



DEPARTMENT OF COMMERCE

National Oceanic and Atmospheric Administration

[RTID 0648-XD163]

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

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

ACTION: Notice; issuance of an incidental harassment authorization.

SUMMARY: In accordance with the regulations implementing the Marine Mammal Protection Act (MMPA) as amended, notification is hereby given that NMFS has issued an incidental harassment authorization (IHA) to Ocean Wind II, LLC (Ocean Wind II) to incidentally harass marine mammals during marine characterization surveys off New Jersey.

DATES: This Authorization is effective from July 31, 2023, through July 30, 2024.

ADDRESSES: 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 below.

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

SUPPLEMENTARY INFORMATION:

Background

The MMPA prohibits the “take” of marine mammals, with certain exceptions. Sections 101(a)(5)(A) and (D) of the MMPA (16 U.S.C. 1361 *et seq.*) direct the Secretary of Commerce (as delegated to NMFS) to allow, upon request, the incidental, but not intentional, taking of small numbers of marine mammals by U.S. citizens who engage in a specified activity (other than commercial fishing) within a specified geographical region if certain findings are made and either regulations are 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 October 1, 2021, NMFS received a request from Ocean Wind II for an IHA to take marine mammals incidental to high-resolution geophysical (HRG) marine site characterization surveys offshore of New Jersey 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) 0532 and

associated Export Cable Route (ECR) area. Ocean Wind II requested authorization to take small numbers of 16 species (comprising 17 stocks) of marine mammals by Level B harassment only. NMFS published a notice of the proposed IHA in the **Federal Register** on March 16, 2022 (87 FR 14823). After a 30-day public comment period and consideration of all public comments received, we subsequently issued the IHA on May 19, 2022 (87 FR 30453), which was effective from May 10, 2022 through May 9, 2023.

Ocean Wind II 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 Jersey (see 87 FR 30452, May 19, 2022). These previous monitoring results are available to the public on our website:

<https://www.fisheries.noaa.gov/action/incidental-take-authorization-ocean-wind-ii-llc-marine-site-characterization-surveys-new>.

On March 3, 2023, NMFS received a request from Ocean Wind II for an IHA to take marine mammals incidental to HRG marine site characterization surveys offshore of New Jersey in BOEM Lease Area OCS-A 0532 and associated ECR area. Following NMFS' review of the application, Ocean Wind II submitted a revised request on April 30, 2023. The application (the 2023 request) was deemed adequate and complete on May 2, 2023. Ocean Wind II's request is for take of 16 species (comprising 17 stocks) of marine mammals, by Level B harassment only. Neither Ocean Wind II nor NMFS expects serious injury or mortality to result from this activity and, therefore, an IHA is appropriate.

The activities described in Ocean Wind II's 2023 IHA request, the overall survey duration, the project location, and the acoustic sources Ocean Wind II will use are identical to what was previously analyzed in support of the previously issued 2022 IHA. All mitigation, monitoring, and reporting requirements remain the same. However, NMFS determined a renewal of the 2022 IHA is not appropriate in this case because,

after issuance of the 2022 IHA, Duke University's Marine Geospatial Ecology Laboratory released updated marine mammal density information (June 20, 2022) for all species in the project area (<https://seamap.env.duke.edu/models/Duke/EC>), which NMFS determined represents the best available scientific data. In evaluating the 2023 request, which incorporates the updated density information, and to the extent deemed appropriate, NMFS relied substantially on the information presented in notices associated with issuance of the 2022 IHA (87 FR 14823, March 16, 2022; 87 FR 30453, May 19, 2022).

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

Description of the Activity and Anticipated Impacts

Overview

Ocean Wind II will conduct HRG marine site characterization surveys in the BOEM Lease Area OCS-A 0532 and along potential submarine ECRs to landfall locations in New Jersey. As compared to the 2022 IHA (87 FR 14823, March 16, 2022; 87 FR 30453, May 19, 2022), Ocean Wind II revised their project area map (see Figure 1 in 88 FR 38491, June 13, 2023) to be more representative of the actual area in which HRG surveys will occur. The Lease Area is approximately 344 square kilometers (km²) and is within the New Jersey Wind Energy Area (WEA) of BOEM's Mid-Atlantic planning area. The total survey area depicted encompasses 3,801 km². Water depths in the Lease Area range from 14 meters (m) to 38 m, and the potential ECRs extend from the shoreline to approximately 30 m depth.

The purpose of these surveys is 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. Survey equipment will be deployed from multiple vessels or remotely operated vehicles (ROVs) during site characterization activities in the project area; however, only one

vessel will operate at a time in the Lease Area and ECR area (two vessels total). During survey effort, vessels will operate at a maximum speed of 4 knots (4.6 miles or 7.4 km per hour). Up to 275 survey days will occur, where a “survey day” is defined as a 24-hour activity period in which active HRG acoustic sound sources with expected potential to result in take of marine mammals are used.

Underwater sound resulting from Ocean Wind II’s survey activities during use of specific active acoustic sources has the potential to result in incidental take of marine mammals in the form of behavioral harassment (Level B harassment). Geophysical activities were discussed previously for 2022 IHA NMFS issued to Ocean Wind II (see 87 FR 14823, March 16, 2022; 87 FR 30453, May 19, 2022) and, as no new information has been presented that changed our determinations on these activities, this information will not be reiterated here. The mitigation, monitoring, and reporting measures are described in more detail later in this document (please see **Mitigation and Monitoring and Reporting**).

A detailed description of Ocean Wind II’s planned surveys is provided in the **Federal Register** notice of the proposed IHA (88 FR 38491, June 13, 2023) and the 2022 IHA **Federal Register** notice (87 FR 14823, March 16, 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 Ocean Wind II was published in the **Federal Register** on June 13, 2023 (88 FR 38491), beginning a 30-day comment period. That notice described Ocean Wind II’s proposed activities, the marine mammal species that may be affected by these activities, and the anticipated effects on marine mammals. We requested public input on the request for authorization described therein,

our analyses, and the proposed authorization, and requested that interested persons submit relevant information, suggestions, and comments.

NMFS received 144 comment letters. Three of these comment letters were from non-governmental organizations: the Responsible Offshore Development Alliance (RODA), Clean Ocean Action (COA), and Green Oceans, and one was from Warwick Group Consultants on behalf of Cape May County in New Jersey. The remaining 140 comment letters were from private citizens. The majority of these expressed general opposition to issuance of the IHA or to the underlying associated activities, but without providing specific information relevant to NMFS' request for public comment. Seven of the letters from private citizens provided substantive comments that are addressed below.

We reiterate here that NMFS' action concerns only the authorization of marine mammal take incidental to the planned surveys—NMFS' authority under the MMPA does not extend to the surveys themselves or to wind energy development more generally. Many of the comments requested that NMFS not issue any IHAs related to wind energy development and/or expressed opposition for wind energy development generally without providing information relevant to NMFS' decision to authorize take incidental to Ocean Wind II's survey activities. We do not specifically address comments expressing general opposition to activities related to wind energy development or respond to comments not relevant to the scope of the proposed IHA (88 FR 38491; June 13, 2023), such as comments on other Federal agency processes and activities not authorized under this IHA (*e.g.*, seismic surveys, offshore wind construction, installation of wind turbines, other marine site characterization surveys).

All substantive comments and NMFS' responses are provided below, and all substantive comments are available online at:

<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: Green Oceans claims that the proposed IHA did not address how increasing ocean noise will impact masking of “interspecies cooperation and communication,” and their “survival,” as a result.

Response: NMFS agrees that noise pollution in marine waters is an issue with the potential to affect marine mammals, including their ability to communicate when noise reaches certain thresholds. NMFS disagrees that the potential impacts of masking were not properly considered. NMFS acknowledges our understanding of the scientific literature that Green Oceans cited but, 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 quantitative and qualitative components) indicates, because of the relative movement of whales and vessels, we do not expect these exposures with the potential for masking to be of a long duration within a given day. 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: Multiple commenters expressed concern that negative impacts to the local fishing industry 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 or evaluated in this IHA. RODA specifically noted concern regarding existing fishery restrictions as a result of other North Atlantic right whale (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 incidental take authorization (ITA). Moreover, NMFS has determined that no serious injury or mortality is anticipated to result from Ocean Wind II's specified activities and as discussed in the **Negligible Impact Analysis and Determination** section in this notice, only low-level behavioral harassment is expected for any affected species. For 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 would occur at all.

Comment: Two commenters asserted that NMFS must deny all actions until the cumulative impacts of every incidental take authorization on marine mammals are considered. COA asserted that NMFS must fully consider the discrete effects of each activity and the cumulative effects of the suite of approved, proposed, and potential OSW activities on marine mammals and NARW, in particular, and ensure that the cumulative effects are not excessive before issuing or renewing an IHA. Green Oceans claims that

NMFS failed to accurately define the environmental baseline, provides a “deficient accounting of relevant ongoing stressors,” and does not “properly consider the cumulative and interaction effects of this project with other projects in the area,” including cumulative incidental take across projects. In addition, Green Oceans claims that NMFS failed to consider the “additive and adverse synergistic effects” of the potential exposure of marine mammals to multiple wind development activities in the same region.

Response: NMFS is required to authorize the requested incidental take if it finds the incidental take by harassment of small numbers of marine mammals by U.S. citizens “*while engaging in that [specified] activity*” within a specified geographic region will have a negligible impact on such species or stock and where appropriate, will not have an unmitigable adverse impact on the availability of such species or stock for subsistence uses. 16 U.S.C. 1371(a)(5)(D). Negligible impact is defined as “an impact *resulting from the specified activity* that cannot be reasonably expected to, and is not reasonably likely to, adversely affect the species or stock through effect on annual rates of recruitment or survival. 50 CFR 216.103. Neither the MMPA nor NMFS' implementing regulations require consideration of other unrelated activities and their impacts on marine mammal populations in the negligible impact determination. 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. Additionally, 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, Ocean Wind II 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. Consistent with the preamble of NMFS' implementing regulations (54 FR 40338, September 29, 1989), the impacts from other past and ongoing anthropogenic activities are factored into the baseline, which is used in the negligible impact analysis. Here, 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 preamble of NMFS' implementing regulations (54 FR 40338, September 29, 1989) also addresses cumulative effects from future, unrelated activities. Such effects are not considered in making the negligible impact determination under MMPA section 101(a)(5). NMFS considers 1) cumulative effects that are reasonably foreseeable when preparing a National Environmental Policy Act (NEPA) analysis, and (2) reasonably foreseeable cumulative effects under section 7 of the ESA for ESA-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 2019 Avangrid EA for survey activities offshore North Carolina and Virginia; 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 Ocean Wind II 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 Ocean Wind II's 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; 83 FR 28808, June 21, 2018; 83 FR 36539, July 30, 2018; and 86 FR 26465, May 10, 2021), which are similar to those planned by Ocean Wind II under this current IHA request. This Biological Opinion (BiOp) 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 BiOp remains valid.

Comment: Multiple commenters urged NMFS to deny the proposed project and/or postpone any offshore wind (OSW) activities until NMFS determines effects of all OSW activities on marine mammals in the region and determines that the recent whale deaths are not related to OSW activities. Similarly, some commenters provided general concerns regarding recent whale stranding events on the Atlantic Coast, including speculation that the strandings may be related to wind energy development-related activities and that Ocean Wind II's surveys could lead to marine mammal mortalities. However, the commenters did not provide any specific information supporting these concerns.

Green Oceans suggests that the surveys may result in acute injury of whales as a result of rectified diffusion, *i.e.*, bubble growth caused by acoustic exposure.

Response: NMFS authorizes take of marine mammals incidental to marine site characterization surveys but does not authorize the surveys themselves. Therefore, while NMFS has the authority to modify, suspend, or revoke an IHA if the IHA holder fails to

abide by the conditions prescribed therein (including, but not limited to, failure to comply with monitoring or reporting requirements), or if NMFS determines that (1) the authorized taking is having or is likely to have more than a negligible impact on the species or stocks of affected marine mammals, or (2) the prescribed measures are likely not or are not effecting the least practicable adverse impact on the affected species or stocks and their habitat, it is not within NMFS' jurisdiction to impose a moratorium on offshore wind development or to require surveys to cease on the basis of unsupported speculation.

NMFS reiterates that there is no evidence that noise resulting from offshore wind development-related site characterization surveys could potentially cause marine mammal strandings, 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.

With regard to Green Oceans' suggestion that acute injury of whales could occur as a result of bubble formation, this effect is extremely unlikely to occur in the circumstances considered here, i.e., relatively low-level sound exposure in shallow waters. We acknowledge that non-auditory physiological effects or injuries can theoretically occur in marine mammals exposed to high level underwater sound or as a secondary effect of extreme behavioral reactions (*e.g.*, change in dive profile as a result of an avoidance reaction) caused by exposure to sound. These include neurological effects, resonance effects, and other types of organ or tissue damage (Cox *et al.*, 2006; Southall *et al.*, 2007; Zimmer and Tyack, 2007). The bubble formation, or rectified diffusion, referenced by Green Oceans is another such effect (*e.g.*, Houser *et al.*, 2001; Tal *et al.*, 2015). However, the survey activities considered here do not involve the use of devices such as explosives or mid-frequency tactical sonar that produce the high-intensity sounds that are associated with these types of effects. While these bubble formation effects remain a theoretical potential cause of marine mammal stranding, it is important to note that theoretical analysis of this potential considers as necessary precedent the condition of deep diving and slow ascent/descent speed, which contributes to increased gas-tissue saturation, prior to high-intensity sound exposure. The survey conditions here, aside from the absence of the high-intensity sound that would be expected to be necessary to cause this effect, preclude the deep diving conditions in which gas supersaturation and the potential for bubble growth might occur—as noted previously, the maximum survey depth is 38 m. Houser *et al.* (2001) emphasize the importance of dive depth to the

rectified diffusion concept in marine mammals, stating that beaked whales and sperm whales (species not expected to be impacted by the proposed survey) may be at greatest risk, with other odontocete species at lesser potential risk. Green Oceans focused its concern on “whales,” which we presume to mean mysticete species, which would be at even lower risk due to typically shallow dive patterns. In summary, the concern raised by Green Oceans regarding potential injury resulting from rectified diffusion is unwarranted due to the shallow survey depths, which preclude the gas-tissue saturation conditions necessary to potentially lead to bubble formation, and the lack of high-intensity sounds necessary to cause bubble expansion.

Acoustic sources used in these HRG surveys are very different from seismic airguns used in oil and gas surveys and 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.

The best available science indicates that only Level B harassment, or disruption of behavioral patterns (*e.g.*, avoidance), may occur as a result of Ocean Wind II’s HRG surveys. 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. Additionally, NMFS cannot authorize mortality or serious injury via an IHA, and such taking is prohibited under Condition 3(c) of the IHA and may result in modification, suspension, or revocation of the IHA. NMFS notes there has never been a report of any serious injuries or mortalities of a marine mammal associated with site characterization surveys.

We also refer to the Greater Atlantic Regional Fisheries Office (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 at <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: Green Oceans claims that the proposed IHA does not properly value biodiversity in its assessment of harm and that “impacts to the abundance or distribution of marine mammals can disrupt vital systems that regulate the ocean and the climate.”

Response: Green Oceans provides no further development of this comment, *e.g.*, in what way it believes that the MMPA requires that “biodiversity” be accounted for in the analyses required under the MMPA, how it believes that these surveys would be likely to impact the abundance or distribution of marine mammals, or how such impacts might be likely to disrupt unspecified “vital systems.” However, we reiterate that the magnitude of behavioral harassment authorized is very low and the severity of any behavioral responses are expected to be primarily limited to temporary displacement and avoidance of the area when some activities that have the potential to result in harassment are occurring (see Negligible Impact Determinations section for our full analysis). NMFS does not anticipate that marine mammals would be permanently displaced or displaced for extended periods of time from the area where Ocean Wind II 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, which suggests longer-term, reduced usage of habitat. Similarly, NMFS is not aware of

any scientific information suggesting that the survey activity would cause meaningful shifts in abundance and distribution of marine mammals and disagrees that this would be a reasonably anticipated effect of the specified activities. The authorized take of NARWs by Level B harassment is precautionary but considered unlikely as NMFS' take estimation analysis does not account for the use of mitigation and monitoring measures (e.g., the requirement for Ocean Wind II to implement a shutdown zone for NARWs (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. Level B harassment authorized by this IHA is not expected to negatively impact abundance or distribution of other marine mammal species particularly given that it does not account for the suite of mitigation and monitoring measures NMFS has prescribed, and would be comprised of temporary low severity impacts, with no lasting biological consequences. Therefore, even if marine mammals are in the area of the specified activities, a displacement impact is not anticipated.

Comment: RODA expressed concern regarding increased vessel traffic associated with OSW development generally and asserted that vessel speed restrictions are not “fully mandated or enforced for OSW vessels.”

Response: NMFS appreciates the commenter's concern regarding the potential for an overall increase in vessel traffic at the regional scale. However, we also note that concerns regarding the potential impacts of wind energy development in general are outside the scope of this specific action (i.e., issuance of an IHA associated with a specific HRG survey). NMFS takes seriously the risk of vessel strike and has prescribed measures to avoid the potential for vessel strike, despite a very low likelihood, to the extent practicable. The full list of mitigation measures can be found in Condition 4(m) of

the IHA and in the **Mitigation** section of this notice. In addition, vessels towing survey gear travel at very slow speeds (4 kn) (4.6 miles or 7.4 km per hour) (reducing the already low likelihood of strike), and vessels associated with the survey activity will add a discountable amount of vessel traffic to the specific geographic region. We have determined that the IHA's vessel strike avoidance measures are sufficient to ensure the least practicable adverse impact on species or stocks and their habitat. Furthermore, NMFS is unaware of any vessel strikes related to marine site characterization surveys.

RODA's reference to vessel speed restrictions being "not fully mandated" is unclear. NMFS refers again to its required vessel strike avoidance measures (see Condition 4(m)(ii) of the issued IHA), which requires that all vessels, regardless of size, observe a 10-knot (11.5 miles or 18.5 km per hour) speed restriction in Seasonal Management Areas (SMAs), Dynamic Management Areas (DMAs), and Slow Zones. Similarly, RODA does not provide a rationale for its suggestion that vessel speed restrictions are not enforced. We note that NMFS maintains an Enforcement Hotline for members of the public to report violations of vessel speed restrictions. Further, the IHA states that the IHA may be modified, suspended, or revoked if the holder fails to abide by the conditions prescribed therein.

Comment: Commenters stated that NMFS was not utilizing the best available science when assessing impacts to marine mammals. Green Oceans asserted that NMFS had not fully considered the effect of the project on NARWs, claiming that "90% of the population could be affected" by the proposed survey.

Response: NMFS relied upon the best scientific evidence available, including, but not limited to, the most recent Stock Assessment Report (SAR) data, scientific literature, and Duke University's density models (Roberts *et al.*, 2022), in analyzing the impacts of Ocean Wind II's specified activities on marine mammals. While commenters suggest

generally that NMFS consider the best scientific evidence available, none of the commenters provided additional relevant scientific information for NMFS to consider.

NMFS determined that Ocean Wind II's surveys have the potential to take marine mammals by Level B harassment and does not anticipate or authorize mortality (death), serious injury, or Level A harassment of any marine mammal species, including NARW. Ocean Wind II requested and NMFS is authorizing only two takes of NARWs by Level B harassment, which is less than 1 percent of the population. Further, NMFS does not expect that the generally short-term, intermittent, and transitory nature of Ocean Wind II's marine site characterization survey activities will create conditions of acute or chronic acoustic exposure leading to long-term physiological stress responses in marine mammals.

Comment: RODA stated that, to their knowledge, there are no resources easily accessible to the public to understand what authorizations are required for each of these activities (pre-construction surveys, construction, operations, monitoring surveys, etc.). RODA recommends that NMFS improve the transparency of this process, and both RODA and Green Oceans recommend that NMFS move away from what it refers to as a "segmented phase-by-phase and project-by-project approach to IHAs," which then leads to a "segmented understanding" of overall impacts. In addition, Green Oceans asserts that NMFS must conduct a programmatic analysis of the impacts of offshore wind development. RODA also requested a "comprehensive list/table of all Level A and Level B takes under currently approved authorizations per project, as well as Level A and Level B takes per project being requested in all authorization applications currently under review."

Response: The MMPA and its implementing regulations allow for the authorization, upon request, of 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 authorizes the requested 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 refers RODA to its website for more information on the marine mammal incidental take authorization process and timelines:

<https://www.fisheries.noaa.gov/permit/incidental-take-authorizations-under-marine-mammal-protection-act>.

NMFS emphasizes that an IHA does not authorize the activity itself but 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 Ocean Wind II’s request to incidentally take marine mammals while engaged in marine site characterization surveys and determining whether the necessary findings can be made based on Ocean Wind II’s application. Green Ocean’s assertion that NMFS must conduct a programmatic analysis of the impacts of offshore wind development is outside the scope of this IHA. The authorization of Ocean Wind II’s survey activities is not within NMFS’ jurisdiction. NMFS refers RODA to BOEM’s website:

<https://www.boem.gov/renewable-energy>.

A list of all proposed and issued IHAs for renewable energy activities, such as Ocean Wind II’s marine site characterization surveys, including the requested, proposed, and/or authorized take is available on the agency website at:

<https://www.fisheries.noaa.gov/national/marine-mammal-protection/incidental-take-authorizations-other-energy-activities-renewable>.

Comment: Green Oceans states that the “precautionary principle” does not allow NMFS to authorize the “introduction of stressors” to populations undergoing an Unusual Mortality Event (UME), that authorization of take for such species “violates the spirit and intent of the MMPA,” and that NMFS is “precluded from authorizing wind energy

development” in habitat utilized by relevant species for which there are active UMEs (*i.e.*, humpback, minke, and North Atlantic right whales).

Response: Green Oceans refers to supposed standards that do not exist in the MMPA, *e.g.*, the MMPA contains no reference to the “precautionary principle,” and fails to adequately explain its supposition that NMFS has violated the “spirit and intent” of the MMPA. As described previously, an IHA does not authorize or allow the activity itself but 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 Ocean Wind II’s request to incidentally take marine mammals while engaged in marine site characterization surveys and determining whether the necessary findings can be made based on Ocean Wind II’s application. The authorization of Ocean Wind II’s survey activities, or any other activities that introduce stressors, is not within NMFS’ jurisdiction.

Regarding UMEs, the MMPA does not preclude authorization of take for species or stocks with ongoing UMEs. Rather, NMFS considers the ongoing UME as part of the environmental baseline for the affected species or stock as part of its negligible impact analyses. Elevated NARW mortalities began in June 2017 and there is an active UME. Overall, preliminary findings support human interactions, specifically vessel strikes and entanglements, as the cause of death for the majority of NARWs. As noted previously, the survey area overlaps a migratory corridor for NARWs. Due to the fact that the survey activities are temporary and the spatial extent of sound produced by the survey would be very small relative to the spatial extent of the available migratory habitat in the BIA, NARW migration is not expected to be impacted by the survey. Given the relatively small size of the ensonified area, it is unlikely that prey availability would be adversely affected by HRG survey operations. Required vessel strike avoidance measures will also decrease risk of ship strike during migration; no ship strike is expected to occur during

Ocean Wind II's planned activities. Additionally, only very limited take by Level B harassment of NARWs has been requested and has been authorized by NMFS as HRG survey operations are required to maintain a 500 m EZ and shutdown if a NARW is sighted at or within the EZ. The 500 m shutdown zone for NARWs is conservative, considering the Level B harassment isopleth for the most impactful acoustic source (*i.e.*, sparker) is estimated to be 141 m, and thereby minimizes the potential for behavioral harassment of this species. As noted previously, Level A harassment is not expected due to the small PTS zones associated with HRG equipment types proposed for use. NMFS does not anticipate NARWs takes that would result from Ocean Wind II's activities would impact annual rates of recruitment or survival. Thus, any takes that occur would not result in population level impacts.

Elevated humpback whale mortalities have occurred along the Atlantic coast from Maine through Florida since January 2016. Of the cases examined, approximately half had evidence of human interaction (ship strike or entanglement). The UME does not yet provide cause for concern regarding population-level impacts. Despite the UME, the relevant population of humpback whales (the West Indies breeding population, or DPS) remains stable at approximately 12,000 individuals.

Beginning in January 2017, elevated minke whale strandings have occurred along the Atlantic coast from Maine through South Carolina, with highest numbers in Massachusetts, Maine, and New York. This event does not provide cause for concern regarding population level impacts, as the likely population abundance is greater than 20,000 whales. The minke whale UME is currently non-active, with closure pending.

The required mitigation measures are expected to reduce the number and/or severity of takes for all species in Table 2, including those with active UMEs, to the level of least practicable adverse impact. In particular they would provide animals the opportunity to move away from the sound source throughout the survey area before HRG

survey equipment reaches full energy, thus preventing them from being exposed to sound levels that have the potential to cause injury (Level A harassment) or more severe Level B harassment. No Level A harassment is anticipated, even in the absence of mitigation measures, or authorized.

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

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 on 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 OSW development projects may impact several Northeast Fisheries Science Center (NEFSC) surveys, including aerial surveys for protected species. NEFSC has developed a Federal survey mitigation program to mitigate the impacts to these surveys and is in the early stages of implementing this program. However, this impact is outside the scope of analysis related to the authorization of take incidental to Ocean Wind II's specified activity under the MMPA.

Comment: RODA commented that additional clarification should be added to the IHA that explicitly states if weather or other conditions that limit the range of observation occurs, shutdown will be initiated. RODA also questioned the feasibility of the shutdown

mitigation requirements in real-world conditions and what would occur if the authorized take levels were exceeded.

Response: In regards to a scenario where Ocean Wind II exceeds their authorized take levels, any further take would be unauthorized and, therefore, prohibited under the MMPA. All mitigation measures stated in this notice and in the issued IHA are considered feasible. NMFS works with each ITA applicant, including Ocean Wind II, to ensure that project-specific mitigation measures are possible in real-world conditions. This includes shutdown zones when there is reduced visibility. As stated in the IHA condition 5(d), Ocean Wind II must ensure certain equipment is provided to protected species observers (PSOs), such as thermal (infrared) cameras, to allow PSOs to adequately complete their duties, including in reduced-visibility conditions. NMFS does not agree that additional wording is necessary within the IHA to further describe the requirement and implementation of shutdown zones. If NMFS determines during the effective period of the IHA that the prescribed measures are likely not or are not effecting the least practicable adverse impact on the affected species or stocks and their habitat, NMFS may modify, suspend, or revoke the IHA. NMFS disagrees that the IHA's mitigation measures are insufficient.

NMFS reviews required reporting (see **Monitoring and Reporting**) and uses the information to evaluate the mitigation measures' effectiveness. Additionally, the mitigation measures included in Ocean Wind II's IHA are not unique, and data from prior IHAs support the effectiveness of these mitigation measures. NMFS finds the level of reporting currently required is sufficient for managing the issued IHA and monitoring the affected stocks of marine mammals.

Comment: Some commenters objected to NMFS' "small numbers" determination for the numbers of marine mammals, particularly NARWs, taken by Level B harassment under Ocean Wind II's planned activities. Green Oceans claims that NMFS'

determination is “arbitrary and capricious,” in part because it fails to account for the total amount of take for a given species across all current wind development activities for which NMFS has issued ITAs. Green Oceans also claims that, for Ocean Wind II, NMFS is violating the “intent of the MMPA” by proposing to authorize incidental take for “over 12 percent of the stock for over 8 species.” Green Oceans also states that NMFS’ small numbers finding “fails to consider the conservation status of the [NARW].”

Response: NMFS disagrees with the commenters’ arguments on the topic of small numbers. Ocean Wind II requested, and NMFS proposed to authorize, incidental take that amounts to less than 22 percent for Western North Atlantic, Northern Migratory Coastal stock of bottlenose dolphins, less than 3 percent for the Western North Atlantic Offshore stock of bottlenose dolphins, and less than 1 percent of all other stocks (including the NARW), values which do not align with those presented by Green Oceans—which do not appear to relate to the proposed action.

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, for an individual incidental take authorization, 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)). As noted above, there is no biological significance associated with “small numbers” and, as such, NMFS appropriately does not consider “conservation status” or other issues related to the status of a species or stock in making its small numbers finding. Instead, these concepts are appropriately considered as part of the negligible impact analysis—consideration of “conservation status” as part of the small numbers finding, as Green Oceans suggests, would inappropriately conflate these two independent findings. NMFS has made the necessary small numbers finding for all affected species and stocks specifically for the issuance of the Ocean Wind II IHA.

Comment: Green Oceans noted that chronic stressors, including anthropogenic noise, are an emerging concern for NARW conservation and recovery, and stated that chronic stress may result in energetic effects for NARWs. Green Oceans suggested that NMFS has not fully considered both the use of the area and the effects of acute and chronic stressors from all offshore wind development activities on the health and fitness of NARWs, as disturbance responses in NARWs could lead to chronic stress or habitat displacement and/or abandonment, leading to an overall decline in their health and fitness.

Response: NMFS agrees with Green Oceans that both acute and chronic stressors are of concern for NARW conservation and recovery. We recognize that acute stress from acoustic exposure is one potential impact of these surveys, and that chronic stress can have fitness, reproductive, *etc.* impacts at the population-level scale. NMFS has carefully reviewed the best available scientific information in assessing impacts to marine mammals, and recognizes that Ocean Wind II’s surveys have the potential to impact marine mammals through behavioral effects, stress responses, and auditory masking. However, NMFS does not expect that the generally short-term, intermittent, and transitory marine site characterization survey activities planned by Ocean Wind II will create conditions of acute or chronic acoustic exposure leading to long-term

physiological stress responses in marine mammals. NMFS has prescribed a robust suite of mitigation measures, including extended distance shutdowns for NARW, that are expected to further reduce the duration and intensity of acoustic exposure, while limiting the potential severity of any possible behavioral disruption. The potential for chronic stress was evaluated in making the determinations presented in NMFS' negligible impact analyses. Although Green Oceans correctly states that Ocean Wind II's surveys would occur in the NARW migratory corridor, they incorrectly claim that the project area is a known feeding habitat for NARWs and that any displacement would have "devastating effects on the species." NMFS does not anticipate that NARWs would be displaced from the area where Ocean Wind II's marine site characterization surveys would occur, and Green Oceans does not provide evidence that this effect should be a reasonably anticipated outcome of the specified activity.

Similarly, NMFS is not aware of any scientific information suggesting that the survey activity would drive marine mammals out of the survey area, and disagrees that this would be a reasonably anticipated effect of the specified activities. The take by Level B harassment authorized by NMFS is precautionary and also considered unlikely to actually occur, as NMFS' take estimation process does not account for the use of extremely precautionary mitigation measures, *e.g.*, the requirement for Ocean Wind II to implement a Shutdown Zone that is more than 3 times as large as the estimated harassment zone. 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 Ocean Wind II's surveys, a displacement impact is not anticipated.

Because NARW generally use this location in a transitory manner, specifically for migration, any potential impacts from these surveys are lessened for other behaviors due

to the brief periods where exposure is possible. Thus, the transitory nature of occurrence of NARWs as they migrate means it is unlikely for any exposure to cause chronic effects, as Ocean Wind II's planned survey area and ensonified zones are small relative to the overall migratory corridor. As such, NMFS does not expect acute or cumulative stress to be a detrimental factor to NARWs from Ocean Wind II's described survey activities. The potential for impacts related to an overall increase in the amount of other OSW development activities is separate from the aforementioned analysis of potential for impacts from the specified survey activities and is not discussed further as it is outside the scope of this specific action.

Comment: RODA expressed interest in understanding the outcome if the number of actual takes exceed the number authorized during construction of an offshore wind project (*i.e.*, would the project be stopped mid-construction or operation), and how offshore wind developers will be held accountable for impacts to protected species such that impacts are not inadvertently assigned to fishermen, should they occur. Lastly, RODA maintains that the OSW industry must be accountable for incidental takes from construction and operations separately from the take authorizations for managed commercial fish stocks.

Response: NMFS reiterates that the IHA authorizes incidental take of marine mammals during marine site characterization survey activities and not offshore wind project construction and operation activities. Therefore, these comments are outside the scope of the proposed IHA. Fishing impacts generally center on entanglement in fishing gear, which is a very acute, visible, and severe impact. In contrast, the impacts incidental to Ocean Wind II's site characterization survey activities are primarily acoustic in nature resulting in behavioral disturbance. Because of the difference in potential impacts (*i.e.*, physical versus auditory), any impacts resulting from Ocean Wind II's survey activities would not be assigned to fishermen. The impacts of commercial fisheries on marine

mammals and incidental take for said fishing activities are managed separately from those of non-commercial fishing activities such as offshore wind site characterization surveys, under MMPA section 118.

Comment: Warwick Group Consultants, on behalf of Cape May County in New Jersey, expressed concern regarding ocean noise and the interference it has on communication between whales. Green Oceans claims that NMFS failed to “meaningfully consider” the potential for Ocean Wind II’s HRG survey activities to mask marine mammal communication.

Response: NMFS has carefully reviewed the best available scientific information in assessing impacts to marine mammals and determined that the surveys have the potential to impact marine mammals through behavioral effects and auditory masking. NMFS agrees that noise pollution in marine waters is an issue and is affecting marine mammals, including their ability to communicate when noise reaches certain thresholds.

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 quantitative and qualitative components) indicates, because of the relative movement of whales and vessels, we do not expect these exposures with the potential for masking to be of a long duration within a given day. 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.

NMFS does not expect that the generally short-term, intermittent, and transitory marine site characterization survey activities planned by Ocean Wind II will create conditions of acute or chronic acoustic exposure leading to long-term physiological impacts in marine mammals. NMFS' prescribed mitigation measures are expected to further reduce the duration and intensity of acoustic exposure, while limiting the potential severity of any possible behavioral disruption.

Comment: Green Oceans criticized NMFS's use of the 160-dB rms Level B harassment threshold, stating that the threshold is based on outdated information and that the best available science shows that behavioral impacts can occur at levels below the threshold. Criticism of our use of this threshold also focused on its nature as a step function, *i.e.*, it assumes animals don't respond to received noise levels below the threshold but always do respond at higher received levels. Green Oceans also suggests that reliance on this threshold results in consistent underestimation of impacts because it is "not sufficiently conservative" and that any determination that relies on this threshold is "arbitrary and capricious." Green Oceans implied that NMFS should revise its generalized behavioral take thresholds to mirror linear risk functions to account for

intraspecific and contextual variability, and potential impacts at lower received levels (particularly for baleen whales).

Response: NMFS acknowledges that the 160-dB rms step-function approach is simplistic, and that an approach reflecting a more complex probabilistic function may more effectively represent the known variation in responses at different levels due to differences in the receivers, the context of the exposure, and other factors. Green Oceans suggested that our use of the 160-dB threshold implies that we do not recognize the science indicating that animals may react in ways constituting behavioral harassment when exposed to lower received levels. However, we do recognize the potential for Level B harassment at exposures to received levels below 160 dB rms, in addition to the potential that animals exposed to received levels above 160 dB rms will not respond in ways constituting behavioral harassment. These comments appear to evidence a misconception regarding the concept of the 160-dB threshold. While it is correct that in practice it works as a step-function, *i.e.*, animals exposed to received levels above the threshold are considered to be “taken” and those exposed to levels below the threshold are not, it is in fact intended as a sort of mid-point of likely behavioral responses (which are extremely complex depending on many factors including species, noise source, individual experience, and behavioral context). What this means is that, conceptually, the function recognizes that some animals exposed to levels below the threshold will in fact react in ways that are appropriately considered take, while others that are exposed to levels above the threshold will not. Use of the 160-dB threshold allows for a simple quantitative estimate of take, while we can qualitatively address the variation in responses across different received levels in our discussion and analysis.

We also note Green Oceans’ statement that the 160-dB threshold is “not sufficiently conservative.” Green Oceans does not further describe the standard of conservatism that it believes NMFS must attain, or how that standard relates to the legal

requirements of the MMPA. Green Oceans goes on to imply that use of the 160-dB threshold is inappropriate because it addresses only exposures that cause disturbance, versus those exposures that present the potential to disturb through disruption of behavioral patterns. Green Oceans does not further develop this comment or offer any justification for this contention. NMFS affirms that use of the 160-dB criterion is expected to be inclusive of acoustic exposures presenting the potential to disturb through disruption of behavioral patterns, as required through the MMPA's definition.

Green Oceans cites reports of changes in vocalization, typically for baleen whales, as evidence in support of a lower threshold than the 160-dB threshold currently in use. A mere reaction to noise exposure does not, however, mean that a take by Level B harassment, as defined by the MMPA, has occurred. For a take to occur requires that an act have "the potential to disturb by causing disruption of behavioral patterns," not simply result in a detectable change in motion or vocalization. Even a moderate cessation or modification of vocalization might not appropriately be considered as being of sufficient severity to result in take (Ellison *et al.*, 2012). Green Oceans claims these reactions result in biological consequences indicating that the reaction was indeed a take but does not provide a well-supported link between the reported reactions at lower received levels and the claimed consequences.

Overall, there is a lack of scientific consensus regarding what criteria might be more appropriate. Defining sound levels that disrupt behavioral patterns is difficult because responses depend on the context in which the animal receives the sound, including an animal's behavioral mode when it hears sounds (*e.g.*, feeding, resting, or migrating), prior experience, and biological factors (*e.g.*, age and sex). Other contextual factors, such as signal characteristics, distance from the source, and signal to noise ratio, may also help determine response to a given received level of sound. Therefore, levels at which responses occur are not necessarily consistent and can be difficult to predict

(Southall *et al.*, 2007, 2019; Ellison *et al.*, 2012; Bain and Williams, 2006; Gomez *et al.*, 2016).

Green Ocean references linear risk functions developed for use specifically in evaluating the potential impacts of Navy tactical sonar. However, Green Oceans provides no suggestion regarding a risk function that it believes would be appropriate for use in this case. There is currently no agreement on these complex issues, and this threshold has remained in use in part because of the practical need to use a relatively simple threshold based on available information that is both predictable and measurable for most activities.

Comment: Multiple commenters alleged that incidental take authorizations are in direct violation of the MMPA because they have not been demonstrated to do no harm and asserted that “numerous studies” or “the scientific consensus” exist that indicate survey activities are harmful.

Response: The MMPA directs NMFS to authorize the incidental, but not intentional, taking by harassment of small numbers of marine mammals by U.S. citizens engaged in a specified activity within a specific geographic region if NMFS finds, based on the best scientific evidence available, that the taking by harassment will have a negligible impact on species or stock of marine mammal(s) and where applicable, will not have an unmitigable adverse impact on the availability of such species or stock for taking for subsistence uses. We refer the reader to our findings below in the **Negligible Impact Analysis and Determination** section.

Detailed Description of Marine Mammals in the Area 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 14823, March 16, 2022; 87 FR 30453, May 19, 2022), which remains applicable to this IHA. NMFS reviewed the most recent draft 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 UME (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 Ocean Wind II 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.

Potential Effects on Marine Mammals and Their Habitat

A description of the potential effects of the specified activities on marine mammals and their habitat can be found in the documents supporting the 2022 IHA (87 FR 14823, March 16, 2022; 87 FR 30453, May 19, 2022). At present, there is no new information on potential effects that influenced 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 14823, March 16, 2022; 87 FR 30453, May 19, 2022). The methods of estimating take are identical to those used in the 2022 IHA. Ocean Wind II updated the marine mammal densities based on new information (Roberts *et al.*, 2016; Roberts and Halpin, 2022), available online at: <https://seamap.env.duke.edu/models/Duke/EC>. We refer the reader to Table 2 in Ocean Wind II's 2023 IHA request for the specific density values used in the analysis. The IHA 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 1 below, which presents the results of Ocean Wind II's density-based calculations for the survey area. For comparative purposes, we have provided the 2022 IHA authorized Level B harassment take (87 FR 30453, May 19, 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 1 – Total Authorized Take, By Level B Harassment Only, Relative to Population Size

Species	Scientific Name	Stock	Abundance	2022 IHA Authorized Take ¹	2023 IHA	
					Authorized Take ¹	Max Percent Population
North Atlantic right whale	<i>Eubalaena glacialis</i>	Western North Atlantic	338	11	2	< 1
Fin whale	<i>Balaenoptera physalus</i>	Western North Atlantic	6,802	4	4	< 1
Sei whale	<i>Balaenoptera borealis</i>	Nova Scotia	6,292	0 (1)	1	< 1
Minke whale	<i>Balaenoptera acutorostrata</i>	Canadian East Coast	21,968	1	8	< 1
Humpback whale	<i>Megaptera novaeangliae</i>	Gulf of Maine	1,396	2	4	< 1
Sperm whale	<i>Physeter macrocephalus</i>	North Atlantic	4,349	0 (3)	0 (3)	< 1
Atlantic white-sided dolphin	<i>Lagenorhynchus acutus</i>	Western North Atlantic	93,233	6 (50)	12 (50)	< 1
Atlantic spotted dolphin	<i>Stenella frontalis</i>	Western North Atlantic	39,921	2 (15)	1 (15)	< 1
Common bottlenose dolphin ²	<i>Tursiops truncatus</i>	Western North Atlantic, Offshore	62,851	1,842	2,221	2.3
		Western North Atlantic, Northern Migratory Coastal	6,639			21.4
Long-finned pilot whale ³	<i>Globicephala melas</i>	Western North Atlantic	39,215	1 (20)	1 (20)	< 1
Risso's dolphin	<i>Grampus griseus</i>	Western North Atlantic	35,215	0 (30)	1 (30)	< 1
Common dolphin	<i>Delphinus delphis</i>	Western North Atlantic	172,974	54 (400)	67 (400)	< 1
Harbor porpoise	<i>Phocoena phocoena</i>	Gulf of Maine/Bay of Fundy	95,543	90	72	< 1

Seals ⁴	Gray seal	<i>Halichoerus grypus</i>	Western North Atlantic	27,300 ⁵	25	13	< 1
	Harbor seal	<i>Phoca vitulina</i>	Western North Atlantic	61,336	25	13	< 1

1 - Parentheses denote authorized take where different from calculated take estimates. Increases from calculated values are based on average group size for the following species: sei whale and pilot whales, Kenney and Vigness-Raposa, 2010; sperm whale and Risso's dolphin, Barkaszi and Kelly, 2018; Atlantic white-sided dolphins, NMFS 2022a; and Atlantic spotted dolphins, NMFS 2022b. The amount of common dolphin take is based on the number of individuals observed in previous HRG surveys in the area, and is identical to the amount of take authorized in the 2022 IHA.

2 - At this time, Ocean Wind II is not able to identify how much work will occur inshore and offshore of the 20 m isobaths, a common delineation between offshore and coastal bottlenose dolphin stocks. Because Roberts *et al.* (2018) does not provide density estimates for individual stocks of common bottlenose dolphins, the take presented here is the total estimated take for both stocks. Although unlikely, for our analysis, we assume all takes could be allocated to either stock.

3 – Roberts *et al.* (2018) only provides density estimates for pilot whales as a guild. Given the project's location, NMFS assumes that all take will be of long-finned pilot whales

4 – Roberts *et al.* (2018) only provides density estimates for seals without differentiating by species. Harbor seals and gray seals are assumed to occur equally in the survey area; therefore, density values were split evenly between the 2 species, *i.e.*, total authorized take for "seals" is 24.

5 - NMFS' stock abundance estimate applies to U.S. population only. Total stock abundance (including animals in Canada) is approximately 451,600.

Description of Mitigation, Monitoring, and Reporting Measures

The required mitigation measures are identical to those included in the **Federal Register** notice announcing the final 2022 IHA (87 FR 30453, May 19, 2022) and the discussion of the least practicable adverse impact included in that document remains accurate. The measures are found below.

Ocean Wind II 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 Shutdown Zones and Level B Harassment Zones

Establishment of Shutdown Zones (SZ)—Marine mammal SZs must be established around the HRG survey equipment and monitored by NMFS-approved 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 SZs based upon the radial distance from the acoustic source rather than being based around the vessel itself. The SZs distances are as follows:

- 500-m SZ for NARWs during use of specified acoustic sources (impulsive: sparkers and boomers; non-impulsive: non-parametric sub-bottom profilers); and,
- 100-m SZ for all other marine mammals (excluding NARWs) during operation of the sparker and boomer. The only exception to this is for pinnipeds (seals)

and small delphinids (*i.e.*, those from the genera *Delphinus*, *Lagenorhynchus*, *Stenella* or *Tursiops*).

If a marine mammal is detected approaching or entering the SZs during the HRG survey, the vessel operator must adhere to the shutdown procedures described below to minimize noise impacts on the animals. During use of acoustic sources with the potential to result in marine mammal harassment (sparkers, boomers, and non-parametric sub-bottom profilers; *i.e.*, anytime the acoustic source is active, including ramp-up), occurrences of marine mammals within the monitoring zone (but outside the SZs) must be communicated to the vessel operator to prepare for potential shutdown of the acoustic source.

Visual Monitoring—Monitoring must be conducted by qualified PSOs who are trained biologists, with minimum qualifications described in the **Federal Register** notices for the 2022 project (87 FR 14823, March 16, 2022; 87 FR 30453, May 19, 2022). Ocean Wind II must have one PSO on duty during the day and a minimum of two NMFS-approved PSOs must be on duty and conducting visual observations when HRG equipment is in use at night. Visual monitoring must begin no less than 30 minutes prior to ramp-up of HRG equipment and continue until 30 minutes after use of the acoustic source. PSOs must establish and monitor the applicable clearance zones, SZs, and vessel separation distances as described in the 2022 IHA (87 FR 30453, May 19, 2022). PSOs must coordinate to ensure 360-degree visual coverage around the vessel from the most appropriate observation posts, and must conduct observations while free from distractions and in a consistent, systematic, and diligent manner. PSOs are required to estimate distances to observed marine mammals. It is the responsibility of the Lead PSO on duty to communicate the presence of marine mammals as well as to communicate action(s) that are necessary to ensure mitigation and monitoring requirements are implemented as appropriate.

Pre-Start Clearance — Marine mammal clearance zones (CZs) must be established around the HRG survey equipment and monitored by NMFS-approved PSOs prior to use of boomers, sparkers, and non-parametric sib-bottom profilers as follow:

- 500-m CZ for all ESA-listed species; and,
- 100-m CZ for all other marine mammals.

Prior to initiating HRG survey activities, Ocean Wind II must implement a 30-minute pre-start clearance period. 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 to allow the PSOs to monitor the CZs for 30 minutes prior to the initiation of ramp-up. Prior to ramp-up beginning, Ocean Wind II must receive confirmation from the PSO that the CZs are clear prior to preceding. 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.

During this 30-minute period, the entire CZ must be visible. The exception to this will be in situations where ramp-up must 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 must only occur at night where operational planning cannot reasonably avoid such circumstances.

If a marine mammal is observed within the relevant CZs during the pre-start clearance period, initiation of HRG survey equipment must not begin until the animal(s) has been observed exiting the respective CZ, or, until an additional period has elapsed with no further sighting (*i.e.*, minimum 15 minutes for small odontocetes and seals; 30 minutes for all other species). The pre-start clearance requirement includes small delphinids. PSOs must also continue to monitor the zone for 30 minutes after survey equipment is shut down or survey activity has concluded.

- *Ramp-Up of Survey Equipment*—When technically feasible, a ramp-up procedure must be used for geophysical survey equipment capable of adjusting energy levels at the start or re-start of survey activities. The ramp-up procedure must be used at the beginning of HRG survey activities in order to provide additional protection to marine mammals near the project area by allowing them to detect the presence of the survey and vacate the area prior to the commencement of survey equipment operation at full power. Ramp-up of the survey equipment must not begin until the relevant SZs has been cleared by the PSOs, as described above. HRG equipment operators must ramp up acoustic sources to half power for 5 minutes and then proceed to full power. If any marine mammals are detected within the SZs prior to or during ramp-up, the HRG equipment must be shut down (as described below).

- *Shutdown Procedures*—If an HRG source is active and a marine mammal is observed within or entering a relevant SZ (as described above), an immediate shutdown of the HRG survey equipment is required. When shutdown is called for by a PSO, the acoustic source must be immediately deactivated and any dispute resolved only following deactivation. Any PSO on duty has the authority to delay the start of survey operations or to call for shutdown of the acoustic source if a marine mammal is detected within the applicable SZ. The vessel operator must 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. Subsequent restart of the HRG equipment may only occur after the marine mammal has been observed exiting the relevant SZ, or, until an additional period has elapsed with no further sighting of the animal within the relevant SZ.

Upon implementation of shutdown, the HRG source may be reactivated after the marine mammal that triggered the shutdown has been observed exiting the applicable SZ or, following a clearance period of 15 minutes for small odontocetes (*i.e.*, harbor

porpoise) and 30 minutes for all other species with no further observation of the marine mammal(s) within the relevant SZ. If the HRG equipment is shut down for brief periods (*i.e.*, less than 30 minutes) for reasons other than mitigation (*e.g.*, mechanical or electronic failure) the equipment may be re-activated as soon as is practicable at full operational level, without 30 minutes of pre-clearance, only if PSOs have maintained constant visual observation during the shutdown and no visual detections of marine mammals occurred within the applicable SZs during that time. For a shutdown of 30 minutes or longer, or if visual observation was not continued diligently during the pause, pre-clearance observation is required, as described above.

The shutdown requirement is waived for pinnipeds (seals) and certain genera of small delphinids (*i.e.*, *Delphinus*, *Lagenorhynchus*, *Stenella*, or *Tursiops*) under certain circumstances. If a delphinid(s) from these genera is visually detected within the SZ, shutdown will not be required. If there is uncertainty regarding identification of a marine mammal species (*i.e.*, whether the observed marine mammal(s) belongs to one of the delphinid genera for which shutdown is waived), PSOs must use best professional judgment in making the decision to call for a shutdown.

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 area encompassing the Level B harassment isopleth (141 m), shutdown must occur.

- *Vessel Strike Avoidance*—Ocean Wind II must comply with vessel strike avoidance measures as described in the **Federal Register** notice for the 2022 IHA (87 FR 30453, May 19, 2022). This includes speed restrictions (10 knots (11.5 miles or 18.5 km per hour) or less) when mother/calf pairs, pods, or large assemblages of cetaceans are spotted near a vessel; species-specific vessel separation distances; appropriate vessel actions when a marine mammal is sighted (*e.g.*, avoid excessive speed, remain parallel to

animal's course, etc.); and monitoring of the NMFS North Atlantic Right Whale reporting system and WhaleAlert daily.

- *Seasonal Operating Requirements*—Ocean Wind II will conduct HRG survey activities in the vicinity of a North Atlantic right whale Mid-Atlantic SMA. Activities must comply with the seasonal mandatory speed restriction period for this SMA (November 1 through April 30) for any survey work or transit within this area.

Throughout all phases of the survey activities, Ocean Wind II must monitor NOAA Fisheries North Atlantic right whale reporting systems for the establishment of a DMA. If NMFS establishes a DMA in the surrounding area, including the project area or export cable routes being surveyed, Ocean Wind II is required to abide by the 10-knot (4.6 miles or 7.4 km per hour) speed restriction.

- *Training*—Project-specific training is required for all vessel crew and personnel prior to the start of survey activities.

- *Reporting*—PSOs must record specific information as described in the **Federal Register** notice of the issuance of the 2022 IHA (87 FR 30453, May 19, 2022). Within 90 days after completion of survey activities, Ocean Wind II must provide NMFS with a monitoring report, which must include summaries of recorded takes and estimates of the number of marine mammals that may have been harassed.

In the event of a vessel strike or discovery of an injured or dead marine mammal, Ocean Wind II must report the incident to the Office of Protected Resources (OPR), NMFS and to the New England/Mid-Atlantic Regional Stranding Coordinator as soon as feasible. The report must include the information listed in the **Federal Register** notice of the issuance of the 2022 (initial) IHA (87 FR 30453, May 19, 2022).

Determinations

When issuing the 2022 IHA (87 FR 30453, May 19, 2022), NMFS found Ocean Wind II's 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 22 percent for the northern coastal migratory stock of bottlenose dolphins, less than 3 percent for the NARW, and less than 1 percent for all other species and stocks). Ocean Wind II's 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 mitigation and related monitoring measures, are identical to those evaluated in support of the 2022 IHA, regardless of the minor increases (based on updated densities) in estimated take numbers for some marine mammal species and/or stocks. However, the total amount of takes authorized is small relative to the best available population size of each species or stock (less than 22 percent for the Western North Atlantic Migratory Coastal stock of bottlenose dolphins; less than 3 percent for the Western North Atlantic Migratory Offshore stock of bottlenose dolphins; and less than 1 percent for all other species and stocks).

NMFS expects that all potential takes would be short-term Level B behavioral harassment in the form of temporary avoidance of the area or decreased foraging (if such activity was occurring), reactions that are considered to be of low severity and with no lasting biological consequences (*e.g.*, Southall *et al.*, 2007). In addition to being temporary, the maximum expected harassment zone around a survey vessel is 141 m. Although this distance is assumed for all survey activity evaluated here and in estimating take numbers for authorization, in reality, much of the survey activity will involve use of non-impulsive acoustic sources with a reduced acoustic harassment zone of up to 48 m, producing expected effects of particularly low severity. Therefore, the ensounded area surrounding each vessel is relatively small compared to the overall distribution of the animals in the area and the available habitat. Feeding behavior is not likely to be significantly impacted as prey species are mobile and are broadly distributed throughout the survey area; therefore, marine mammals that may be temporarily displaced during

survey activities are expected to be able to resume foraging once they have moved away from areas with disturbing levels of underwater noise. Because of the temporary nature of the disturbance and the availability of similar habitat and resources in the surrounding area, the impacts to marine mammals and the food sources that they utilize are not expected to cause significant or long-term consequences for individual marine mammals or their populations. 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 will be impacted and, therefore, no impacts on the annual rates of recruitment or survival will result.

As previously discussed in the 2022 IHA (87 FR 30453, May 19, 2022), impacts from the survey are expected to be localized to the specific area of activity and only during periods when Ocean Wind II's acoustic sources are active. There are no rookeries, mating or calving grounds, or any feeding areas known to be biologically important to marine mammals within the survey area. There is no designated critical habitat for any ESA-listed marine mammals in the survey area.

While areas of importance to fin whales, humpback whales, and harbor seals can be found off the coast of New Jersey, there are no Biologically Important Areas (BIAs) as defined by Van Parijs *et al.*, 2015. All of these BIAs for the species that might be impacted by Ocean Wind II's activities are located outside of the range of the survey area and, therefore, they are not expected to be impacted by Ocean Wind II's 2023 survey activities. There are three major harbor seal haulout sites along New Jersey's coast, including at Great Bay, Sandy Hook, and Barnegat Inlet (CWFNJ, 2015). As hauled out seals would be out of the water, no in-water effects resulting from Ocean Wind II's survey activities are expected.

Ocean Wind II's project will occur in a small fraction of the NARW migratory corridor. As noted for the 2022 IHA (87 FR 30453, May 19, 2022), 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.

Because the survey activities are temporary and the spatial extent of sound produced by the survey will be very small relative to the spatial extent of the available migratory habitat in the BIA (269,448 km²), NMFS does not expect NARW migration to be impacted by the survey. Due to the transitory nature of NARWs in this area and the lack of “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 in the survey area to cause chronic effects, as any exposure will be brief and intermittent. Given the relatively small size of the ensonified area, it is unlikely that marine mammal prey availability will be adversely affected by HRG survey operations. Required vessel strike avoidance measures will also decrease risk of vessel strike during NARW migration; no vessel strike is expected to occur during Ocean Wind II’s planned activities. Additionally, Ocean Wind II requested and NMFS has authorized only two takes by Level B harassment of NARWs. This amount is reduced from the 11 Level B harassment takes authorized in the 2022 IHA due to the revised Duke University density data (Roberts and Halpin, 2022). HRG survey operations are required to maintain a 500-m SZ, and shutdown if a NARW is sighted at or within the SZ. The 500-m SZ for NARWs is conservative, considering the Level B harassment isopleth for the most impactful acoustic source (*i.e.*, sparker) is estimated to be 141 m, and thereby minimizes the potential for behavioral harassment of this species. As noted previously, Level A harassment is not expected due to the small permanent threshold shift (PTS) zones associated with the specified HRG equipment types. NMFS does not anticipate NARW takes that could result from Ocean Wind II’s activities would impact annual rates of

recruitment or survival. Thus, any takes that occur will not result in population level impacts.

We also note that our findings for other species with active UMEs that were previously described for the 2022 IHA remain applicable to this project. 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 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) Ocean Wind II's 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 (ESA)

Section 7(a)(2) of the ESA of 1973 (16 U.S.C. 1531 *et seq.*) requires that each Federal agency insure that any action it authorizes, funds, or carries out is not likely to jeopardize the continued existence of any endangered or threatened species or result in the destruction or adverse modification of designated critical habitat. To ensure ESA compliance for the issuance of IHAs, NMFS OPR consults internally whenever we propose to authorize take for endangered or threatened species.

NMFS OPR 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 is 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 NAO 216-6A, which do not individually or cumulatively have the potential for significant impacts on the quality of the human environment and for which we have not identified any extraordinary circumstances that would preclude this categorical exclusion. Accordingly, NMFS has determined that the issuance of the final IHA qualifies to be categorically excluded from further NEPA review.

Authorization

NMFS has issued an IHA to Ocean Wind II for the potential harassment of small numbers of 16 marine mammal species incidental to marine site characterization surveys offshore of New Jersey, provided the previously mentioned mitigation, monitoring, and reporting requirements are followed.

Dated: July 21, 2023.

Kimberly Damon-Randall,

Director, Office of Protected Resources,

National Marine Fisheries Service.