April 15, 2022

Submitted via electronic mail to ITP.Daly@noaa.gov

Jolie Harrison, Chief, Permits and Conservation Division
Office of Protected Resources
National Marine Fisheries Service


Dear Jolie Harrison:

Oceana is the largest international ocean conservation organization solely focused on protecting the world’s oceans, with more than 1.2 million members and supporters in the United States, including over 340,000 members and supporters on the U.S. Atlantic seaboard. For nearly twenty years, Oceana has campaigned to win strategic, directed campaigns that achieve measurable outcomes to help make our oceans more biodiverse and abundant.

Addressing climate change is important for oceans, wildlife, and our future. By shifting from fossil fuel energy to clean, renewable energy sources, the United States can help address this crisis. Oceana was pleased to see the Biden Administration’s goal to deploy 30 GW of offshore wind power by 2030 while protecting biodiversity and cultural resources, including imperiled marine life such as the critically endangered North Atlantic right whale (NARW).

Oceana has engaged as a stakeholder in the management of U.S. fisheries and interactions with endangered species, with a particular interest in effective bycatch minimization and reduction, if not elimination, of fishing gear entanglement-related death, injury, and harm to protected species, including the NARW. In addition, Oceana is interested in seeing the reduction, if not elimination, of vessel strike-related death, injury, and harm to NARWs. For these reasons, in 2019, Oceana launched a binational campaign in the United States and Canada to urge the respective governments to effectively enforce environmental laws to protect this critically endangered species and Oceana is currently campaigning to protect these whales from their two biggest threats—entanglement in fishing gear and vessel strikes.

For almost 15 years, Oceana has been campaigning to oppose expanded offshore oil and gas exploration and development. Offshore drilling causes dangerous oil spills and perpetuates energy development based on fossil fuels. The United States must shift from fossil fuel-based energy
sources to clean energy. Offshore wind development has the potential to help bridge the transition to our clean energy future.

Oceana is supportive of offshore wind energy if it is responsibly sited, built, and operated throughout its lifespan. The proposals for offshore wind development in areas that the critically endangered NARW may frequent need to consider, avoid, and mitigate effects to protected species, particularly the NARW, to ensure that wind development will not come at the expense of the species. NARWs spend much of the year in the waters of New England and Eastern Canada with mothers migrating south to have calves in the U.S. Southeast region. Wind development in persistent aggregation habitats and calving grounds pose particular concern but those areas where NARWs migrate are likely more appropriate because of the reduced frequency, intensity, and duration of interactions with these areas. As offshore wind is developed along the eastern seaboard, strong measures are needed to protect this critically endangered species.

Oceana thanks you for the opportunity to submit comments as your agency considers an application for an Incidental Harassment Authorization (IHA) to support the site characterization of offshore wind project off New Jersey. To comply with the Marine Mammal Protection Act (MMPA), the Fisheries Service must reconsider its approach to renewing IHAs, including this one, with a shortened comment period. If the Fisheries Service chooses to renew this IHA, it must provide a full 30-day comment period for a renewal notice to ensure adequate public engagement. This comment letter includes the following key points:

- The Fisheries Service must open a 30-day comment period to reauthorize the IHA.
- The IHA must include use of best available science, cumulative impacts analysis, and project conditions that avoid, minimize, and mitigate adverse environmental impacts.
- The IHA must include a vessel traffic plan to minimize the effects of service vessels on marine wildlife.
- The IHA must include requirements to use effective reactive restrictions that are triggered by detection of protected species before or during site characterization activities.

Oceana submits these comments to help ensure that the proposed activities avoid adverse effects on marine mammals. If adverse effects cannot be avoided, then they should be minimized or mitigated. The Fisheries Service is the steward of the remaining NARWs that swim along our coasts and, as the agency responsible for their recovery, should ensure that the authorization of site characterization is based on the best scientific information available and that strong protections are in place before approving this or any proposed activity that may take, harass, or cause stress to NARWs.

1) The role of Incidental Harassment Authorizations

The MMPA was adopted fifty years ago with the goal of protecting and promoting the growth of marine mammal populations “to the greatest extent feasible commensurate with sound policies of
resource management” in order to “maintain the health and stability of the marine ecosystem.”¹ To protect marine mammals from human activities, the MMPA prohibits the “take” of marine mammals including activities that harass, hunt, capture, or kill, or any attempt to harass, hunt, capture, or kill any marine mammal.² In limited circumstances, the Fisheries Service, the agency responsible for protecting most marine mammal species,³ may grant exceptions to the take prohibition, such as for the incidental, but not intentional, taking of marine mammals for certain activities, which is done via incidental take authorizations.⁴

The Fisheries Service can only grant an incidental take authorization if the take request is for “small numbers of marine mammals of a species or stock” and will have only “negligible impact.”⁵ It is important to note that when granting an incidental take authorization, the Fisheries Service must require mitigation measures that achieve “the least practicable impact on such [marine mammal] species or stock and its habitat.”⁶

Under the Fisheries Service’s regulations, there are two types of incidental take authorizations: IHAs and Letters of Authorization (LOA). LOAs can only be issued after the Fisheries Service promulgates incidental take regulations for the activity. An IHA is limited to one year, and the action authorized may only have the potential to result in harassment.⁷ For actions that could result in any “serious injury” or mortality of a marine mammal, the Fisheries Service’s regulations indicate that incidental take regulations must be promulgated after notice and the opportunity to comment.⁸ LOAs can be issued pursuant to incidental take regulations for up to five years.⁹

2) The Fisheries Service Must Open a 30-Day Comment Period to Reauthorize the IHA

The Fisheries Service must end its approach of renewing IHAs while only giving the public 15 days to comment. The expedited process that the Fisheries Service included in the IHA is a violation of the MMPA, which requires a 30-day public comment period for all IHAs, including reauthorizations. The Fisheries Service should not be adopting processes that are inconsistent with

⁴ 16 U.S.C. § 1371(a); Incidental Take Authorizations under the Marine Mammal Protection Act, NOAA Fisheries https://www.fisheries.noaa.gov/permit/incidental-take-authorizations-under-marine-mammal-protection-act (last visited May 3, 2021) (listing renewable energy activities as activities for which incidental take authorizations have been issued).
⁸ The Fisheries Service defines the term “serious injury” as “any injury that will likely result in mortality. 50 C.F.R. § 216.3.
⁹ 50 C.F.R. § 216.105(b).
¹⁰ 50 C.F.R. § 216.106(a).
its statutory obligations. The IHA renewal process runs contrary to the text and legislative history of the MMPA and finds no support in MMPA regulations.

In the event of a need for IHA renewal, the agency must issue a Federal Register notice and open a 30-day public comment period. Otherwise, the IHA will be procedurally deficient, making it vulnerable to litigation and creating uncertainty for the project proponents.

a) The expedited renewal process violates the plain language of the MMPA

The Fisheries Service’s failure to give the public 30 days to comment on the reauthorization of the IHA is a violation of the MMPA’s plain language. The MMPA clearly states that the Fisheries Service must provide a 30-day public comment period for every IHA, and the agency has failed to provide an adequate explanation of why the 30 days are not required for renewals.

Section 101(a)(5)(D)(i) of the MMPA states that an IHA may be granted “for periods of not more than 1 year.” When the Fisheries Service receives an application, it must publish a proposed IHA in the Federal Register “not later than 45 days” after receiving the application and must provide a 30-day public comment period. The Fisheries Service must then approve the IHA “not later than 45 days” after the end of the public comment period if the IHA meets the MMPA’s standards. Therefore, the agency may publish a proposed IHA in the Federal Register and make a final decision faster than the 45-day windows, but the 30-day public comment period cannot be shortened. In other words, a decision on an IHA must be made no later than 120 days of receiving an application but can be made in less time so long as there is a 30-day public comment period.

The agency asserts that if it includes an opportunity to comment on a renewal at the time of the proposed IHA, the original comment period will count towards the 30-day requirement. The text of the MMPA, however, does not explicitly or implicitly recognize an expedited renewal process with a 15-day comment period for IHAs even if the agency determines the activities are nearly identical.

The agency’s explanation ignores the timeframe set out in the MMPA. The 30-day comment period must be opened after receiving the application for the IHA. Regardless of how the agency attempts to frame it, the expedited process is a violation of the MMPA. The Fisheries Service cannot segment the original IHA from the renewal for the purpose of keeping IHAs below the one-year limit but also have them count as the same IHA for purposes of the 30-day comment requirement. The only interpretation that comports with the language of the MMPA is for the Fisheries Service to require applicants to submit a new application and open a new 30-day public comment period.

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3. Id.
b) **The expedited renewal provision is inconsistent with the legislative history of the MMPA**

The legislative history of the Section 101(a)(5)(D) similarly provides no support for the Fisheries Service’s position. In fact, it provides evidence that the agency’s interpretation is a violation of the MMPA. The MMPA’s IHA provision was added as part of the statute’s 1994 amendments, with the stated purpose of addressing procedural problems with harassment authorizations.\(^\text{15}\) The Committee on Merchant Marine and Fisheries, which added the section to the bill, included the following statement in its report:

> New subparagraph (D)(iii) establishes specific time limits for public notice and comment on any requests for authorization which would be granted under this paragraph. The Committee notes that, in some instances, a request will be made for an authorization identical to one issued in the previous year. In such circumstances, the Committee expects the Secretary to act expeditiously in complying with the notice and comment requirements. There is no need, in such a case, for the Secretary to use the full 120 days allowed.\(^\text{16}\)

This statement corroborates the plain reading of the MMPA. The statement shows that the specific timing Congress set out for authorizations includes any reauthorizations. While there is room for the Fisheries Service to expedite the 45-day periods before and after the comment period, the legislative history makes clear that it must comply with the 30-day notice and comment requirement. This is consistent with Congress using the phrase “not later than 45 days” for these decision-making periods but not using similar language for the 30-day period. The Fisheries Service must therefore continue to offer a 30-day public comment period even for re-authorizations like the one at issue here.


\(\text{\textsuperscript{17}}\) 50 C.F.R. § 216.107(e).


\(\text{\textsuperscript{17}}\) 50 C.F.R. § 216.107(e).
For these reasons, it is clear that the agency’s interpretation of the MMPA finds no support in the text, legislative history, or implementing regulations of the statute. To cure this deficiency, the Fisheries Service must reissue the Federal Register notice and give the public a full opportunity to comment.

3) Comments on the Contents of an IHA for Site Characterization

In order to issue an IHA for site characterization or any offshore wind project, the Fisheries Service must ensure that the application meets the requirements for an IHA and that the IHA includes conditions that will guarantee the site characterization surveys have the least practicable impact on marine mammal species or stocks and their habitats in and around the project site. Oceana hopes the comments provided on these important elements will make the site characterization successful while also considering the adverse effects on marine mammals.

a) Use Best Available Science

The MMPA was the first congressional act to include a “best available science” mandate. The statute requires use of “best scientific evidence available” in determining any waiver of the moratorium on the taking and importation of marine mammals and marine mammal products. Additionally, MMPA implementing regulations require the agency to use the “best scientific information available.” The Fisheries Service must therefore comply with the “best available science” mandate in analyzing whether or not to authorize incidental takes.

The NARW is a critically endangered species that has experienced a large decline in the last decade. The most recent population estimate is just 336 remaining whales. This 2020 population estimate is an eight percent decrease from the previous year’s estimate. As NOAA considers the IHA renewal application, it must use the most recent population estimate.

NARWs are known to feed, socialize and breed in the U.S. northeast and eastern Canada before mothers migrate south to calve and then return to the Northeast. As the Federal Register notes, NARWs use the proposed survey area as part of a migratory corridor Biologically Important Area (BIA) for NARWs. However, in the last decade the seasonal habitat usage of NARWs has shifted to include new waters and different seasonality. The IHA application and analysis must be sure to use the most recent and best available science for this critically endangered species, including recent habitat usage patterns for the study area and up to date seasonality information that may

16 U.S.C. §§ 1361 et seq. (mandating the use of “best scientific evidence” as well as the “best scientific information available” in several provisions, including the moratorium provision at 16 U.S.C. § 1371).
18 16 U.S.C. § 1371(a)(3)(A); 50 C.F.R. § 216.105(c) (“[R]egulations will be established based on the best available information.”).
differ from the March-April and November-December migration periods cited in the notice. The Fisheries Service should fully consider both the use of the area and the effects of chronic stressors on the health and fitness of NARWs.

Chronic stressors are an emerging concern for NARW conservation and recovery, and research suggests that a range of stressors on NARWs have stunted growth rates. Disruptive site characterization activities may not only startle NARWs in this area, but also cause chronic stress to the whales. The whales may seek other feeding areas at great energetic cost, decreasing their fitness, body condition and ability to successfully feed, socialize and mate.

The IHA renewal must be sure to use the most recent and best available science for this critically endangered species, including updated population estimates, recent habitat usage patterns for the study area, and a revised discussion of acute and cumulative stress on whales in the region.

b) Fully Consider Cumulative Effects

While an individual activity such as a site characterization may have negligible effects on the marine environment or a negligible number of interactions with protected species, many offshore wind-related activities are being considered in the region. It is important that the Fisheries Service fully consider the discrete effects of each activity and the cumulative effects of the suite of approved, proposed, and potential activities on marine mammals including NARWs and ensure that the cumulative effects are not excessive before issuing or renewing an IHA.

c) Project Conditions

Consistent with the requirement to achieve “the least practicable impact on such species or stock and its habitat,” the IHA must include conditions for the survey activities that will first avoid adverse effects on NARWs in and around the survey site and then minimize and mitigate the effects that cannot be avoided. This should include a full assessment of which activities, technologies and strategies are truly necessary to achieve site characterization to inform development of the offshore wind projects and which are not critical. If, for example, a lower impact technique or technology will provide necessary information about the site without adverse effects, that should be permitted while other tools with more frequent, intense, or long-lasting effects should be prohibited.

4) Vessel traffic associated with Wind Energy Area

Site characterization activities will increase the vessel traffic in and around the project area. The IHA must include a vessel traffic plan to minimize the effects of service vessels on marine wildlife including requirements for all vessels associated with the project, regardless of function, ownership, or operator to meet the following:

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a) **Observers**

All vessels associated with the proposed site characterization should be required to carry and use protected species observers (PSOs) at all times when under way. Because visual sighting of whales, including NARWs is difficult, particularly in low light conditions, the IHA should require service vessels to complement observer coverage with additional monitoring technologies, such as infrared (IR) detection devices for whales and other protected species. Research suggests that a complementary approach combining human and technological tools is most effective for marine mammal detection.  

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b) **Speed**

Research suggests that reducing vessel speed can reduce risk of vessel collision mortality by 80-90 percent for large whales like the NARW. Due to the risk of ship strikes to NARWs in the project area, the IHA should limit all vessels of all sizes associated with the proposed site characterization to speeds less than 10 knots at all times with no exceptions.

c) **Separation Distance**

Consistent with Fisheries Service regulations under the Endangered Species Act for all vessels and aircrafts, the IHA must include requirements for all vessels to maintain a separation distance of at least 500 meters from NARWs at all times.

d) **Vessel Transparency**

To support oversight and enforcement of the conditions on the high-resolution geophysical (HRG) survey, the IHA should require all vessels to be equipped with and using a Class A Automatic Identification System (AIS) device at all times while on the water. This should apply to all vessels, regardless of size, associated with the project. Class A AIS is a cost-effective technology used in marine industries around the world. AIS provides information including the vessel’s identity, location, course, and speed in a format that is compatible with most data collection, storage, and analysis programs.

e) **Applicability and Liability**

The IHA must require all vessels associated with the project, at all phases of development, follow the vessel plan and rules regardless of ownership, operator, contract. Exceptions and exemptions will create enforcement uncertainty and incentives to evade regulations through reclassification and redesignation. The Fisheries Service can simplify this by requiring all vessels to abide by the same requirements, regardless of size, ownership, function, contract, or other specifics. The IHA must also specify that developers are explicitly liable for behavior of all employees, contractors, subcontractors, consultants, and associated vessels and machinery.

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4) **Transparency and Reporting**

The project will be a private enterprise conducted on shared public waters and as such, the IHA must include a requirement for all phases of the site characterization to subscribe to the highest level of transparency, including frequent reporting to federal agencies, requirements to report all visual and acoustic detections of NARWs and any dead, injured, or entangled marine mammals to the Fisheries Service or the Coast Guard as soon as possible and no later than the end of the PSO shift.

To foster stakeholder relationships and allow public engagement and oversight of the permitting, the IHA should require all reports and data to be accessible on a publicly available website.

5) **Shutdown Requirements**

Despite the best information informing seasonal restriction on site characterization activities, it is likely interactions with NARWs will occur in and around the project site. The IHA must include requirements to use effective reactive restrictions that are triggered by detection of protected species by visual, acoustic, or other means before or during site characterization activities. Key conditions should include:

- Creation of clearance zones for NARWs that extend at least 1,000 meters with requirements for HRG survey vessels to use PSOs and Passive Acoustic Monitoring (PAM) to establish and monitor these zones with requirements to cease surveys if a NARW enters the clearance zone.
- A shutdown requirement if a NARW or other protected species is detected in the clearance zones noted above, unless necessary for human safety. If this exemption occurs the project must immediately notify the Fisheries Service with reasons and explanation for exemption and a summary of the frequency of these exceptions must be publicly available to ensure that these are the exception rather than the norm for the project.
- When safe to resume, HRG surveys should be required to use a soft start, ramp-up procedure to encourage any nearby marine life to leave the area.

6) **Conclusion**

Oceana is enthusiastic about the Biden Administration’s focus on development of offshore wind in U.S. waters as part of an effective and responsible response to the climate crisis. The potential for development of offshore wind in U.S. waters is significant and should be pursued without delay. As the Administration advances offshore wind development projects, there is an opportunity to advance clean energy goals while protecting biodiversity.

Oceana recognizes the necessity of site characterization in the wind development process and urges the Fisheries Service to only issue an IHA for this survey if it includes a thorough discussion of the new science discussed above and includes the range of conditions that will ensure the site characterization surveys are conducted responsibly with the least practicable impact on marine mammals.
Oceana looks forward to our ongoing engagement in the Ocean Wind project and offshore wind more generally and appreciates the opportunity to provide these comments. These comments have been carefully developed and we consider these to be substantial comments deserving a response from the agency.

We look forward to working with you to advance responsibly developed offshore wind to meet this Administration’s ambitious clean energy goals while protecting biodiversity, including the critically endangered North Atlantic right whale.

Thank you,

Beth Lowell
Deputy Vice President, US Campaigns
Oceana
Washington, DC
April 15, 2022

Jolie Harrison
Chief, Permits and Conservation Division
Office of Protected Resources
National Marine Fisheries Service
1315 East-West Highway, F/PR1 Room 13805
Silver Spring, MD 20910


Dear Chief Harrison:

Clean Ocean Action (“COA”) is a regional, broad-based coalition of conservation, environmental, fishing, boating, diving, student, surfing, women’s, business, civic, and community groups with a mission to improve the water quality of the marine waters off the New Jersey/New York coast. We submit the following comments to the National Marine Fisheries Service (“NMFS”) in opposition to the renewal of an incidental harassment authorization (“IHA”) that has been requested by Ocean Wind (“the Applicant”) to incidentally “take” or “harass” marine mammals in the course of marine site characterization surveys at lease site OCS-A 0532 off the New Jersey (“NJ”) coast. If approved, this IHA would allow the Applicant to harass marine mammals for survey activities at this site for a third one-year term.

Section 101(a)(5)(A) of the MMPA allows citizens who engage in activities other than commercial fishing to request authorization for incidental, but not intentional, harassment of “small numbers” of marine mammals pursuant to that activity for a period of no more than five years.1 NMFS, which has been delegated the authority to administer the relevant legal framework, may allow harassment under the MMPA only if the agency determines that the total number of authorized incidental takes during the five-year period will have a “negligible impact” on the relevant species or stock.2 “Negligible impact” is, in turn, defined as an impact that is not reasonably likely or expected to “adversely affect the species or stock through effects on annual rates of recruitment or survival.”3 Finally, the applicable legal framework distinguishes between

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2 Id. § 1371(a)(5)(A)(i)(I).
3 50 C.F.R. § 18.27(c).
“Level A” takes and “Level B” takes. In the context of offshore wind energy development and related activities, “Level B harassment” refers to “any act of pursuit, torment, or announcement which has the potential to disturb a marine mammal or marine mammal stock in the wild by causing disruption of behavioral patterns, including, but not limited to, migration, breathing, nursing, breeding, feeding, or sheltering.”4 “Level A” takings, on the other hand, refer to “any act of pursuit, torment, or annoyance which has the potential to injure a marine mammal or marine mammal stock in the wild.”5

After reviewing this application, COA urges NMFS to deny the application under consideration for three (3) reasons: first, the proposed activities will have more than a negligible impact on North Atlantic Right Whales (“NARWs”); second, the application does not account for the severity of the effects of the activities in question on the coastal stock of common bottlenose dolphins in the western North Atlantic Ocean; and third, because of the critical data gap that currently exists with respect to harbor seals’ use of the survey area.

I. Inaccurate and Incomplete Analysis of Impacts on North Atlantic Right Whales

a. Inaccurate Overestimation of North Atlantic Right Whale Population

COA objects to the proposed IHA renewal’s baseline estimation that there are 368 individual NARWs remaining in the wild. This estimation is, as NMFS posits, consistent with the NARW stock assessment in the agency’s 2021 Draft Stock Assessment Report (“SAR”). The 95% confidence interval for this estimation, notably, is 356-378 individuals. This confidence interval is notable because even the lower end of this range is higher than the most recent census taken by the North Atlantic Right Whale Consortium (“the Consortium”), who announced in October 2021 that just 336 individual NARWs remain.6 NMFS apparently agrees with the Consortium’s assessment for most other purposes—for example, the agency’s webpage for the NARW currently reads: “The North Atlantic right whale is one of the world’s most endangered large whale species; the latest preliminary estimate suggests there are fewer than 350 remaining.”7

Since the proposed IHA renewal’s estimate of NARWs is based on a draft SAR that has not yet been finalized and NMFS openly defers to the Consortium’s more conservative estimate of remaining individuals in other published materials, COA objects to NMFS’s use of the 368-individual estimate in the proposed IHA, especially for purposes of calculating the percentage of remaining NARWs that the Applicant may incidentally harass in the course of its marine site characterization surveys off the New Jersey coast. Even by the proposed IHA’s own math, the Applicant’s request to harass 11 NARWs amounts to 2.98% of the remaining individuals. However, when calculated using the Consortium’s estimate of 336 remaining individuals, the Applicant’s request to harass 11 NARWs proportionally rises to 3.27% of the entire species. As a matter of transparency, NMFS should reject the application.

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5 Id.
b. *Inaccurate Characterization of Impacts to North Atlantic Right Whales as Negligible*

Furthermore, COA objects to the conclusion that the activities covered by the proposed IHA will result only in Level B harassment of NARWs, as opposed to Level A harm—i.e., physical injury or death. COA asks that NMFS not approve the renewal because the application fails to account for Level A takes that (1) are reasonably likely to occur due to the activities in question, and (2) will have more than a mere negligible impact on NARWs. In this respect, COA notes that vessel strikes pose one of the largest threats to NARWs. The only vessel strike avoidance measures included in the proposed IHA are separation distances of 500 meters from North Atlantic right whales, restricted vessel speeds, and operational maneuvers. These limited and few vessel strike avoidance measures are solely directed toward the vessels supporting the Applicant’s survey activities. However, the proposed activities will also increase the risk of collisions between NARWs and vessel traffic unrelated to OWED activities as both navigate around the site characterization and assessment activities in question while they occur. As such, NMFS should not approve the application under consideration.

In addition, COA objects to NMFS’ determination that the underwater noise generated by the proposed activities will result only in Level B harassment of NARWs. NARWs rely on sound to breed, navigate coastlines, and find food. Anthropogenic noise interferes with their ability to eat, mate, and navigate, so it is essential to their survival that the NARWs’ sounds travel the ocean undisturbed. NARWs have been observed increasing their call amplitude with the rise of background noise, and noise pollution has been correlated with an increase in stress-related fecal hormone metabolites. Considered together, the cumulative amount of underwater noise allowed by the IHA request is not just an annoyance to NARWs, but also has the potential to injure the NARW species stock by interfering with the remaining NARWs’ ability to eat, mate, and navigate. Accordingly, COA requests that NMFS reject the Applicant’s IHA for survey activities at lease site OCS-A 0532. The application’s failure to account for the Level A harms that can reasonably be expected from the activities in question warrants further explanation before it would be appropriate for NMFS to approve the requested IHA renewal.

c. *Failure to Account for Cumulative Impacts to the North Atlantic Right Whale*

Next, COA objects to NMFS’s conclusion that the Applicant’s request to harass 11 NARWs for its survey activities off the NJ coast will have a negligible impact on the species. Even when taking this claim at face value, the agency is authorizing harassment of more than 3% of the remaining 336 NARWs within a one-year span, which is significant in and of itself. Furthermore, these takes will compound upon those that have already occurred under the terms of earlier IHAs approved for Applicant’s site characterization and assessment activities. Under the terms of

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8 *Takes of Marine Mammals Incidental to Specified Activities; Taking Marine Mammals Incidental to Ocean Wind Marine Site Characterization Surveys, New Jersey, 87 FR 14823, 14835 (Mar. 16, 2022) [hereafter “Application”].
10 Id.
previous IHAs, the Applicant has already been allowed to harass nine (9) NARWs for survey activities at this lease site. Approving the proposed IHA in its current form would effectively allow the Applicant alone to incidentally harass a cumulative total of 20 NARWs—6% of the remaining population. Such widespread disruption of this vulnerable species through noise, vessel collisions, and other risks posed by the proposed activities will only serve to jeopardize NARW’s recruitment and survival by interfering with their ability to communicate with each other, find food, and avoid threats.

On a related note, this is only one of many OWED projects for which NARW harassment has been requested, but NMFS appears to fail to account for this cumulative impact. There are also other takes of NARWs authorized for other activities in the region that must be considered as well, including activities that are simultaneously occurring for other nearby OWED lease sites. For instance, Atlantic Shores has been allowed to harass 17 NARWs in the waters off New York and New Jersey for site characterization and assessment activities since April 2020; Garden State Offshore Energy, LCC was allowed to harass 14 NARWs under an IHA issued for site assessment and characterization activities off New Jersey and Delaware issued in June 2021, and Orsted was recently issued an IHA permitting 37 takes of NARWs for site assessment and characterization activities in the waters between New York and Massachusetts. These three earlier IHAs collectively allowed OWED developers to harass more than 20% of the remaining NARW population within the last three years, and approving the Applicant’s requested IHA renewal would increase this total to 24% over a four-year period.

This tally, it should be noted, is only for site assessment activities, and does not consider the number of takes required for construction and operation of all of these OWED projects, which will likely require an even higher number of takes than the survey activities preceding them. This tally likewise does not account for the harassment of NARWs that have been authorized for OWED projects in other areas of the species’ migratory path, such as the waters off North Carolina and Virginia, nor the takes that have been requested by OWED-related IHA applications which are still under review. Also absent from this sum are NARW takes authorized by IHAs issued to industries other than OWED. Especially due to how uniquely endangered this species is and the ongoing Unusual Mortality Event (“UME”) that NARWs are experiencing, an existential threat is posed to the species by any obstacles to even one individual’s survival. The scale of these impacts in the proposed IHA are excessive for even one offshore wind project, and yet this is just one of many such projects under review.

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In conclusion, the proposed IHA renewal would authorize so many Level B harassments of NARWs that, if granted, it would adversely affect NARWs’ annual rates of recruitment and survival—both on an individual level and on the species as a whole—that this impact is substantial and unacceptable. Additionally, the activities covered by the IHA are reasonably likely to result in injury to the species as a whole, meaning that foreseeable Level A harms to NARWs are not covered by the IHA’s terms and, thus, it would be inappropriate for NMFS to approve the application under consideration at this time. It is imperative that NMFS exercise its authority to protect one of the world’s most vulnerable and critically endangered species, the North Atlantic right whale, and the agency should fulfill this obligation by rejecting this IHA proposal. If NMFS does not stand to protect this species by denying this IHA, it is difficult to envision the NARW’s survival given the combined impacts, harassment, harm, and death that will befall the remaining population due to all of the OWED projects proposed in the Atlantic Ocean.

II. Excessive Impacts to Common Bottlenose Dolphins

Common bottlenose dolphins are highly social and intelligent marine mammals, and arguably the most recognized and beloved cetacean. In addition to their inherent value to the American public, these dolphins play an important role in marine ecosystems and are increasingly important drivers of economic growth for tourism and related industries in the U.S.  

Common bottlenose dolphins are found in estuarine, coastal, continental shelf, and oceanic waters of the western North Atlantic (“wNA”). Distinct stocks of common bottlenose dolphin have been identified in coastal and offshore waters off the U.S. East Coast: a smaller migratory stock present in estuarine, coastal, and shelf waters from Florida to Long Island, and a larger, more robust stock found further offshore in deeper waters of the continental shelf from Florida to Canada.

The coastal stock of bottlenose dolphins in the wNA has experienced a recovery since experiencing an unusual mortality event (“UME”) in the late 1980s, but it is still considered a strategic stock for purposes of the MMPA and currently numbers roughly 6,639 individuals. Nevertheless, the application under consideration reveals that Applicant’s survey activities at this

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19 Id. at 68; *Glossary: Marine Mammal Protection Act*, NATL. MARINE FISHERIES SERV. (last accessed Apr. 5, 2022), https://www.fisheries.noaa.gov/laws-and-policies/glossary-marine-mammal-protection-act#strategic-and-depleted-stocks. “Strategic stock” is defined by the MMPA as a marine mammal stock: for which the level of direct human-caused mortality exceeds the potential biological removal level; which, based on the best available scientific information, is declining and is likely to be listed as a threatened species under the Endangered Species Act within the foreseeable future; or which is listed as a threatened or endangered species under the ESA, or is designated as depleted under the MMPA.
lease site will result in 1,842 Level B takes—a whopping 27.8% of the total remaining stock.20 This projected impact to the coastal stock of wNA common bottlenose dolphins from the Applicant’s site characterization and assessment activities is particularly egregious given the 1,410 Level B takes of this stock that the Applicant has already been allowed under the previous IHA for survey activities at this lease site.21 If NMFS approves the IHA renewal now under review, the Applicant would effectively be allowed to harass a cumulative total of 49% of the vulnerable coastal wNA common bottlenose dolphin stock during a two-year period.

The noise, vessel collisions, and other risks posed by Applicant’s survey activities will plainly impede these dolphins’ ability to locate food, avoid predators, and communicate with other members of their pod, with serious implications for the recruitment and survival of the stock as a whole. NMFS should therefore uphold its obligation under the MMPA and deny Applicant’s requested IHA renewal.

III. Harbor Seals – Lack of Data

While there are several species of seal that are anticipated to be impacted by these projects, New Jersey’s Department of Environmental Protection (“DEP”) has highlighted a particular lack of known information regarding the use of the Applicant’s OWED lease area by harbor seals. Frequently spotted along both the East and West Coasts of the U.S., harbor seals are known for resting on floating ice with their head and rear flippers elevated in a “banana-like” position, leading to their popularity with excited winter beach-goers.22 Besides their wide recognition among the American public, harbor seals also play a major role in maintaining balance in marine food webs as well.23 Despite the unique importance of this species, however, COA maintains there is not sufficient baseline information about how harbor seals use the waters at lease site OCS-A 0532 to conclude that the activities covered by the proposed IHA will have a negligible impact on harbor seals. More specifically, a COA employee recently attended a virtual event at which a DEP representative indicated that, to date, no one has tracked harbor seals to understand the species’ pre-construction use of offshore wind energy lease areas off the NJ coast.24 This admission strongly suggests that decisionmakers do not yet have sufficient information about the role of these lease areas in harbor seals’ life-cycles to substantiate the numbers of harassments expected to occur or the conclusion that the activities covered by the proposed IHA will not rise to a Level A taking under the MMPA. NMFS should therefore reject the requested IHA. This species must be the focus of an independent baseline assessment that more thoroughly accounts

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20 87 FR 14833.
21 86 FR 26473;
24 “Science Saturday: Offshore Wind,” LONG BEACH ISLAND FOUNDATION OF ARTS AND SCIENCES (Feb. 19, 2022). Specifically, the NJDEP representative identified the tracking of harbor seals off the NJ coast to understand their use of lease areas prior to the construction of offshore wind turbines as a project concept that NJDEP is currently considering.
for the role it plays in the ecosystem before NMFS allows the activities covered by this application to move forward.

While the above comments focus on those species to which the quantitative impacts are anticipated to be most significant, Clean Ocean Action is also deeply concerned about the wide range of marine mammal species that will be impacted by the proposed activities. The current lack of data pertaining to OWED’s interactions with the marine environment gives us deep reservations about the long-term implications of these activities on these other species as well, especially given the Applicant’s inability to accurately calculate impacts at this time.

For the foregoing reasons, Clean Ocean Action requests that NMFS reject the IHA renewal under consideration. Should you have any questions or would like to further discuss the concerns that Clean Ocean Action has identified above, please feel free to contact us.

Respectfully submitted,

Cindy Zipf    Zachary Klein, Esq.
Executive Director   Policy Attorney
I am a University of New England student and am currently taking a climate change, oceans, and law class where we looked at your incidental take report for including a wind farm off the coast of New Jersey. While I am for green energy and reducing the consumption of fossil fuels, I believe there should be some adjustments to the survey before it takes place. One main focus should be on the food of the Right Whale.

The Right Whale is an incredibly endangered marine mammal, with only .7 being allowed to take from the environment. However, on page 46, you have listed 11 Right Whales as requested Level B takes from the marine environment. While these takes are more likely part of an estimated maximum instead of actual occurrences, it is important to note that this does exceed the number of allotted take. As mentioned in your report, the Right Whale’s main source of food is the copepod, specifically the

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2 Orsted 46
3 Orsted 20
calcaneus copepod\textsuperscript{4}. While you mention the copepod in section 4.1.1, there is no further mention of any impacts upon the copepod. While discussing short term impacts on marine mammals, prey is mentioned as having some possible reduction in the population due to frequencies generated from the survey\textsuperscript{5}. However, copepods are listed as having no short term impacts because of the low SPL’s produced\textsuperscript{6}. Many of your sources are from the early 2000’s with the newest source, discussing prey, from 2009\textsuperscript{7}. Newer research should be done on how sound can affect copepods and other organisms. With newer advancements in technology, especially in sound and green energy, new research should be executed in order to prove there are no short or long term effects on copepods, or prey in general.

Clearly research has been done on how the sounds and frequencies will affect marine mammals, with mention to how the frequencies can mess with mammal’s communication through echolocation or sound in general\textsuperscript{8}. Right whales are low frequency organisms\textsuperscript{9}, which means they won’t be as impacted as higher frequency species\textsuperscript{10}. However there is no mention on how copepods would be affected. In a recent study, copepods were tested to see how they react at different frequencies in response to the increase of Offshore Wind Farms, like the one you propose. While the paper discusses how heat can impact the copepod community, they also discover that noise creates an increase in oxidative stress in the organism\textsuperscript{11}. Constant Oxidative stress leads to the deterioration and eventual death of whatever organism being effected, especially ones that are unable to migrate away from the cause of this stress\textsuperscript{12}.

\textsuperscript{5} Orsted 51
\textsuperscript{6} Orsted 51
\textsuperscript{7} Orsted 51
\textsuperscript{8} Orstead 16
\textsuperscript{9} Orstead 16
\textsuperscript{12} Tremblay 2019
Right Whales depend on high quantities of copepods to survive daily, with increased feeding before and during the end of the migration\textsuperscript{13}. New Jersey happens to be near the end of the right whale’s migration path and is where many stop to feed\textsuperscript{14}.

While copepods are not a marine mammal their importance to the Right Whale should put them as incredibly important to monitor and protect as their population would greatly affect Right Whales causing take. There has been research done on how to copepods have a biomarker providing warning for the downfall of a population\textsuperscript{15}. This biomarker can estimate the toxicological risk in the copepod in any specific environment\textsuperscript{16}. These biomarkers can enable researchers to see how copepods are being affected by wind farms, or even if their population is being affected. Other mitigation strategies could be put in place in order to make sure copepods are not being wiped out. By doing surveys on the copepod population and estimates on how frequencies could affect copepods both short-term and long-term ad they so highly effect the right whale community.

While I believe this survey needs to be updated before it actually goes through, I do believe that wind farms are a great resource for clean renewable energy. If wind farms are proving to be to harmful to the marine mammals in the New Jersey waters then other forms of renewable energy should be added, such as solar and hydro power. Since 2009 when the Department of Interior passed regulations on Outer


\textsuperscript{16} Rodriguez 2018
continental shelf renewable energy program, open ocean wind farms have been seen more and more\textsuperscript{17}. Green energy is the next logical step for the Earth in order to reduce the amount of emissions released into the atmosphere. I completely agree with the idea of creating a wind farm, but there needs to be more research done on this particular situation before it can be authorized. There needs to be an impact study done on copepods and other prey of marine mammals. There should also be an emphasis on the impact on bottle-nosed dolphins because of how they are affected by the high frequencies produced by the wind farms\textsuperscript{18}. With the frequencies of wind farms generating the same frequencies of Bottle-nose dolphins, it will massively affect the communication of the marine mammals\textsuperscript{19}. Noise pollution is not contained to one location it travels far and fast. In the Orsted report, there is no mention of the extent to which the noise pollution can spread through the water. If marine mammals avoid the shore, due to lack of prey, they still may be affected because of the spread of noise. Overall, this project would benefit the community and is a better environmental choice. With an increase in greenhouse gas emissions and the looming threat of sea level rise action needs to be taken. It also can be mentioned that in future years, due to increased temperatures, these marine mammals might not migrate as far south as New Jersey in the search for colder waters. It should also be noted that this is the proposal for a survey and not for the actual project. The survey should be conducted as this further research can be taken during the survey or as part of the survey in general. Before the project begins there should be consideration of the smaller organisms in the ecosystem, because they gravely effect the marine mammals.

Thank you for your time,

Sydney Buckley


\textsuperscript{18} Orsted 49.

\textsuperscript{19} Wind Turbine 2020
Ms. Jolie Harrison, Chief  
Permits and Conservation Division  
Office of Protected Resources  
National Marine Fisheries Service  
1315 East-West Highway  
Silver Spring, MD 20910-3225

RE: Application for Incidental Harassment Authorization for the Non-lethal Taking of Maine Mammals: Site Characterization Surveys

Dear Ms. Harrison,

I. Introduction

As time goes on, the United States has less time to act on climate change. The United States, and the world, underwent a major setback on action in climate change when the Trump Administration came into office. Now under the Biden Administration, climate change again is considered a global humanitarian threat. However, strict enough actions have yet to occur against climate change. Not only is climate change a threat to humanity, but it is a threat to the entire global ecosystem. Gigantic levels of carbon dioxide in the atmosphere cause many problems on land, but worse problems in the ocean. Chemical reactions between carbon dioxide and water creates carbonic acid and hydrogen ions, increasing the acidity of the ocean. A more acidic ocean decreases the solubility of oxygen, and it increases the ocean temperature. Every species has a different capacity in which they are able to adapt
to changes in the ocean. This is the reason why I am asking that NOAA approves Ocean Wind II’s Incidental Harassment Application for the Non-lethal take of marine mammals at cited above.

II. Marine Mammal Protection Act

Goals of the Marine Mammal Protection Act are to ensure the balance of marine ecosystems and protect the overall well-being of marine mammals that have vital roles in ensuring ecosystem balance. The MMPA largely emphasizes direct, physical impacts of human activity on marine mammals, however, the MMPA needs to put more emphasis on the indirect effects of human activities on marine mammals. Climate change, as the modern world knows it, is caused by human impacts. The world can no longer deny that anthropogenic carbon dioxide emissions are influencing ocean acidification, ocean warming, and global temperature increase which directly causes weather pattern shifts, more extreme weather events, polar ice cap melting and sea level rise, and more. All of these effects in the ocean, consequence of the excess carbon dioxide in the atmosphere due to anthropogenic activities, should be considered a direct impact on marine mammals. Therefore, the MMPA should be revised to include changes in ocean chemistry due to anthropogenic actions and protect marine mammals. These impacts are adversely affecting marine and land creatures of all kinds is many ways. My claim is that the indirect effects of climate change are more harmful to marine mammals than direct human impacts as listed in Ocean Wind II’s Incidental take application.

III. Harm to Marine Mammals by Climate Change

The adverse effects of climate change on marine mammals are widely variable. More carbon dioxide in the atmosphere increases the amount of carbon dioxide in the oceans. This decreases the pH of the ocean, and this also makes oxygen less soluble. As a biochemist, I am extremely concerned with the physiological and biochemical effects that marine mammals will be forced to undergo due to

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anthropogenic-influenced climate change. The lower abundance of oxygen in the ocean is particularly a threat to marine mammals that rely on oxygen for many biochemical processes. One of these effects is Hypoxia which is a condition where there are inefficient levels of oxygen in mammalian tissues. Muscles are one of the most important places to have a sufficient oxygen supply because they require oxygen to generate ATP, or commonly known as “energy for the body”. The mechanism in which the body uses oxygen is in oxidative phosphorylation, and even more specifically in the electron transport chain. In the mitochondria, the energy producing organelle of the cell, the electron transport chain uses electron carries such as NADH and FADH2 to move electrons down the electron transport chain via reduction oxidation reactions where these electrons are then used to form molecular oxygen that is then split to form water. Free hydrogen ions in the ETC create an electrochemical gradient which is able to facilitate the production of ATP from ADP, where an additional phosphate group is added. The final product ATP is what mammalian tissues can use as energy to power all of the bodies muscle contractions, from walking, to swimming, to breathing. This biochemical basis is the same across humans and marine mammals.

The mechanisms in which oxygen content in the ocean is decreasing goes beyond the decreased oxygen solubility. Furthermore, reduced ventilation is occurring due to circulation and stratification changes in the ocean. Additionally, oxygen-generating phytoplankton in the ocean are even more susceptible to ocean changes, and therefore a reduction in the stock of phytoplankton reduces the amount of oxygen production in the ocean itself. A more acidic ocean also equates to a warmer ocean, causing marine mammals to increase their respiration spontaneously, exacerbating the issue of lower oxygen content. Additionally, increased temperatures also increase metabolism since they are resiping

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at a faster rate, using up oxygen and energy more quickly. This will quickly deplete energy stores. Decreased oxygen content and decreased availability of prey will make it more difficult to replenish those energy stores.

The North Atlantic Right Whale is particularly vulnerable to the effects of climate change due to its depleted stock. NOAA Fisheries website states that there are fewer than 350 left according to best available data. Right Whales already face direct human threats like entanglement in fishing gear and vessel strikes, but they also are experiencing climate change effects. As the website states, Right Whales over the last decade have changed their distribution patterns. This makes the species more unpredictable. Our knowledge of their calving grounds and foraging grounds is going to change as the species continues to adapt to the changes in the ocean due to climate change. This is going to make it more difficult for humanity to protect Right Whales if humans cannot predict their behavior and whereabouts. Furthermore, Right Whale births have declined, according to NOAA Fisheries. This is likely the case because female Right Whales are struggling to find enough food to support a pregnancy. As climate change evidently threatens the entire Right Whale population as it is causing declining birth rates, it should be a duty under the MMPA for NOAA to protect, preserve, and increase the resilience of the critically endangered Right Whale population.

IV. Harm to Marine Mammals by Survey

As it is cited in the Incidental Take Application, this survey will do no harm to Right Whales beyond a Level B harassment. The survey will only allow one vessel to be deployed at a time, limiting the probability for harassment of marine mammals. Some equipment used for the surveying, such as the shallow and medium sub-bottom profiling will produce no acoustic output. Seafloor mapping equipment, which will be used to generate data for cable routes, will only produce short, narrow sound pulses around 85 to 100Hz. In the grand scheme of ambient underwater noise, 85-100Hz for surveying is

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extremely minimal. Many natural sources of ambient noise, such as wave breaking and rain, can produce between 100 and 20,000 Hz. Depending on the species, marine mammals themselves can make noise anywhere from 10 to 100,000 Hz, depending on the marine mammal.\textsuperscript{7} The frequencies of natural sources of ambient sound to anthropogenic surveying equipment hardly compare. Therefore, it is tangible to follow through with the survey due to the very low harassment threats on marine mammals.

V. Conclusions

Evidence shows that anthropogenic-influenced climate change has detrimental effects on marine mammals including changes in distribution patterns, increased respiration and energy expenditure, increased metabolism, decreased muscle mass and energy stores, decreased birth rates, decreased food availability, and so on. The effects of climate change are not only troubling for endangered marine mammals such as the Right Whale, but they are threatening to all marine mammals, all of humanity, and the entire global ecosystem. \textit{It is time that anthropogenic-influenced climate change becomes considered a direct incident of take of marine mammals, therefore enforcing under the MMPA the responsibility to conserve and protect marine mammals across the world against climate change effects.}

\textsuperscript{7} "What are common underwater sounds?" The University of Rhode Island and Inner Space Center. Accessed April 11, 2022. https://dosits.org/science/sounds-in-the-sea/what-are-common-underwater-sounds/
Ms. Jolie Harrison, Chief
Permits and Conservation Division
Office of Protected Resources
National Marine Fisheries Service
1315 East-West Highway
Silver Spring, MD 20910-3225

Dear Ms. Harrison:

Ocean Wind II, LLC has submitted an application to the National Oceanic and Atmospheric Administration National Marine Fisheries Service requesting for Incidental Harassment Authorization (IHA) that may occur during the surveys used to complete their offshore wind farm projects.\(^1\) After reviewing the application, it appears that careful consideration has gone into the effects that small numbers of marine mammals may face due to the construction of this offshore wind farm. Though diligently crafted, there are still some minor

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concerns regarding the application as well as major concerns regarding the entirety of the project.

One of the few issues with this request can be found on pages 50 and 51 under the long-term impacts portion of the application. To simply state that no long-term impacts are anticipated\(^2\) is inadequate and should be backed up with relevant data that shows there are no long-term effects on marine mammals when it comes to projects like this one. Overall some sort of citations would have made this section more sufficient, even if they were to say that the long-term effects of offshore wind farms of marine mammals are unknown. Furthermore, both maintenance and potential decommissioning of the offshore wind farms are being overlooked in this long-term effects section. Maintenance of these projects can span up to 20-25 years\(^3\) and decommissioning involves increased vessel traffic as well as the use of explosives and mechanical cutting.\(^4\) These two major components of an offshore wind farm project should have been explored a bit more in regards to the take of marine mammals, especially in a section discussing long-term effects. To say, “Due to the short duration of the potential activities”,\(^5\) is inaccurate when a project like this is more than just the construction phase.

In addition, one of the largest concerns of this project is the protection of the North Atlantic Right Whales (NARW), and rightfully so. As of March 7th, 2022, NOAA has reported that this species is nearing extinction with less than 350 NARW left.\(^6\) This number has dropped

\(^2\) CSA Ocean Sciences Inc., 50-51.
\(^4\) Ibid
\(^5\) CSA Ocean Sciences Inc., 50-51.
by a minimum of 18 since this IHA was submitted which is a significant decrease. Page 44 Table 9 of the IHA portrays a, “Summary of maximum potential Level B take exposures resulting from 100% usage of the sparker systems during all 275 survey days in the Project Area”. The Maximum Level B Takes for the North Atlantic Right Whale is $11^8$ which for an endangered species, especially one with an already low abundance, is detrimental. Therefore, 100% usage of sparker systems for the entire duration of the project exemplifies that the incidental harassment to the North Atlantic Right Whale is harmful. However, this is the Maximum Level B take anticipated, thus the actual take that may occur should be less. Furthermore, Ocean Wind II, LLC has taken sufficient mitigation measures to ensure the safety of all marine mammals in the proposed project area. Some of their measures include vessel strike avoidance procedures, visual monitoring, area clearance, and shutdown procedures. The shutdown procedure requires an immediate shutdown, “If a whale, porpoise, or seal is sighted at or within the corresponding marine mammal shutdown zone…Any disagreement between the Lead PSO and vessel operator should be discussed only after shutdown has occurred”. Measures like these are commendable and show how serious this company is taking the safety of marine mammals. Ocean Wind II, LLC even has Seasonal NARW monitoring requirements incorporated into their safety measures$^{10}$ which demonstrates that they acknowledge how fragile of a species this is, and ensuring their safety is a priority to them. This is further confirmed on page 58 under section 13.0 Monitoring and Reporting, when they discuss reporting injured or dead species within 24

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7 CSA Ocean Sciences Inc., 44.  
8 Ibid  
9 CSA Ocean Sciences Inc., 56.  
10 CSA Ocean Sciences Inc., 52.
hours of a sighting.\textsuperscript{11} This is important when it comes to the North Atlantic Right Whales because they are facing an elevated amount of Unusual Mortality Events (UME’s) with the current total confirmed mortalities at 34, 13 of which were in the United States.\textsuperscript{12} Besides entanglement, vessel strikes are a leading form of ‘human interaction’\textsuperscript{13} that cause these mortalities and these strikes are a potential occurrence during this project. For that reason, it’s satisfactory that reporting injured or dead species is incorporated into Ocean Wind II, LLC’s IHA. Though some citations, for example Curry BE, Smith J. 1997 \textit{Tursiops truncatus},\textsuperscript{14} may not be so current and a few sections lack depth, it is clear that Ocean Wind II, LLC has demonstrated a meticulous investigation in how to properly construct their offshore wind project while keeping in mind the safety of the marine mammals that inhabit that area.

\begin{quote}
\textbf{It’s unfortunate that the North Atlantic Right Whales may be harmed during the construction of this offshore wind farm however there are still positives behind this project.} For example, wind is a renewable energy source that combats global warming, which is also an obstacle the NARW face.\textsuperscript{15} Unlike other forms of energy, wind turbines don’t pollute the water or air because they do not release carbon dioxide emissions.\textsuperscript{16} Carbon dioxide levels are rising due
\end{quote}

\begin{itemize}
\item\textsuperscript{11} CSA Ocean Sciences Inc.,58.
\item\textsuperscript{13} Ibid.
\item\textsuperscript{14} CSA Ocean Sciences Inc.,63.
\end{itemize}
to the fossil fuels used for other forms of energy. In turn, this greenhouse gas creates a change in our climate\textsuperscript{17} which is damaging to our earth and its inhabitants. The construction of this offshore wind farms project does have significant positives by being a renewable energy source. Farms like these are mitigating climate change which should be a priority and needs to accelerate worldwide. The loss of a North Atlantic Right Whale at the hands of this project or even other means is devastating, but the effects of climate change outweigh that as this is a problem the world faces, not just a singular species.

Ocean Wind II, LLC’s conscious effort to protect marine mammals threatened by the potential take of their project as well as the fact that they are creating a renewable energy source that helps reduce climate change, means that the draft authorization should be supported. This does not lessen the severity of the potential take of the North Atlantic Right Whale and this does not mean long-term effects should not be explored more. Simply, not allowing the construction of a renewable energy source is a disservice since forms of energy like wind are combating climate change which is something that is affecting earth’s entirety. Creating and upkeep this offshore wind farms project not only may be used as a tool to evaluate long-term effects of offshore wind farms on marine mammals, but it is taking a step in the right direction of mitigating climate change.

Ms. Jolie Harrison, Chief
Permits and Conservation Division
Office of Protected Resources
National Marine Fisheries Services
1315 East-West Highway
Silver Spring, MD 20910-3225

Dear Ms. Harrison,

I am a student from the University of New England, and I am writing against the Orsted Company and their incidental harassment authorization for the proposal for the Ocean Wind offshore project. I believe that it should not be passed due to the lack of research on the aspects of critical animals on the Atlantic coasts and the lack of mitigation measures. This project does help lessen the effects of climate change by providing clean energy, but the company does not have up to date information regarding the prey of the Atlantic Right Whale. After the addition of information on the prey, the mitigation issues, and the explanation on certain animals that reside in this area, I believe that this project will have enough information and the survey can be put in place. This can provide more jobs for people in the United States, and it will also be using clean energy.
There are specific marine mammal species that are under critical watch along the Atlantic coast such as the North Atlantic Right Whale. Impacts on their habitat and on their prey could prove detrimental to the species which in turn can impact an entire ecosystem. The North Atlantic Right Whale species is believed to have higher death rates than birth rates in the population with a decline of female whales\(^1\). This is causing a decrease within the population because there is no way to reproduce. There have only been 42 new calves since 2017\(^2\). With ongoing projects, the noise pollution can drive certain whale species to behavioral changes that ultimately interfere with their health and survival\(^3\). With more noise being added to the biologically important area, whale species such as the North Atlantic Right Whale will be harmed. Protecting the North Atlantic Right Whale should be the top priority when it comes to wind energy projects such as this one. This project has the potential to be harmful.

A specific species of the most concern are the North Atlantic Right Whales and their prey, *Calanus finmarchicus*. In the federal register it states that the prey availability would not be affected\(^4\) but there is no source for it. In the incidental harassment authorization application, the sources that are available on this topic are more than five years old\(^5\). The information provided is therefore unreliable and needs to have more up to date research given. There is


more up to date research regarding surveying and the effects on this species of copepod. This goes to show, at least to the public, that there is not sufficient research or money going into this project. Driving out the species of copepod would drive out the North Atlantic Right Whales. This could have some major implications to not only the species but also industries that rely on them such as the whale watching industry. With the increase in human interactions in the Atlantic region, the North Atlantic Right Whales could be in a position that will cause the species to become extinct. The survey activity will then become risky due to it being in a biologically important area for the species. The population size of the North Atlantic Right Whales has been on a steady decline for the past 10 years and is considered one of the most endangered large species of whale in the world. The protocols in place are not sufficient to protect these species.

Regarding the vessel strike mitigations that the company put in place, how will it be ensured to the public that the company will comply with the vessel strike mitigations? It is stated in the HRG draft that if a vessel is underway the vessel should try to avoid violating the distance. There are a few exceptions that it states along with it such as if the vessel is towing gear or is navigationally constrained. When would the vessels not be towing gear or navigationally constrained? Is there an exact definition for navigationally constrained? I disagree with the consistency of the Marine Mammal Exclusion Zone (EZ) that the company has put in place. According to the Bureau of Ocean Energy Management the standard marine

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6 NOAA Takes of Marine Mammals Incidental to Specified Activities; Taking Marine Mammals Incidental to Ocean Wind Marine Site Characterization Surveys, New Jersey.
7 Orsted pg. 20
mammal exclusion zone is at 200 meters\(^9\) rather than 50 meters or 100 meters like was previously stated\(^{10}\). The mitigation efforts to try to avoid hitting marine mammals are inconsistent and insufficient.

In the requested level B takes, it states that there were some species that could be encountered but there were no takes that were being calculated on that species\(^{11}\). There is no source for the previous surveys data that was conducted. The ones that were cited were more than 5 years old and only focus on Narragansett Bay marine mammal population size\(^{12}\). The other article shows the effect on seismic survey mitigation measures and protected species observer for the Gulf of Mexico\(^{13}\). The North Atlantic Right Whale is not found in the Gulf of Mexico, so how will that species respond to seismic surveys compared to the other species in that area? There are 31 cetacean species in the Western North Atlantic region\(^{14}\) the public should be given data for all these species rather than just estimates based on the group size. Those whale populations could be considered an understatement, but it will still be considered a species that will be affected.

The Florida Manatee is typically not found off the coast of New Jersey, they are migratory animals, but they are found along Florida’s coast\(^{15}\). It does happen such as in 2009

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\(^{10}\) Orsted pg 53
\(^ {11}\) Orsted pg 45
\(^ {14}\) Orsted pg. 17
when a manatee was spotted in Cape Cod and around New Jersey, but it is not common. Manatees cannot survive in cold waters such as off the coast of New Jersey. What was the thought process behind adding that species into the incidental taking table and why is that species not estimated like the others?

There are unclear mitigation methods, unclear supportive arguments for prey of the North Atlantic Right Whale, and unclear species takings. I do not believe that the survey should be allowed until there is more updated information, reasoning for what exactly they are doing and a clear reason for level B animal takes. There should be consistent information regarding the certain parameters when it comes to mitigation with this project. Thank you for considering my comments.

Julia Popson
Dear Jolie Harrison,

Chief,
Permits and Conservation Division,
Office of Protected Resources,
National Marine Fisheries Service,

My name is Kendall Tremblay, and I am a student at the University of New England. I am studying Marine Biology and this semester I am taking a class that is focusing on how climate change is affecting the marine environment and how the laws that have been put in place are doing at protecting the marine environment. We saw this forum asking the public to comment and we thought it was a great opportunity to bring a real like scenario into the classroom and have an impact on something that is going on in our world right now. I think that this company has been very thorough in their plans to do these surveys to determine how much this will affect the organisms that already inhabit this area. The concept that they have is good. The amount of greenhouse gasses currently in our atmosphere have reached an all time high. These come from a multitude of sources, many of which are things that could be powered by alternate sources. We have been able to see the results with electric cars. These wind turbines can have a similar effect with the environment because they can help us use wind energy to power things instead of using energy sources, like coal and gas, that produce more gasses into our atmosphere. The building of these wind farms would be very beneficial to the planet. It has offered many countries an alternate source of energy and electricity.³ This can be beneficial in the long term as we look to use less fossil fuels as our main source of energy.

The big issue is that by doing this, it could lead to harmful effects for marine organisms from the right whales to the dolphins to the phytoplankton. There are many possible issues that can come with a big project like this. The issues don’t start when the project is finished either, they begin as soon as the first day of construction starts. It will be difficult for many of these creatures because they are going from having their environment as it currently is to having it be overrun by large mechanism that can change the current shape of the coast and the current noise levels in the area. We know climate change has already caused many organisms to migrate because their current habitat is no longer habitable for them. If we add new construction and these large wind turbines, we need to make sure we are doing it in a way that gives the organisms time to adapt to their new surroundings. That is why it is important that this survey is conducted the right way. This will provide insight about the area and can provide an answer about whether it would be good to begin construction here.

One organism that I am particularly concerned about is the North Atlantic Right Whale. The right whale has had a long history of moving up and down the east coast of New England. My biggest concern is that this is one of the species that cannot afford to lose a lot more of their population. In a document that was sent to congress about incidental harassment and take, there is a section about how many individuals can be taken from a species before it becomes critical. There were many species, like the common dolphin, that are so abundant that they can have a thousand individuals taken and their species wouldn’t become critical. The Right Whale only had a PBR of 0.7.² This means that if they

lose more than one individual, they will not be in a good situation. There are other species that also have low PBRs and cannot afford to lose a lot of their populations.

The ways of avoiding these losses have to do with how these organizations are going to plan out their surveying. This gets them started on what the possible problems could be as they begin their work. This work is done while trying to navigate around the organisms that live in this area. This will require minimal disturbance of the land. I like what the Orsted company has laid out for their mitigation methods. I think putting in procedures that will require the surveying to stop if they are to close to a known species or habitat was a great place to start. What I found particularly interesting was the bullet point that stated, “All vessel operators and crew will maintain vigilant watch for cetaceans and pinnipeds, and will change course, slow down, or switch engines to neutral to avoid striking an animal.” This stood out to me because it was to start of describing that they have thought up different plans based on the situations that they encounter. It also showed that they have an understanding about what scenarios would still be ok to work at a modified level and which ones they would have temporarily stop for.

In a perfect world the wind farm could be built and ran without any impact to the marine environment or the organisms that inhabit it. Although, this is not the reality that we are able to face. After reading through the proposal, it seems that the Orsted company did a good job at covering their ground as far as making sure they have plans in place to minimize the effects that this wind farm is going to have. I think I can confidently say that I am in support of this request to survey the land for the

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possibility of putting together a wind farm. The wind farms would be something that can be a good long-term solution to help slow the progression of climate change. If they stick with the plans that were laid out in the application, the survey would be a good use of time and resources. This I feel like the survey will give a better picture about if this area will be the right spot for setting up the wind farm. I also feel like this can give us more data about what the species counts are currently in this area. At the end of the day, the goal is to find ways to help stop more damage to the planet, while protecting the animals that are currently living here.
Chief Jolie Harrison,
Permits and Conservation
Office of Protected Resources
National Marine Fisheries.

Dear Chief Harrison, my name is Haley Arnold-Fuchs from the University of New England’s School of Marine and Environmental Programs. This letter is offering my comments for the Orsted company’s Ocean Wind project and their application to NOAA for Incidental Harassment under the MMPA. The Climate Change, Oceans, & Law class I am currently in was made aware of this application when we were learning about the Marine Mammal Protection Act and what different things apply to protecting these marine animals. I hope this letter provides any sort of information for you and your organization.

My first comment is in regard to establishing the plans of exclusion zones (EZs) for each of the marine mammals that are potentially in the area and are specific to the species and/or faunal groups. This attention to understanding that each marine mammal in the area need different actions is very good. I think that the mitigation efforts of having procedures in place if marine mammal enters their assigned EZ, then the construction has to be shut down and wait for a specified amount of time for the animal to move through the area and then make sure they are clear before starting up construction again. This accounts for the noise pollution from the construction still affecting the marine mammal when it is swimming through the wind farm area. I think having that in place is a well thought out mitigation effort.
The other zones added include the monitoring and buffer zones with the zone of influence (ZOI) as well. I like that these were operationally defined for the purposes of the wind farm. My law class always look for definitions within laws, permits, or applications because they are very important to the understanding of the law’s purpose and clarity to the organizations.

I am assuming that the company intends to have the EZs around the single monopile operating that day, due to only one monopile permitted to operate in one day, and then move the EZ to the next operating monopile. That would be the best move in my opinion instead of establishing one large EZ and then not accounting for the different positions of the individual wind turbine being built.

I also like that the requirement for the Protected Species Observer are that they can be only employed if they are qualified, trained and are independent from the Orsted company and that they must record the information about the incident with the specified points. In my opinion, this lessens the risk of the mandatory reports of harassment, injury, or death of a marine mammal being biased or not reported at all.

Within the Discovery of Sound in the Sea (DOSITS) website¹, it was brought up that marine mammals, Harbor Porpoise specially as the example, were significantly more frequent in the wind farm area due to the increased food availability and the shelter effect because no fishing or vessels are permitted in the wind farms. This was acknowledged on page 68-69 of the IHA Application with artificial reef effect and altering prey distribution during the life of the wind farm also with the Harbor Porpoise with the conclusion that it is, “minimal long-term but

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potentially beneficial change in the marine mammal habitat use (pg. 69)”, but this was not addressed in relation to the North Atlantic Right Whale (*Eubalaena glacialis*) or any other marine mammal that are listed in the “Affected Species Status and Distribution” section of the application. DOSITS did say that the Harbor Porpoise detect very little overlap with the underwater sounds produced by the wind turbines, but with the reef effect and the shelter effect as a possibility, the conversation around how the Right Whales might react to these two effects would be important and beneficial in the long-term. DOSITS brought up the good point of understanding that, “results highlight the need to treat offshore wind farms studies independently, and not extrapolate results from one area to the next”, so I cannot suggest to research what happened for the marine mammals in different locations and apply them to the proposed windfarm, but the understanding of what happened in other areas with wind farms, as they are a growing popular source of energy, is an important tool for mitigation and prevention if there is a way.

These two effects should also be modeled for how the changing of prey distribution would play out due to the marine mammals needing to venture closer to the wind farms to hunt the prey. Any harm that could happen due to the marine mammals hitting the wind turbines during feeding/hunting I would consider harassment or harm connected to the project as a whole.

The application includes many data points from research, but overall some research that is very important to the mitigation procedures and marine mammal understanding should be updated. The Right whale sightings should have research at least from 2015-2022 because they are the animal that is highly endangered. Also, the Humpback Whale sightings in the region should be updated past 2002. Overall, anything pertaining to the marine mammal environment, feeding, or other ecological points should be at least 2015 in my opinion.
The wind farm’s location off the coast of New Jersey should be considered for shipping lanes for major companies, especially because it is very close to Cape Cod, Massachusetts. The consideration for the Gulf Stream current off the coast of the U.S was also not considered in the application, and this is a current that a lot of other species use to travel up the East coast.

Overall, with as much expertise I have on looking into marine details, I think the Orsted company considered a very intricate mitigation and construction plan that with the above suggestions or other considerations from other comments, would be sufficient for the Marine Mammal Protection Act. Thank you for your time and effort while reading this letter. Thank you for opening the comments up to the public for opinions of all expertise for the goal of considering everyone when it comes to decisions that impact our Earth.

Kind regards,

Haley Arnold-Fuchs
University of New England
Marine Biology Major, Animal Behavior Minor