramp-Up of Survey Equipment

A ramp-up procedure, involving a gradual increase in source level output, is required at all times as part of the activation of the acoustic source when technically feasible. The ramp-up procedure will be used at the beginning of HRG survey activities in order to provide additional protection to marine mammals near the Lease Area and potential ECRs by allowing them to vacate the area prior to the commencement of survey equipment operation at full power. Operators should ramp-up sources to half power for 5 minutes and then proceed to full power.

The ramp-up procedure will not be initiated (*i.e.*, equipment will not be started) during periods of inclement conditions when the marine mammal pre-start clearance zone cannot be adequately monitored by the PSOs for a 30 minute period using the appropriate visual technology. If any marine mammal enters the clearance zone, ramp-up will not be initiated until the animal is confirmed outside the marine mammal clearance zone, or until the appropriate time (30 minutes for whales, 15 minutes for dolphins, porpoises, and seals) has elapsed since the last sighting of the animal in the clearance zone.

Shutdown, pre-start clearance, and ramp-up procedures are not required during HRG survey operations using only non-impulsive sources (e.g., echosounders) other than non-parametric sub-bottom profilers (e.g., CHIRPs).

Vessel Strike Avoidance

Bay State Wind must adhere to the following measures except in the case where compliance would create an imminent and serious threat to a person or vessel or to the extent that a vessel is restricted in its ability to maneuver and, because of the restriction, cannot comply.

- Vessel operators and crews must maintain a vigilant watch for all protected species and slow down, stop their vessel, or alter course, as appropriate and regardless of vessel size, to avoid striking any protected species. A visual observer aboard the vessel must monitor a vessel strike avoidance zone based on the appropriate separation distance around the vessel (distances stated below). Visual observers monitoring the vessel strike avoidance zone may be third-party observers (*i.e.*, PSOs) or crew members, but crew members responsible for these duties must be provided sufficient training to (1) distinguish protected species from other phenomena, and (2) broadly identify a marine mammal as a right whale, other whale (defined in this context as sperm whales or baleen whales other than right whales), or other marine mammal;

a. All survey vessels, regardless of size, must observe a 10-kn (5.1 m/second) speed restriction in specified areas designated by NMFS for the protection of NARWs from vessel strikes including seasonal management areas (SMAs) and dynamic management areas (DMAs) when in effect;

b. Members of the monitoring team will consult NMFS NARW reporting system and Whale Alert, as able, for the presence of NARWs throughout survey

operations, and for the establishment of a DMA. If NMFS should establish a DMA in the Lease Area and potential ECRs during the survey, the vessels will abide by speed restrictions in the DMA;

c. All vessels greater than or equal to 19.8 m in overall length operating from November 1 through April 30 will operate at speeds of 10 kn (5.1 m/second) or less at all times;

d. All vessels must reduce their speed to 10 kn (5.1 m/second) or less when mother/calf pairs, pods, or large assemblages of any species of cetaceans is observed near a vessel;

e. All vessels must maintain a minimum separation distance of 500 m from right whales and other ESA-listed large whales;

f. If a whale is observed but cannot be confirmed as a species other than a right whale or other ESA-listed large whale, the vessel operator must assume that it is a right whale and take appropriate action;

g. All vessels must maintain a minimum separation distance of 100 m from non-ESA listed whales;

- All vessels must, to the maximum extent practicable, attempt to maintain a minimum separation distance of 50 m from all other marine mammals, with an understanding that at times this may not be possible (e.g., for animals that approach the vessel);

- When marine mammals are sighted while a vessel is underway, the vessel shall take action as necessary to avoid violating the relevant separation distance (e.g., attempt to remain parallel to the animal's course, avoid excessive speed or abrupt changes in direction until the animal has left the area). If marine mammals are sighted within the relevant separation distance, the vessel must reduce speed and shift the engine to neutral, not engaging the engines until animals are clear of the area. This does not apply to any vessel towing gear or any vessel that is navigationally constrained.

Project-specific training will be conducted for all vessel crew prior to the start of a survey and during any changes in crew such that all survey personnel are fully aware and understand the mitigation, monitoring, and reporting requirements.

Based on our evaluation of the applicant's measures, NMFS has determined that the mitigation measures provide the means of effecting the least practicable impact on the affected species or stocks and their habitat, paying particular attention to rookeries, mating grounds, and areas of similar significance.

Monitoring and Reporting

In order to issue an IHA for an activity, section 101(a)(5)(D) of the MMPA states that NMFS must set forth requirements pertaining to the monitoring and reporting of such taking. The MMPA implementing regulations at 50 CFR 216.104(a)(13) indicate that requests for authorizations must include the suggested means of accomplishing the necessary monitoring and reporting that will result in increased knowledge of the species and of the level of taking or impacts on populations of marine mammals that are expected to be present while conducting the activities. Effective reporting is critical both to compliance as well as ensuring that the most value is obtained from the required monitoring.

Monitoring and reporting requirements prescribed by NMFS should contribute to improved understanding of one or more of the following:

- Occurrence of marine mammal species or stocks in the area in which take is anticipated (e.g., presence, abundance, distribution, density);
- Nature, scope, or context of likely marine mammal exposure to potential stressors/impacts (individual or cumulative, acute or chronic), through better understanding of: (1) action or environment (e.g., source characterization, propagation, ambient noise); (2) affected species (e.g., life history, dive patterns); (3) co-occurrence of marine mammal species with the activity; or (4) biological or behavioral context of exposure (e.g., age, calving or feeding areas);
- Individual marine mammal responses (behavioral or physiological) to acoustic stressors (acute, chronic, or cumulative), other stressors, or cumulative impacts from multiple stressors;
- How anticipated responses to stressors impact either: (1) long-term fitness and survival of individual marine mammals; or (2) populations, species, or stocks;
- Effects on marine mammal habitat (e.g., marine mammal prey species, acoustic habitat, or other important physical components of marine mammal habitat); and
- Mitigation and monitoring effectiveness.

Monitoring Measures

Visual monitoring will be performed by qualified, NMFS-approved PSOs, the resumes of whom will be provided to NMFS for review and approval prior to the start of survey activities. Bay State Wind would employ independent,

dedicated, trained PSOs, meaning that the PSOs must (1) be employed by a third-party observer provider, (2) have no tasks other than to conduct observational effort, collect data, and communicate with and instruct relevant vessel crew with regard to the presence of marine mammals and mitigation requirements (including brief alerts regarding maritime hazards), and (3) have successfully completed an approved PSO training course appropriate for their designated task. On a case-by-case basis, non-independent observers may be approved by NMFS for limited, specified duties in support of approved, independent PSOs on smaller vessels with limited crew operating in nearshore waters.

The PSOs will be responsible for monitoring the waters surrounding each survey vessel to the farthest extent permitted by sighting conditions, including shutdown and pre-clearance zones, during all HRG survey operations. PSOs will visually monitor and identify marine mammals, including those approaching or entering the established shutdown and pre-clearance zones during survey activities. It will be the responsibility of the Lead PSO on duty to communicate the presence of marine mammals as well as to communicate the action(s) that are necessary to ensure mitigation and monitoring requirements are implemented as appropriate.

During all HRG survey operations (e.g., any day on which use of an HRG source is planned to occur), a minimum of one PSO must be on duty during daylight operations on each survey vessel, conducting visual observations at all times on all active survey vessels during daylight hours (i.e., from 30 minutes prior to sunrise through 30 minutes following sunset). Two PSOs will be on watch during nighttime operations. The PSO(s) will ensure 360-degree visual coverage around the vessel from the most appropriate observation posts and would conduct visual observations using binoculars and/or night vision goggles and the naked eye while free from distractions and in a consistent, systematic, and diligent manner. PSOs may be on watch for a maximum of four consecutive hours followed by a break of at least one hour between watches and may conduct a maximum of 12 hours of observations per 24-hour period. In cases where multiple vessels are surveying concurrently, any observations of marine mammals would be communicated to PSOs on all nearby survey vessels.

PSOs must be equipped with binoculars and have the ability to

estimate distance and bearing to detect marine mammals, particularly in proximity to exclusion zones. Reticulated binoculars must also be available to PSOs for use as appropriate based on conditions and visibility to support the sighting and monitoring of marine mammals. During nighttime operations, night-vision goggles with thermal clip-ons and infrared technology would be used. Position data would be recorded using hand-held or vessel GPS units for each sighting.

During good conditions (e.g., daylight hours; Beaufort sea state (BSS) 3 or less), to the maximum extent practicable, PSOs would also conduct observations when the acoustic source is not operating for comparison of sighting rates and behavior with and without use of the active acoustic sources. Any observations of marine mammals by crew members aboard any vessel associated with the survey would be relayed to the PSO team. Data on all PSO observations would be recorded based on standard PSO collection requirements. This would include dates, times, and locations of survey operations; dates and times of observations, location and weather, details of marine mammal sightings (e.g., species, numbers, behaviors); and details of any observed marine mammal behavior that occurs (e.g., notes behavioral disturbances). For more detail on the monitoring requirements, see condition 5 of the draft IHA.

Reporting Measures

Within 90 days after completion of survey activities or expiration of this IHA, whichever comes sooner, a draft comprehensive report will be provided to NMFS that fully documents the methods and monitoring protocols, summarizes the data recorded during monitoring, summarizes the number of marine mammals observed during survey activities (by species, when known), summarizes the mitigation actions taken during surveys including what type of mitigation and the species and number of animals that prompted the mitigation action, when known), and provides an interpretation of the results and effectiveness of all mitigation and monitoring. Any recommendations made by NMFS must be addressed in the final report prior to acceptance by NMFS. A final report must be submitted within 30 days following any comments on the draft report. All draft and final marine mammal and acoustic monitoring reports must be submitted to PR.ITP.MonitoringReports@noaa.gov and ITP.Hilt@noaa.gov. The report must contain at minimum, the following:

- PSO names and affiliations;
 - a. Dates of departures and returns to port with port names;
 - b. Dates and times (Greenwich Mean Time) of survey effort and times corresponding with PSO effort;
 - c. Vessel location (latitude/longitude) when survey effort begins and ends; vessel location at beginning and end of visual PSO duty shifts;
 - d. Vessel heading and speed at beginning and end of visual PSO duty shifts and upon any line change; and
 - e. Environmental conditions while on visual survey (at beginning and end of PSO shift and whenever conditions change significantly), including wind speed and direction, BSS, Beaufort wind force, swell height, weather conditions, cloud cover, sun glare, and overall visibility to the horizon;
 - Factors that may be contributing to impaired observations during each PSO shift change or as needed as environmental conditions change (e.g., vessel traffic, equipment malfunctions);
 - Survey activity information, such as type of survey equipment in operation, acoustic source power output while in operation, and any other notes of significance (i.e., pre-clearance survey, ramp-up, shutdown, end of operations, etc.);
 - Survey activity information (and changes thereof), including at minimum the general specifications of all acoustic sources, power output of all sparkers and boomers while in operation, number of operational sparker tips for all sparkers, tow depth(s) of all towed acoustic sources, and any other notes of significance (i.e., pre-start clearance, ramp-up, shutdown, testing, shooting, ramp-up completion, end of operations, streamers, etc.);
 - If a marine mammal is sighted, the following information should be recorded:
 - a. Watch status (sighting made by PSO on/off effort, opportunistic, crew, alternate vessel/platform);
 - b. PSO who sighted the animal;
 - c. Time of sighting;
 - d. Vessel location at time of sighting;
 - e. Water depth;
 - f. Direction of vessel's travel (compass direction);
 - g. Direction of animal's travel relative to the vessel;
 - h. Pace of the animal; and
 - i. Estimated distance to the animal and its heading relative to vessel at initial sighting;
 - Identification of the animal (e.g., genus/species, lowest possible taxonomic level, or unidentified); also note the composition of the group if there is a mix of species;
 - a. Estimated number of animals (high/low/best);

- b. Estimated number of animals by cohort (adults, yearlings, juveniles, calves, group composition, etc.); and
- c. Description (as many distinguishing features as possible of each individual seen, including length, shape, color, pattern, scars or markings, shape and size of dorsal fin, shape of head, and blow characteristics);

- Detailed behavior observations (e.g., number of blows, number of surfaces, breaching, spyhopping, diving, feeding, traveling; as explicit and detailed as possible; note any observed changes in behavior);
 - Animal's closest point of approach and/or closest distance from the center point of the acoustic source;
 - Platform activity at time of sighting (e.g., deploying, recovering, testing, data acquisition, other); and
 - Description of any actions implemented in response to the sighting (e.g., delays, shutdown, ramp-up, speed or course alteration, etc.) and time and location of the action.

If a NARW is observed at any time by PSOs or personnel on any project vessels, during surveys or during vessel transit, Bay State Wind must immediately report sighting information to the NMFS North Atlantic Right Whale Sighting Advisory System: (866) 755-6622. NARW sightings in any location may also be reported to the U.S. Coast Guard via channel 16.

In the event that Bay State Wind personnel discover an injured or dead marine mammal, Bay State Wind will report the incident to the NMFS Office of Protected Resources (OPR) and the NMFS New England/Mid-Atlantic Stranding Coordinator as soon as feasible. The report would include the following information:

- a. Species identification (if known) or description of the animal(s) involved;
- b. Condition of the animal(s) (including carcass condition if the animal is dead);
- c. Observed behaviors of the animal(s), if alive;
- d. If available, photographs or video footage of the animal(s); and
- e. General circumstances under which the animal was discovered;
- f. Time;
- g. Date; and
- h. location (latitude/longitude) of the first discovery (and updated location information if known and applicable).

In the unanticipated event of a ship strike of a marine mammal by any vessel involved in this activities covered by the IHA, Bay State Wind will report the incident to NMFS OPR and the NMFS New/England/Mid-Atlantic Stranding Coordinator as soon as feasible. The report would include the following information:

- a. Time, date, and location (latitude/longitude) of the incident;
- b. Species identification (if known) or description of the animal(s) involved;
- c. Vessel's speed during and leading up to the incident;
- d. Vessel's course/heading and what operations were being conducted (if applicable);
- e. Status of all sound sources in use;
- f. Description of avoidance measures/requirements that were in place at the time of the strike and what additional measures were taken, if any, to avoid strike;
- g. Environmental conditions (*e.g.*, wind speed and direction, BSS, cloud cover, visibility) immediately preceding the strike;
- h. Estimated size and length of animal that was struck;
- i. Description of the behavior of the marine mammal immediately preceding and following the strike;
- j. If available, description of the presence and behavior of any other marine mammals immediately preceding the strike;
- k. Estimated fate of the animal (*e.g.*, dead, injured but alive, injured and moving, blood or tissue observed in the water, status unknown, disappeared); and
- l. To the extent practicable, photographs or video footage of the animal(s).

Negligible Impact Analysis and Determination

NMFS has defined negligible impact 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 (50 CFR 216.103). A negligible impact finding is based on the lack of likely adverse effects on annual rates of recruitment or survival (*i.e.*, population-level effects). An estimate of the number of takes alone is not enough information on which to base an impact determination. In addition to considering estimates of the number of marine mammals that might be "taken" through harassment, NMFS considers other factors, such as the likely nature of any impacts or responses (*e.g.*, intensity, duration), the context of any impacts or responses (*e.g.*, critical reproductive time or location, foraging impacts affecting energetics), as well as effects on habitat, and the likely effectiveness of the mitigation. We also assess the number, intensity, and context of estimated takes by evaluating this information relative to population status. Consistent with the 1989

preamble for NMFS' implementing regulations (54 FR 40338, September 29, 1989), the impacts from other past and ongoing anthropogenic activities are incorporated into this analysis via their impacts on the baseline (*e.g.*, as reflected in the regulatory status of the species, population size and growth rate where known, ongoing sources of human-caused mortality, or ambient noise levels).

To avoid repetition, the discussion of our analysis applies to all the species listed in table 1, given that the anticipated effects of this activity on these different marine mammal stocks are expected to be similar. Where there are meaningful differences between species or stocks—as is the case with the NARW—they are included as separate subsections below. NMFS does not anticipate that serious injury or mortality would occur as a result from HRG surveys, even in the absence of mitigation, and no serious injury or mortality is authorized. As discussed in the Potential Effects of Specified Activities on Marine Mammals and their Habitat section, non-auditory physical effects and vessel strike are not expected to occur. NMFS expects that all potential takes would be in the form of Level B harassment in the form of temporary avoidance of the area or decreased foraging (if such activity was occurring), reactions that are considered to be of low severity and with no lasting biological consequences (*e.g.*, Southall *et al.* 2007, 2021). As described above, Level A harassment is not expected to occur given the nature of the operations and the estimated small size of the Level A harassment zones.

In addition to being temporary, the maximum expected harassment zone around the survey vessel is 141 m. Therefore, the ensounded area surrounding each vessel is relatively small compared to the overall distribution of the animals in the area and their use of the habitat. Feeding behavior is not likely to be significantly impacted as prey species are mobile and are broadly distributed throughout the Lease Area and potential ECRs; therefore, marine mammals that may be temporarily displaced during survey activities are expected to be able to resume foraging once they have moved away from areas with disturbing levels of underwater noise. Because of the temporary nature of the disturbance and the availability of similar habitat and resources in the surrounding area, the impacts to marine mammals and the food sources that they utilize are not expected to cause significant or long-term consequences for individual marine mammals or their populations.

There are no rookeries, mating or calving grounds known to be biologically important to marine mammals within the Lease Area and potential ECRs. Two harbor and gray seal breeding and pupping grounds have been identified on Nantucket Sound at Monomoy and Muskeget Island. As the acoustic footprint of the HRG activities is relatively small and these areas occur outside the Lease Area and potential ECRs, hauled seals are not expected to be impacted by these activities.

North Atlantic Right Whale

The status of the NARW population is of heightened concern and therefore, merits additional analysis. As noted previously, elevated NARW mortalities began in June 2017 and there is an active UME. Overall, preliminary findings support human interactions, specifically vessel strikes and entanglements, as the cause of death for the majority of right whales. The Lease Area and potential ECRs overlaps with a migratory corridor biologically important area (BIA) for NARWs (effective March–April; November–December) that extends from Massachusetts to Florida and, off the coast of NY and RI, from the coast to beyond the shelf break (LaBrecque *et al.* 2015). Right whale migration is not expected to be impacted by the survey due to the very small size of the Lease Area and potential ECRs relative to the spatial extent of the available migratory habitat in the BIA. The Lease Area and potential ECRs also overlap with the Block Island SMA, active from November 1 to April 30. NARWs may be feeding or migrating within the SMA. Required vessel strike avoidance measures and following the speed restrictions of the SMA will decrease the risk of ship strike during NARW migration; no ship strike is expected to occur during Bay State Wind's activities. For reasons as described above, minimal impacts are expected to prey availability and feeding success. Additionally, HRG survey operations are required to maintain a 500 m distance and shut down if a NARW is sighted at or within 500 m. The 500-m shutdown zone for right whales is conservative, considering the Level B harassment isopleth for the most impactful sources (*i.e.*, GeoMarine Sparkers, AA Dura-spark UHD Sparkers, AA Triple plate S-Boom) is estimated to be 141 m, and thereby minimizes the potential for behavioral harassment of this species. Therefore only very limited take by Level B harassment of NARW has been requested and is authorized by NMFS. As noted previously, Level A harassment is not expected, nor

authorized, due to the small PTS zones associated with HRG equipment types for use. NMFS does not anticipate NARW takes that result from the survey activities would impact annual rates of recruitment or survival. Thus, any takes that occur would not result in population level impacts.

On August 1, 2022, NMFS announced proposed changes to the existing NARW vessel speed regulations to further reduce the likelihood of mortalities and serious injuries to endangered right whales from vessel collisions, which are a leading cause of the species' decline and a primary factor in an ongoing UME (87 FR 46921, September 9, 2022). Should a final vessel speed rule be issued and become effective during the effective period of this IHA (or any other MMPA incidental take authorization), the authorization holder would be required to comply with any and all applicable requirements contained within the final rule. Specifically, where measures in any final vessel speed rule are more protective or restrictive than those in this or any other MMPA authorization, authorization holders would be required to comply with the requirements of the rule. Alternatively, where measures in this or any other MMPA authorization are more restrictive or protective than those in any final vessel speed rule, the measures in the MMPA authorization would remain in place. These changes would become effective immediately upon the effective date of any final vessel speed rule and would not require any further action on NMFS's part. More information about the NARW UME is provided in the **Federal Register** notice for the proposed IHA (89 FR 67597, August 21, 2024) and is available online at <https://www.fisheries.noaa.gov/national/marine-life-distress/active-and-closed-unusual-mortality-events>.

Other Marine Mammals With Active UMEs

As noted previously, there are several active UMEs occurring in the vicinity of Bay State Wind's Lease Area and potential ECRs. Elevated humpback whale mortalities have occurred along the Atlantic coast from Maine through Florida since January 2016. As of July 16, 2024, 227 humpback whales have stranded as part of this UME. Partial or full necropsy examinations have been conducted on approximately 90 of the known cases. Of the whales examined, about 40 percent had evidence of human interaction, either ship strike or entanglement. While a portion of the whales have shown evidence of pre-mortem vessel strike, this finding is not consistent across all whales examined

and more research is needed. The UME does not yet provide cause for concern regarding population-level impacts. Despite the UME, the relevant population of humpback whales (the West Indies breeding population, or distinct population segment) remains stable at approximately 12,000 individuals. More information about the humpback whale UME is provided in the **Federal Register** notice for the proposed IHA (89 FR 67597, August 21, 2024) and is available online at <https://www.fisheries.noaa.gov/national/marine-life-distress/active-and-closed-unusual-mortality-events>.

Beginning in January 2017, elevated minke whale strandings have occurred along the Atlantic coast from Maine through South Carolina, with highest numbers in Massachusetts, Maine, and New York. As of August 7, 2024, 174 minke whales have stranded as part of this UME. Partial or full necropsy examinations have been conducted on approximately 60% of the whales. Several of the whales showed evidence of human interactions or infectious diseases. This finding is not consistent across all whales examined and more research is needed. This event does not provide cause for concern regarding population level impacts, as the likely population abundance is greater than 20,000 whales. More information about the minke whale UME is available online at <https://www.fisheries.noaa.gov/national/marine-life-distress/active-and-closed-unusual-mortality-events>.

The required mitigation measures are expected to reduce the number and/or severity of takes for all species listed in table 1, including those with active UMEs, to the level of least practicable adverse impact. In particular, they would provide animals the opportunity to move away from the sound source before HRG survey equipment reaches full energy, thus preventing them from being exposed to more severe Level B harassment. No Level A harassment is anticipated, even in the absence of mitigation measures, or authorized.

NMFS expects that takes would be in the form of short-term Level B behavioral harassment by way of brief startling reactions and/or temporary vacating of the area, or decreased foraging in the area (if such activity was occurring)—reactions that (at the scale and intensity anticipated here) are considered to be of low severity, with no lasting biological consequences. Since both the sources and marine mammals are mobile, animals would only be exposed briefly to a small ensonified area that might result in take. Required mitigation measures, such as

shutdown zones and ramp up, would further reduce exposure to sound that could result in more severe behavioral harassment.

In summary and as described above, the following factors primarily support our determination that the impacts resulting from this activity are not expected to adversely affect any of the species or stocks through effects on annual rates of recruitment or survival:

- No serious injury or mortality is anticipated or authorized;
- No Level A harassment (PTS) is anticipated, even in the absence of mitigation measures or authorized;
- Foraging success is not likely to be significantly impacted as effects on species that serve as prey species for marine mammals from the survey are expected to be minimal;
- The availability of alternate areas of similar habitat value for marine mammals to temporarily vacate the ensonified area during the planned surveys to avoid exposure to sounds from the activity;
- Take is anticipated to be of Level B behavioral harassment only consisting of brief startling reactions and/or temporary avoidance of the ensonified area;
- While the Lease Area and potential ECRs is within areas noted as a migratory BIA and SMA for NARW, the activities would occur in such a comparatively small area such that any avoidance of the ensonified area due to activities would not affect migration. In addition, mitigation measures require shutdown at 500 m (almost four times the size of the Level B harassment isopleth (141 m), which minimizes the effects of the take on the species; and
- The mitigation measures, including visual monitoring and shutdowns, are expected to minimize potential impacts to marine mammals.

Based on the analysis contained herein of the likely effects of the specified activity on marine mammals and their habitat, and taking into consideration the implementation of the monitoring and mitigation measures, NMFS finds that the total marine mammal take from the activity will have a negligible impact on all affected marine mammal species or stocks.

Small Numbers

As noted previously, only take of small numbers of marine mammals will be authorized under sections 101(a)(5)(A) and (D) of the MMPA for specified activities other than military readiness activities. The MMPA does not define small numbers and so, in practice, where estimated numbers are available, NMFS compares the number

of individuals taken to the most appropriate estimation of abundance of the relevant species or stock in our determination of whether an authorization is limited to small numbers of marine mammals. When the predicted number of individuals to be taken is fewer than one-third of the species or stock abundance, the take is considered to be of small numbers. Additionally, other qualitative factors may be considered in the analysis, such as the temporal or spatial scale of the activities.

The amount of take NMFS has authorized is below one-third of the estimated stock abundance for all species (in fact, take of individuals is less than 5 percent of the abundance of the affected stocks for these species, see table 6). The figures presented in table 6 are likely conservative estimates as they assume all takes are of different individual animals which is likely not to be the case. Some individuals may return multiple times in a day, but PSOs would count them as separate takes if they cannot be individually identified.

Based on the analysis contained herein of the activity (including the mitigation and monitoring measures) and the anticipated take of marine mammals, NMFS finds that small numbers of marine mammals will be taken relative to the population size of the affected species or stocks.

Unmitigable Adverse Impact Analysis and Determination

There are no relevant subsistence uses of the affected marine mammal stocks or species implicated by this action. Therefore, NMFS has determined that the total taking of affected species or stocks will not have an unmitigable adverse impact on the availability of such species or stocks for taking for subsistence purposes.

Endangered Species Act

Section 7(a)(2) of the ESA of 1973 (16 U.S.C. 1531 *et seq.*) requires that each

Federal agency insure that any action it authorizes, funds, or carries out is not likely to jeopardize the continued existence of any endangered or threatened species or result in the destruction or adverse modification of designated critical habitat. To ensure ESA compliance for the issuance of IHAs, NMFS OPR consults internally whenever we propose to authorize take for endangered or threatened species.

NMFS OPR proposed to authorize the incidental take of four species of marine mammals which are listed under the ESA, including the North Atlantic right, fin, sei, and sperm whale, and has determined that these activities fall within the scope of activities analyzed in GARFO's programmatic consultation regarding geophysical surveys along the U.S. Atlantic coast in the three Atlantic Renewable Energy Regions (completed June 29, 2021; revised September 2021).

National Environmental Policy Act

To comply with the National Environmental Policy Act of 1969 (NEPA; 42 U.S.C. 4321 *et seq.*) and NOAA Administrative Order (NAO) 216-6A, NMFS must review our action (*i.e.*, the issuance of an IHA) with respect to potential impacts on the human environment.

This action is consistent with categories of activities identified in Categorical Exclusion B4 (IHAs with no anticipated serious injury or mortality) of the Companion Manual for NAO 216-6A, which do not individually or cumulatively have the potential for significant impacts on the quality of the human environment and for which we have not identified any extraordinary circumstances that would preclude this categorical exclusion. Accordingly, NMFS has determined that the issuance of the IHA qualifies to be categorically excluded from further NEPA review.

Authorization

NMFS has issued an IHA to Bay State Wind for the potential harassment of

small numbers of 17 marine mammal species incidental to conducting site characterization surveys off the coast of Rhode Island and Massachusetts that includes the previously explained mitigation, monitoring and reporting requirements.

Dated: October 3, 2024.

Kimberly Damon-Randall,

*Director, Office of Protected Resources,
National Marine Fisheries Service.*

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DEPARTMENT OF DEFENSE

Office of the Secretary

[Transmittal No. 23-45]

Arms Sales Notification

AGENCY: Defense Security Cooperation Agency, Department of Defense (DoD).

ACTION: Arms sales notice.

SUMMARY: The DoD is publishing the unclassified text of an arms sales notification.

FOR FURTHER INFORMATION CONTACT:

Pamela Young at (703) 953-6092, pamela.a.young14.civ@mail.mil, or dsca.ncr.rsrcmgmt.list.cns-mbx@mail.mil.

SUPPLEMENTARY INFORMATION: This 36(b)(1) arms sales notification is published to fulfill the requirements of section 155 of Public Law 104-164 dated July 21, 1996. The following is a copy of a letter to the Speaker of the House of Representatives with attached Transmittal 23-45, Policy Justification, and Sensitivity of Technology.

Dated: October 2, 2024.

Aaron T. Siegel,

*Alternate OSD Federal Register Liaison
Officer, Department of Defense.*

BILLING CODE 6001-FR-P