

April 28, 2016

Abigail Ross Hopper
Director
Bureau of Ocean Energy Management
U.S. Department of the Interior
1849 C Street, NW
Washington, DC 20240

**Re: Denial of Pending Applications for Geological and Geophysical Mineral Resource
Exploration Permits in the Atlantic**

Dear Ms. Hopper:

Oceana and the undersigned organizations urge the Bureau of Ocean Energy Management to deny pending permit applications for geological and geophysical exploration for mineral resources on the outer continental shelf. These exploration permits would allow seismic airgun blasting in the Atlantic that would cause large-scale harm to the environment, including to the critically endangered right whale.

The Outer Continental Shelf Lands Act¹ requires the Bureau to deny an exploration permit when the permit would “be unduly harmful to aquatic life.”² The proposed seismic airgun blasting would cause extensive harm, yet because the Bureau withdrew the Atlantic from the upcoming five-year program, there is time to better understand the risk of harm and better mitigate the harm. Accordingly, granting the exploration permits now would cause undue harm and the Bureau must deny these permits.

Specifically, the Bureau should deny the pending applications for the following reasons:

- New technology that is almost ready for commercial use may reduce the impacts of seismic exploration;
- Changed circumstances which prompted the Bureau to revisit its Endangered Species Act review, such as the designation of critical habitat for loggerhead sea turtles and right whales,

¹ 43 U.S.C. § 1331 et seq.

² *Id.* at § 1340(a)(1), (g)(3); 30 C.F.R. §§ 551.2(b) (stating exploration must take place in a manner that is “safe and environmentally sound . . . so as to prevent harm or damage to . . . any life (including fish and aquatic life), property, or the marine, coastal, or human environment”), 551.6(a)(2) (“ While conducting G&G exploration . . . under BOEM permit or Notice: You must not: . . . Cause harm or damage to life (including fish and other aquatic life), property, or to the marine, coastal, or human environment.”).

should be fully analyzed in an Environmental Impact Statement to help the Bureau and the public better understand the risks and impacts of seismic exploration; and

- The Bureau should use new information, resulting from revised acoustic guidelines under development by the National Marine Fisheries Service, to assess the harm from seismic to marine mammals.

In light of the new information and changed circumstances, the undersigned urge the Bureau to deny the pending exploration permit applications.

I. NEW TECHNOLOGY THAT IS ALMOST READY FOR COMMERCIAL USE MAY REDUCE THE IMPACTS OF SEISMIC EXPLORATION

The Bureau should not risk damaging the marine environment with dangerous seismic airgun blasting when the Atlantic areas have been withdrawn from the five-year oil and gas leasing program for 2017-2022. New technology under development could substantially reduce the environmental impacts of seismic exploration.

As Oceana and other organizations have argued in prior letters, seismic exploration airgun blasts are harmful. They may involve blasting compressed air roughly every 12 seconds, twenty-four hours a day, seven days a week, for weeks and months on end.³ The seismic airgun's inventor explained the sound caused by seismic airguns, which is akin to a shotgun blast, is needlessly harmful to the marine environment.⁴ Consider the effects on just one species, the critically endangered North Atlantic right whale, which currently has only about 100-150 breeding-age females.⁵ The death of even one right whale will harm the entire population, yet the government's own analysis shows that exploration-related shipping would inevitably result in at least one ship strike, as well as additional harm from entanglements.⁶ Even using the Bureau's estimate, which we believe underestimates risk, the seismic noise alone could cause *up to nine* injuries to this tiny population.⁷ Seismic exploration would also adversely affect threatened and endangered sea turtle species that move through the area included in and adjacent to the exploration area.⁸

³ Claire Douglass, Campaign Dir.: Climate and Energy, Oceana, et al. Comment Letter to Abigail Ross Hopper, Dir., Bureau of Ocean Energy Management (BOEM), Re: Atlantic Geological and Geophysical Permit Applications for Oil and Gas Development 17 (April 29, 2015) (hereinafter Douglass, *Comment Letter Re Atlantic G&G Permit Applications*).

⁴ Neel Keller, *Could New Technology Make Seismic Testing Safer*, Outer Banks Sentinel (Mar. 29, 2016), http://www.obsentinel.com/news/could-new-technology-make-seismic-testing-safer/article_433a122e-f5c9-11e5-b119-1b520f9b596a.html.

⁵ Douglass, *Comment Letter Re Atlantic G&G Permit Application*, at 5.

⁶ *See id.* at 6 & n.25 (noting the frequency of human caused right whale deaths from entanglements and ship strikes); Fisheries Service, *Biological Opinion*, BOEM.gov 158 (July 19, 2013), <http://www.boem.gov/Final-Biological-Opinion-19-July-2013/> (“When the vulnerability of right whales to ship strikes is combined with the density of ship traffic within the distribution of right whales, ship strikes seem almost inevitable.”).

⁷ Douglass, *Comment Letter Re Atlantic G&G Permit Application*, at 6.

⁸ *Id.* at 8–10.

The Bureau should allow time for the development and testing of new technology, such as marine vibroseis. This technology is close to commercial use within the next five years and may reduce harm to marine ecosystems.⁹ The Bureau's own report on quieting technologies for seismic surveying states that marine vibroseis "ha[s] the potential to reduce auditory and perhaps disturbance effects relative to airgun surveys," including on marine mammals, and otherwise could result in less detrimental environmental impacts.¹⁰

Marine vibroseis is not the only technology under development, and the Bureau should review all applicable options before moving forward. According to the Bureau, other technological developments in the near future that could reduce harmful noise besides marine vibroseis include low-frequency acoustic source, deep-towed acoustics geophysical systems, low-impact seismic acoustic source, and underwater tunable organ-pipes.¹¹ This list does not include changes specific to current seismic surveying, such as bubble curtains, parabolic reflectors, airgun silencing, and other modifications to seismic airguns, that could reduce sound.¹² Any or all of these technologies could reduce harm and are worth studying. We urge the Bureau to allow researchers and policymakers to take time to develop and analyze these new exploration technologies that could reduce energy and mineral resource exploration related-harm to the environment.

II. CHANGED CIRCUMSTANCES WHICH PROMPTED THE BUREAU TO REVISIT ITS ENDANGERED SPECIES ACT REVIEW SHOULD BE FULLY ANALYZED IN AN ENVIRONMENTAL IMPACT STATEMENT TO HELP THE BUREAU AND THE PUBLIC BETTER UNDERSTAND THE RISKS AND IMPACTS OF SEISMIC EXPLORATION

The Bureau, assisted by the Fisheries Service, published a Final Programmatic Environmental Impact Statement ("PEIS") to analyze the impact of the proposed seismic exploration on March 7, 2014.¹³ As we explained in our comments, the PEIS is fundamentally flawed – accordingly, the Bureau must withdraw it and start over from scratch.¹⁴ Even if the Bureau would like to salvage its deficient analysis, it must supplement the PEIS to account for changed circumstances and significant new information before it moves forward with any exploration permits. An agency must supplement its analysis if "[t]here are significant new circumstances or information relevant to environmental concerns and

⁹ BOEM, *Quieting Technologies for Reducing Seismic Surveying and Pile Driving Workshop: Summary Report 1*, 18, A4, A7 (Mar. 2014), www.data.boem.gov/PI/PDFImages/ESPIS/5/5377.pdf.

¹⁰ *Id.* at 18.

¹¹ *Id.* at 6.

¹² *Id.* at 16.

¹³ BOEM, *Atlantic Geological and Geophysical (G&G) Activities Programmatic Environmental Impact Statement (PEIS)*, BOEM.gov, <http://www.boem.gov/Atlantic-G-G-PEIS/> (last visited Mar. 28, 2016).

¹⁴ Eric A. Bilsky, Assistant General Counsel, Oceana, et al., Comment Letter to Gary Goeke, Chief, Envir. Assessment Section, BOEM, Re: Final Programmatic Environmental Impact Statement for Geological and Geophysical Activities in the Outer Continental Shelf Waters of the Atlantic Coast in Support of Oil and Gas Exploration and Development, 79 Fed. Reg. 13,074 (March 7, 2014), ID# BOEM-2014-0028-000 (May 7, 2014) (hereinafter Bilsky, *Comment Letter to Goeke*).

bearing on the proposed action or its impacts.”¹⁵ A number of new studies, outlined in prior letters to the Bureau¹⁶ and in a prior letter from scientists,¹⁷ have raised a host of issues. In addition, the Bureau’s withdrawal of Atlantic areas from the upcoming five-year plan constitutes an additional changed circumstance that requires reevaluation and more thorough consideration of the “no action” alternative in light of the most current scientific information.

Recently, the Bureau, along with the Bureau of Safety and Environmental Enforcement (“BSEE”), recognized that it needed to reinitiate consultation on the proposed exploration permits under the Endangered Species Act in light of the following:

- The final rule on the critical habitat for the Northwest Atlantic population segment of loggerhead sea turtles;
- The final rule listing the Northwest Atlantic and Gulf of Mexico DPS of scalloped hammerhead shark as endangered;
- The final rule to expand designated critical habitat for the North Atlantic right whale;
- Proposed listing of the following species under the ESA: (i) Caribbean electric ray; (ii) dwarf seahorse; (iii) bigeye thresher shark; (iv) common thresher shark; (v) porbeagle shark; (vi) smooth hammerhead shark; (vii) humpback whale; (viii) and green sea turtle; and
- *New information* available since the issuance of the existing biological opinion.¹⁸

Just as the Bureau did not consider this information in the existing biological opinion, it did not consider it in the existing PEIS. The failure to consider significant new information and changed circumstances violates the National Environmental Policy Act. Twenty-five years ago, the United States Supreme Court emphasized that relevant NEPA regulations “impose a duty on all federal agencies to prepare supplements to either draft or final EIS’s if there are significant new circumstances or information relevant to environmental concerns and bearing on the proposed action or its impacts.”¹⁹ It would be unduly harmful and unlawful under NEPA for the Bureau to approve the exploration permits without first fully analyzing the significant new information and changed circumstances in a new or

¹⁵ 40 C.F.R. § 1502.9(c)(1)(ii).

¹⁶ Bilsky, *Comment Letter to Goeke*; Douglass, *Comment Letter Re Atlantic G&G Permit Applications*; see also Michael Jasny, Director, Marine Mammal Prot., Nat. Res. Def. Council, et al., *Comment Letter to Gary Goeke*, Chief, Envir. Assessment Section, BOEM, Request for Supplemental Impact Review of the Proposed Geological and Geophysical Activities in the Mid-and South Atlantic (Oct. 26, 2015), http://docs.nrdc.org/oceans/files/oce_15102601a.pdf (requesting supplementation of environmental impact statement for Atlantic G&G based on new scientific information).

¹⁷ Letter from Christopher Clark, Ph.D., Senior Scientist, Bioacoustics Research Program, Cornell University and 74 other Scientists, to President Barack Obama (March 5, 2015), http://docs.nrdc.org/wildlife/files/wil_15030401a.pdf (stating that, contrary to the Interior’s assessment, impacts in the Atlantic will have “significant, long-lasting, and widespread impacts on the reproduction and survival of fish and marine mammal populations in the region, including the critically endangered North Atlantic right whale”).

¹⁸ BOEM, *Atlantic G&G Permitting*, BOEM.gov, <http://www.boem.gov/Atlantic-G-and-G-Permitting/#Section-7> (last visited Apr. 5, 2016) (emphasis added).

¹⁹ *Marsh v. Or. Nat. Res. Council*, 490 U.S. 360, 372 (1989) (internal quotation marks omitted) (quoting 40 C.F.R. § 1509.9(c)).

supplemental PEIS, including the above-cited information. Otherwise, any decision to proceed with exploration permit issuance is arbitrary.

Moreover, the Fisheries Service will conduct the next right whale status review in 2017, which will provide crucial information about this endangered species.²⁰ Given the withdrawal of Atlantic leases from the five-year program, it would be irresponsible to grant exploration permits until after the status review is completed.

III. NEW INFORMATION, RESULTING FROM REVISED ACOUSTIC GUIDELINES UNDER DEVELOPMENT BY THE NATIONAL MARINE FISHERIES SERVICE, SHOULD BE USED TO ASSESS THE HARM FROM SEISMIC EXPLORATION TO MARINE MAMMALS

The Fisheries Service separately prepares technical acoustic guidance for assessing the effects of sound, including seismic airgun blasts, on marine mammals.²¹ The current acoustic guidance dates back to the 1990s and no longer represents the best available science.²² The Fisheries Service is in the process of updating its guidance. Importantly, since the 1990s, a wide number of studies have shown that seismic blasting could lead to disruptions to calving, caring for young, and migrating, including for highly endangered species such as the North Atlantic right whale and other whale species.²³

As Oceana has noted in prior comments on acoustic guidance,²⁴ sound is a fundamental element of the marine environment, used by marine mammals for breeding, feeding, navigating, and avoiding predators. Human-made sound, including sound from seismic airguns, sonar, explosive detonations, and construction activities, can negatively affect marine mammal hearing, which can lead to disturbances in behavior that may cause serious harm.²⁵ Especially given the withdrawal of the Atlantic from the upcoming five-year program, the Bureau should not move forward on exploration permits until the Fisheries Service has fully revised its acoustic guidance, including the effects of sound on marine mammal behavior. Only then will the Bureau (and the Fisheries Service) be able to adequately assess

²⁰ See Rosalind M. Rolland, *Health of North Atlantic Right Whales Eubalaena Glacialis Over Three Decades: From Individual Health to Demographic And Population Health Trends*, 542 Inter-Research Marine Ecological Progress Series 265, 265–82 (2016).

²¹ NMFS, *NOAA's Marine Mammal Acoustic Technical Guidance*, NMFS.NOAA.gov (Mar. 14, 2016), <http://www.nmfs.noaa.gov/pr/acoustics/guidelines.htm>.

²² Claire Douglass, Campaign Dir.: Climate and Energy, Oceana, et al., Comment Letter to Amy R. Scholik-Schlomer, NMFS Protected Resources Acoustic Coordinator, Re: Draft Guidance for Assessing the Effects of Anthropogenic Sound on Marine Mammal Hearing, 80 Fed. Reg. 45,642 (July 31, 2015) (Sept. 9, 2015) (hereinafter Douglass, *Letter to Scholik-Schlomer*).

²³ See, e.g., Douglas P. Nowacek, et al., *Marine Seismic Surveys and Ocean Noise: Time For Coordinated and Prudent Planning*, 13 *Frontiers in Ecology & the Envir.* 378, 378–86 (2015) (discussing the negative impacts of anthropogenic noise on numerous marine species); Susanna B. Blackwell, et al., *Effects of Airgun Sounds on Bowhead Whale Calling Rates: Evidence for Two Behavioral Thresholds*, PlosOne, (June 3, 2015), <http://dx.doi.org/10.6084/m9.figshare.1327692> (studying airgun pulse effects on the behavior on bowhead whales).

²⁴ Douglass, *Letter to Scholik-Schlomer*.

²⁵ *Id.*

and mitigate seismic acoustic harm. It is incumbent upon the Bureau to use on the best scientific information, and not to proceed on information that the scientific community recognizes as outdated.

CONCLUSION

Having already decided to remove the Atlantic from the OCS Oil and Gas Leasing Program for 2017-2022, the Bureau would be violating OCSLA's requirement that exploration for oil and gas not "be unduly harmful to aquatic life" if it approved the pending seismic exploration applications. The Bureau would also violate black letter NEPA regulations if it proceeded without further analysis. Therefore, the Bureau should deny exploration permits in light of new exploration technology that will soon be commercially available, the need to prepare a new PEIS before reviewing the impacts of seismic exploration, and the opportunity to take advantage of revised guidance on acoustic harm instead of the severely outdated and inadequate guidance now available. The Bureau's removal of the Atlantic from the leasing program for 2017-2022 provides an excellent opportunity for the Bureau to refrain from allowing any further impacts to our nation's marine fish and wildlife resources. The Bureau cannot articulate any pressing reason to proceed with seismic exploration at this time. For all these reasons, we urge the Bureau to deny pending exploration permits and thereby prevent seismic airgun blasts that pose an undue and unknown risk of significant harm to aquatic life and the marine environment in the Atlantic.

Sincerely,

Claire Douglass
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Oceana, Inc.

National & International Organizations

Animal Welfare Institute
Center for Biological Diversity
Defenders of Wildlife
EarthJustice
Endangered Species Coalition
Environment America
Environmental Investigation Agency
Friends of the Earth
Greenpeace USA

International Fund for Animal Welfare
Mom's Clean Air Force
League of Conservation Voters
Sierra Club
Surfrider Foundation
The Humane Society of the U.S.
Waterkeeper Alliance
Whale and Dolphin Conservation
Hands Across the Sand

Regional, State & Local Organizations

Altamaha Riverkeeper
Assateague Coastal Trust
Assateague Coastkeeper
BlueVoice.org
Blue Frontier
Center for a Sustainable Coast
Charleston Waterkeeper
Clean Ocean Action
Coastal Carolina Riverwatch
Conservation Voters of South Carolina
Crystal Coast Waterkeeper
Environment Florida
Environment Georgia
Environment New Jersey
Environment North Carolina
Environment Virginia
Environmental Youth Council of St. Augustine
Georgia Conservancy
Lynnhaven River NOW
Matanzas Riverkeeper
Nantucket Marine Mammal Conservation
Program
New Jersey Environmental Lobby

North Carolina Coastal Federation
North Carolina League of Conservation Voters
NY/NJ Baykeeper
Ogeechee Riverkeeper
Ocean Conservation Research
One Hundred Miles
One More Generation
Potomac Riverkeeper Network
ReThink Energy Florida
Sandy Hook Sea Life Foundation
Sierra Club - Florida Chapter
Sierra Club - North Carolina Chapter
Sierra Club - Virginia Chapter
Sound Rivers, Inc.
South Carolina Coastal Conservation League
South Carolina Wildlife Federation
Southern Alliance for Clean Energy
Southern Environmental Law Center
Virginia Eastern Shorekeeper
Virginia League of Conservation Voters
Waterkeepers Chesapeake

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