

July 21, 2017

Via e-mail to Jolie Harrison at [ITP.Laws@noaa.gov](mailto:ITP.Laws@noaa.gov)

Jolie Harrison  
Chief, Permits and Conservation Division  
Office of Protected Resources  
National Marine Fisheries Service  
1315 East-West Highway  
Silver Spring, MD 20910  
E-mail: [jolie.harrison@noaa.gov](mailto:jolie.harrison@noaa.gov)

**Re: Takes of Marine Mammals Incidental to Specified Activities; Taking Marine Mammals Incidental to Geophysical Surveys in the Atlantic Ocean; RIN 0648-XE283; 82 Fed. Reg. 26,244 (June 6, 2017); 82 Fed. Reg. 31048 (July 5, 2017).**

Dear Ms. Harrison:

We ardently oppose offshore oil and gas drilling as well as geological and geophysical (“G&G”) survey technologies,<sup>1</sup> including seismic airgun surveys, which have been proposed for use by five G&G companies to conduct oil and gas exploration in the Atlantic.<sup>2</sup> Over 125 municipalities along the East Coast and nearly 1,200 elected officials, as well as an alliance representing 41,000 businesses and 500,000 fishing families have publicly opposed seismic airgun surveys and/or offshore drilling, citing threats to marine life, commercial fisheries and coastal economies.<sup>3</sup> For

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<sup>1</sup> For purposes of this comment letter, “G&G survey technologies” includes all technologies (used in the past, currently or in the future), including multibeam echo sounders and seismic airguns, that use sound to explore for oil and gas.

<sup>2</sup> While we appreciate the opportunity to comment on the five proposed IHAs (860 pages), the Bureau of Ocean Energy Management (“BOEM”) 2014 Programmatic Environmental Impact Statement (“PEIS”) (2,158 pages), and the Federal Register notice itself (91 pages) and numerous referenced sources, the 30-day comment period, extended by a mere 15 days, is entirely too short to allow the public sufficient time to review over 3,500 pages of technical materials and comment in a meaningful manner on five proposed IHAs all at the same time. In accordance with regulations, the Fisheries Service should be providing a separate 30-day comment period for each of the proposed IHAs. 50 C.F.R. § 216.104(b)(2). We urge the Fisheries Service to further extend the comment period to allow for five consecutive 30-day comment periods (one for each proposed IHA) or, at minimum, by an additional 45 days to allow the public reasonable time to comment. In addition, we urge the Fisheries Service to provide public hearings in coastal communities where the proposed seismic surveys are to occur from Delaware to Florida to learn the public’s views on this matter.

<sup>3</sup> Oceana, *Grassroots Opposition to Atlantic Drilling and Seismic Airgun Blasting*, <http://usa.oceana.org/climate-and-energy/grassroots-opposition-offshore-drilling-and-exploration-atlantic-ocean-and> (last visited July 20, 2017); see also Letter from the New England Fishery Management Council to Secretary Zinke, cc’ing Assistant Administrator for NOAA Fisheries, Chris Oliver; Director of NOAA Office of Protected Resources, Donna Wieting; Director of NOAA Office of Habitat Conservation, Patricia Montanio (June 29, 2017), [http://usa.oceana.org/sites/default/files/662/nefmc\\_letter\\_2017-06-29.pdf](http://usa.oceana.org/sites/default/files/662/nefmc_letter_2017-06-29.pdf); Letter from the Mid-Atlantic Fishery Management Council to Secretary Zinke, cc’ing NOAA Acting Administrator for Fisheries Sam Rauch (April 25, 2017), [http://usa.oceana.org/sites/default/files/662/mafmc\\_letter\\_2017-04-25.pdf](http://usa.oceana.org/sites/default/files/662/mafmc_letter_2017-04-25.pdf); Letter from the South Atlantic Fishery Management Council to Secretary Zinke, cc’ing NOAA Acting Administrator for Fisheries Sam Rauch (April 25, 2017), [http://usa.oceana.org/sites/default/files/662/safmc\\_letter\\_2017-04-25.pdf](http://usa.oceana.org/sites/default/files/662/safmc_letter_2017-04-25.pdf); Letter from 103 Congressional Representatives to Secretary Ryan Zinke (June 28, 2017), [http://usa.oceana.org/sites/default/files/662/final\\_signed\\_-\\_zinke\\_-\\_atlantic\\_seismic\\_testing\\_-\\_june\\_28\\_2017.pdf](http://usa.oceana.org/sites/default/files/662/final_signed_-_zinke_-_atlantic_seismic_testing_-_june_28_2017.pdf)

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the reasons elaborated below, we urge the National Marine Fisheries Service (“Fisheries Service” or “agency”) to deny all five proposed incidental harassment authorizations (“IHAs”).

### *Marine Mammal Protection Act (“MMPA”) Violations*

Under the MMPA, the Fisheries Service must deny the IHA applications if they do not meet either of the required statutory elements of “small numbers” or “negligible impact.” And, a failure of the agency to use and require IHA applicants to uniformly use the “best scientific evidence available” presents additional grounds to deny the five IHA applications.<sup>4</sup>

- Small numbers: When determining the meaning of the “small numbers” requirement, federal courts have *never* found an IHA that requested a percentage of take greater than 12 to be a “small number.”<sup>5</sup> In fact, an IHA “that permits the potential taking of as much as 12 percent of the population of a species is *plainly* against Congress’ intent.”<sup>6</sup> Here, the Fisheries Service’s own proposed take limit of 30 percent of a marine mammal stock abundance estimate is not a “small number” and is “*plainly* against Congress’ intent.”<sup>7</sup> As all IHA applicants have individually exceeded the “small number” threshold of 12 percent in some manner in their take estimates, the Fisheries Service must deny all five proposed IHAs. And, if the five proposed IHA applications are reviewed with a view to cumulative impacts as both logic and law dictate considering the acknowledged fact that “the specified activity, specified geographic region, and proposed dates of activity are substantially similar,”<sup>8</sup> then the Fisheries Service must categorically deny all five proposed IHAs.

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(last visited July 14, 2017); Letter from 103 Congressional Representatives to Secretary Ross (July 20, 2017) (on file with Oceana).

<sup>4</sup> 16 U.S.C. 1371(a)(3)(A) (requiring “best scientific evidence available” to determine “when, to what extent, if at all, and by what means . . . to waive the requirements . . . so as to allow taking, or importing of any marine mammal. . . .”); 50 C.F.R. § 216.102(a) (requiring “best scientific evidence available” when analyzing the taking of small numbers of marine mammals under section 101(a)(5)(A) through (D)); *see also id.* § 216.104(c); § 216.105(c).

<sup>5</sup> *See NRDC, Inc. v. Pritzker*, 828 F.3d 1125, 1132 (9th Cir. 2016) (stating “the Navy may also take, through level B Harassment, up to 12% of the entire stock of every affected marine mammal species every year”) (emphasis added); *NRDC v. Pritzker*, 62 F. Supp. 3d 969, 981 (N.D. Cal. 2014) (“The Navy must conduct operations so that no more than 12% of any marine mammal species or stock will be taken annually by Level B harassment, regardless of the number of vessels operating.”); *NRDC v. Evans*, 232 F. Supp. 2d 1003, 1027 (N.D. Cal. 2002) (“A definition of ‘small number’ that permits the potential taking of as much as 12 percent of the population of a species is plainly against Congress’ intent”); *see also* Takes of Marine Mammals Incidental to Specified Activities; Taking Marine Mammals Incidental to Marine Geophysical Survey in the Atlantic Ocean Off the Eastern Seaboard, August to September 2014 and April to August 2015, 79 Fed. Reg. 52122, 52131 (Sept. 2, 2014) (responding to an environmental organization’s claim that 43% of a population would be taken pursuant to an IHA, violating the “small numbers” requirement of the MMPA, by stating that the number taken would actually be only 6.5% of the U.S. EEZ stock).

<sup>6</sup> *NRDC v. Evans*, 232 F. Supp. 2d 1003, 1027 (N.D. Cal. 2002).

<sup>7</sup> 82 Fed. Reg. 26244, 26295 (June 6, 2017) (stating that “we propose a take authorization limit of 30 percent of a stock abundance estimate” to define “small numbers” and limiting IHA applicant takes to that level); *see also id.* at Table 10 (revising the numbers of potential incidental take proposed for authorization in the IHAs at Table 11 to reach the agency proposed “small number” level of 30% or less, which in several instances means that the agency is allowing the IHA applicants to *increase* take levels). For example, Spectrum’s take levels for all marine mammal species but one (the blue whale) were *increased* by the Fisheries Service.

<sup>8</sup> 82 Fed. Reg. 26,244, 26,245 (June 6, 2017).

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- Negligible impact: The Fisheries Service’s “subjective and relative” decision matrix in the Federal Register notice leads to a flawed negligible impact determination,<sup>9</sup> and one that would even allow takes in excess of the “potential biological removal level” (“PBR”) for the marine mammal species in the proposed survey area.<sup>10</sup> The agency’s approach to negligible impact is illogical and unlawful. Potential biological removal levels are listed in Table 4 of the Federal Register notice and the estimated takes for the five proposed IHAs, which the agency arbitrarily revised, are listed in Table 11.<sup>11</sup> The actual estimated takes requested by the applicants are found in the IHA applications.<sup>12</sup>
  - Humpback whale: By conducting this comparison between Table 4 and Table 11 in the Federal Register, one finds that, with respect to the humpback whale, which has an annual potential biological removal level of only 13 individuals, the serious injury or mortality (Level A) take estimates from Spectrum (16), TGS (22) and CGG (22) clearly exceed 13 individuals when looked at separately. Takes of this magnitude could harm the population growth rate of the species if looked at cumulatively (as they should be).
  - Pantropical spotted dolphin: In its IHA application, CGG requested 37 serious injury or mortality (Level A) takes of the pantropical spotted dolphin.<sup>13</sup> The PBR for this species is 17.<sup>14</sup> As CGG’s take request exceeds the PBR for this species, the Fisheries Service should deny the IHA application for failure to meet the “negligible impact” standard of the MMPA.
  - North Atlantic right whale: The PBR for the endangered and depleted population of 440 individual North Atlantic right whales is one;<sup>15</sup> however, there have been nine mortalities of North Atlantic right whales since April 2017, including two

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<sup>9</sup> 82 Fed. Reg. 26,244, 26,296 (June 6, 2017); *id.* at 26,296-26,308. In the Fisheries Service’s self-described “subjective and relative” decision matrix, a negligible impact rating is allegedly derived by combining “magnitude,” which is composed of measurable factors – amount of take, spatial extent and temporal extent of effect, “consequence”, which is a qualitative, and context, which includes species-specific information related to the status of the stock and mitigation.

<sup>10</sup> 16 U.S.C. § 1362(20). The Fisheries Service must evaluate several factors to determine the “potential biological removal level”: (1) the minimum population estimate of the stock; (2) one-half the maximum theoretical or estimated net productivity rate of the stock at a small population size; and (3) a recovery factor of between 0.1 and 1.0. *Id.*

<sup>11</sup> Compare 82 Fed. Reg. 26,244, 26,269-70, Table 4 – Marine Mammals Potentially Present in the Vicinity of the Proposed Survey Activities (June 6, 2017) with *id.* at 26,295-96 at Table 11 – Estimated Incidents of Potential Exposure for Level B Harassment. Table 10, represents the estimated incidents of exposure as devised by the Fisheries Service to allow each individual applicant to take up to 30% of a stock abundance estimate (resulting in the take of an absurdly large number of a marine mammal species when looked at from a cumulative perspective. *Id.* at Table 10 – Numbers of Potential Incidental Take Proposed for Authorization.

<sup>12</sup> Spectrum IHA Application at Table 4; TGS IHA Application at Table 6.5, 85; WesternGeco IHA Application at Table 6.5, 83; ION IHA Application at Table 4; CGG IHA Application at Tables 4, 7.

<sup>13</sup> CGG IHA Application at Table 4.

<sup>14</sup> 82 Fed. Reg. 26,244 at Table 4 (June 6, 2017).

<sup>15</sup> 82 Fed. Reg. 26,244 at Table 4 (June 6, 2017) (noting a NMFS stock abundance of 440 for the endangered and depleted North Atlantic right whale and a PBR of one).

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sexually mature females and one yearling that was a female.<sup>16</sup> While the PBR level for North Atlantic right whales was calculated as one when the population was 440, the calculated PBR would be even further reduced as a result of the additional loss of nine individuals since April 2017.<sup>17</sup> Here, the serious injury or mortality (Level A) take estimates for Spectrum (1) and ION (2) exceed the current PBR for the right whale; therefore, their IHA applications should be denied. In addition, take estimates found in each of the five IHA applications request permission to harass North Atlantic right whales 38 times– if they harass 38 different individuals that would amount to harassment of nearly nine percent of the right whale population. See table below. Roughly nine percent is a significant number of takes for such a small population of only 440 individuals, particularly considering that the population is declining in abundance.<sup>18</sup> On this basis alone, the five proposed IHAs would not meet the “negligible impact” standard and should be denied.

### North Atlantic Right Whale Takes

| Requested Takes By Exposures                            |   |              |
|---|---|--------------|
|   | Level A Take  | Level B Take |
| <b>Spectrum</b>   | <b>1</b>  | <b>1</b>     |
| <b>TGS</b>  | <b>0</b>  | <b>12</b>    |
| <b>WesternGeco</b>                                      | <b>0</b>  | <b>6</b>     |
| <b>ION</b>  | <b>2</b>  | <b>14</b>    |
| <b>CGG</b>  | <b>0</b>  | <b>2</b>     |
| <b>-Total Per Take Type-</b>                            | <b>-3-</b>  | <b>-35-</b>  |
| <b>Total</b>  | <b>38</b>   |              |
| <b>Total divided by population<br/>440<sup>19</sup></b> | <b><u>8.63%<sup>20</sup> of the population will be harassed</u></b> |              |

Sources: Spectrum IHA Application at Table 4; TGS IHA Application at Table 6.5, 85; WesternGeco IHA Application at Table 6.5, 83; ION IHA Application at Table 4; CGG IHA Application at Tables 4, 7.

- Best scientific evidence available: Under the MMPA and the Fisheries Service’s implementing regulations, the agency itself must not only use but also must require IHA

<sup>16</sup> Ashifa Kassam, *Seven right whales found dead in ‘devastating’ blow to endangered animal*, THE GUARDIAN (July 8, 2017), <https://www.theguardian.com/environment/2017/jul/08/right-whales-dead-canada-endangered-species>; Elizabeth Fraser, *Snow crab fishery closed after 8<sup>th</sup> right whale found dead in Gulf of St. Lawrence*, CBC NEWS (July 21, 2017), <http://www.cbc.ca/news/canada/new-brunswick/right-whale-dead-gulf-st-lawrence-1.4213660>; NOAA Fisheries, *Updated on Right Whale Found Dead in Cape Cod Bay; Vessels of all sizes need to be cautious* (Apr. 14, 2017), <https://www.greateratlantic.fisheries.noaa.gov/mediacenter/2017/04/Update%20on%20Right%20Whale%20Found%20Dead%20in%20Cape%20Cod%20Bay.html>.

<sup>17</sup> The potential biological removal level for the North Atlantic right whale is likely closer to .86 (440 - 9 x .02 x 1).

<sup>18</sup> Scott D. Kraus, et. al, *Recent Scientific Publications Cast Doubt on North Atlantic Right Whale Future*, 3 FRONTIERS IN MARINE SCIENCE 1, 2 (2016).

<sup>19</sup> 82 Fed. Reg. 26,244 at Table 4 (June 6, 2017) (noting a NMFS stock abundance of 440 for the endangered and depleted North Atlantic right whale and a PBR of one).

<sup>20</sup> 8.63% is derived by dividing total takes of 38 by the population of North Atlantic right whales of 440.

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applicants to uniformly use the “best scientific evidence available.”<sup>21</sup> Here, the IHA applicants do not uniformly rely on best scientific evidence available, such as *CetMap* data, in their IHA applications.<sup>22</sup> *CetMap* is a working group that was organized by NOAA to map cetacean density and distribution in U.S. waters.<sup>23</sup> Rather than relying on outdated and vastly differing take estimates in the five proposed IHAs, overlooking the lack of up-to-date stock assessment data for several marine mammal species and instead choosing the most favorable abundance estimates, the Fisheries Service must deny all five proposed IHAs.<sup>24</sup>

### *National Environmental Policy Act (“NEPA”) Violations*

In the event the Fisheries Service does not deny the proposed IHAs (and it should), to comply with the NEPA, the agency must:

- Review the significant and cumulative impacts of all five IHA applications due to the similar timeframes and locations proposed for G&G surveys; not only is an environmental impact statement (“EIS”) for each IHA required but also a new programmatic EIS for the Atlantic;
- Decline to tier any NEPA analysis related to the proposed IHAs to BOEM’s 2014 Atlantic Final PEIS until a new Atlantic Final PEIS is issued and the flaws are corrected, including:
  - Considering a full range of alternatives, including a preferred alternative for which the mitigation measures will adequately protect the endangered North Atlantic right whale;
  - Incorporating the best available science on acoustic thresholds for marine mammals, *following* review and revisions to the 2016 Acoustic Guidance;<sup>25</sup>

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<sup>21</sup> 16 U.S.C. 1371(a)(3)(A) (requiring “best scientific evidence available” to determine “when, to what extent, if at all, and by what means . . . to waive the requirements . . . so as to allow taking, or importing of any marine mammal . . .”); 50 C.F.R. § 216.102(a) (requiring “best scientific evidence available” when analyzing the taking of small numbers of marine mammals under section 101(a)(5)(A) through (D)); *see also id.* § 216.104(c); § 216.105(c).

<sup>22</sup> NOAA, *What is CetMap?*, <http://cetsound.noaa.gov/cda-index> (last visited July 17, 2017); *see also* Duke University Marine Geospatial Ecology Laboratory, *Habitat-Based Cetacean Density Models For The U.S. Atlantic And Gulf Of Mexico (2015 Version)*, <http://seamap.env.duke.edu/models/Duke-EC-GOM-2015/> (last visited July 17, 2017) (explaining the methodology and use of the *CetMap* model). For example, of the five proposed IHA applications, only TGS and WesternGeco partially use *CetMap* data, along with other methods to determine marine mammal density. Both TGS and WesternGeco use Exposures Modeled Using Line-Transsect Theory and Exposures Modeled as Mean Group Size. TGS IHA Application at Table 6.5; WesternGeco IHA Application at Table 6.5. While these two IHA applications are a step in the right direction, they still do not represent the “best scientific evidence available.”

<sup>23</sup> NOAA, *What is CetMap?*, <http://cetsound.noaa.gov/cda-index> (last visited July 17, 2017).

<sup>24</sup> At a minimum, the Fisheries Service must require uniform data sets from all IHA applicants to avoid the current situation in which it is impossible to compare one IHA applicant’s data to another’s. Uniform data is also extremely important to fully understand the cumulative impacts of all requested takes of marine mammals.

<sup>25</sup> Fisheries Service, *Technical Guidance for Assessing the Effects of Anthropogenic Sound on Marine Mammal Hearing: Underwater Acoustic Thresholds for Onset of Permanent and Temporary Threshold Shifts* (July 2016),

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- Evaluating information on the possible indirect impacts of Level B takes, including the possibility that Level B takes could lead to mass mortality events;
- Ensuring the baseline against which BOEM measured environmental impacts is accurate, including reliance on updated stock assessments and consideration of the unusual mortality event for bottlenose dolphins in the Atlantic as well as the impacts of Hurricane Sandy and the 2010 British Petroleum oil-spill disaster;
- Taking a hard look at environmental impacts of G&G surveys, and in particular, seismic airgun activities, on essential fish habitat;<sup>26</sup>
- Relying on the forthcoming Programmatic BiOp, rather than the outdated 2013 BiOp as was done in the 2014 Atlantic PEIS; and
- Incorporating at least the same breadth of analysis done in the 2016 Gulf Draft PEIS in the new Atlantic Final PEIS, including:
  - Recognition that there is a “risk of entanglement any time gear, particularly lines and cables, is put in the water.”<sup>27</sup> BOEM completely failed to analyze the possibility of entanglements from G&G activities in the 2014 Atlantic Final PEIS;
  - Inclusion of reduced levels of seismic activities,<sup>28</sup> i.e., a reduction in the overall number of seismic airgun surveys;
  - Implementation of much larger area closures to protect marine life;<sup>29</sup>
  - Addition of concrete steps to implement a report similar to the one found in Appendix K of the 2016 Gulf Draft PEIS, which analyzes cumulative effects of G&G surveying on marine mammals;<sup>30</sup> and
  - Analysis of cumulative effects similar to Appendix L of the 2016 Gulf Draft PEIS to avoid duplicative G&G surveys in the same area.<sup>31</sup>

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[http://www.nmfs.noaa.gov/pr/acoustics/Acoustic%20Guidance%20Files/opr-55\\_acoustic\\_guidance\\_tech\\_memo.pdf](http://www.nmfs.noaa.gov/pr/acoustics/Acoustic%20Guidance%20Files/opr-55_acoustic_guidance_tech_memo.pdf) [hereinafter “2016 Acoustic Guidance”].

<sup>26</sup> Oceana Comment Letter re: PEIS for G&G Activities in the Atlantic OCS at 162-170 of .pdf (May 7, 2014), [http://www.nmfs.noaa.gov/pr/permits/incidental/energy/atlg\\_g\\_2015iha\\_pubcomm.pdf](http://www.nmfs.noaa.gov/pr/permits/incidental/energy/atlg_g_2015iha_pubcomm.pdf); Avery Paxton et al., *Seismic survey noise disrupted fish use of a temperate reef*, 78 MARINE POLICY 68, 71 (2017) (stating that, during seismic surveying, reef-fish abundance declined by 78%).

<sup>27</sup> BOEM, Gulf of Mexico OCS Proposed Geological and Geophysical Activities, Draft Programmatic Environmental Impact Statement 4-74 (2016), <https://www.boem.gov/BOEM-EIS-2016-049-v1/> [hereinafter “2016 Gulf Draft PEIS”].

<sup>28</sup> 2016 Gulf Draft PEIS at Chapter 2.

<sup>29</sup> Compare 2016 Gulf Draft PEIS at Table ES-1 with 2014 Atlantic Final PEIS at Table 2-6.

<sup>30</sup> 2016 Gulf Draft PEIS at Appendix K at 485.

<sup>31</sup> 2016 Gulf Draft PEIS at Appendix L at 541.

- Ensure all NEPA documents analyze the effects of climate change.<sup>32</sup>

### ***Endangered Species Act Violations***

We also recommend that, *prior* to making any decisions regarding the proposed IHAs, the Fisheries Service update the 2013 Programmatic BiOp pursuant to Endangered Species Act Section 7(a)(2) to analyze the effect of G&G activities in the Mid- and South Atlantic planning areas.<sup>33</sup> BOEM and the Fisheries Service reinitiated consultations in 2015 to consider, among other changes, an expansion of critical habitat for the North Atlantic right whale.<sup>34</sup> We propose that the following issues be considered in any updated BiOp:

- Final rule designating critical habitat for the Northwest Atlantic distinct population segment (DPS) of loggerhead sea turtles (79 FR 39855);
- Final rule listing the Northwest Atlantic and Gulf of Mexico DPS of scalloped hammerhead shark as endangered (79 FR 38213);
- Proposed rule to expand designated critical habitat for the North Atlantic Right Whale (80 FR 9314);
- Proposed listing of the following species under the ESA: (i) Caribbean electric ray (79 FR 4877); (ii) dwarf seahorse (77 FR 25687); (iii) bigeye thresher shark (80 FR 48061); (iv) common thresher shark (80 FR 11379); (v) porbeagle shark (80 FR 16356); (vi) smooth hammerhead shark (80 FR 48053); (vii) humpback whale (80 FR 22304); (viii) and green sea turtle (80 FR 51763);
- New information available since the issuance of the 2013 Programmatic Biological Opinion.<sup>35</sup>

In addition, the Fisheries Service must closely review and consider the results of any new scientific studies regarding the effects of seismic airgun surveys on endangered species in the Atlantic and/or the ecosystems on which they rely, including a new study showing that seismic airgun surveys negatively impact zooplankton, which form the base of global marine

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<sup>32</sup> Christina Goldfuss, *Memorandum for Heads of Federal Departments and Agencies: Final Guidance for Federal Departments and Agencies on Consideration of Greenhouse Gas Emissions and the Effects of Climate Change in National Environmental Policy Act Reviews* (Aug. 1, 2016) (on file with Oceana).

<sup>33</sup> Fisheries Service, *Biological Opinion for Programmatic Geological and Geophysical Activities in the Mid- and South Atlantic Planning Areas for 2013 to 2020* (July 19, 2013), <http://www.boem.gov/Final-Biological-Opinion-19-July-2013/> [hereinafter “Fisheries Service 2013 Programmatic Biological Opinion”].

<sup>34</sup> NGO Letter to BOEM and Fisheries Service (May 26, 2016), <https://www.nrdc.org/sites/default/files/atlantic-seismic-letter-narw-20160526.pdf> (requesting renewed environmental impact review of proposed G&G activities in the Mid- and South Atlantic and Endangered Species Act review to account for significant new information regarding the status of North Atlantic right whales).

<sup>35</sup> BOEM, *Atlantic G&G Permitting*, <http://www.boem.gov/Atlantic-G-and-G-Permitting/#Section-7> (last visited July 20, 2017).

ecosystems.<sup>36</sup> Before finalizing updates to the BiOp, the Fisheries Service should also consider another recent study about the effect of seismic surveys on marine turtles.<sup>37</sup> Once the new BiOp is released, BOEM should update the 2014 Atlantic PEIS and address all deficiencies noted above. The update of the 2014 Atlantic PEIS must happen *before* the Fisheries Service can consider tiering its NEPA analysis for the IHA applications.

### ***Recommended Mitigation Measures***

Finally, in the event the Fisheries Service does not deny the IHA applications (and the agency absolutely should deny them), we believe the proposed mitigation measures are entirely inadequate. We urge that the agency to improve the proposed mitigation measures<sup>38</sup> as follows:

- Permit only one seismic survey covering the proposed survey area;
- Make the seismic survey data available to industry, government (federal, tribal, state and local), and the public so that all stakeholders can make an informed cost-benefit analysis and decide whether offshore drilling should be allowed off the Atlantic coast;
- Hire visual and passive acoustic observers via an independent third-party observer provider and require scientifically-founded and standardized training and performance;
- Require at least three visual protected species observers per watch on a survey vessel to maximize the probability of sighting all marine mammals in the seismic survey area and to fully meet scientifically-based data collection requirements;
- Require at least three passive acoustic monitoring protected species observers per watch on a survey vessel to maximize the probability of acoustically detecting all marine mammals in the survey area via properly deployed and operated acoustic recording equipment that fully meets scientifically-based data collection requirements;
- Ensure visual monitoring and passive acoustic monitoring are always occurring simultaneously;
- Stop all seismic survey activities when visual protected species observers cannot detect marine mammals in the survey area, including at night and under any other conditions with poor visibility;
- Formulate federal standards for passive acoustic monitoring and software that ensures quality recording and detection of marine mammals;

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<sup>36</sup> Robert McCauley et al., *Widely used marine seismic survey air gun operations negatively impact zooplankton*, NATURE ECOLOGY & EVOLUTION (June 22, 2017) (stating that “all larval krill were killed after air gun passage”).

<sup>37</sup> Sarah Nelms et al., *Seismic surveys and marine turtles: An underestimated global threat?*, 193 BIOLOGICAL CONSERVATION 49-65 (2016).

<sup>38</sup> 82 Fed. Reg. 26,244, 26,250-67 (June 6, 2017).



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- Require exclusion and buffer zones that are much larger than the 500 meter exclusion zone and 1000 meter buffer zone currently proposed, ideally based on the updated version of the Fisheries Service's 2016 Acoustic Guidance, which currently recommends a distance of at least 1,585 meters to protect all hearing levels among marine mammal species;
- Implement a 60-minute shutdown following observation of a marine mammal in the survey area;
- Expand time-area closures to adequately account for presence of marine mammals over the course of a year, including calving and migration patterns;
- Reconsider ramp-up procedures considering recent studies that show that these procedures may displace marine mammals, potentially causing harm by interrupting foraging, causing stress, which can adversely affect reproduction and survival, or even push animals into areas where the risk of being caught as bycatch increases;<sup>39</sup>
- Provide transparency by sharing AIS data, all seismic survey activities, and data recorded by visual and passive acoustic monitoring protected species observers with the public daily and live stream data as often as possible as well as archive the passive acoustic monitoring feed; and
- Conduct independent third-party acoustic monitoring, funded by seismic survey applicants, before, during and after the surveys to collect data on the impacts of these activities on marine life.

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In conclusion, the Fisheries Service must deny the proposed IHAs. Otherwise, the Fisheries Service will be in violation of the MMPA's requirement to use "the best available science" as well as the statutory requirements that all takes be a "small number" and have a "negligible impact" on marine mammals. In the event the Fisheries Service does not deny the IHA applications (and it should), we urge the agency to fully comply with NEPA and the ESA as well as to implement our recommended mitigation measures in the manner described above. We appreciate the opportunity to provide our recommendations and thank you for your time. We will continue to be engaged in this process.

Sincerely,  
Nancy Pyne  
Acting Campaign Director, Climate and Energy  
Oceana  
1350 Connecticut Ave., NW, 5<sup>th</sup> Floor  
Washington, DC 20036  
Phone: 202-833-3900  
Email: [npyne@oceana.org](mailto:npyne@oceana.org)

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<sup>39</sup> Karin Forney et al., *Nowhere to go: noise impact assessments for marine mammal populations with high site fidelity*, 32 ENDANG. SPECIES RES. 391-413 (May 8, 2017).

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Beth Allgood

US Country Director, International Fund for Animal Welfare

1350 Connecticut Ave. NW, Suite 1220

Washington, DC 20036

Phone: 202-536-1919

Email: [ecallgood@ifaw.org](mailto:ecallgood@ifaw.org)

Dr. Thomas Armbruster

President, SandyHook SeaLife Foundation

Medford, NJ 08055

Phone: 609-953-2677

Email: [shslfoundation@aol.com](mailto:shslfoundation@aol.com)

Neil Armingeon

Riverkeeper, Matanzas Riverkeeper

St. Augustine, FL 32080

Email: [neil@matanzasriverkeeper.org](mailto:neil@matanzasriverkeeper.org)

Regina Asmutis-Silvia

Executive Director, Whale and Dolphin Conservation

7 Nelson Street

Plymouth, MA 02360

Phone: 508-746-2522

Email: [regina.asmutis-silvia@whales.org](mailto:regina.asmutis-silvia@whales.org)

Larry Baldwin

Waterkeeper, Crystal Coast Waterkeeper

700 Arendell Street, Suite #2

Morehead City, NC 28557

Phone: 252-670-1413

Email: [larryb@crystalcoastwaterkeeper.org](mailto:larryb@crystalcoastwaterkeeper.org)

Larry Baldwin

Executive Director, Coastal Carolina Riverwatch

1406 Neuse Boulevard

New Bern, NC 28560

Phone: 252-670-1413

Email: [larryb@crystalcoastwaterkeeper.org](mailto:larryb@crystalcoastwaterkeeper.org)

## **Taking Marine Mammals Incidental to Geophysical Surveys in the Atlantic Ocean**

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Page 11 of 24

Larry Baldwin  
Interim Executive Director,  
White Oak-New Riverkeeper Alliance  
118 Woodbrook Drive  
Midway Park, NC 28544  
Phone: 252-670-1413  
Email: [larryb@crystalcoastwaterkeeper.org](mailto:larryb@crystalcoastwaterkeeper.org)

Kemp Burdette  
Cape Fear Riverkeeper, Cape Fear River Watch  
617 Surrey Street  
Wilmington, NC 28401  
Phone: 910-264-8036  
Email: [kemp@cfrw.us](mailto:kemp@cfrw.us)

Chris Carnevale  
Coastal Climate & Energy Manager,  
Southern Alliance for Clean Energy  
P.O. Box 13673  
Charleston, SC 29422  
Phone: 843-973-2637  
Email: [chris@cleanenergy.org](mailto:chris@cleanenergy.org)

Carrie Clark  
Executive Director, North Carolina League  
of Conservation Voters  
112 S Blount St # 103,  
Raleigh, NC 27601  
Phone: 919-839-0006  
Email: [carrie@nclcv.org](mailto:carrie@nclcv.org)

Candace Crespi  
Campaign Director, Ocean Preservation Society  
336 Bon Air Center #384  
Greenbrae, CA 94904  
Phone: 303-444-2454  
Email: [candace@opsociety.org](mailto:candace@opsociety.org)

Robert DeLuca  
President, Group for the East End  
54895 NY-25  
Southold, NY 11971  
Phone: 631-765-6450  
Email: [bdeluca@eastendenvironment.org](mailto:bdeluca@eastendenvironment.org)

## **Taking Marine Mammals Incidental to Geophysical Surveys in the Atlantic Ocean**

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Page 12 of 24

Leah Donahey  
Senior Campaign Director, Alaska Wilderness League  
122 C St NW, Ste 240  
Washington, DC 20001  
Phone: 202-266-0421  
Email: [leah@alaskawild.org](mailto:leah@alaskawild.org)

Laura Early  
Executive Director, Satilla Riverkeeper  
PO Box 697  
Woodbine, GA 31569  
Phone: 912-510-9500  
Email: [riverkeeper@satillariverkeeper.org](mailto:riverkeeper@satillariverkeeper.org)

Mindy Egan and David Egan  
Co-Directors, The Initiative to Protect Jekyll Island  
308 Old Plantation Rd.  
Jekyll Island, GA 31527  
Phone: 912-577-4655  
Email: [degan1@bellsouth.net](mailto:degan1@bellsouth.net)

Sasha Eisenstein  
Government Relations Manager, Audubon New York  
2 Third Street, Suite 480  
Troy, New York 12180  
Phone: 518-869-9731  
Email: [seisenstein@audubon.org](mailto:seisenstein@audubon.org)

Adrienne Esposito  
Executive Director, Citizens Campaign for the Environment  
225-A Main Street  
Farmingdale, NY 11735  
Phone: 516-390-7150  
Email: [Aesposito@citizenscampaign.org](mailto:Aesposito@citizenscampaign.org)

Daniel Estrin, Esq.  
General Counsel & Advocacy Director, Waterkeeper Alliance  
180 Maiden Lane, Suite 603  
New York, NY 10038  
Phone: 845-705-5229  
Email: [LLiebmann@waterkeeper.org](mailto:LLiebmann@waterkeeper.org)

## **Taking Marine Mammals Incidental to Geophysical Surveys in the Atlantic Ocean**

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Page 13 of 24

Mark Ferrulo

Executive Director, Progress Florida

1010 Central Ave. #209

St. Petersburg, FL 33705

Phone: 727-289-2612

Email: [mark@progressflorida.org](mailto:mark@progressflorida.org)

Karen Forget

Executive Director, Lynnhaven River NOW

1608 Pleasure House Road, Suite 108

Virginia Beach, VA 23455

Phone: 757-962-5398

Email: [karen@lrnow.org](mailto:karen@lrnow.org)

Jennette Gayer

Director, Environment Georgia

108 E. Ponce De Leon Ave., Suite 210

Decatur, GA 30030

Phone: 404-370-1764

Email: [jennette@environmentgeorgia.org](mailto:jennette@environmentgeorgia.org)

Tim Gestwicki

CEO, North Carolina Wildlife Federation

1346 St. Julien St.

Charlotte, NC 28205

Phone: 704-332-5696

Email: [tim@ncwf.org](mailto:tim@ncwf.org)

Marcia Geyer

Steering Committee, 350 Central Virginia

1008 Peartree Lane

Charlottesville VA 22901

Email: [marciageyer2@gmail.com](mailto:marciageyer2@gmail.com)

Sarah Greenberger

Vice President, Conservation Policy,

National Audubon Society

1200 18th St NW

Washington, DC 20036

Phone: 202-600-7989

Email: [sgreenberger@audubon.org](mailto:sgreenberger@audubon.org)

Bill Hamilton

Chairman, Friends of Matanzas, Inc.

Email: [gwhiii@bellsouth.net](mailto:gwhiii@bellsouth.net)

## **Taking Marine Mammals Incidental to Geophysical Surveys in the Atlantic Ocean**

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Page 14 of 24

Matthew Heim  
Outreach and Communication Coordinator,  
Assateague Coastal Trust  
9842 Main St  
Berlin, MD 21811  
Phone: 410-629-1538  
Email: [staff@actforbays.org](mailto:staff@actforbays.org)

Jen Hilburn  
Executive Director, Altamaha Riverkeeper  
PO Box 4122  
Macon, GA 31208  
Phone: 912-441-3908  
Email: [jen@altamahariverkeeper.org](mailto:jen@altamahariverkeeper.org)

John Hocevar  
Oceans Campaign Director, Greenpeace  
702 H St NW #300  
Washington, DC 20001  
Phone: 202-319-2408  
Email: [john.hocevar@greenpeace.org](mailto:john.hocevar@greenpeace.org)

Elizabeth Hogan  
Campaign Manager for Oceans & Wildlife, World Animal Protection  
Nelson Tower Building, 31st floor  
450 Seventh Avenue  
New York, NY 10123, USA  
Phone: 202-374-7068  
Email: [ElizabethHogan@worldanimalprotection.org](mailto:ElizabethHogan@worldanimalprotection.org)

Peach Hubbard  
President, The Dolphin Project  
PO Box 60753  
Savannah, Georgia 31420  
Phone: 912-657-3927  
Email: [thedolphinproject@gmail.com](mailto:thedolphinproject@gmail.com)

George Jacunski  
President, South Anastasia Communities Association  
Phone: 904-471-0312  
Email: [hork@sprintmail.com](mailto:hork@sprintmail.com)

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Page 15 of 24

David Kaplan  
President, Cetacean Society International  
162 Selden Hill Drive  
West Hartford, CT 06107  
Phone: 860-313-0711  
Email: [davidgkaplan@gmail.com](mailto:davidgkaplan@gmail.com)

Alex Kearns  
Chair, St. Marys EarthKeepers  
902 Ann Street  
St Marys, GA 31558  
Phone: 912-673-6120  
Email: [alexkearns1@msn.com](mailto:alexkearns1@msn.com)

Marcie Kever  
Oceans & Vessels Program Director, Friends of the Earth  
1101 15th Street NW  
Washington, D.C. 20005  
Phone: 202-783-7400  
Email: [MKever@foe.org](mailto:MKever@foe.org)

Alice Keyes  
Vice President of Coastal Conservation, One Hundred Miles  
1312 Newcastle Street  
Brunswick, GA 31520  
Phone: 912-230-6494  
Email: [alice@onehundredmiles.org](mailto:alice@onehundredmiles.org)

Frank Knapp  
President, Business Alliance for Protecting the Atlantic Coast  
1717 Gervais Street  
Columbia, SC 29201  
Phone: 803-497-3204  
Email: [fknappprotectingtheatlanticcoast.org](mailto:fknappprotectingtheatlanticcoast.org)

David Kyler  
Executive Director, Center for a Sustainable Coast  
221 Mallory Street, Suite B  
Saint Simons Island, Georgia 31522  
Phone: 912-506-5088  
Email: [susdev@gate.net](mailto:susdev@gate.net)

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Michele Langa  
Staff Attorney, NY/NJ Baykeeper  
52 W. Front Street  
Keyport, NJ 07735  
Phone: 732-888-9870  
Email: [michele@nynjbaykeeper.org](mailto:michele@nynjbaykeeper.org)

Scott Leonard  
Director of Operations, Nantucket Marine Mammal  
Conservation Program  
P.O. Box 332  
Nantucket, MA 02554  
Phone: 508-400-7293  
Email: [nantucketmarinemammals@gmail.com](mailto:nantucketmarinemammals@gmail.com)

Nick Lund  
Sr. Manager Landscape Conservation, National Parks  
Conservation Association  
777 6th St NW #700  
Washington, DC 20001  
Phone: 202-454-3319  
Email: [nlund@npca.org](mailto:nlund@npca.org)

Athan Manuel  
Director, Lands Protection Program, Sierra Club  
50 F St NW  
Washington, DC 20016  
Phone: 202-548-6595  
Email: [athan.manuel@sierraclub.org](mailto:athan.manuel@sierraclub.org)

Harrison Marks  
Executive Director, Sound Rivers, Inc.  
P.O. Box 15451  
New Bern, NC 28561  
Phone: 252-946-7211  
Email: [harrison@soundrivers.org](mailto:harrison@soundrivers.org)

Hunter Miller  
Environmental Youth Council  
Phone: 863-528-6011  
Email: [whuntermiller@gmail.com](mailto:whuntermiller@gmail.com)

Kristen Monsell  
Staff Attorney, Center for Biological Diversity  
Phone: 510-844-7100 ext. 337  
Email: [kmonsell@biologicaldiversity.org](mailto:kmonsell@biologicaldiversity.org)



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Alice Morrissey  
Co-Founder, Don't Drill SC Lowcountry  
P.O. Box 683  
Sullivans Island SC 29482  
Phone: 843-442-5778  
Email: [seachoice@aol.com](mailto:seachoice@aol.com)

Laurie Murphy  
Executive Director, Emerald Coastkeeper, Inc.  
P.O. Box 13283  
Pensacola, FL 32591  
Phone: 850-292-5960  
Email: [laurie@emeraldcoastkeeper.org](mailto:laurie@emeraldcoastkeeper.org)

Kathy Phillips  
Executive Director, Assateague Coastkeeper  
PO Box 731  
Berlin, MD 21811  
Phone: 410-269-1538  
Email: [Coastkeeper@ACTforBays.org](mailto:Coastkeeper@ACTforBays.org)

Anne Poole  
President, New Jersey Environmental Lobby  
204 W State St.  
Trenton, NJ 08608  
Phone: 609-458-7058  
Email: [njel@earthlink.net](mailto:njel@earthlink.net)

Mary Rafferty  
Executive Director, Virginia Conservation Network  
409 E Main St #104  
Richmond, VA 23219  
Phone: 804-614-7670  
Email: [mary@vcnva.org](mailto:mary@vcnva.org)

Jennifer Rubiello  
State Director, Environment Florida  
3110 1st Ave N #2k  
St. Petersburg, FL 33713  
Phone: 727-327-3138  
Email: [jennifer@environmentflorida.org](mailto:jennifer@environmentflorida.org)

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Page 18 of 24

Cara Schildtknecht  
Waccamaw Riverkeeper, Winyah Rivers Foundation  
PO Box 261954  
Conway, SC 29526  
Phone: 843-349-4007  
Email: [riverkeeper@winyahrivers.org](mailto:riverkeeper@winyahrivers.org)

Peter Shelley  
Senior Counsel, Conservation Law Foundation  
62 Summer Street  
Boston, MA 02110  
Phone: 617-850-1754  
[pshelley@clf.org](mailto:pshelley@clf.org)

Pete Stauffer  
Environmental Director, Surfrider Foundation  
PO Box 6010  
San Clemente, CA 92674  
Phone: 503-887-0514  
Email: [pstauffer@surfrider.org](mailto:pstauffer@surfrider.org)

Michael Stocker  
Director, Ocean Conservation Research  
P.O. Box 559  
Lagunitas, CA 94938  
Email: [mstocker@OCR.org](mailto:mstocker@OCR.org)

Mike Tidwell  
Executive Director, Chesapeake Climate Action Network  
6930 Carroll Ave, Suite 720  
Takoma Park, MD 20912  
Phone: 240-460-5838  
Email: [MTidwell@chesapeakeclimate.org](mailto:MTidwell@chesapeakeclimate.org)

Mike Town  
Executive Director, Virginia League of Conservation Voters  
100 W Franklin St #102  
Richmond, VA 23220  
Phone: 804-225-1902  
Email: [mtown@valcv.org](mailto:mtown@valcv.org)

## **Taking Marine Mammals Incidental to Geophysical Surveys in the Atlantic Ocean**

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Page 19 of 24

John Tynan  
Executive Director, Conservation Voters of South Carolina  
701 Whaley St # 207  
Columbia, SC 29201  
Phone: 803-799-0716  
Email: [john@cvsc.org](mailto:john@cvsc.org)

Wendy Vaughn  
Conservation and Beautification Committee Chairman,  
Garden Club of Virginia  
12 E Franklin Street  
Richmond, VA 23219  
Phone: 757-617-8321  
Email: [wendyvaughn2@cox.net](mailto:wendyvaughn2@cox.net)

Wendy Vaughn  
Conservation Chairman, The Princess Anne Garden Club  
P.O. Box 1319  
Virginia Beach, VA 23451  
Phone: 757-617-8321  
Email: [wendyvaughn2@cox.net](mailto:wendyvaughn2@cox.net)

Jim Watkins  
Chair, Stop Offshore Drilling in the Atlantic  
P.O. Box 1380  
Pawleys Island, SC 29585  
Phone: 843-527-0078  
Email: [SODA.SC.2017@gmail.com](mailto:SODA.SC.2017@gmail.com)

Sierra Weaver  
Senior Attorney, Southern Environmental Law Center  
122 C St NW  
Washington, DC 20001  
Phone: 919-967-1450  
Email: [sweaver@selcnc.org](mailto:sweaver@selcnc.org)

Richard Webster  
Legal Program Director, Riverkeeper  
20 Secor Road  
Ossining, NY 10562  
Phone: 914-478-4501  
Email: [sdixon@riverkeeper.org](mailto:sdixon@riverkeeper.org)

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Vicki Weeks

Georgia State Coordinator, Dogwood Alliance

129 Biltmore Ave

Asheville, NC 28801

Phone: 912-231-2252

Email: [Vicki@DogwoodAlliance.org](mailto:Vicki@DogwoodAlliance.org)

Leslie Weichsel

President, Ogeechee Audubon Society

PO Box 13424

Savannah, Georgia 31416

Email: [leslieweichsel@gmail.com](mailto:leslieweichsel@gmail.com)

Sharon Young

Marine Issues Field Director, The Humane Society of the United States

1255 23rd St NW

Washington, DC 20037

Phone: 508-833-0181

Email: [syoung@humanesociety.org](mailto:syoung@humanesociety.org)

Cindy Zipf

Executive Director, Clean Ocean Action

18 Hartshorne Drive

Highlands, NJ 07732

Phone: 732-872-0111

Email: [zipf@CleanOceanAction.org](mailto:zipf@CleanOceanAction.org)



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THE HUMANE SOCIETY  
OF THE UNITED STATES



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the Earth

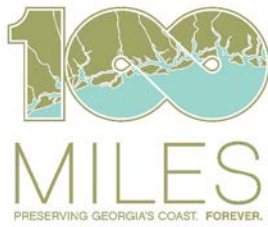




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New Jersey  
Environmental  
Lobby



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Page 24 of 24

CC:

Secretary Wilbur Ross  
U.S. Department of Commerce  
Office of the Secretary  
Herbert C. Hoover Building  
1401 Constitution Ave., NW  
Washington, DC 20230  
E-mail: [docexecsec@doc.gov](mailto:docexecsec@doc.gov)

Chris Oliver  
Assistant Administrator for Fisheries  
National Oceanic and Atmospheric  
Administration  
National Marine Fisheries Service  
1315 East-West Highway  
Silver Spring, MD 20910  
E-mail: [chris.oliver@noaa.gov](mailto:chris.oliver@noaa.gov)

Donna Wieting  
Director  
Office of Protected Resources  
National Marine Fisheries Service  
1315 East-West Highway  
Silver Spring, MD 20910  
Email: [donna.wieting@noaa.gov](mailto:donna.wieting@noaa.gov)

Benjamin Laws  
Office of Protected Resources  
Permits and Conservation Division  
National Marine Fisheries Service  
1315 East-West Highway  
Silver Spring, MD 20910  
Email: [benjamin.laws@noaa.gov](mailto:benjamin.laws@noaa.gov)

Secretary Ryan Zinke  
U.S. Department of the Interior  
1849 C Street NW.  
Washington, DC 20240  
Email: [oiea@ios.doi.gov](mailto:oiea@ios.doi.gov)

Walter Cruickshank  
Director, Bureau of Ocean Energy  
Management  
U.S. Department of the Interior  
1849 C Street, NW  
Washington, D.C. 20240  
E-mail: [walter.cruickshank@boem.gov](mailto:walter.cruickshank@boem.gov)

Mike Celata  
Regional Director, Gulf of Mexico OCS  
Region & Atlantic OCS Region  
Bureau of Ocean Energy Management  
1201 Elmwood Park Blvd  
New Orleans, LA 70123-2394  
Email: [Michael.Celata@boem.gov](mailto:Michael.Celata@boem.gov)