WEDNESDAY, JUNE 28, 2023

Time	Subject	Presenter
9:30 a.m.–9:35 a.m	Welcome/Logistics	Michele Traver, Cynthia Jones, Chair.
9:35 a.m.–11:15 a.m	Bluefish, Discussion/Questions	Tony Wood, Panel.
11:15 a.m.–11:30 a.m	Break.	
11:30 a.m.–12 p.m	Morning Wrap Up, Summary/Discussion	Panel.
12 p.m.–12:15 p.m	Public Comment	Public.
12:15 p.m.–1:15 p.m	Lunch.	
1:15 p.m.–4:30 p.m	Report Writing	Panel.
4:30 p.m	Adjourn.	

The meeting is open to the public; however, during the 'Report Writing' session on Wednesday, June 28, 2023, at 1:15 p.m. the public should not engage in discussion with the Peer Review Panel.

Special Accommodations

This meeting is physically accessible to people with disabilities. Special requests should be directed to Michele Traver, via email.

Dated: June 8, 2023.

Jennifer M. Wallace,

Acting Director, Office of Sustainable Fisheries, National Marine Fisheries Service.

[FR Doc. 2023–12669 Filed 6–13–23; 8:45 am]

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DEPARTMENT OF COMMERCE

National Oceanic and Atmospheric Administration

[RTID 0648–XC979]

Takes of Marine Mammals Incidental to Specified Activities; Taking Marine Mammals Incidental to Marine Site Characterization Surveys Offshore of New Jersey and New York

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

ACTION: Notice; issuance of an Incidental Harassment Authorization (IHA).

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 Atlantic Shores Offshore Wind, LLC (Atlantic Shores) to incidentally harass marine mammals during marine site characterization surveys off New Jersey and New York.

DATES: This Authorization is effective from June 9, 2023, through June 8, 2024.

FOR FURTHER INFORMATION CONTACT: Kelsey Potlock, Office of Protected Resources, NMFS, (301) 427–8401.

Electronic copies of the original application and supporting documents (including NMFS **Federal Register** notices of the original proposed and final authorizations, and the previous IHA), as well as a list of the references cited in this document, may be obtained online at: *https://www.fisheries.noaa.gov/permit/incidental-take-authorizations-under-marine-mammal-protection-act.* In case of problems accessing these documents, please call the contact listed above.

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 issued or, if the taking is limited to harassment, a notice of a proposed incidental take authorization may be 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 such species or stocks for taking for certain subsistence uses (referred to in shorthand as ''mitigation''); and requirements pertaining to the mitigation, monitoring and reporting of such takings are set forth.

The definitions of all applicable MMPA statutory terms cited above are included in the relevant sections below.

History of Request

On August 16, 2021, NMFS received a request from Atlantic Shores for an IHA to take marine mammals incidental to high-resolution geophysical (HRG) marine site characterization surveys offshore of New Jersey and New York in the area of the Bureau of Ocean Energy Management's (BOEM) Commercial Lease of Submerged Lands for Renewable Energy Development on the Outer Continental Shelf Lease Area (OCS–A) 0499 and associated Export Cable Route (ECR) area. Atlantic Shores requested authorization to take small numbers of up to 15 species of marine mammals, by Level B harassment only. On January 27, 2022, NMFS published a notice of the proposed IHA in the **Federal Register** (87 FR 4200). After a 30-day public comment period and consideration of all public comments received, we subsequently issued the IHA, which was effective from April 20, 2022 through April 19, 2023 (87 FR 24103, April 22, 2022). A minor correction notice was published on May 5, 2022 (87 FR 26726).

Atlantic Shores conducted the required marine mammal mitigation and monitoring and did not exceed the authorized levels of take under previous IHAs issued for surveys offshore of New York and New Jersey (85 FR 21198, April 16, 2020; 86 FR 21289, April 22, 2021). These previous monitoring results are available to the public on our website: *https://www.fisheries.noaa.gov/action/incidental-take-authorization-atlantic-shores-offshore-wind-llc-marine-site-characterization.*

On December 27, 2022, NMFS received a request from Atlantic Shores for an IHA to take marine mammals incidental to HRG marine site characterization surveys off of New Jersey and New York in the areas of BOEM Lease Areas OCS–A 0499 and OCS–A 0549 and associated ECR area. Following NMFS' review of the application, Atlantic Shores submitted a

revised request. The application was deemed adequate and complete on January 10, 2023 (the 2023 request). Atlantic Shores' request was for the take of 15 species (16 stocks) of marine mammals, by Level B harassment only. Neither Atlantic Shores nor NMFS expect serious injury or mortality to result from this activity, and therefore, an IHA is appropriate. Take by Level A harassment (injury) is considered unlikely, even absent mitigation, based on the characteristics of the signals produced by the acoustic sources planned for use.

This request is identical to the activities covered in the IHA previously issued in 2022. However, NMFS had determined a renewal of the 2022 IHA is not appropriate in this circumstance due to the availability of updated marine mammal density information (June 20, 2022) for all species in the project area (*https://seamap.env.duke.edu/models/Duke/EC/*). Because of this, NMFS relied substantially herein, as appropriate, on the information previously presented in notices associated with issuance of the 2022 IHA (87 FR 4200, January 27, 2022; 87 FR 24103, April 22, 2022; 87 FR 26726, May 5, 2022). We note that BOEM had previously segmented Lease Area OCS–A 0499 into Lease Areas OCS–A 0499 and 0549; thus, the physical lease area is the same as described in the 2022 IHA. More information can be found on BOEM's website: *https://www.boem.gov/renewable-energy/state-activities/new-jersey/atlantic-shores-north-ocs-0549.*

No changes were made from the proposed to the final IHA.

Description of the Activity and Anticipated Impacts

Overview

Atlantic Shores will conduct geotechnical and HRG marine site characterization surveys in BOEM Lease Areas OCS–A 0499 and OCS–A 0549 and along potential submarine ECRs (ECRs North and South) that lead to landfall locations in either New York or New Jersey (refer back to Figure 1 in 88 FR 19075, March 30, 2023). The survey area is the same as previously described in the application for the 2022 IHA (see 87 FR 24103, April 22, 2022) and will consist of approximately 1,450,006 acres (5,868 square kilometers (km^2)) and extends approximately 24 nautical miles (nmi; 44 km) offshore.

The purpose of these surveys are to support the site characterization, siting, and engineering design of offshore wind project facilities, including wind turbine generators, offshore substations, and submarine cables within the Lease Areas and along the ECRs. As many as three survey vessels will operate concurrently as part of the surveys. During the survey effort, vessels will operate at a maximum speed of 3.5 knots (4 miles per hour). Up to 360 survey days will occur, where a ''survey day'' is defined as a 24-hour activity period in which active acoustic sound sources are used (Table 1).

TABLE 1—NUMBER OF SURVEY DAYS THAT ATLANTIC SHORES WILL PERFORM THE DESCRIBED HRG SURVEY ACTIVITIES

Survey area		Number of active survey days expected [1]	
Lease Areas	OCS–A–0499	50	120 days total.
	OCS–A–0549	70	
Export Cable Route North (ECR North)		180	
Export Cable Route South (ECR South)		60	

[1] Surveys in each area may temporally overlap; therefore, actual number of days of activity in a given year may be less than 360.

Underwater sound resulting from Atlantic Shores' site characterization survey activities have the potential to result in incidental take of marine mammals in the form of behavioral harassment (*i.e.,* Level B harassment), specifically during use of acoustic sources operating at <180 kilohertz (kHz). Geotechnical activities have been discussed previously with regards to past IHAs issued to Atlantic Shores (see 85 FR 7926, February 12, 2020; 87 FR 24103, April 22, 2022) and, as no new information has been presented that would change our determinations on these activities, this information will not be reiterated here. Atlantic Shores has requested and NMFS has issued an IHA authorizing the take by Level B harassment only of 15 species of marine mammals (comprising 16 stocks) incidental to marine site characterization surveys, specifically in association with the use of HRG survey equipment. The mitigation, monitoring, and reporting measures are described in detail later in this document (please see Mitigation and Monitoring and Reporting).

A detailed description of Atlantic Shores' planned surveys is provided in the **Federal Register** notice of the proposed IHA (88 FR 19075, March 30, 2023) and the 2022 **Federal Register** notice (87 FR 24103, April 22, 2022). Since that time, no changes have been made to the survey activities. Therefore, a detailed description is not provided here. Please refer to those **Federal Register** notices for the description of the specified activities.

Comments and Responses

A notice of NMFS' proposal to issue an IHA to Atlantic Shores was published in the **Federal Register** on March 30, 2023 (88 FR 19075). That proposed notice described, in detail, Atlantic Shores' proposed activities, the marine mammal species that may be affected by these activities, and the anticipated effects on marine mammals while heavily referencing the previous and similar project described in the 2022 proposed (87 FR 4200, January 27, 2022) and 2022 final notices (87 FR 24103, April 22, 2022). In the March 30, 2023 notice, we requested public input on the request for authorization described therein, our analyses, the proposed authorization, and requested that interested persons submit relevant information, suggestions, and comments. This proposed notice was available for a 30-day public comment period.

In total, NMFS received 118 public comment letters, including 84 individual comments from private citizens that were non-responsive to NMFS' solicitation for public comment specifically on the proposed authorization for incidental harassment of marine mammals here and/or discuss topics that are otherwise out of scope for this specific action. These public comments fall into the following categories: general opposition to the planned HRG surveys unrelated to the specific marine mammal incidental take authorization that is the subject of this action, general opposition to wind energy development or related

activities, or general opposition to the take of marine mammals under the MMPA; comments relevant to BOEM's authorities and/or actions; and other unrelated and/or irrelevant comments to NMFS' decision regarding the proposed issuance of the subject IHA. Given that many of these comments were non-responsive to NMFS' solicitation and/or discuss topics that are out-of-scope for this specific action, these comments are not described herein or discussed further. NMFS also received five comment letters from non-governmental organizations (NGOs): Clean Ocean Action (COA), the Responsible Offshore Development Alliance (RODA), the Committee For A Constructive Tomorrow (CFACT), and two letters from local citizen groups (Save Long Beach Island (SaveLBI) and Defend Brigantine Beach Inc.), of which the latter of these presented a subset of the same comments submitted by SaveLBI, and therefore, we respond through our responses to both local citizen groups. Lastly, we received 29 comment letters from private citizens that were considered substantive/responsive and are addressed below. However, we also note that these comments from private citizens echoed concerns brought up in the letters received from the aforementioned organizations. Responses to all substantive comments are provided below, and all substantive comments are available on NMFS' website: *https://www.fisheries.noaa.gov/permit/incidental-take-authorizations-under-marine-mammal-protection-act.* Please see the comment letters for full details regarding the comments and associated rationale.

Comment: SaveLBI provided comments suggesting that this IHA is a renewal of the previous year's IHA.

Response: As NMFS stated in the proposed IHA, the proposed action for which we requested comments was not for a renewal IHA. As described in the proposed **Federal Register** notice, we determined that a renewal IHA was not appropriate due to the release of the new 2022 Duke University density information (Roberts *et al.,* 2023). Instead, we have issued a standard 1year IHA that relied heavily on the previously issued 2022 IHA to Atlantic Shores, as many project details from the previous 2022 survey remained the same as described for the 2023 survey (also as described in the proposed **Federal Register** notice). As we noted in the proposed IHA and in this 2023 IHA, Atlantic Shores has the option for a renewal, if specific conditions and criteria are met.

Comment: A number of commenters have stated that NMFS is proposing to authorize the killing of marine mammals or that a ''take'' equates to mortality of an animal by project activities. Commenters also asserted that the killing of marine mammals has been authorized through previous IHAs.

Response: These comments are founded on the presumption, absent evidence, that serious injury or mortality is a reasonably anticipated outcome of Atlantic Shores' specified activity. NMFS emphasizes that there is no credible scientific evidence available suggesting that mortality and/or serious injury is a potential outcome of the planned survey activity, and commenters provide no information to the contrary. We also refer commenters to the NMFS Greater Atlantic Regional Fisheries Office (GARFO) 2021 Programmatic Consultation, which finds that these survey activities are not likely to adversely affect Endangered Species Act (ESA)-listed marine mammal species, *i.e.,* GARFO's analysis conducted pursuant to the ESA finds that marine mammals are not likely to be taken at all (as that term is defined under the ESA), much less be taken by serious injury or mortality. That document is found here: *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.*

As stated in the **Federal Register** notice (88 FR 19075, March 30, 2023), no mortality or serious injury is expected to occur as a result of the planned surveys, and there is no scientific evidence indicating that any marine mammal could experience these as a direct result of noise from geophysical survey activity. We also note that NMFS has never authorized the mortality of marine mammals via IHAs previously, and NMFS may not permit that form of take under the MMPA using the IHA mechanism. Authorization of mortality and serious injury may only occur through Incidental Take Regulations (ITRs). Furthermore, the applicant did not request, and NMFS has not proposed and has not authorized mortality in any previous HRG IHAs to Atlantic Shores. As the commenters have not pointed out which IHAs they are referring to, NMFS cannot comment more specifically.

Comment: COA advises NMFS to reject Incidental Take Authorizations (ITAs) to Atlantic Shores until the Draft North Atlantic Right Whale and Offshore Wind Strategy (Draft Strategy) is finalized, and measures to avoid, minimize, or eliminate harm are determined so that such measures might be applied to the project. To support its request, COA further notes that the Draft Strategy affirms that the North Atlantic right whales (NARW) population is in dire status, as evidenced by the fact that the potential biological removal (PBR) level is less than one, which, according to COA, means population impacts from Level A or B harassment must be avoided, as the NARW population cannot withstand any mortality/serious injury (M/SI) due to the species low genetic diversity and resilience to future perturbations.

Response: As identified by COA, in October 2022, NMFS and BOEM released a draft joint strategy to protect and promote the recovery of NARWs while responsibly developing offshore wind energy. The draft strategy identifies three main goals: (1) mitigation and decision-support tools, (2) research and monitoring, and (3) collaboration, communication and outreach. It focuses on improving the body of science and integrating past, present and future efforts related to NARWs and offshore wind development. In its comment, the COA discusses the PBR level and the stock's status suggesting that Level B (behavioral) harassment can have population level impacts. We note that no mortality or Level A harassment is anticipated or authorized from the Atlantic Shores proposed site assessment surveys. While NMFS agrees that the NARW population abundance is alarmingly low (with entanglement in fishing gear and vessel strikes being the leading causes of NARW mortality), NMFS disagrees that the type of harassment authorized in this IHA would adversely impact population levels. The magnitude of harassment is very low and the severity of any behavioral responses is limited to temporary displacement and avoidance of the area when some acoustic sources that have the potential to result in harassment are active (see Determinations section). Moreover, the MMPA mandates that NMFS shall issue requested authorizations provided certain findings are made and that those findings be made based on the best available science. NMFS has made the required findings, based on the best available science, and has included mitigation measures, many of which are included in the Draft Strategy as appropriate for HRG surveys, designed to effect the least practicable adverse impact on NARWs. Finalizing the Strategy or similar efforts is not a requirement to issue ITAs. COA's comment regarding other construction activities is outside the scope of this

authorization. NMFS analyzes requests for authorization to harass marine mammals for wind farm construction as received. The specified activity in Atlantic Shores' application is limited to HRG site assessment surveys, not construction.

Comment: COA states that NMFS should pause all ''industrial full-scale construction (and related activities)'' for offshore wind energy until the Federal agencies determine the best way to eliminate or avoid all impacts on NARW.

Response: We note that COA has not provided any suggestions on how to eliminate and avoid all impacts on the NARW. Therefore, NMFS is not able to evaluate or consider other suggestions, beyond the mitigation measures that were already proposed in the **Federal Register** notice (88 FR 19075, March 30, 2023). If COA wishes to provide additional suggestions in the future, NMFS would be able to evaluate these in context with the specific proposed action(s). In the absence of additional information or proposals regarding further reduction of impacts to NARWs, NMFS must implement the MMPA as required by the statute (*i.e.,* upon making the necessary findings (*e.g.,* small numbers; negligible impact) and prescribing measures affecting the least practicable adverse impact), as we have done here, NMFS shall authorize incidental take of marine mammals.

Given the primary risk to NARWs is ship strike, the mitigation measures that NMFS requires do address this specifically and include: a requirement that all vessel operators comply with 10 knots (kn; 18.5 km/hour) or less speed restrictions in any Seasonal Management Area (SMA), Dynamic Management Area (DMA), or Slow Zone while underway, and check daily for information regarding the establishment of mandatory or voluntary vessel strike avoidance areas (SMAs, DMAs, Slow Zones) and information regarding NARW sighting locations; a requirement that all vessels greater than or equal to 19.8 m in overall length operating from November 1 through April 30 operate at speeds of 10 kn (18.5 km/hour) or less; a requirement that all vessel operators reduce vessel speed to 10 kn (18.5 km/hour) or less when any large whale, any mother/calf pairs, pods, or large assemblages of non-delphinid cetaceans are observed near the vessel; a requirement that all survey vessels maintain a separation distance of 500 m or greater from any ESA-listed whales or other unidentified large marine mammals visible at the surface while underway; a requirement that, if underway, vessels must steer a course away from any sighted ESA-listed whale at 10 kn or less until the 500 m minimum separation distance has been established; a requirement that, if an ESA-listed whale is sighted in a vessel's path, or within 500 m of an underway vessel, the underway vessel must reduce speed and shift the engine to neutral; a requirement that all vessels underway must maintain a minimum separation distance of 100 m from all non-ESA-listed baleen whales; and a requirement that all vessels underway 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). We have determined that the ship strike avoidance measures in the IHA are sufficient to ensure the least practicable adverse impact on species or stocks and their habitat.

Comment: COA states that the applicant's survey activities will increase the number of vessels in the ocean in the project area, which would lead to an increased threat of harm by vessel strikes to marine mammals, specifically NARW. Similarly, members of the public and CFACT have claimed that animals being displaced out of lower traffic areas into a higher trafficked area may increase the likelihood of fatal ship strikes.

Response: NMFS does not anticipate that NARW would be permanently displaced or displaced for extended periods of time from the area where Atlantic Shores' marine site characterization surveys would occur, and commenters do not provide evidence that this effect should be a reasonably anticipated outcome of the specified activity. We expect temporary avoidance to occur, at worst, but that is distinctly different from displacement. Similarly, NMFS is not aware of any scientific information suggesting that the survey activity would drive marine mammals into shipping lanes and disagrees that this would be a reasonably anticipated effect of the specified activities. The authorized take by Level B harassment is precautionary but considered unlikely as NMFS' take estimation analysis does not account for the use of extremely precautionary mitigation measures (*e.g.,* the requirement for Atlantic Shores to implement a shutdown zone (500 m) that is more than three times as large as the estimated harassment zone (141 m)). These requirements are expected to largely eliminate the actual occurrence of Level B harassment events and to the extent that harassment does occur, would minimize the duration and severity of any such events. Therefore, even if a NARW was in the area of the specified activities, a displacement impact is not anticipated.

Although the primary stressor to marine mammals from the specified activities is acoustic exposure from the sound source, NMFS takes seriously the risk of vessel strike and has prescribed measures sufficient to avoid the potential for ship strike to the extent practicable. NMFS has required these measures despite a very low likelihood of vessel strike; vessels associated with the survey activity will add a discountable amount of vessel traffic to the specific geographic region and furthermore, vessels towing survey gear travel at very slow speeds (*i.e.,* roughly 4–5 kn; 7.4–9.3 km/h).

Comment 7: COA and SaveLBI suggest that NMFS address the cumulative impacts on marine mammals, specifically the NARW and other endangered marine mammal species, from all vessels associated with Atlantic Shores' project as well as other projects occurring in the nearby region. SaveLBI additionally asserts that, because the MMPA refers to ''citizens'' in the plural, and because section 101(a)(5)(A) of the MMPA refers to findings relating to the total taking over a 5-year (or less) period, the MMPA requires cumulative impact assessments.

Response: Neither the MMPA nor NMFS' codified implementing regulations call for consideration of other unrelated activities and their impacts on populations. The preamble for NMFS' implementing regulations (54 FR 40338, September 29, 1989) states, in response to comments, that the impacts from other past and ongoing anthropogenic activities are to be incorporated into the negligible impact analysis via their impacts on the baseline. Consistent with that direction, NMFS has factored into its negligible impact analysis the impacts of other past and ongoing anthropogenic activities via their impacts on the baseline (*e.g.,* as reflected in the density/distribution and status of the species, population size and growth rate, and other relevant stressors). The 1989 final rule for the MMPA implementing regulations also addressed public comments regarding cumulative effects from future, unrelated activities. There, NMFS stated that such effects are not considered in making findings under section 101(a)(5) concerning negligible impact. In this case, this IHA as well as other IHAs currently in effect or proposed within the specified geographic region, are appropriately considered an unrelated

activity relative to the others. The IHAs are unrelated in the sense that they are discrete actions under section 101(a)(5)(D) issued to discrete applicants.

Section 101(a)(5)(D) of the MMPA requires NMFS to make a determination that the take incidental to a ''specified activity'' will have a negligible impact on the affected species or stocks of marine mammals. NMFS' implementing regulations require applicants to include in their request a detailed description of the specified activity or class of activities that can be expected to result in incidental taking of marine mammals. 50 CFR 216.104(a)(1). Thus, the ''specified activity'' for which incidental take coverage is being sought under section 101(a)(5)(D) is generally defined and described by the applicant. Here, Atlantic Shores was the applicant for the IHA, and we are responding to the specified activity as described in that application and making the necessary findings on that basis.

Through the response to public comments in the 1989 implementing regulations (54 FR 40338, September 29, 1989), NMFS also indicated (1) that we would consider cumulative effects that are reasonably foreseeable when preparing a National Environmental Policy Act (NEPA) analysis and (2) that reasonably foreseeable cumulative effects would also be considered under section 7 of the ESA for listed species, as appropriate. Accordingly, NMFS has written Environmental Assessments (EA) that addressed cumulative impacts related to substantially similar activities in similar locations (*e.g.,* the 2017 Ocean Wind, LLC EA for site characterization surveys off New Jersey and the 2018 Deepwater Wind EA for survey activities offshore Delaware, Massachusetts, and Rhode Island). Cumulative impacts regarding issuance of IHAs for site characterization survey activities, such as those planned by Atlantic Shores, have been adequately addressed under NEPA in prior environmental analyses that support NMFS' determination that this action is appropriately categorically excluded from further NEPA analysis. NMFS independently evaluated the use of a categorical exclusion (CE) for issuance of Atlantic Shores' IHA, which included consideration of extraordinary circumstances.

Separately, the cumulative effects of substantially similar activities in the northwest Atlantic Ocean have been analyzed in the past under section 7 of the ESA when NMFS has engaged in formal intra-agency consultation, such as the 2013 programmatic Biological Opinion for BOEM Lease and Site Assessment Rhode Island, Massachusetts, New York, and New Jersey Wind Energy Areas (*https://repository.library.noaa.gov/view/noaa/29291*). Analyzed activities include those for which NMFS issued previous IHAs (82 FR 31562, July 7, 2017; 85 FR 21198, April 16, 2020; 86 FR 26465, May 10, 2021), which are similar to those planned by Atlantic Shores under this current IHA request. This Biological Opinion determined that NMFS' issuance of IHAs for site characterization survey activities associated with leasing, individually and cumulatively, are not likely to adversely affect listed marine mammals. NMFS notes that, while issuance of this IHA is covered under a different consultation, this Biological Opinion remains valid.

With regard to SaveLBI's additional assertions that the MMPA's incidental take authorization provisions require a cumulative impacts assessment, we reiterate our disagreement. Regardless of the MMPA's references to ''citizens'' in the plural, there is no guidance offered by the MMPA, NMFS' implementing regulations, or any other supporting information, such as the associated legislative history, that an assessment of cumulative impacts is required under the MMPA. SaveLBI's reference to the 5-year period, found in section 101(a)(5)(A) of the MMPA, is not relevant to the issuance of the subject IHA under section 101(a)(5)(D) of the MMPA, and we do not address it further.

Comment 8: COA, SaveLBI, and a member of the public state that they do not believe the take proposed for authorization related to this project consists of ''small numbers'' of marine mammals as required by the MMPA. SaveLBI further states that NMFS' small numbers determination is not supported scientifically or consistent with the holding in *Natural Resources Defense Council* vs. *Evans*. SaveLBI further advises that NMFS redefine ''small numbers'' to align with a more science-based population percentage based on SaveLBI's suggestions where a specific distinction would be made for ''endangered'' and ''critically endangered'' species.

Response: NMFS disagrees with the commenters' arguments on the topic of small numbers. Although there is limited legislative history available to guide NMFS and an apparent lack of biological underpinning to the concept, we have worked to develop a reasoned approach to small numbers. NMFS explains the concept of ''small numbers'' in recognition that there could also be quantities of individuals taken that would correspond with ''medium'' and ''large'' numbers. As such, NMFS considers that one-third of the most appropriate population abundance number—as compared with the assumed number of individuals taken—is an appropriate limit with regard to ''small numbers.'' This relative approach is consistent with the statement from the legislative history that ''[small numbers] is not capable of being expressed in absolute numerical limits'' (H.R. Rep. No. 97–228, at 19 (September 16, 1981)), and relevant case law (*Center for Biological Diversity* v. *Salazar,* 695 F.3d 893, 907 (9th Cir. 2012) (holding that the U.S. Fish and Wildlife Service reasonably interpreted ''small numbers'' by analyzing take in relative or proportional terms)). In regards to SaveLBI's suggestion that the one-third number is inconsistent with prior case law, we note that SaveLBI cited the *Natural Resources Defense Council Inc. (NRDC)* v. *Evans* decision of October 31, 2002 (232 F. Supp. 2d 1003), which was related to the plaintiffs' motion for a preliminary injunction. Ultimately, after parties' cross-motions for summary judgment, the Evans court held that NMFS' regulatory definition of small numbers (which NMFS did not apply here) improperly conflated the small numbers and negligible impact issues (*NRDC* v. *Evans,* 279 F. Supp. 2d 1129 (N.D. Cal. 2003)). Contrary to SaveLBI's suggestion, the Evans court expressly stated that it was not setting any numerical limit for small numbers. *NRDC* v. *Evans,* 279 F. Supp. 2d at 1153. As for SaveLBI's suggestion to reconsider small numbers specifically for NARW, the argument to establish a small numbers threshold on the basis of stock-specific context is unnecessarily duplicative of the required negligible impact finding, in which relevant biological and contextual factors are considered in conjunction with the amount of take.

Comment 9: SaveLBI states that NMFS authorizing take by harassment for 33 percent of a marine mammal population is approximately 43 times the potential biological removal (PBR) level of (0.7) defined for NARW.

Response: SaveLBI inappropriately conflates Level B harassment (*i.e.,* behavioral disturbance)—the only type of taking authorized through this IHA—with mortality and serious injury through its reference to the stock's PBR level. A stock's PBR level is ''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.'' PBR is not an appropriate metric to evaluate Level B harassment, which does not result in mortality or serious injury of marine mammals (*i.e.,* removals from the population), and NMFS has described and used an analytical framework that is appropriate. We consider levels of ongoing anthropogenic mortality from other sources, such as commercial fisheries, in relation to calculated PBR levels as part of the environmental baseline in our negligible impact analysis.

Comment: COA expresses their concern over potential ''masking'' of NARW calls, which could reduce breeding and foraging opportunities or impair navigation and transiting.

Response: Fundamentally, the masking effects to any one individual whale from one survey are expected to be minimal. Masking is referred to as a chronic effect because one of the key harmful components of masking is its duration—the fact that an animal would have reduced ability to hear or interpret critical cues becomes much more likely to cause a problem the longer it is occurring. Also, inherent in the concept of masking is the fact that the potential for the effect is only present during the times that the animal and the source are in close enough proximity for the effect to occur (and further, this time period would need to coincide with a time that the animal was utilizing sounds at the masked frequency) and as our analysis both quantitatively and qualitatively indicates, we do not expect these exposures with the potential for masking to be of a long duration within a given day because of the relative movement of whales and vessels. Further, because of the relatively low density of mysticetes and relatively large area over which the vessels travel, we do not expect any individual whales to be exposed to potentially masking levels from these surveys for more than a few days in a year.

As noted above, any masking effects of this survey are expected to be limited and brief, if present. Given the likelihood of significantly reduced received levels beyond even short distances from the survey vessel combined with the short duration of potential masking and the lower likelihood of extensive additional contributors to background noise offshore and within these short exposure periods, we believe that the incremental addition of the survey vessel is unlikely to result in more than minor and short-term masking effects likely occurring to some small number of the same individuals captured in the estimate of behavioral harassment.

Comment: COA is concerned regarding the number of species that could be impacted by the activities as well as a lack of baseline data being available for species in the area (*e.g.,* harbor seals), specifically their habitat use of the waters in and around Atlantic Shores' lease areas. In addition, COA has stated that NMFS did not adequately address the potential for cumulative impacts to bottlenose dolphins from Level B harassment over several years of project activities.

Response: NMFS repeats our response from the previous **Federal Register** notice (87 FR 24103, April 22, 2022), as it remains applicable to the comment provided by COA.

We appreciate the concern expressed by COA. NMFS utilizes the best available science when analyzing which species may be impacted by an applicant's proposed activities. Based on information found in the scientific literature as well as based on density models developed by Duke University, all marine mammal species included in the proposed **Federal Register** notice have some likelihood of occurring in Atlantic Shores' survey areas. Furthermore, the MMPA requires us to evaluate the effects of the specified activities in consideration of the best scientific evidence available and, if the necessary findings are made, to issue the requested take authorization. The MMPA does not allow us to delay decision making in hopes that additional information may become available in the future. Furthermore, NMFS notes that it has previously addressed discussions on cumulative impact analyses in previous comments and references COA back to these specific responses in this notice.

Regarding the lack of baseline information cited by COA, with specific concern pointed out for harbor seals, NMFS points towards two sources of information for marine mammal baseline information: the Ocean/Wind Power Ecological Baseline Studies, January 2008—December 2009 completed by the New Jersey Department of Environmental Protection in July 2010 (*https://dspace.njstatelib.org/xmlui/handle/10929/68435*) and the Atlantic Marine Assessment Program for Protected Species (AMAPPS; *https://www.fisheries.noaa.gov/new-england-mid-atlantic/population-assessments/atlantic-marine-assessment-program-protected*) with annual reports available from 2010 to 2021 (*https://www.fisheries.noaa.gov/resource/publication-database/atlantic-marine-assessment-program-protected-species*) that cover the areas across the Atlantic Ocean. NMFS has duly considered this and all available information. Based on the information presented, NMFS has determined that no new information has become available nor do the commenters present additional information that would change our determinations since the publication of the proposed notice.

Comment: COA, RODA, Defend Brigantine Beach Inc., and members of the public assert that the strandings that have occurred in the New Jersey/New York region since December 2022 could be connected to offshore wind pre-construction activities.

Response: NMFS reiterates that there is no evidence that noise resulting from offshore wind development-related site characterization surveys could potentially cause marine mammal stranding, and there is no evidence linking recent large whale mortalities and currently ongoing surveys. The commenters offer no such evidence. NMFS will continue to gather data to help us determine the cause of death for these stranded whales. We note the Marine Mammal Commission's recent statement: ''There continues to be no evidence to link these large whale strandings to offshore wind energy development, including no evidence to link them to sound emitted during wind development-related site characterization surveys, known as HRG surveys. Although HRG surveys have been occurring off New England and the mid-Atlantic coast, HRG devices have never been implicated or causatively-associated with baleen whale strandings.'' (Marine Mammal Commission Newsletter, Spring 2023).

There is an ongoing Unusual Mortality Event (UME) for humpback whales along the Atlantic coast from Maine to Florida, which includes animals stranded since 2016. Partial or full necropsy examinations were conducted on approximately half of the whales. Necropsies were not conducted on other carcasses because they were too decomposed, not brought to land, or stranded on protected lands (*e.g.,* national and state parks) with limited or no access. Of the whales examined (roughly 90), about 40 percent had evidence of human interaction, either ship strike or entanglement. Vessel strikes and entanglement in fishing gear are the greatest human threats to large whales. The remaining 50 necropsied whales either had an undetermined cause of death (due to a limited examination or decomposition of the carcass), or had other causes of death including parasite-caused organ damage and starvation.

As discussed herein, HRG sources may behaviorally disturb marine mammals (*e.g.,* avoidance the immediate area). These HRG surveys are very different from seismic airguns used in oil and gas surveys or tactical military sonar. They produce much smaller impact zones because, in general, they have lower source levels and produce output at higher frequencies. The area within which HRG sources might behaviorally disturb a marine mammal is orders of magnitude smaller than the impact areas for seismic airguns or military sonar. Any marine mammal exposure would be at significantly lower levels and shorter duration, which is associated with less severe impacts to marine mammals.

Comment: COA suggests that NMFS provide evidence that whale occurrence increased in this area during the winter.

Response: NMFS directs COA to Duke University's Marine Geospatial Ecology Laboratory's 2022 density data (Roberts *et al.,* 2023), which NMFS considers to be the best available science regarding NARW occurrence (version 12; *https://seamap.env.duke.edu/models/mapper/EC?species=Eubalaena%20glacialis*). Based on the dataset, humpback whale occurrence off New Jersey is fairly consistent year-round, with reductions noted starting around July through August, and densities increasing again starting in September. Humpback whales, as the population has grown, are seen more often in the Mid-Atlantic. Along the New Jersey shore, these whales may be following their prey (small fish) which were reportedly close to shore this winter. These prey also attract fish that are of interest to recreational and commercial fishermen, which increases the number of boats in these areas.

Comment: COA insists that NMFS provide ''clarity and due process'' for the ''determination of accountability,'' specifically related to understanding how much accumulated Level A harassment and Level B harassment from offshore wind energy development and other activities is too much.

Response: NMFS is unclear regarding the meaning of COA's references to ''clarity and due process,'' or under what statutory requirement COA believes that an ambiguous ''determination of accountability'' is required. We do note, as discussed elsewhere herein, that NMFS has made all necessary findings under the MMPA in support of issuance of the subject IHA, and is similarly compliant with other relevant statutory requirements, *e.g.,* NEPA, ESA. We also refer to the previous response addressing concerns regarding the need for additional analysis of cumulative impacts.

Comment: COA states that BOEM has no legal authority for permitting offshore geotechnical and geophysical survey activities, based on text from the proposed BOEM Renewable Energy Modernization proposed rule (88 FR 5968, January 30, 2023; 88 FR 19578, April 3, 2023). They further state that this has allowed for no oversight with regards to surveys off New Jersey and New York and that they do not understand how BOEM can make assertions without regulations/guidance for HRG survey work. COA further states that, given NMFS' regulatory authority under the MMPA and ESA, they should oversee the governance of surveys.

Response: NMFS' statutory authority for this particular action is limited to authorizing incidental take of marine mammals. COA associates these authorities under the MMPA and ESA with a suggestion that NMFS should ''oversee the governance of surveys,'' but without further explanation of why this would be appropriate or authorized by statute. NMFS respectfully refers the commenter to BOEM, the agency with responsibility for managing development of U.S. Outer Continental Shelf energy and mineral resources in an environmentally and economically responsible way.

Comment: RODA states that NMFS should cease what it describes as a segmented phase-by-phase and project-by-project approach to IHAs, and suggests that NMFS provide additional clarification and transparency on the ITA process for offshore wind actions and how an ITR is determined as appropriate versus an IHA. They also state that this process and information should be made publicly available, and recommend that NMFS improve the transparency of this process. Conversely, COA suggests that the IHA, as proposed, is for two separate offshore wind energy projects (Atlantic Shores 1 and Atlantic Shores 2) and their relevant export cable areas and that requests covering more than one project should be submitted and reviewed separately, rather than collectively.

Response: The MMPA and its implementing regulations allow, upon request, the incidental take of small numbers of marine mammals by U.S. citizens who engage in a specified activity (other than commercial fishing) within a specified geographic region. NMFS responds to these requests by authorizing the incidental take of marine mammals if it finds that the taking would be of small numbers, have no more than a ''negligible impact'' on the marine mammal species or stock, and not have an ''unmitigable adverse impact'' on the availability of the species or stock for subsistence use. NMFS emphasizes that an IHA does not authorize the specified activity itself but rather, authorizes the take of marine mammals incidental to the ''specified activity'' for which incidental take coverage is being sought. In this case, NMFS is responding to the applicant, Atlantic Shores and the specified activity described in their application and making necessary findings on the basis of what was provided in their application. The authorization of Atlantic Shores' specified activity (note, not the authorization of takes incidental to that activity) is not within NMFS' jurisdiction.

For transparency on NMFS' ITA process, we direct RODA to our website (*https://www.fisheries.noaa.gov/permit/incidental-take-authorizations-under-marine-mammal-protection-act*) and the detailed application instructions (*https://www.fisheries.noaa.gov/national/marine-mammal-protection/apply-incidental-take-authorization*) for additional information on the ITA process, which is consistently applicable across all types of activities (*e.g.,* offshore wind, construction, oil and gas, military, research, HRG). These resources describe, in detail, step-by-step instructions on what is needed in an ITA request, what is evaluated, and how determinations are made for any specific project. This information is and has remained publicly available.

Regarding clarification on IHAs versus ITRs, as described on our website, IHAs are 1-year authorizations and ITRs are 5-year regulations that allow for the issuance of Letters of Authorization (LOA). An ITR must be used if authorization of take by mortality is appropriate. However, both options are available for applicants requesting authorization of harassment only. While applicants may request a 5-year regulation for HRG survey activities, NMFS has not received any requests like that to date. Instead, applicants have most often requested 1-year authorizations to cover a single year of activities at a single time.

Finally, NMFS is required to consider applications upon request, and the MMPA does not provide NMFS with authority to dictate an applicant's definition of its specified activity (*e.g.,* separation/combination of survey effort for Atlantic Shores 1 and 2). An individual company owning multiple lease areas may apply for a single authorization to conduct site characterization surveys across a combination of those lease areas, such

as activities conducted by Orsted (see 85 FR 63508, October 8, 2020; 87 FR 13975, March 11, 2022; 87 FR 61575, October 12, 2022) or may request a single authorization for a single project or lease area. Regarding the RODA suggestion, to date, NMFS has not received any joint HRG applications between multiple applicants. While an individual company owning multiple lease areas may apply for a single authorization to conduct site characterization surveys across a combination of those lease areas (see 85 FR 63508, October 8, 2020; 87 FR 13975, March 11, 2022), this is not applicable in this case. In the future, if applicants wish to undertake this approach, NMFS is open to the receipt of joint applications and additional discussions on joint actions.

Comment: RODA expressed concern regarding the potential for increased uncertainty in estimates of marine mammal abundance resulting from wind turbine presence during aerial surveys and potential effects of NMFS' ability to continue using current aerial survey methods to fulfill its mission of precisely and accurately assessing protected species.

Response: NMFS has determined that offshore wind development projects may impact several Northeast Fisheries Science Center (NEFSC) surveys, including aerial surveys for protected species, and NEFSC has developed and implemented a Federal survey mitigation program to mitigate the impacts to these surveys. However, this impact is outside the scope of analysis related to the authorization of take incidental to Atlantic Shores' specified activity under the MMPA.

Comment: RODA expressed concerns with the high amount of increased vessel traffic associated with offshore wind projects throughout the region in areas transited or utilized by certain protected resources as well as concern for vessel noise.

Response: Atlantic Shores did not request authorization for take incidental to vessel traffic during marine site characterization surveys. Nevertheless, NMFS analyzed the potential for vessel strikes to occur during the survey and determined that the potential for vessel strikes is so low as to be discountable. NMFS does not authorize any take of marine mammals incidental to vessel strike resulting from the survey. If Atlantic Shores were to strike a marine mammal with a vessel, this would be an unauthorized take and a violation of the MMPA. This gives Atlantic Shores a strong incentive to operate its vessels with all due caution and to effectively implement the suite of vessel strike avoidance measures called for in the IHA. Section 4(g) in the issued IHA contains a suite of non-discretionary requirements pertaining to ship strike avoidance, including vessel operation protocols and monitoring. To date, NMFS is not aware of any site characterization vessels from HRG surveys reporting a vessel strike within the United States. When considered in the context of low overall probability of any vessel strike by Atlantic Shores' vessels, given the limited additional survey-related vessel traffic relative to existing traffic in the survey area, the comprehensive visual monitoring, and other additional mitigation measures described herein, NMFS believes these measures are sufficiently protective to avoid ship strike. These measures are described fully in the Mitigation section below and include, but are not limited to: training for all vessel observers and captains, daily monitoring of North Atlantic right whale Sighting Advisory System, WhaleAlert app, and United States Coast Guard (USCG) Channel 16 for situational awareness regarding NARW presence in the survey area, communication protocols if whales are observed by any Atlantic Shores personnel, vessel operational protocol should any marine mammal be observed, and visual monitoring.

The potential for impacts related to an overall increase in the amount of vessel traffic due to offshore wind development is separate from the aforementioned analysis of potential for vessel strike during Atlantic Shores' specified survey activities and is not discussed further as this is out-of-scope of this specific action.

Comment: RODA refers to the Marine Mammal Commission's previous comments on the matter of effects on marine mammals from offshore wind development, expressing that ''they are more knowledgeable on impacts of pile driving and acoustics to marine mammals.''

Response: In response to RODA's deferral to the Marine Mammal Commission, we note that the Commission has questioned in its previous public comment submissions whether incidental take authorizations are even necessary for surveys utilizing HRG equipment (*i.e.,* take is unlikely to occur) and has subsequently informed NMFS that they would no longer be commenting on such actions, which includes Atlantic Shores' activity described herein. Additionally, comments related to pile driving and offshore wind construction are outside the scope of this IHA and, therefore, are not discussed.

Comment: RODA refers to the September 9, 2020 letter submitted by 17 Environmental NGOs and echoes their concerns.

Response: NMFS refers RODA to the **Federal Register** notice published at 85 FR 63508 (October 8, 2020) for our responses to the Environmental NGOs' letter.

Comment: RODA expressed concern that negative impacts to local fishermen and coastal communities as a result of a potentially adverse impact to marine mammals (*e.g.,* vessel strike resulting in death or severe injury) were not mentioned nor evaluated in ''the IHA request for this project.'' RODA also emphasized concern about the lack of adequate analysis of individual and cumulative impacts to marine mammals, noting existing fishery restrictions as a result of other NARW protections.

Response: Neither the MMPA nor our implementing regulations require NMFS to analyze impacts to other industries (*e.g.,* fisheries) or coastal communities from issuance of an ITA. As detailed in the proposed IHA notice, NMFS has analyzed the potential for adverse impacts such as vessel strikes to marine mammals, including NARWs, as a result of Atlantic Shores' planned site characterization survey activities and determined that no serious injury or mortality is anticipated. In fact, as discussed in the Determinations section later in this document, no greater than low-level behavioral harassment is expected for any affected species. For the NARW, in particular, it is considered unlikely, as a result of the required precautionary shutdown zone (*i.e.,* 500 m versus the estimated maximum Level B harassment zone of 141 m), that the authorized take (by Level B harassment only) would occur at all.

In regards to the cumulative impacts, we reiterate our response from Comment 7 here as it remains applicable to this comment as well.

Comment: RODA suggests NMFS modify the exclusion zone for all marine mammals to 500 m during nighttime hours.

Response: RODA suggests that the shutdown zone should be increased at night for all marine mammals to match that required for NARW because of its contention that Protected Species Observers (PSOs) may not be able to differentiate between different species of cetaceans in low-light conditions. However, the IHA empowers the PSO to, in cases where identification may be uncertain, base decisions regarding implementation of mitigation on best professional judgment. This means that,

if the PSO believes that an observed marine mammal may be a NARW but is not sure, they have the authority to call for shutdown of the acoustic source. NMFS does not agree that expansion of the shutdown zone for all species during nighttime conditions is warranted.

Comment: RODA suggests that in the event of a ship strike by an Atlantic Shores vessel, the applicant is also required to notify the United States Coast Guard via VHF Channel 16.

Response: As stated in the IHA, in the event of a ship strike of a marine mammal by any vessel involved in the survey activities, Atlantic Shores is required to report the incident to NMFS as soon as feasible. Given this, RODA does not adequately explain why this requirement would be useful nor why it should be required independent of the one described already in the IHA. As such, NMFS does not agree that it should be included in the IHA.

Comment: RODA states that the IHA should not have the option to be renewed or should face additional scrutiny if (a) there are takes not authorized by the initial notice (Level A harassment or other takes of species not included in this IHA); and (b) if HRG surveys are proven to cause harm to marine mammals.

Response: With regards to RODA's first suggestion, NMFS has included language in the final IHA, which was presented in the draft IHA during the public comment period, that includes a relevant provision in the General Conditions (3(c)): ''The taking by injury, serious injury or death of any of the species listed in Table 1 (of the IHA) or any taking of any other species of marine mammal is prohibited and may result in the modification, suspension, or revocation of this IHA.''

In speaking to the second point described by RODA, NMFS would evaluate IHAs on a case-by-case basis, as necessary, if new information was presented.

Comment: Members of the public, CFACT, and SaveLBI state that they are against the idea that this project is exempt from further analysis under NEPA based upon use of the Categorical Exclusion and suggest that the IHA violates the requirements of NEPA. CFACT and SaveLBI further state that this project requires preparation of a full scale Environmental Impact Assessment/Environmental Impact Statement (EIA/EIS) under NEPA.

Response: NMFS does not agree with the commenters. A categorical exclusion (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. While there may be environmental effects associated with the underlying action, 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 Environmental Assessments (EAs) analyzing the environmental impacts of the categories of activities encompassed by CE B4, which resulted in Findings of No Significant Impacts (FONSIs) 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. These EAs also addressed factors in 40 CFR 1508.27 regarding the potential for significant impacts and demonstrate the issuance of incidental harassment authorization for the categories of activities encompassed by CE B4 do not individually or cumulatively have a significant effect on the human environment.

Specifically for this action, NMFS independently evaluated the use of the CE for issuance of Atlantic Shores' IHA, which included consideration of extraordinary circumstances. As part of that analysis, NMFS considered including whether this IHA issuance would result in cumulative impacts that could be significant. In particular, the issuance of an IHA to Atlantic Shores 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 expected to occur intermittently in the vicinity of Atlantic Shores' 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 Atlantic Shores' 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), which concluded surveys such as those planned by Atlantic Shores 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 demonstrate 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.

Lastly, as NMFS has already stated, the specified activity identified in this IHA is not for construction activities related to offshore wind but instead for site characterization surveys routinely undertaken by applicants for site assessment. Therefore, any comments related to construction activities are out-of-scope for this action.

Comment: CFACT stated that if a species is displaced due to survey activities this may pressure the prey and food supplies of other species and result in food scarcity.

Response: Given the relatively low and temporary impacts expected from site characterization surveys, NMFS does not expect foraging activities for any species to change to a level that could cause a reduction of individual or species fitness. While NMFS has stated that some temporary avoidance of some species may occur (*e.g.,* NARWs), these effects would be temporary and short-term with animals being able to move away from the vessel and return to the site after the vessel has passed. Even in the event that species are temporarily displaced into parallel habitat, given no known concentrated and primary foraging aggregations in the New Jersey/New York region for any species included in the IHA, we do not expect this to be a likely outcome of these surveys.

Comment: SaveLBI and CFACT has made the assumption that HRG surveys may ''block'' the migration of NARWs, or at least seriously disrupt them. CFACT further states that this would mean 100 percent of the migratory corridor would be impacted instead of the 2.11 percent that NMFS calculated in the proposed notice. Similarly, SaveLBI states that NMFS did not accurately present the NARW migration corridor against Atlantic Shores' survey area. They assert that how NMFS described the overlap is misleading by providing the large spatial area of the migratory corridor. They also cite the 2015 Duke University density models to describe the highest presence of NARWs in the project area.

Response: None of the commenters have provided any evidence or justification that HRG surveys would fully ''block'' the migration of NARWs in the area, so NMFS cannot evaluate this information beyond what is described here. There is no scientific evidence that HRG signals, which are of low intensity and consist of small distances to the Level B harassment threshold (141 m at the largest based on sparker usage), would impede NARW migration or the movements of any marine mammal species. Furthermore, given the relatively small size of the largest harassment zone (141 m), not even accounting for the required 500 m vessel separation distance for NARW from survey vessels, we note that the comparison of the width of the migratory corridor is not the entire survey area planned by Atlantic Shores. Instead, this width is determined by the size of the harassment zone at any given moment in the survey, a tiny portion of the total survey area.

NMFS disagrees with SaveLBI's assertion regarding NARW migratory habitat. As we previously stated above, NARW migratory habitat is very large in comparison to the overall size of Atlantic Shores' survey area but also, importantly, we do not expect any meaningful or significant impacts to important behavior that may occur within the portion of this habitat that may be impacted by the specified activity. Because of this, we expect that any potential exposures NARWs may experience when transiting the migratory corridor would not result in more than behavioral harassment to a minor degree. Furthermore, as we stated above, the largest acoustic source is producing a relatively small harassment zone (141 m) from the vessel and that Atlantic Shores' surveys will not constitute the entire width of the migratory corridor. As is necessary for authorizations issued under the MMPA, we have fully evaluated any potential impacts to both the behaviors of marine mammals (including NARWs) and to their habitats to make our negligible impact determination.

Furthermore, NMFS is not aware of any scientific literature, data, or reports that support this assertion. If the commenters were willing to share their data, NMFS would be able to take this under consideration. However, as it currently stands, there is no credible evidence that we are aware of that states that disturbances would physically ''block'' the migration of NARWs.

Lastly, we also note here that SaveLBI references the Duke University density models for the U.S. Atlantic and Gulf of Mexico from 2015 (*https://seamap.env.duke.edu/models/Duke-EC-GOM-2015/*). NMFS did not use this data in its analysis as much more recent data has since been released that NMFS has determined to constitute the best available science. NMFS refers SaveLBI to the more recent Roberts *et al.* (2023) density models for NARWs (version 12). Based on this data, it appears that December-April are the highest density months with densities dropping off into the summer.

Comment: A private citizen commented that the ''wind wake'' effect from offshore wind farms would reduce annual primary production that some species use as a food source.

Response: NMFS notes that this action, as was proposed for Atlantic Shores, is not for the construction of an offshore wind farm but for a site characterization survey. As such, comments related to construction specifically are out of scope for this specific action.

Comment: CFACT provided a comment stating that Atlantic Shores' proposal is premature because the Atlantic Shores Wind Project has not been approved and harassment should not be authorized for speculative projects.

Response: The MMPA does not require that NMFS ascertain whether a proposed project will be approved or not prior to issuing requested incidental take authorizations. Furthermore, as previously discussed, NMFS considers applications upon request and the issuance of this authorization is separate from any construction activities directly relevant to offshore wind farms.

Comment: CFACT and SaveLBI indicated that they believe the survey area to be too large for the described proposed surveys as the geographical scope of the survey does not seem to match up with the stated site characterization survey area. Commenters justify this by saying that the export cable routes were not previously described in BOEM's Construction and Operations Plans (COP) and Notice of Intent (NOI) and therefore, cannot be included in the scope of Atlantic Shores' requested activities.

Response: As previously stated, it is not in NMFS' jurisdiction to dictate how and where an applicant's activities should be performed. Under the MMPA, NMFS must analyze and make findings, if possible, based on the specified

activity as described by the applicant. Any stakeholder comments regarding the geographical scope and size of survey activities or what information is or is not included in BOEM's COP and NOI (*i.e.,* inclusion of the export cable routes, wind turbine generator placement/locations) are out of scope for the described proposed action as BOEM, not NMFS, is in charge of leasing and activities occurring within a defined area and region.

Comment: A member of the public has expressed concern that the proposed HRG surveys will cause irreparable damage to marine mammal habitat.

Response: NMFS does not expect impacts or damage to marine mammal habitat from HRG surveys. This is due, in part, to the limited area of effect from the acoustic sources as compared to the entire habitat extent (141 m maximum using the sparker) as well as the temporary and localized nature of the acoustic sources themselves. Temporary avoidance of marine mammals and their prey may occur at some points, but these are expected to be localized and few, with occurrence patterns returning to normal levels once the acoustic source has been turned off and/or after the survey vessel has moved. No physical impacts are expected to occur that would change the habitat in any way during the acoustic surveys (*i.e.,* no destruction of the seabed, any nearby reefs, or removal of sediment or bottom resources that fish may use). Because of this, NMFS has determined that all impacts to the marine environment and habitat are considered negligible.

Comment: SaveLBI requests that NMFS explain why a 20 decibel (dB) propagation loss coefficient was applicable to the analysis presented in the proposed notice or to go back and rerun the analysis using a 15 dB propagation loss coefficient.

Response: SaveLBI states that NMFS' assumption that use of a 20logR transmission loss factor (*i.e.,* spherical spreading) is inappropriate and states that ''According to a number of scientific sources, the use of a noise propagation loss coefficient of 20 dB per tenfold increase in distance represents ''spherical spreading'' and is only appropriate in the ''near field'' where the calculated horizontal distance is comparable with the water depth. However, SaveLBI does not cite any such scientific sources, so NMFS must evaluate SaveLBI's recommendations based only on its comment.

A major component of transmission loss is spreading loss and from a point source in a uniform medium, sound spreads outward as spherical waves (''spherical spreading'') (Richardson *et al.,* 1995). In water, these conditions are often thought of as being related to deep water, where more homogenous conditions may be likely. However, the theoretical distinction between deep and shallow water is related more to the wavelength of the sound relative to the water depth versus the water depth itself. Therefore, when the sound produced is in the kilohertz range, where wavelength is relatively short, much of the continental shelf may be considered ''deep'' for purposes of evaluating likely propagation conditions.

As described in the previous **Federal Register** notice of proposed IHA (87 FR 4200, January 27, 2022), the area of water ensonified at or above the root mean square (RMS) sound pressure level 160 dB threshold was calculated using a simple model of sound propagation loss, which accounts for the loss of sound energy over increasing range. Our use of the spherical spreading model (where propagation loss = 20 * log [range]; such that there would be a 6-dB reduction in sound level for each doubling of distance from the source) is a reasonable approximation over the relatively short ranges involved and is suggested for use in our HRG guidance (NMFS, 2020). Use of a spherical spreading model in this case is also consistent with a recent publication regarding HRG (Ruppel *et al.,* 2022), wherein the authors state that spherical spreading dominates even in shallow water depths, at the frequencies of most HRG surveys. Even in conditions where cylindrical spreading (where propagation loss = 10 * log [range]; such that there would be a 3-dB reduction in sound level for each doubling of distance from the source) may be appropriate (*e.g.,* non-homogenous conditions where sound may be trapped between the surface and bottom), this effect does not begin at the source. In any case, spreading is usually more or less spherical from the source out to some distance and then may transition to cylindrical (Richardson *et al.,* 1995). For these types of surveys, NMFS has determined that spherical spreading is a reasonable assumption even in relatively shallow waters (in an absolute sense) as the reflected energy from the seafloor will be much weaker than the direct source and the volume influenced by the reflected acoustic energy would be much smaller over the relatively short ranges involved.

In support of its position, SaveLBI cites several examples of use of practical spreading (a useful real-world approximation of conditions that may exist between the theoretical spreading modes of spherical and cylindrical; 15logR) in asserting that this approach is also appropriate here. However, as NMFS has previously stated to SaveLBI, these examples (U.S. Navy construction at Newport, RI, and NOAA construction in Ketchikan, AK) are not relevant to the activity at hand. First, these actions occur in even shallower water (*e.g.,* less than 10 m for Navy construction). Of greater relevance to the action here, pile driving activity produces sound with longer wavelengths than the sound produced by the acoustic sources planned for use here. As noted above, a determination of appropriate spreading loss is related to the ratio of wavelength to water depth more than to a strict reading of water depth. NMFS indeed uses practical spreading in typical coastal construction applications, but for reasons described here, uses spherical spreading when evaluating the effects of HRG surveys on the continental shelf.

In addition, for many of these HRG sources, absorption should also be accounted for when discussing sound propagation (*i.e.,* great absorption for higher frequency sources). Thus, this analysis is likely conservative for other reasons (*e.g.,* the lowest frequency was used for systems that are operated over a range of frequencies).

NMFS has determined that spherical spreading is the most appropriate form of propagation loss for these surveys and has relied on this approach for past IHAs with similar equipment, locations, and depths. Please refer back to the Garden State HRG IHA (83 FR 14417, April 4, 2018) and the 2019 Skipjack HRG IHA (84 FR 51118, September 27, 2019) for examples. Prior to the issuance of these IHAs (approximately 2018 and older), NMFS typically relied upon practical spreading for these types of survey activities. However, as additional scientific evidence became available, including numerous sound source verification reports, NMFS determined that this approach was inappropriately conservative and since that time, has consistently used spherical spreading.

Comment: A member of the public expressed concern about the concurrent use of vessels for surveying increasing the likelihood of incidental take.

Response: NMFS appreciates the commenter's concern but notes that no evidence is provided to substantiate this concern. NMFS' believes that the authorized take numbers adequately account for the potential take that may result from the proposed survey work, inclusive of the concurrent use of surveying vessels. As a result of the small estimated Level B harassment zones (*i.e.,* maximum 141 m), no overlap of the footprint of potential

effect would occur due to concurrent vessel use. The use of concurrent survey vessels over the relatively large survey area is not expected to increase either the number of takes or the degree of individual take events that may occur.

Comment: SaveLBI and a member of the public assert that Level A harassment may occur, and that this was not accounted for in the proposed notice.

Response: NMFS has previously responded to this comment from SaveLBI (see 87 FR 24103, April 22, 2022) and our response has neither changed nor has new information presented itself that would change our determination. NMFS acknowledges the commenters' concerns regarding the potential for Level A harassment of marine mammals. However, no Level A harassment is expected to result, even in the absence of mitigation, given the characteristics of the sources planned for use. This is additionally supported by the required mitigation and very small estimated Level A harassment zones described in Atlantic Shores' 2020 **Federal Register** notice (85 FR 21198, April 16, 2020), carried through to the 2021 renewal IHA (86 FR 21289, April 22, 2021), and present in the 2022 IHA (87 FR 24103, April 22, 2022) which is of a similar scope of activities presented for the 22023 survey. Furthermore, the commenters do not provide any support for the apparent contention that Level A harassment is a potential outcome of these activities. As discussed in the notice of proposed IHA for the 2023 surveys, NMFS considers this category of survey operations to be near *de minimis,* with the potential for Level A harassment for any species to be discountable.

Comment: SaveLBI continues to suggest that NMFS utilize a source level of 211 dB root-mean-square (rms) instead of the 203 dB for the Dura-Spark 240, as was cited in the proposed **Federal Register** notice (*e.g.,* for sparkers, the peak sound pressure level can be approximately 7 dB higher than the rms sound pressure level (rms SPL) typically associated with NMFS's marine mammal behavioral harassment thresholds (NMFS, 2020)).

Response: As stated in a previous **Federal Register** notice (87 FR 24103, April 22, 2022), NMFS disagrees with SaveLBI's recommendation, and has determined that the 203 dB rms SPL source level is still the most appropriate for use herein. As discussed in the notice of proposed IHA, the Applied Acoustics Dura-Spark was included and measured in Crocker and Fratantonio (2016), but not with an energy setting near 800 J, the energy setting which was determined as the ''worst-case scenario'' by Atlantic Shores for use in the presence of denser substrates. The SIG ELC 820 sparker was deemed as a similar alternative to the Dura-Spark based on information in Table 9 of Crocker and Fratantonio (2016), and where a higher energy setting of 750 J (at a 5 m depth) had been measured. We also note that using the SIG ELC as a surrogate system has been previously documented and employed in other issued IHAs, such as the Mayflower Wind HRG surveys (86 FR 38033, July 19, 2021). NMFS further based this decision on further information on the SIG acoustic source, Crocker and Fratantonio (2016), and other IHA applications (see Mayflower Wind's application at *https://media.fisheries.noaa.gov/2021-02/Mayflower-2021HA_Appl_OPR1.pdf?null*=). The frequency ranges provided for the SIG ELC represent a broad range (0.01—1.9 kHz), which includes the highest bandwidth at the 750 J reported in Crocker and Fratantonio (2016).

We also note that, based on additional discussion with Atlantic Shores, a power level of 750 J was likely an overestimate and that 500–600 J was more likely to be used during the HRG surveys and that 750 was a conservative overestimate. NMFS carries over this information in the 2023 project from Table 2 found in the 2022 proposed **Federal Register** notice (87 FR 4200, January 27, 2022). The use of information that appropriately addresses the potential for use at the higher power level means that the analysis herein, including the selection of source level, is conservative for most typical applications of the acoustic sources.

Comment: SaveLBI states that it believes NMFS' negligible impact finding for NARWs to be insufficient given the analysis SaveLBI included in their letter, which produced higher take numbers for marine mammals, including NARWs. SaveLBI also states that, based on their assertion that serious injury and/or mortality is a potential outcome of the specified activity for NARWs, a rulemaking (Incidental Take Regulation with subsequent Letters of Authorization) would be necessary to authorize Atlantic Shores' site characterization surveys due to SaveLBI's premise that take by serious injury and/or mortality may occur.

Response: NMFS acknowledges that authorization under section 101(a)(5)(A) of the MMPA would be required were mortality or serious injury an expected outcome of the action. However, as noted previously, there is no scientific evidence suggesting that such outcomes are possible and, therefore, an IHA issued under section 101(a)(5)(D) is appropriate. Similarly, if SaveLBI's analysis were considered credible, the results would necessitate a revision to NMFS' negligible impact determination. However, as detailed in previous comment responses, SaveLBI's analysis is not based on the best scientific evidence available, and NMFS does not consider it to be a credible analysis. Separately, it appears that SaveLBI equates Level A harassment with serious injury and mortality in suggesting that Incidental Take Regulations are required. As discussed herein, Level A harassment is not an expected outcome of the specified activity. However, we clarify that section 101(a)(5)(D) of the MMPA, which governs the issuance of IHAs, indicates that the ''the Secretary shall authorize . . . . taking by harassment [. . . .]'' The definition of ''harassment'' in the MMPA clearly includes both Level A harassment and Level B harassment.

SaveLBI further suggested that NMFS should promulgate programmatic Incidental Take Regulations for site characterization activities. Although NMFS is open to this approach, we have not received a request for such regulations from the applicant, and NMFS reminds SaveLBI that the MMPA only allows for the development of Incidental Take Regulations upon request. SaveLBI states that this would be necessary based on the potential for serious injury or mortality that was assumed in SaveLBI's letter. However, as discussed previously, NMFS does not expect any serious injury or mortality, even absent mitigation efforts, because of the nature of the activities described in the proposed **Federal Register** notice. Furthermore, NMFS included a vessel strike analysis in the proposed notice (87 FR 4200, January 27, 2022) under the referenced Potential Effects on Marine Mammals and Their Habitat section. We identified that at average transit speed for geophysical survey vessels, the probability of serious injury or mortality resulting from a strike is low enough to be discountable. However, the likelihood of a strike actually happening is again low given the smaller size of these vessels and generally slower speeds during transit. Further, Atlantic Shores is required to implement monitoring and mitigation measures during transit, including observing for marine mammals and maintaining defined separation distances between the vessel and any

marine mammal (see the Mitigation and Monitoring and Reporting sections). Finally, despite several years of marine site characterization surveys occurring off the U.S. east coast, NMFS has no reports of any vessels supporting offshore wind development having struck a marine mammal either in transit or during surveying. Because vessel strikes are not reasonably expected to occur, no such take is authorized. The mitigation measures in the IHA related to vessel strike avoidance are not limited to vessels operating within the survey area or cable corridors and therefore, apply to transiting vessels. Because of these reasons and the addition of mitigation efforts, including required vessel separation distances to further reduce any risk, we do not find that a rulemaking is necessary for Atlantic Shores' HRG surveys.

Comment: SaveLBI again asserts that NMFS has not been sufficiently clear with regard to its use of density data, and expresses concern that the density data used may not be sufficiently conservative.

Response: As discussed in greater detail in the notice of proposed IHA (87 FR 4200, January 27, 2022) and notice of final IHA (87 FR 24103, April 22, 2022) for the 2022 survey, NMFS relied upon the best available scientific information in assessing the likelihood of occurrence for all potentially impacted marine mammal species, including the NARW. The Duke University Marine Geospatial Ecology Laboratory (Roberts *et al.,* 2023) habitat-based density models, recently updated in 2022, represent the best available information regarding marine mammal densities in the survey area. Density data for all taxa are available for 5 km x 5 km grid cells over the entire survey area and for most species (including NARW; version 12), are available for each of 12 months. For the exposure analysis, these density data were mapped using a geographic information system (GIS) for each of the survey areas (*i.e.,* Lease Areas and relevant Export Cable Routes). Densities of each species were then averaged by season; thus, a density was calculated for each species for spring, summer, fall and winter. To be conservative, the greatest seasonal density calculated for each species was then carried forward in the exposure analysis. All density information used by NMFS is publicly available through Duke University's OBIS–SEAMAP website: *https://seamap.env.duke.edu/models/Duke/EC/*.

We note that SaveLBI again does not discuss what it means by stating that the analysis may not be ''conservative,'' and does not connect this concern to the relevant requirements of the MMPA. However, NMFS believes that its approach using the density information, which was referenced in full based on information from the 2022 notice of proposed IHA (87 FR 4200, January 27, 2022), addresses any such concerns.

Comment: SaveLBI again asserts that the potential for Level A harassment, serious injury and/or death impacts have been insufficiently addressed in NMFS' analysis. SaveLBI also suggests that NMFS must perform a ''cumulative permanent threshold shift (PTS) analysis.'' They further go on to state that ''NMFS' assurance that Atlantic Shores is required to not approach any right whale within 500 m or operate the sparker unit within 500 m of the whale does not inspire confidence'' as NMFS only requires visual detection of animals and not requiring passive acoustic monitoring to supplement human observation. SaveLBI provided recommendations that NMFS should require Passive Acoustic Monitoring (PAM) at all times, both day and night, to maximize the probability of detection for NARWs, as well as other species and stocks.

Response: As previously stated, the commenter still appears to mistakenly reference NMFS' historical Level A harassment threshold of 180 dB rms SPL received level in addressing this issue. However, in 2018, NMFS published Technical Guidance for Assessing the Effects of Anthropogenic Sound on Marine Mammal Hearing, which updated the 180 dB SPL Level A harassment threshold. Since that time, NMFS has been applying dual threshold criteria based on both peak pressure and cumulative sound exposure level thresholds. This dual criteria approach requires that the more conservative of the two hearing group-specific threshold criteria be applied in evaluating the potential for Level A harassment. Therefore, NMFS has considered the potential for Level A harassment on the basis of cumulative sound exposure level (as well as peak pressure) in the way suggested by SaveLBI.

As described in the Estimated Take section, NMFS has established a PTS (Level A harassment) threshold of 183 dB cumulative sound exposure level (SEL) for low frequency specialists. In support of a previous IHA request (see the final 2020 notice (85 FR 21198, April 16, 2020), the 2022 renewal notice (86 FR 21289, April 22, 2021), and the 2022 notice (87 FR 24103, April 22, 2022)), Atlantic Shores provided estimated Level A harassment zones for similar equipment (*i.e.,* the Applied Acoustics Dura-Spark 240 sparker). Despite assuming a higher source level than is used herein, the result of this analysis shows that a NARW would have to come within 1 m of the sparker to potentially incur PTS. NMFS has reviewed the analysis found in Atlantic Shores' 2020, 2021, and 2022 HRG IHA applications and confirmed that these are accurate and similar to this action. These applications can be found on NMFS' website.

Not only are NARWs migrating through the area, meaning that their occurrence in the area is expected to be of relatively brief duration and the likelihood of exposures of longer duration or at closer range minimized, Atlantic Shores is also required to not approach any NARW within 500 m or operate the sparker within 500 m of a NARW (88 FR 19075, March 30, 2023). As such, there is essentially no potential for a NARW to experience PTS (*i.e.,* Level A harassment) from the described surveys.

Regarding use of PAM, the commenters fail to explain why they expect that PAM would be effective in detecting vocalizing mysticetes, and NMFS does not agree that this measure is warranted as it is not expected to be effective for use in detecting the species of concern. It is generally accepted that, even in the absence of additional acoustic sources, using a towed passive acoustic sensor to detect baleen whales (including NARWs) is not typically effective because the noise from the vessel, the flow noise, and the cable noise are in the same frequency band and will mask the vast majority of baleen whale calls. Vessels produce low-frequency noise, primarily through propeller cavitation, with main energy in the 5–300 Hertz (Hz) frequency range. Source levels range from about 140 to 195 decibel (dB) re 1 µPa (micropascal) at 1 m (National Research Council (NRC), 2003; Hildebrand, 2009), depending on factors such as ship type, load, and speed, and ship hull and propeller design. Studies of vessel noise show that it appears to increase background noise levels in the 71–224 Hz range by 10–13 dB (Hatch *et al.,* 2012; McKenna *et al.,* 2012; Rolland *et al.,* 2012). PAM systems employ hydrophones towed in streamer cables approximately 500 m behind a vessel. Noise from water flow around the cables and from strumming of the cables themselves is also low-frequency and typically masks signals in the same range. Experienced PAM operators participating in a workshop (Thode *et al.,* 2017) emphasized that a PAM operation could easily report no acoustic encounters, depending on species present, simply because

background noise levels rendered any acoustic detection impossible. The same workshop report stated that a typical eight-element array towed 500 m behind a vessel could be expected to detect delphinids, sperm whales, and beaked whales at the required range but not baleen whales due to expected background noise levels (including seismic noise, vessel noise, and flow noise).

There are several additional reasons why we do not agree that use of PAM is warranted for 24-hour HRG surveys. While NMFS agrees that PAM can be an important tool for augmenting detection capabilities in certain circumstances, its utility in further reducing impact during HRG survey activities is limited. First, for this activity, the area expected to be ensonified above the Level B harassment threshold is relatively small (a maximum of 141 m); this reflects the fact that, to start with, the source level is comparatively low and the intensity of any resulting impacts would be lower level and, further, it means that inasmuch as PAM will only detect a portion of any animals exposed within a zone, the overall probability of PAM detecting an animal in the harassment zone is low. Together, these factors support the limited value of PAM for use in reducing take with smaller zones. PAM is only capable of detecting animals that are actively vocalizing, while many marine mammal species vocalize infrequently or during certain activities, which means that only a subset of the animals within the range of the PAM would be detected (and potentially have reduced impacts). Additionally, localization and range detection can be challenging under certain scenarios. For example, odontocetes are fast moving and often travel in large or dispersed groups which makes localization difficult.

Given that the effects to marine mammals from the types of surveys authorized in this IHA are expected to be limited to low level behavioral harassment even in the absence of mitigation, the limited additional benefit anticipated by adding this detection method (especially for NARWs and other low frequency cetaceans species for which PAM has limited efficacy), and the cost and impracticability of implementing a full-time PAM program, we have determined the current requirements for visual monitoring are sufficient to ensure the least practicable adverse impact on the affected species or stocks and their habitat. NMFS has previously provided discussions on why PAM is not a required monitoring measure during HRG survey IHAs in past **Federal Register** notices (see 86 FR 21289, April 22, 2021, and 87 FR 13975, March 11, 2022, for examples).

Regarding monitoring for species that may be present yet go unobserved, NMFS recognizes that visual detection based mitigation approaches are not 100 percent effective. Animals are missed because they are underwater (availability bias) or because they are available to be seen but are missed by observers (perception and detection biases) (*e.g.,* Marsh and Sinclair, 1989). However, visual observation remains one of the best available methods for marine mammal detection. Although it is likely that some marine mammals may be present yet unobserved within the harassment zone, all expected take of marine mammals has been appropriately authorized. For mysticete species in general, it is unlikely that an individual would occur within the estimated 141 m harassment zone and remain undetected. For NARW in particular, the required Exclusion Zone is 500 m, and therefore, it is even less likely that an individual would approach the harassment zone undetected.

Comment: SaveLBI asserts that the potential for Level B harassment and/or masking to lead to serious injury and/or death impacts have been insufficiently addressed in NMFS' analysis.

Response: The best available science indicates that Level B harassment (*i.e.,* disruption of behavioral patterns) may occur. No mortality or serious injury is expected to occur as a result of the planned surveys, and there is no scientific evidence indicating that any marine mammal could experience these as a direct result of noise from geophysical survey activity. Authorization of mortality and serious injury may not occur via IHAs, only within Incidental Take Regulations, and such authorization was neither requested nor proposed. NMFS notes that in its history of authorizing take of marine mammals, there has never been a report of any serious injuries or fatalities of a marine mammal related to the site characterization surveys, including for NARWs. We emphasize that an estimate of take numbers alone is not sufficient to assess impacts to a marine mammal population. Take numbers must be viewed contextually with other factors as explained in the Determinations section of this **Federal Register** notice.

Furthermore, SaveLBI's comment is founded again on the presumption, absent evidence, that serious injury or mortality is a reasonably anticipated outcome of Atlantic Shores' specified activity. NMFS emphasizes that there is no credible scientific evidence available suggesting that mortality and/or serious injury is a potential outcome of the planned survey activity, and SaveLBI provides no information to the contrary. We also refer SaveLBI to the GARFO 2021 Programmatic Consultation, which finds that these survey activities are in general not likely to adversely affect ESA-listed marine mammal species (*i.e.,* GARFO's analysis conducted pursuant to the ESA finds that marine mammals are not likely to be taken at all (as that term is defined under the ESA), much less be taken by serious injury or mortality). That document is found here: *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.*

Comment: SaveLBI asserts that reactions to noise exposure that do not meet the definition of Level B harassment under the MMPA may yet cause delayed injury or mortality to affected marine mammals and states that NMFS should assess this possibility. SaveLBI further states that masking effects may impact migratory activities.

Response: We acknowledge that masking may impact marine mammals, particularly baleen whales, and particularly when considered in the context of the full suite of regulated and unregulated anthropogenic sound contributions overlaying an animal's acoustic habitat. However, we do not agree that masking effects from the incremental noise contributions of individual activities or sound sources necessarily or typically rise to the level of a take. While it is possible that masking from a particular activity may be so intense as to result in take by Level B harassment, we have no information suggesting that masking of such intensity and duration would occur as a result of the specified activity. Potential effects of a specified activity must be accounted for in a negligible impact analysis, but not all responses or effects result in take nor are those that do always readily quantified. In this case, while masking is considered in the analysis, we do not believe it will rise to the level of take in the vast majority of exposures. However, in the unanticipated event that any small number of masking incidents did rise to the level of a take, we would expect them to be accounted for in the quantified exposures above 160 dB. Given the short duration of expected noise exposures, any take by

masking in the case of these surveys would be most likely to be incurred by individuals either exposed briefly to notably higher levels or those that are generally in the wider vicinity of the source for comparatively longer times. Both of these situations would be captured in the enumeration of takes by Level B harassment, which is based on exposure at or above 160 dB, which also means the individual necessarily spent a comparatively longer time in the adjacent area ensonified below 160 dB, but in which masking might occur if the exposure was notably longer. All of these potential outcomes are of notably lower likelihood in this circumstance, where the estimated harassment zone is no greater than 141 m. There is no evidence that these lower-level potential impacts could lead to more severe impacts, such as mortality or serious injury, and SaveLBI provides no such evidence.

Similarly, NMFS disagrees with SaveLBI's contention that such impacts could meaningfully affect whale migratory behavior. Given the vessel transiting, any whales also transiting (as animals are not stationary but mobile) may only have a brief moment of masking which should not be expected to extend for a long period of time. SaveLBI provides no evidence in support of its speculative suggestions.

Comment: SaveLBI states that to properly make a negligible impact determination, NMFS should develop/provide criteria to avoid jeopardizing the existence and survival of the NARW. SaveLBI states that this would ideally include no instances of fatality or serious injury from survey noise and meet that strict criterion with high statistical confidence. SaveLBI notes that they believe the current proposed notice for Atlantic Shores' surveys does not meet this criteria.

Response: As we previously stated in a previous **Federal Register** notice for Atlantic Shores' 2022 HRG surveys (87 FR 24103, April 22, 2022), SaveLBI's comment is founded on the presumption, absent evidence, that serious injury or mortality is a reasonably anticipated outcome of Atlantic Shores' specified activity. As NMFS has emphasized, there is no credible scientific evidence available suggesting that mortality and/or serious injury is a potential outcome of the planned survey activity, and SaveLBI provides no information to the contrary. We also refer SaveLBI to the GARFO 2021 Programmatic Consultation, which finds that these survey activities are, in general, not likely to adversely affect ESA-listed marine mammal species (*i.e.,* GARFO's analysis conducted pursuant to the ESA finds that marine mammals are not likely to be taken at all, as that term is defined under the ESA, much less be taken by serious injury or mortality). That document is found here: *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.*

Comment: SaveLBI states that use of the 120-dB harassment criterion is more appropriate for use in evaluating potential effects of non-impulsive, intermittent sources than is the 160-dB criterion.

Response: First, we clarify that the primary source to which take is attributed here (the sparker) is in fact an impulsive source, and therefore, the 160-dB harassment criterion is appropriate. However, we further address the commenter's suggestion that the 120-dB continuous noise criterion should be used for evaluation of non-impulsive, intermittent sources.

First, we provide some necessary background on implementation of acoustic thresholds. NMFS has historically used generalized acoustic thresholds based on received levels to predict the occurrence of behavioral harassment, given the practical need to use a relatively simple threshold based on information that is available for most activities. Thresholds were selected in consideration largely of measured avoidance responses of mysticete whales to airgun signals and to industrial noise sources, such as drilling. The selected thresholds of 160 dB rms SPL and 120 dB rms SPL, respectively, have been extended for use since then for estimation of behavioral harassment associated with noise exposure from sources associated with other common activities as well.

Sound sources can be divided into broad categories based on various criteria or for various purposes. As discussed by Richardson *et al.* (1995), source characteristics include strength of signal amplitude, distribution of sound frequency and, importantly in context of these thresholds, variability over time. With regard to temporal properties, sounds are generally considered to be either continuous or transient (*i.e.,* intermittent). Continuous sounds, which are produced by the industrial noise sources for which the 120-dB behavioral harassment threshold was selected, are simply those whose sound pressure level remains above ambient sound during the observation period (American National Standards Institute (ANSI), 2005). Intermittent sounds are defined as sounds with interrupted levels of low or no sound (National Institute for Occupational Safety and Health (NIOSH), 1998). Simply put, a continuous noise source produces a signal that continues over time while an intermittent source produces signals of relatively short duration having an obvious start and end with predictable patterns of bursts of sound and silent periods (*i.e.,* duty cycle) (Richardson and Malme, 1993). It is this fundamental temporal distinction that is most important for categorizing sound types in terms of their potential to cause a behavioral response. For example, Gomez *et al.* (2016) found a significant relationship between source type and marine mammal behavioral response when sources were split into continuous (*e.g.,* shipping, icebreaking, drilling) versus intermittent (*e.g.,* sonar, seismic, explosives) types. In addition, there have been various studies noting differences in responses to intermittent and continuous sound sources for other species (*e.g.,* Neo *et al.,* 2014; Radford *et al.,* 2016; Nichols *et al.,* 2015).

Sound sources may also be categorized based on their potential to cause physical damage to auditory structures and/or result in threshold shifts. In contrast to the temporal distinction discussed above, the most important factor for understanding the differing potential for these outcomes across source types is simply whether the sound is impulsive or not. Impulsive sounds, such as those produced by airguns, are defined as sounds which are typically transient, brief (<1 sec), broadband, and consist of a high peak pressure with rapid rise time and rapid decay (ANSI, 1986; NIOSH, 1998). These sounds are generally considered to have greater potential to cause auditory injury and/or result in threshold shifts. Non-impulsive sounds can be broadband, narrowband or tonal, brief or prolonged, continuous or intermittent, and typically do not have the high peak pressure with rapid rise/decay time that impulsive sounds do (ANSI, 1995; NIOSH, 1998). Because the selection of the 160-dB behavioral threshold was focused largely on airgun signals, it has historically been commonly referred to as the ''impulse noise'' threshold (including by NMFS). However, this longstanding confusion in terminology—*i.e.,* the erroneous impulsive/continuous dichotomy—presents a narrow view of the sound sources to which the thresholds apply and inappropriately implies a limitation in scope of applicability for the 160-dB behavioral threshold in particular.

An impulsive sound is by definition intermittent; however, not all

intermittent sounds are impulsive. Many sound sources for which it is generally appropriate to consider the authorization of incidental take are in fact either impulsive (and intermittent) (*e.g.,* impact pile driving) or continuous (and non-impulsive) (*e.g.,* vibratory pile driving). However, non-impulsive, intermittent acoustic sources present a less common case where the sound produced is considered intermittent but non-impulsive. The simple argument presented by commenters regarding non-impulsive, intermittent sources has been that, because such sources are not impulsive sound sources, they must be assessed using the 120-dB behavioral threshold appropriate for continuous noise sources. However, given the existing paradigm—dichotomous thresholds appropriate for generic use in evaluating the potential for behavioral harassment resulting from exposure to continuous or intermittent sound sources—the comments do not adequately explain why potential harassment from an intermittent sound source should be evaluated using a threshold developed for use with continuous sound sources. Consideration of the preceding factors leads to a conclusion that the 160-dB threshold is more appropriate for use than is the 120-dB threshold in evaluation of potential effects due to use of non-impulsive, intermittent sound sources.

Comment: SaveLBI suggests that NMFS should use more conservative information related to the acoustic output of the sources planned for use (*i.e.,* a higher source level and a lower transmission loss coefficient) and perform its own analysis of these alternative scenarios. SaveLBI notes that these changes would increase the size of the estimated Level B harassment zone and as a result, increase the expected take numbers. Based on their reanalysis, SaveLBI asserts that NMFS' negligible impact and small numbers determinations are not accurate.

Response: As previously stated in the 2022 **Federal Register** notice (87 FR 24103, April 22, 2022), NMFS continues to disagree with SaveLBI's suggested changes and does not believe they are appropriate. We have addressed use of the alternate source level and the recommendation of lower assumed propagation loss in previous responses to comments herein. While NMFS acknowledges that if one assumes the most conservative values at every opportunity, the analysis will produce higher estimates of harassment zone size and of incidental take. However, SaveLBI's assumptions are not realistic, and SaveLBI does not adequately justify the assumptions made in its overly conservative analysis. As such, NMFS finds its analysis, findings, and determinations to be accurate and based on the best available scientific information.

Comment: SaveLBI recommended increasing the Exclusion Zone to 2,500 m, respectively, for NARWs, based on their reanalysis.

Response: NMFS notes that the 500 m Exclusion Zone for NARWs exceeds the modeled distance to the largest 160 dB Level B harassment isopleth distance (141 m during sparker use) by a substantial margin. The commenter does not provide a compelling rationale for why the Exclusion Zone should be even larger beyond their described reanalysis, which NMFS has already stated it considers flawed and not realistic. Given that these surveys are relatively low impact and that, regardless, NMFS has prescribed a NARW Exclusion Zone that is significantly larger (500 m) than the conservatively estimated largest harassment zone (141 m), NMFS has determined that the Exclusion Zone is appropriate. Further, no Level A harassment is expected to result even in the absence of mitigation, given the characteristics of the sources planned for use. As described in the Mitigation section, NMFS has determined that the prescribed mitigation requirements are sufficient to effect the least practicable adverse impact on all affected species or stocks. As such, we are not adopting SaveLBI's recommendation.

Comment: SaveLBI suggests Atlantic Shores' survey activities should be prohibited from January through April as well as in November. Furthermore, SaveLBI suggests that an annual Seasonal Management Area (SMA) be established in and adjacent to the survey area to mitigate against any vessel strike.

Response: NMFS assumes this is regarding the NARW and shares concern with SaveLBI regarding the status of the NARW, given that a UME has been in effect for this species since June 2017 and that there have been 6 counts of NARW UME mortality, serious injury, and morbidity cases in 2023. Five of these cases have been from entanglement and vessel strike, and one case was perinatal. NMFS appreciates the value of seasonal restrictions under some circumstances. However, in this case, we have determined seasonal restrictions are not warranted, and reiterate that only Level B harassment has been authorized in this case. NARW occurrence in this area is generally low most of the year. Furthermore, NMFS has already stated that this area consists only of migratory habitat for the NARW, consisting of no primary foraging habitat (which is found much further north off the New England region), which further reduces the risks of exposure and impacts. Further, NMFS is requiring Atlantic Shores to comply with restrictions associated with identified SMAs, and they must comply with DMAs if any DMAs are established near the survey area. Finally, significantly shortening Atlantic Shores work season is impracticable given the number of survey days planned for the specified activity for this IHA.

NMFS wishes to clarify that existing and permanent SMAs have been previously established under a different rulemaking (73 FR 60173) and can also be found on NMFS' website at *https://www.fisheries.noaa.gov/national/endangered-species-conservation/reducing-vessel-strikes-north-atlantic-right-whales#speedlimit*).

Comment: SaveLBI asserts that the notice of proposed IHA does not address compliance with the ESA and goes on to provide a number of concerns regarding NMFS GARFO's 2021 programmatic consultation regarding geophysical surveys along the U.S. Atlantic coast in the three Atlantic Renewable Energy Regions.

Response: NMFS refers the commenter to page 19088 of the notice of proposed IHA (88 FR 19075), in which NMFS' compliance with the ESA is discussed. NMFS determined that this activity falls within the scope of activities analyzed in the 2021 GARFO programmatic consultation and therefore, this action is compliant with the ESA.

Comment: SaveLBI states that the proposed survey may not be consistent with the New Jersey Coastal Zone Management (CZM) rules, specifically NJAC 7:E–3.38, the provision that protects against adverse impacts occurring to New Jersey coastal resources, including endangered wildlife habitats. They state that NMFS should have sought a CZM consistency determination from New Jersey.

Response: SaveLBI's contention that the proposed survey may not be consistent with the New Jersey Coastal Zone Management is rejected because, as explained herein, Atlantic Shores' IHA was and is not subject to Federal consistency review. NMFS was not required to submit a Federal consistency determination to the State of New Jersey because this is not a ''Federal Agency activity'' proposed by NMFS, as that term is defined in 15 CFR 930.31. Therefore, section 307(c)(1)(A) of the Coastal Zone Management Act (CZMA), 16 U.S.C. 1456(c)(1)(A), and the implementing regulations codified at

15 CFR part 930, subpart C, are not applicable.

NMFS was an agency reviewing an application for an IHA relevant to Atlantic Shores' survey activities. As such, whether Federal consistency review is required is determined by section 307(c)(3)(A) of the CZMA, 16 U.S.C. 1456 (c)(3)(A) and the implementing regulations at 15 CFR part 930, subpart D, which authorizes states with federally approved coastal management programs to review applications for Federal licenses or permits to conduct activities in, or outside of, the coastal zone that has reasonably foreseeable effects on coastal use (land or water) or natural resources within the coastal zone to ensure the activity is fully consistent with the enforceable policies of the state's approved management program. In this instance, Atlantic Shores was not required to submit a CZMA Federal consistency certification to the State of New Jersey under 15 CFR part 930, subpart D, of the implementing regulations, because the NMFS MMPA IHA is not, pursuant to 15 CFR 930.53, listed in the State's federally-approved coastal management program, the State of New Jersey has not described a geographic location in Federal waters where Federal effects from the NMFS MMPA IHA are reasonably foreseeable, and the State of New Jersey has not submitted and the Director of NOAA's Office of Coastal Management has not approved an unlisted activity review request.

Under the regulations governing the CZMA Federal consistency review of unlisted activities, an unlisted activity (such as the one described herein) is only subject to Federal consistency review if the state timely requests review within thirty days after publication of the notice of proposed IHA in the **Federal Register** and the Director of NOAA's Office for Coastal Management approves such request (15 CFR 930.54). Here, NMFS published the **Federal Register** notice for Atlantic Shores' MMPA IHA application on March 30, 2023 (88 FR 19075). The State of New Jersey then had 30 days from the date of that publication to notify Atlantic Shores, NMFS and the Director of NOAA's Office for Coastal Management that the State was seeking approval to review the activity as an unlisted activity. The State of New Jersey did not make such a request, the 30-day period ended on April 29, 2023, and the time period to make an unlisted activity review request has expired. Accordingly, Atlantic Shores' IHA application is not subject to Federal consistency review under the CZMA.

Description of Marine Mammals in the Areas of Specified Activities

A description of the marine mammals in the area of the activities can be found in the previous documents and notices for the 2022 IHA (87 FR 4200, January 27, 2022; 87 FR 24103, April 22, 2022), which remains applicable to this IHA. NMFS reviewed the most recent draft Stock Assessment Reports (SARs, found on NMFS' website at *https://www.fisheries.noaa.gov/national/marine-mammal-protection/marine-mammal-stock-assessments*), up-to-date information on relevant UMEs (*https://www.fisheries.noaa.gov/national/marine-mammal-protection/marine-mammal-unusual-mortality-events*), and recent scientific literature and determined that no new information affects our original analysis of impacts under the 2022 IHA. More general information about these species (*e.g.,* physical and behavioral descriptions) may be found on NMFS's website (*https://www.fisheries.noaa.gov/find-species*).

NMFS notes that, since issuance of the 2022 IHA, a new SAR was made available with new information presented for the NARW (see *https://www.fisheries.noaa.gov/national/marine-mammal-protection/marine-mammal-stock-assessment-reports*). We note that the estimated abundance for the species declined from 368 to 338. However, this change does not affect our analysis of impacts, as described under the 2022 IHA.

Additionally, 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 NARWs from vessel collisions, which are a leading cause of the species' decline and a primary factor in an ongoing Unusual Mortality Event (87 FR 46921). 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. The responsibility to comply with the applicable requirements of any vessel speed rule would become effective immediately upon the effective date of any final vessel speed rule and, when notice is published of the effective date, NMFS would also notify Atlantic Shores if the measures in the speed rule were to supersede any of the measures in the MMPA authorization such that they were no longer applicable.

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. Current data indicate that 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) recommended that marine mammals be divided into functional hearing groups based on directly measured or estimated hearing ranges on the basis of available behavioral response data, audiograms derived using auditory evoked potential techniques, anatomical modeling, and other data. 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, *Kogia,* river dolphins, cephalorhynchid, *Lagenorhynchus cruciger & L. australis*).	275 Hz to 160 kHz.
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).

The pinniped functional hearing group was modified from Southall *et al.* (2007) on the basis of data indicating that phocid species have consistently demonstrated an extended frequency range of hearing compared to otariids, especially in the higher frequency range (Hemilä *et al.,* 2006; Kastelein *et al.,* 2009; Reichmuth, 2013). For more detail concerning these groups and associated frequency ranges, please see NMFS (2018) for a review of available information.

Fifteen marine mammal species (comprising 16 total stocks; 13 cetacean (14 stocks) and 2 pinniped (both phocid) species) have the reasonable potential to co-occur with the survey activities. Of the cetacean species that may be present, five are classified as low-frequency cetaceans (*i.e.,* all mysticete species), seven are classified as mid-frequency cetaceans (*i.e.,* all delphinid species and the sperm whale), and one is classified as a high-frequency cetacean (*i.e.,* harbor porpoise).

Potential Effects on Marine Mammals and Their Habitat

A description of the potential effects of the specified activities on marine mammals and their habitat may be found in the documents supporting the 2022 IHA (87 FR 4200, January 27, 2022; 87 FR 24103, April 22, 2022). At present, there is no new information on potential effects that would impact our analysis.

Estimated Take

A detailed description of the methods used to estimate take anticipated to occur incidental to the project is found in the previous **Federal Register** notices (87 FR 4200, January 27, 2022; 87 FR 24103, April 22, 2022). The methods of estimating take are identical to those used in the 2022 IHA. We updated the marine mammal densities based on new information (Roberts *et al.,* 2016; Roberts *et al.,* 2023), available online at: *https://seamap.env.duke.edu/models/Duke/EC/.* We refer the reader to Table 4 in the ITA Request from Atlantic Shores for specific density values used in the analysis. The ITA request is available online at: *https://www.fisheries.noaa.gov/national/marine-mammal-protection/incidental-take-authorizations-other-energy-activities-renewable.*

The take that NMFS has authorized can be found in Table 3 below. Table 3 presents the results of Atlantic Shores' density-based calculations for the combined Lease Area (0499 and 0549) and the two ECRs (North and South). For comparative purposes, we have provided the 2022 IHA authorized take (87 FR 24103, April 22, 2022; 87 FR 26726, May 5, 2022). NMFS notes that take by Level A harassment was not requested nor does NMFS anticipate that it could occur. Therefore, NMFS has not authorized any take by Level A harassment. Mortality or serious injury is neither anticipated to occur nor authorized.

TABLE 3—TOTAL ESTIMATED TAKE, BY LEVEL B HARASSMENT ONLY, RELATIVE TO POPULATION SIZE FOR THE 2023 HRG SURVEYS

Marine mammal species	Scientific name	Stock	Estimated population	Location-specific calculated take			Total calculated take	AMAPPS group size adjustments	Take authorized under previous 2022 IHA	Authorized 2023 IHA	
				Lease area	ECR north	ECR south				Authorized take	Percentage of population authorized to be taken
Mysticetes											
North Atlantic right whale.	*Eubalaena glacialis.*	Western North Atlantic.	338	1.1	1.3	0.7	3.1	2	17	3	0.89
Humpback whale	*Megaptera novaeangliae.*	Gulf of Maine	1,396	1.8	2.8	0.8	5.4	2	8	5	0.36
Fin whale	*Balaenoptera physalus.*	Western North Atlantic.	6,802	2.8	2.5	0.7	6	1	5	6	0.09
Sei whale	*Balaenoptera borealis.*	Nova Scotia	6,292	0.9	0.8	0.2	1.9	1	2	2	0.03
Minke whale	*Balaenoptera acutorostrata.*	Canadian East Coast.	21,968	10.4	11.5	2.0	23.9	1	2	24	0.11
Odontocetes											
Sperm whale	*Physeter macrocephalus.*	North Atlantic	4,349	0.1	0.1	0.0	[a] 0.2	2	1	2	0.05
Long-finned pilot whale [b].	*Globicephala melas.*	Western North Atlantic.	39,215	0.3	0.1	0.0	0.4	[f] 8	20	20	0.05
Bottlenose dolphin [c].	*Tursiops truncatus.*	Western North Atlantic, Northern Migratory Coastal.	6,639	154.2	359.5	714.2	1,227.9	10	385	1,228	18.5

TABLE 3—TOTAL ESTIMATED TAKE, BY LEVEL B HARASSMENT ONLY, RELATIVE TO POPULATION SIZE FOR THE 2023 HRG SURVEYS—Continued

Marine mammal species	Scientific name	Stock	Estimated population	Location-specific calculated take			Total calculated take	AMAPPS group size adjustments	Take authorized under previous 2022 IHA	Authorized 2023 IHA	
				Lease area	ECR north	ECR south				Authorized take	Percentage of population authorized to be taken
		Western North Atlantic, Offshore.	62,851	15.2	359.5	714.2	1,088.9		1,175	1,089	1.73
Common dolphin	*Delphinus delphis.*	Western North Atlantic.	172,974	48.1	46.4	5.2	99.7	30	560	100	0.06
Atlantic white-sided dolphin.	*Lagenorhynchus acutus.*	Western North Atlantic.	93,233	9.0	6.8	0.8	16.6	12	17	17	0.02
Atlantic spotted dolphin.	*Stenella frontalis*	Western North Atlantic.	39,921	1.0	1.0	0.2	2.2	24	100	50	0.06
Risso's dolphin ...	*Grampus griseus*	Western North Atlantic.	35,215	0.6	0.4	0.0	1.0	7	30	30	0.09
Harbor porpoise	*Phocoena phocoena.*	Gulf of Maine/Bay of Fundy.	95,543	67.3	61.2	13.7	142.2	3	282	142	0.15
Phocid pinniped											
Gray seal	*Halichoerus grypus.*	Western North Atlantic.	[e] 27,300	277.2	333.9	124.7	735.8	[d] n/a	426	736	0.16
Harbor seal	*Phoca vitulina*	Western North Atlantic.	61,336	277.2	333.9	124.7	735.8	[d] n/a	426	736	1.2

[a] Although the calculated take rounds to zero, to be conservative in the event a lone sperm whale is observed in the area, NMFS has authorized take assuming a group size of 2 animals.
[b] All pilot whales that may be encountered are assumed to be long finned. Roberts *et al.* (2023) density information does not distinguish between species. However, pilot whales encountered off of New Jersey and points north are likely to be long finned, as the species has a more northerly distribution.
[c] Takes of bottlenose dolphins were attributed to stock based on the 20-m isobath. All animals shoreward of the 20-m isobath were assumed to belong to the coastal stock and all bottlenose dolphins seaward of the 20-m isobath were assumed to be from the offshore stock.
[d] No AMAPPS data was available for seals.
[e] NMFS' stock abundance estimate (and associated PBR value) applies to U.S. population only. Total stock abundance (including animals in Canada) is approximately 451,600. This value was used in the percentage of stock abundance estimated to be taken by the proposed project.
[f] A group size adjustments for long-finned pilot whales (n=20) used sighting data collected by Atlantic Shores during past surveys (Atlantic Shores Offshore Wind, 2021). This value was used instead of the AMAPPS data.

Mitigation

The required mitigation measures are identical to those included in the **Federal Register** notice announcing the final 2022 IHA (87 FR 24103, April 22, 2022; 87 FR 26726, May 5, 2022) and the discussion of the least practicable adverse impact included in that document remains accurate. The measures are found below.

Atlantic Shores must also abide by all the marine mammal relevant conditions in the GARFO programmatic consultation (specifically Project Design Criteria (PDC) 4, 5, and 7) regarding geophysical surveys along the U.S. Atlantic coast in the three Atlantic Renewable Energy Regions (NOAA GARFO, 2021; *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*), pursuant to Section 7 of the Endangered Species Act.

Marine Mammal Exclusion Zones and Level B Harassment Zones

Marine mammal Exclusion Zones will be established around the HRG survey equipment and monitored by PSOs. These PSOs will be NMFS-approved visual PSOs. Based upon the acoustic source in use (impulsive: sparkers; non-impulsive: non-parametric sub-bottom profilers), a minimum of one PSO must be on duty, per source vessel, during daylight hours and two PSOs must be on duty, per source vessel, during nighttime hours. These PSO will monitor Exclusion Zones based upon the radial distance from the acoustic source rather than being based around the vessel itself. The Exclusion Zone distances are as follows:

- A 500 m Exclusion Zone for NARWs during use of specified acoustic sources (impulsive: sparkers; non-impulsive: non-parametric sub-bottom profilers).
- A 100 m Exclusion Zone for all other marine mammals (excluding NARWs) during use of specified acoustic sources (except as specified below).

All visual monitoring must begin no less than 30 minutes prior to the initiation of the specified acoustic source and must continue until 30 minutes after use of specified acoustic sources ceases.

If a marine mammal were detected approaching or entering the Exclusion Zones during the HRG survey, the vessel operator will adhere to the shutdown procedures described below to minimize noise impacts on the animals. These stated requirements will be included in the site-specific training to be provided to the survey team.

Ramp-Up of Survey Equipment and Pre-Clearance of the Exclusion Zones

When technically feasible, a ramp-up procedure will be used for HRG survey equipment capable of adjusting energy levels at the start or restart of survey activities. A ramp-up of sources will begin with the powering up of the smallest acoustic HRG equipment at half power for 5 minutes and then proceed to full power. The ramp-up procedure will be used in order to provide additional protection to marine mammals near the survey area by allowing them to vacate the area prior to the commencement of survey equipment operation at full power. When technically feasible, the power will then be gradually turned up and other acoustic sources would be added. All ramp-ups shall be scheduled so as to minimize the time spent with the source being activated.

Ramp-up activities will be delayed if a marine mammal(s) enters its respective Exclusion Zone. Ramp-up will continue if the animal 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; 30 minutes for all other species).

Atlantic Shores will implement a 30 minute pre-clearance period of the Exclusion Zones prior to the initiation of ramp-up of HRG equipment. The operator must notify a designated PSO of the planned start of ramp-up where the notification time should not be less than 60 minutes prior to the planned ramp-up. This will allow the PSOs to monitor the Exclusion Zones for 30 minutes prior to the initiation of ramp-up. Prior to ramp-up beginning, Atlantic Shores must receive confirmation from the PSO that the Exclusion Zone is clear prior to proceeding. During this 30 minute pre-start clearance period, the entire applicable Exclusion Zones must be visible. The exception to this would be in situations where ramp-up may occur during periods of poor visibility (inclusive of nighttime) as long as appropriate visual monitoring has occurred with no detections of marine mammals in 30 minutes prior to the beginning of ramp-up. Acoustic source activation may only occur at night where operational planning cannot reasonably avoid such circumstances.

During this period, the Exclusion Zone will be monitored by the PSOs, using the appropriate visual technology. Ramp-up may not be initiated if any marine mammal(s) is within its respective Exclusion Zone. If a marine mammal is observed within an Exclusion Zone during the pre-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 pinnipeds; 30 minutes for all other species). If a marine mammal enters the Exclusion Zone during ramp-up, ramp-up activities must cease and the source must be shut down. Any PSO on duty has the authority to delay the start of survey operations if a marine mammal is detected within the applicable pre-start clearance zones.

The pre-clearance zones will be:

- 500 m for all ESA-listed species (North Atlantic right, sei, fin, sperm whales); and
- 100 m for all other marine mammals.

If any marine mammal species that are listed under the ESA are observed within the clearance zones, the 30 minute clock must be paused. If the PSO confirms the animal has exited the zone and headed away from the survey vessel, the 30 minute clock that was paused may resume. The pre-clearance clock will reset to 30 minutes if the animal dives or visual contact is otherwise lost.

If the acoustic source is shut down for brief periods (*i.e.,* less than 30 minutes) for reasons other than implementation of prescribed mitigation (*e.g.,* mechanical difficulty), it may be activated again without ramp-up if PSOs have maintained constant visual observation and no detections of marine mammals have occurred within the applicable Exclusion Zone. For any longer shutdown, pre-start clearance observation and ramp-up are required.

Activation of survey equipment through ramp-up procedures may not occur when visual detection of marine mammals within the pre-clearance zone is not expected to be effective (*e.g.,* during inclement conditions such as heavy rain or fog).

The acoustic source(s) must be deactivated when not acquiring data or preparing to acquire data, except as necessary for testing. Unnecessary use of the acoustic source shall be avoided.

Shutdown Procedures

An immediate shutdown of the impulsive HRG survey equipment will be required if a marine mammal is sighted entering or within its respective Exclusion Zone(s). Any PSO on duty has the authority to call for a shutdown of the acoustic source if a marine mammal is detected within the applicable Exclusion Zones. Any disagreement between the PSO and vessel operator should be discussed only after shutdown has occurred. The vessel operator would establish and maintain clear lines of communication directly between PSOs on duty and crew controlling the HRG source(s) to ensure that shutdown commands are conveyed swiftly while allowing PSOs to maintain watch.

The shutdown requirement is waived for small delphinids (belonging to the genera of the Family *Delpinidae: Delphinus, Lagenorhynchus, Stenella, or Tursiops*) and pinnipeds if they are visually detected within the applicable Exclusion Zones. If a species for which authorization has not been granted, or, a species for which authorization has been granted but the authorized number of takes have been met, approaches or is observed within the applicable Level B harassment zone, shutdown will occur. In the event of uncertainty regarding the identification of a marine mammal species (*i.e.,* such as whether the observed marine mammal belongs to *Delphinus, Lagenorhynchus, Stenella, or Tursiops* for which shutdown is waived, PSOs must use their best professional judgment in making the decision to call for a shutdown.

Specifically, if a delphinid from the specified genera or a pinniped is visually detected approaching the vessel (*i.e.,* to bow ride) or towed equipment, shutdown is not required.

Upon implementation of a shutdown, the source may be reactivated after the marine mammal has been observed exiting the applicable Exclusion Zone or following a clearance period of 15 minutes for harbor porpoises and 30 minutes for all other species where there are no further detections of the marine mammal.

Shutdown, pre-start clearance, and ramp-up procedures are not required during HRG survey operations using only non-impulsive sources (*e.g.,* parametric sub-bottom profilers) other than non-parametric sub-bottom profilers (*e.g.,* compressed high-intensity radiated pulses (CHIRPs)). Pre-clearance and ramp-up, but not shutdown, are required when using non-impulsive, non-parametric sub-bottom profilers.

Seasonal Operating Requirements

As described in the **Federal Register** notice announcing the final 2022 IHA (87 FR 24103, April 22, 2022; 87 FR 26726, May 5, 2022), a section of the survey area partially overlaps with a portion of a NARW seasonal management area (SMA) off the port of New York/New Jersey. This SMA is active from November 1 through April 30 of each year. All survey vessels, regardless of length, would be required to adhere to vessel speed restrictions (<10 knots) when operating within the SMA during times when the SMA is active. In addition, between watch shifts, members of the monitoring team would consult NMFS' NARW reporting systems for the presence of NARWs throughout survey operations. Members of the monitoring team would also monitor the NMFS NARW reporting systems for the establishment of Dynamic Management Areas (DMA). NMFS may also establish voluntary right whale Slow Zones any time a right whale (or whales) is acoustically detected. Atlantic Shores should be aware of this possibility and remain attentive in the event a Slow Zone is established nearby or overlapping the survey area (Table 4).

TABLE 4—NORTH ATLANTIC RIGHT WHALE DYNAMIC MANAGEMENT AREA (DMA) AND SEASONAL MANAGEMENT AREA (SMA) RESTRICTIONS WITHIN THE SURVEY AREAS

Survey area	Species	DMA restrictions	Slow zones	SMA restrictions
Lease Area	North Atlantic right whale (*Eubalaena glacialis*).	If established by NMFS, all of Atlantic Shores' vessels will abide by the described restrictions.		N/A.
ECR North.				November 1 through July 31 (Raritan Bay).
ECR South.				N/A.

Note: More information on Ship Strike Reduction for the North Atlantic right whale can be found at NMFS' website: *https://www.fisheries.noaa.gov/national/endangered-species-conservation/reducing-vessel-strikes-north-atlantic-right-whales.*

There are no known marine mammal rookeries or mating or calving grounds in the survey area that would otherwise potentially warrant increased mitigation measures for marine mammals or their habitat (or both). The survey activities would occur in an area that has been identified as a biologically important area (BIAs) for migration for NARWs. However, given the small spatial extent of the survey area relative to the substantially larger spatial extent of the right whale migratory area and the relatively low amount of noise generated by the survey, the survey is not expected to appreciably reduce the quality of migratory habitat nor to negatively impact the migration of NARWs, thus mitigation to address the survey's occurrence in NARW migratory habitat is not warranted.

Vessel Strike Avoidance

Vessel operators must comply with the below measures except under extraordinary circumstances when the safety of the vessel or crew is in doubt or the safety of life at sea is in question. These requirements do not apply in any 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.

Survey vessel crewmembers responsible for navigation duties will receive site-specific training on marine mammals sighting/reporting and vessel strike avoidance measures. Vessel strike avoidance measures would include the following, except under circumstances when complying with these requirements would put the safety of the vessel or crew at risk:

- Atlantic Shores will ensure that vessel operators and crew maintain a vigilant watch for cetaceans and pinnipeds and slow down, stop their vessels, or alter course, as appropriate and regardless of vessel size, to avoid striking any marine mammal. A single marine mammal at the surface may indicate the presence of additional submerged animals in the vicinity of the vessel; therefore, precautionary measures should always be exercised. A visual observer aboard the vessel must monitor a vessel strike avoidance zone around the vessel (species-specific distances detailed 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 marine mammal from other phenomena, and (2) broadly to 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 mammals. All vessels, regardless of size, must observe a 10-knot speed restriction in specific 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. See *www.fisheries.noaa.gov/national/endangered-species-conservation/reducing-ship-strikes-north-atlantic-right-whales* for specific detail regarding these areas.
- All vessels must reduce their speed to 10-knots or less when mother/calf pairs, pods, or large assemblages of cetaceans are observed near a vessel.
- All vessels must maintain a minimum separation distance of 500 m (1,640 ft) from right whales and other ESA-listed species. If an ESA-listed species is sighted within the relevant separation distance, the vessel must steer a course away at 10-knots or less until the 500 m separation distance has been established. If a whale is observed but cannot be confirmed as a species that is not ESA-listed, the vessel operator must assume that it is an ESA-listed species and take appropriate action.
- All vessels must maintain a minimum separation distance of 100 m (328 ft) from non-ESA-listed baleen whales.
- All vessels must, to the maximum extent practicable, attempt to maintain a minimum separation distance of 50 m (164 ft) from all other marine mammals, with an understanding that, at times, this may not be possible (*e.g.,* for animals that approach the vessel, bow-riding species).
- 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, reduce speed and shift the engine to neutral). This does not apply to any vessel towing gear or any vessel that is navigationally constrained.

Members of the monitoring team will consult NMFS NARW reporting system and WhaleAlert, daily and 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 survey area during the survey, the vessels will abide by speed restrictions in the DMA.

Training

All PSOs must have completed a PSO training program and received NMFS approval to act as a PSO for geophysical surveys. Documentation of NMFS approval and most recent training certificates of individual PSOs' successful completion of a commercial PSO training course must be provided upon request. Further information can be found at *www.fisheries.noaa.gov/national/endangered-species-conservation/protected-species-observers.*

Atlantic Shores shall instruct relevant vessel personnel with regard to the authority of the marine mammal monitoring team, and shall ensure that relevant vessel personnel and the marine mammal monitoring team participate in a joint onboard briefing (hereafter PSO briefing), led by the vessel operator and lead PSO, prior to beginning survey activities to ensure that responsibilities, communication procedures, marine mammal monitoring protocols, safety and operational procedures, and IHA requirements are clearly understood. This PSO briefing

must be repeated when relevant new personnel (*e.g.,* PSOs, acoustic source operator) join the survey operations before their responsibilities and work commences.

Survey-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. All vessel crew members must be briefed in the identification of protected species that may occur in the survey area and in regulations and best practices for avoiding vessel collisions. Reference materials must be available aboard all survey vessels for identification of listed species. The expectation and process for reporting of protected species sighted during surveys must be clearly communicated and posted in highly visible locations aboard all survey vessels, so that there is an expectation for reporting to the designated vessel contact (such as the lookout or the vessel captain), as well as a communication channel and process for crew members to do so. Prior to implementation with vessel crews, the training program will be provided to NMFS for review and approval. Confirmation of the training and understanding of the requirements will be documented on a training course log sheet. Signing the log sheet will certify that the crew member understands and will comply with the necessary requirements throughout the survey activities.

Monitoring and Reporting

The monitoring and reporting requirements are identical to those included in the **Federal Register** notice announcing the final 2022 IHA (87 FR 24103, April 22, 2022; 87 FR 26726, May 5, 2022). The measures are described below.

Monitoring Measures

Atlantic Shores must use independent, dedicated, trained PSOs, meaning that the PSOs must be employed by a third-party observer provider, must 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 mammal and mitigation requirements (including brief alerts regarding maritime hazards), and must have successfully completed an approved PSO training course for geophysical surveys. Visual monitoring must be performed by qualified, NMFS-approved PSOs. PSO resumes must be provided to NMFS for review and approval prior to the start of survey activities.

PSO names must be provided to NMFS by the operator for review and confirmation of their approval for specific roles prior to commencement of the survey. For prospective PSOs not previously approved, or for PSOs whose approval is not current, NMFS must review and approve PSO qualifications. Resumes should include information related to relevant education, experience, and training, including dates, duration, location, and description of prior PSO experience. Resumes must be accompanied by relevant documentation of successful completion of necessary training.

NMFS may approve PSOs as conditional or unconditional. A conditionally-approved PSO may be one who is trained but has not yet attained the requisite experience. An unconditionally-approved PSO is one who has attained the necessary experience. For unconditional approval, the PSO must have a minimum of 90 days at sea performing the role during a geophysical survey, with the conclusion of the most recent relevant experience not more than 18 months previous.

At least one of the visual PSOs aboard the vessel must be unconditionally-approved. One unconditionally-approved visual PSO shall be designated as the lead for the entire PSO team. This lead should typically be the PSO with the most experience, would coordinate duty schedules and roles for the PSO team, and serve as primary point of contact for the vessel operator. To the maximum extent practicable, the duty schedule shall be planned such that unconditionally-approved PSOs are on duty with conditionally-approved PSOs.

PSOs must have successfully attained a bachelor's degree from an accredited college or university with a major in one of the natural sciences, a minimum of 30 semester hours or equivalent in the biological sciences, and at least one undergraduate course in math or statistics. The educational requirements may be waived if the PSO has acquired the relevant skills through alternate experience. Requests for such a waiver shall be submitted to NMFS and must include written justification. Alternate experience that may be considered includes, but is not limited to (1) secondary education and/or experience comparable to PSO duties; (2) previous work experience conducting academic, commercial, or government-sponsored marine mammal surveys; and (3) previous work experience as a PSO (PSO must be in good standing and demonstrate good performance of PSO duties).

PSOs must successfully complete relevant training, including completion of all required coursework and passing (80 percent or greater) a written and/or oral examination developed for the training program.

PSOs must coordinate to ensure 360° visual coverage around the vessel from the most appropriate observation posts and shall conduct visual observations using binoculars or night-vision equipment 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 4 consecutive hours followed by a break of at least 2 hours between watches and may conduct a maximum of 12 hours of observation per 24-hour period.

Any observations of marine mammal by crew members aboard any vessel associated with the survey shall be relayed to the PSO team.

Atlantic Shores must work with the selected third-party PSO provider to ensure PSOs have all equipment (including backup equipment) needed to adequately perform necessary tasks, including accurate determination of distance and bearing to observed marine mammals, and to ensure that PSOs are capable of calibrating equipment as necessary for accurate distance estimates and species identification. Such equipment, at a minimum, shall include:

- At least one thermal (infrared) imagine device suited for the marine environment;
- Reticle binoculars (*e.g.,* 7 x 50) of appropriate quality (at least one per PSO, plus backups);
- Global Positioning Units (GPS) (at least one plus backups);
- Digital cameras with a telephoto lens that is at least 300 millimeter (mm) or equivalent on a full-frame single lens reflex (SLR) (at least one plus backups). The camera or lens should also have an image stabilization system;
- Equipment necessary for accurate measurement of distances to marine mammal;
- Compasses (at least one plus backups);
- Means of communication among vessel crew and PSOs; and
- Any other tools deemed necessary to adequately and effectively perform PSO tasks.

The equipment specified above may be provided by an individual PSO, the third-part PSO provider, or the operator, but Atlantic Shores is responsible for ensuring PSOs have the proper

equipment required to perform the duties specified in the IHA.

During good conditions (*e.g.,* daylight hours; Beaufort sea state 3 or less), PSOs shall conduct observations when the specified acoustic sources are not operating for comparison of sighting rates and behavior with and without use of the specified acoustic sources and between acquisition periods, to the maximum extent practicable.

The PSOs will be responsible for monitoring the waters surrounding each survey vessel to the farthest extent permitted by sighting conditions, including Exclusion Zones, during all HRG survey operations. PSOs will visually monitor and identify marine mammals, including those approaching or entering the established Exclusion Zones during survey activities. It will be the responsibility of the PSO(s) 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.

Atlantic Shores plans to utilize 6 PSOs across each vessel to account for shift changes, with a total of 18 during these surveys (6 PSOs per vessel × 3 vessels). At a minimum, during all HRG survey operations (*e.g.,* any day on which use of an HRG source is planned to occur), 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) and two PSOs will be on watch during nighttime operations. The PSO(s) would ensure 360° 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 4 consecutive hours followed by a break of at least 2 hours between watches and may conduct a maximum of 12 hours of observation per 24-hr 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 (see *Reporting Measures*). 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, behavior); and details of any observed marine mammal behavior that occurs (*e.g.,* noted behavioral disturbances).

Reporting Measures

Atlantic Shores shall submit a draft comprehensive report on all activities and monitoring results within 90 days of the completion of the survey or expiration of the IHA, whichever comes sooner. The report must describe all activities conducted and sightings of marine mammals, must provide full documentation of methods, results, and interpretation pertaining to all monitoring, and must summarize the dates and locations of survey operations and all marine mammals sightings (dates, times, locations, activities, associated survey activities). The draft report shall also include geo-referenced, time-stamped vessel tracklines for all time periods during which acoustic sources were operating. Tracklines should include points recording any change in acoustic source status (*e.g.,* when the sources began operating, when they were turned off, or when they changed operational status such as from full array to single gun or vice versa). GIS files shall be provided in Environmental Systems Research Institute, Inc. (ESRI) shapefile format and include the Coordinated Universal Time (UTC) date and time, latitude in decimal degrees, and longitude in decimal degrees. All coordinates shall be referenced to the WGS84 geographic coordinate system. In addition to the report, all raw observational data shall be made available. The report must summarize the information submitted in interim monthly reports (if required) as well as additional data collected. A final report must be submitted within 30 days following resolution of 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.Potlock@noaa.gov.*

PSOs must use standardized electronic data forms to record data. PSOs shall record detailed information about any implementation of mitigation requirements, including the distance of marine mammal to the acoustic source and description of specific actions that ensued, the behavior of the animal(s), any observed changes in behavior before and after implementation of mitigation, and if shutdown was implemented, the length of time before any subsequent ramp-up of the acoustic source. If required mitigation was not implemented, PSOs should record a description of the circumstances. At a minimum, the following information must be recorded:

1. Vessel names (source vessel and other vessels associated with survey), vessel size and type, maximum speed capability of vessel;
2. Dates of departures and returns to port with port name;
3. The lease number;
4. PSO names and affiliations;
5. Date and participants of PSO briefings;
6. Visual monitoring equipment used;
7. PSO location on vessel and height of observation location above water surface;
8. Dates and times (Greenwich Mean Time) of survey on/off effort and times corresponding with PSO on/off effort;
9. Vessel location (decimal degrees) when survey effort begins and ends and vessel location at beginning and end of visual PSO duty shifts;
10. Vessel location at 30-second intervals if obtainable from data collection software, otherwise at practical regular interval;
11. Vessel heading and speed at beginning and end of visual PSO duty shifts and upon any change;
12. Water depth (if obtainable from data collection software);
13. Environmental conditions while on visual survey (at beginning and end of PSO shift and whenever conditions change significantly), including BSS and any other relevant weather conditions including cloud cover, fog, sun glare, and overall visibility to the horizon;
14. Factors that may contribute to impaired observations during each PSO shift change or as needed as environmental conditions change (*e.g.,*

vessel traffic, equipment malfunctions); and

15. Survey activity information (and changes thereof), such as acoustic source power output while in operation, number and volume of airguns operating in an array, tow depth of an acoustic source, and any other notes of significance (*i.e.,* pre-start clearance, ramp-up, shutdown, testing, shooting, ramp-up completion, end of operations, streamers, *etc.*).

Upon visual observation of any marine mammal, the following information must be recorded:

1. Watch status (sighting made by PSO on/off effort, opportunistic, crew, alternate vessel/platform);

2. Vessel/survey activity at time of sighting (*e.g.,* deploying, recovering, testing, shooting, data acquisition, other);

3. PSO who sighted the animal;

4. Time of sighting;

5. Initial detection method;

6. Sightings cue;

7. Vessel location at time of sighting (decimal degrees);

8. Direction of vessel's travel (compass direction);

9. Speed of the vessel(s) from which the observation was made;

10. 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;

11. Species reliability (an indicator of confidence in identification);

12. Estimated distance to the animal and method of estimating distance;

13. Estimated number of animals (high/low/best);

14. Estimated number of animals by cohort (adults, yearlings, juveniles, calves, group composition, *etc.*);

15. 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);

16. Detailed behavior observations (*e.g.,* number of blows/breaths, number of surfaces, breaching, spyhopping, diving, feeding, traveling; as explicit and detailed as possible; note any observed changes in behavior before and after point of closest approach);

17. Mitigation actions; description of any actions implemented in response to the sighting (*e.g.,* delays, shutdowns, ramp-up, speed or course alteration, *etc.*) and time and location of the action;

18. Equipment operating during sighting;

19. Animal's closest point of approach and/or closest distance from the center point of the acoustic source; and

20. Description of any actions implemented in response to the sighting (*e.g.,* delays, shutdown, ramp-up) and time and location of the action.

If a NARW is observed at any time by PSOs or personnel on any survey vessels, during surveys or during vessel transit, Atlantic Shores must report the sighting information to the NMFS North Atlantic Right Whale Sighting Advisory System (866–755–6622) within 2 hours of occurrence, when practicable, or no later than 24 hours after occurrence. NARW sightings in any location may also be reported to the U.S. Coast Guard via channel 16 and through the WhaleAlert app (*https://www.whalealert.org*).

In the event that personnel involved in the survey activities discover an injured or dead marine mammal, Atlantic Shores must report the incident to NMFS as soon as feasible by phone (866–755–6622) and by email (*nmfs.gar.incidental-take@noaa.gov* and *PR.ITP.MonitoringReports@noaa.gov*) as soon as feasible. The report must include the following information:

1. Time, date, and location (latitude/longitude) of the first discovery (and updated location information if known and applicable);

2. Species identification (if known) or description of the animal(s) involved;

3. Condition of the animal(s) (including carcass condition if the animal is dead);

4. Observed behaviors of the animal(s), if alive;

5. If available, photographs or video footage of the animal(s); and

6. General circumstances under which the animal was discovered.

In the unanticipated event of a ship strike of a marine mammal by any vessel involved in the activities covered by the IHA, Atlantic Shores must report the incident to NMFS by phone (866–755–6622) and by email (*nmfs.gar.incidental-take@noaa.gov* and *PR.ITP.MonitoringReports@noaa.gov*) as soon as feasible. The report would include the following information:

1. Time, date, and location (latitude/longitude) of the incident;

2. Species identification (if known) or description of the animal(s) involved;

3. Vessel's speed during and leading up to the incident;

4. Vessel's course/heading and what operations were being conducted (if applicable);

5. Status of all sound sources in use;

6. 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;

7. Environmental conditions (*e.g.,* wind speed and direction, Beaufort sea state, cloud cover, visibility) immediately preceding the strike;

8. Estimated size and length of animal that was struck;

9. Description of the behavior of the marine mammal immediately preceding and/or following the strike;

10. If available, description of the presence and behavior of any other marine mammals immediately preceding the strike;

11. 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

12. To the extent practicable, photographs or video footage of the animal(s).

Determinations

When issuing the 2022 IHA (87 FR 24103, April 22, 2022), NMFS found Atlantic Shores' HRG surveys would have a negligible impact to species or stocks annual rates of recruitment and survival and the amount of taking would be small relative to the population size of such species or stocks (less than 6 percent). Atlantic Shores' 2023 HRG survey activities are identical to those analyzed in support of the 2022 IHA. Additionally, the potential effects of the activity, taking into consideration the required mitigation and related required monitoring and reporting measures, are identical to those evaluated in support of the 2022 IHA. NMFS notes that there is a minor increase in estimated take numbers for six marine mammal species and/or stocks (refer back to Table 3). However, the total amount of takes authorized is small relative to the best available population size of each species or stock (less than 1 percent for 13 stocks; less than 2 percent for 2 stocks; and less than 19 percent for the remaining stock (Western North Atlantic Migratory Coastal stock of common bottlenose dolphins)). Additionally, only Level B harassment is authorized, which NMFS expects would be of a lower severity, predominantly in the form of avoidance of the sound sources that may cause a temporary abandonment of the location during active source use that may result in a temporary interruption of foraging activities for some species. NMFS does not expect that the 2023 survey activities will have long-term or permanent impacts as the acoustic source would be mobile and would leave the area within a specific amount of time for which the animals could return to the area. Even considering the increased estimated take for some species, the impacts of these lower severity exposures are not expected to

accrue to a degree that the fitness of any individuals would be impacted, and therefore, no impacts on the annual rates of recruitment or survival are expected to result.

As previously discussed in the 2022 IHA (87 FR 24103, April 22, 2022), impacts from the survey are expected to be localized to the specific area of activity and only during periods of time where Atlantic Shores' acoustic sources are active. While areas of biological importance to fin whales, humpback whales, and harbor seals can be found off the coast of New Jersey and New York, NMFS does not expect these activities to affect these specific areas. This is due to the combination of the mitigation and monitoring measures being required of Atlantic Shores, as well as the location of these biologically important areas. All of these important areas are found outside of the range of this survey area, as is the case with fin whales and humpback whales (BIAs found further north), and, therefore, are not expected to be impacted by Atlantic Shores' 2023 survey activities. Three major haulout sites exist for harbor seals within ECR North along New Jersey, including at Great Bay, Sandy Hook, and Barnegat Inlet (Conserve Wildlife Foundation of New Jersey (CWFNJ), 2015). As hauled out seals would be out of the water, no in-water effects are expected.

Atlantic Shores' project would occur in a small fraction of the migratory corridor for the NARW and impacts are expected to be limited to low levels of behavioral harassment, resulting in temporary and minor behavioral changes during any brief period of exposure. As noted for the 2022 IHA (87 FR 24103, April 22, 2022), the size of the survey area (5,868 km^2) in comparison with the entire migratory habitat for the NARW (BIA of 269,448 km^2) is small, representing 2.11 percent of the entire migratory corridor. Given the transitory nature of NARWs in this area and due to the lack of year-round ''core'' NARW foraging habitat (Oleson *et al.,* 2020) (such habitat is located much further north in the southern area of Martha's Vineyard and Nantucket Islands where both visual and acoustic detections of NARWs indicate a nearly year-round presence), it is unlikely for any exposure to cause chronic effects as any exposure would be short and intermittent. Furthermore, given the small size of the Level B harassment zones (141 m) and the robust suite of required mitigation and monitoring measures, with specific note on the mitigation zones for NARWs (exclusion zone; 500 m), NMFS does not expect adverse impacts on this species. Lastly, NMFS notes the reduction in requested take from the 2022 IHA (87 FR 4200, January 27, 2022; 87 FR 24103, April 22, 2022) due to the revised Duke University density data (Roberts *et al.,* 2023). Under the 2022 IHA, NMFS authorized 17 instances of take for NARWs. Here, NMFS has authorized only three takes by Level B harassment representing less than 1 percent of the overall species abundance. Given the updates to the density for this species in particular during the periods where project activities are expected to be ongoing, NMFS expects low-level impacts (*e.g.,* temporary avoidance of the area) from the 2023 project on NARWs.

We also note that our findings for other species with active UMEs or species where BIAs or haulouts have been previously described in the 2022 IHA remain applicable to this project. In conclusion, there is no new information suggesting that our analysis or findings should change.

Based on the information contained here and in the referenced documents, NMFS has determined the following: (1) the required mitigation measures will effect the least practicable adverse impact on marine mammal species or stocks and their habitat; (2) the authorized takes will have a negligible impact on the affected marine mammal species or stocks; (3) the authorized takes represent small numbers of marine mammals relative to the affected stock abundances; (4) Atlantic Shores' activities will not have an unmitigable adverse impact on taking for subsistence purposes as no relevant subsistence uses of marine mammals are implicated by this action, and (5) appropriate monitoring and reporting requirements are included.

Endangered Species Act

Section 7(a)(2) of the Endangered Species Act of 1973 (ESA; 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 Office of Protected Resources (OPR) consults internally whenever we propose to authorize take for endangered or threatened species.

NMFS OPR is authorizing 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). The consultation concluded that NMFS' issuance of incidental take authorization related to these activities are not likely to adversely affect ESA-listed marine mammals.

National Environmental Policy Act

To comply with the National Environmental Policy Act of 1969 (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 NOAA Administrative Order 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 final IHA qualifies to be categorically excluded from further NEPA review.

Authorization

As a result of these determinations, NMFS has issued an IHA to Atlantic Shores for conducting site characterization surveys off New Jersey and New York from June 9, 2023 through June 8, 2024, provided the previously mentioned mitigation, monitoring, and reporting requirements are incorporated. The final IHA and Atlantic Shores' IHA application can be found on NMFS' website at *https://www.fisheries.noaa.gov/permit/incidental-take-authorizations-under-marine-mammal-protection-act.*

Dated: June 7, 2023.

Catherine Marzin,

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

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