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Re: Call for Information and Nominations for Western, Central, and Eastern Gulf of Mexico Outer Continental Shelf Oil and Gas Lease Sales for 2024–2029

Dear Ms. Klein and Ms. Duplantis:

On behalf of the undersigned groups, we submit these comments on the Bureau of Ocean Energy Management’s (BOEM) call for information and nominations for the Gulf of Mexico Outer Continental Shelf (OCS) oil and gas lease sales for 2024 to 2029. Our organizations and members urge BOEM to minimize oil and gas leasing in the Gulf of Mexico to safeguard the health and wellbeing of Gulf Coast communities, protect the marine environment and wildlife, and abide by the nation’s climate commitments. Gulf communities in particular have been burdened with immense environmental, health, and social harms from OCS development for decades. Expansive federal OCS leasing is also wholly incompatible with any reasonable attempt to address the climate and biodiversity crises. At this critical time, BOEM has the authority and the opportunity to protect vulnerable communities and the environment by deciding not to move forward with any lease sales for the 2024–2029 period.

However, if BOEM does decide to hold a lease sale, available evidence demonstrates the need for the agency to limit the areas in the Gulf of Mexico that are available for leasing. In particular, available information and best available science demonstrates the need for BOEM to (1) exclude the habitat of the critically endangered Rice’s whale from leasing; (2) expand areas considered to contain topographic features with sensitive biological habitat and exclude these areas from leasing; (3) exclude the entire Flower Garden Banks National Marine Sanctuary (FGBNMS) from leasing; (4) exclude non-energy marine mineral borrowing areas from leasing; (5) conduct suitability analyses and exclude areas unsuitable for oil and gas development from leasing; (6) exclude final and potential Wind Energy Areas (WEAs) from oil and gas leasing;

and (7) exclude areas identified by other agencies as unsuitable areas or conflict areas from leasing.

For any new oil and gas lease issued, available evidence demonstrates that BOEM should impose robust mitigation measures and lease stipulations to protect Gulf communities and the environment. In particular, BOEM should (1) impose mandatory ship-strike prevention measures throughout the Rice’s whale habitat, including a 10-knot speed limit and a nighttime transit prohibition; (2) expand lease stipulation protections for topographic features with sensitive biological habitat; (3) clarify that lessees are not permitted to utilize oil and gas leases for carbon storage; (4) improve methane emissions data and reporting through the incorporation of top-down measurements; (5) collaborate with impacted environmental justice communities and co-develop mitigation measures with these communities; (6) incentivize lessees to enter into community benefit agreements (CBAs) with environmental justice communities; (7) evaluate the agency’s commonly applied post-lease mitigation measures and incorporate them as mandatory lease stipulations where appropriate; (8) require additional safeguards to prevent blowouts and catastrophic oil discharges; and (9) require lessees to decommission idle wells prior to bidding on new leases.

Our comments below discuss in detail the available evidence and information regarding “particular geological, environmental, biological, archaeological, and socioeconomic conditions, potential use conflicts, or other information about conditions that could affect the potential leasing and development of particular areas” that support the actions recommendations above.¹ We urge BOEM to consider this information for lease sale planning for 2024 to 2029.

I. AVAILABLE EVIDENCE DEMONSTRATES THE NECCESSITY TO LIMIT AREAS AVAILABLE FOR LEASING IN THE GULF OF MEXICO.

To protect Gulf communities and the environment from the impacts of oil and gas activities, BOEM should minimize oil and gas leasing in the Gulf of Mexico. As discussed below, new federal OCS leasing will perpetuate the sacrifice of Gulf Coast communities, who already suffer from the devastating impacts of not only offshore oil and gas drilling but also the midstream and downstream oil and gas infrastructure (such as refineries and petrochemical facilities) associated with offshore drilling.² New leasing is also inconsistent with President Biden’s climate commitment to achieve 50 percent emission reductions by 2030, as compared to 2005 levels, and

¹ BOEM, *Call for Information and Nominations for Western, Central, and Eastern Gulf of Mexico Outer Continental Shelf Oil and Gas Lease Sales for 2024–2029*, 88 Fed. Reg. 67,801, 67,803 (Oct. 2, 2023) [hereinafter BOEM Call for Information].

² See Section II.E, *infra*; see also BOEM, *2024–2029 National Outer Continental Shelf Oil and Gas Leasing Proposed Final Program 2-9 to 2-10, 9-8* (Sept. 2023), attached hereto [hereinafter National OCS Program]; BOEM, *2024–2029 National Outer Continental Shelf Oil and Gas Leasing Program, Final Programmatic Environmental Impact Statement, Vol. I*, at 66–67 (Sept. 2023), attached hereto [hereinafter National OCS Program FEIS]. We discuss impacts to Gulf Coast communities in greater detail in our comments on the draft National OCS Program. See Healthy Gulf et al., *Comments on the 2023–2028 National OCS Oil and Gas Leasing Proposed Program and Draft Programmatic Environmental Impact Statement 6–17* (Oct. 6, 2022), attached hereto [hereinafter Healthy Gulf Comments].

a net zero emissions economy by 2050.³ New leasing will further degrade coastal and marine habitats.⁴ Moreover, additional oil and gas leasing in the Gulf of Mexico is unnecessary to meet national energy needs.⁵ Under the Outer Continental Shelf Lands Act (OCSLA) and the 2024–2029 National OCS Oil and Gas Leasing Proposed Final Program (National OCS Program), the Department of Interior (DOI) expressly retains the full discretion at the leasing stage to determine whether to hold any lease sale that was proposed in the National OCS Program.⁶ BOEM should not move forward with any new lease sales from 2024 to 2029.

If BOEM nevertheless decides to hold a lease sale, best available information demonstrates that the agency should limit the areas available for leasing. BOEM’s authority to restrict leasing areas is well-established. Under OCSLA, at the leasing stage, BOEM must determine whether, when, and under what terms a lease sale included in the National OCS Program should be held and the precise acreage to be offered.⁷ Indeed, following the program stage, “[a]dditional study and consideration is required before *each succeeding step* is taken.”⁸ “Congress calls on [DOI] to strike an appropriate balance *at each stage* between local and national environmental, economic, and social needs,” and “[r]igorous substantive requirements accompany each . . . stage.”⁹

The National OCS Program also expressly retains BOEM’s full discretion at the leasing stage to determine how and whether to hold a lease sale. The Program expressly retains BOEM’s ability to re-evaluate national energy needs at the leasing stage.¹⁰ The leasing stage is an “additional decision point[]” where “the Secretary . . . consider[s] new information about U.S. energy needs, progress toward net-zero emissions, or other factors when choosing whether to hold individual lease sales.”¹¹ The Program also notes that there is “considerable uncertainty regarding how the supply and demand for crude oil evolves as the U.S. embarks on achieving net-zero emissions” and suggests that these circumstances warrant re-evaluation of the nation’s energy needs and market developments and revision of lease sale offerings.¹² Moreover, the Program makes clear that BOEM fully retains the discretion “at the lease sale stage to adopt a targeted approach such that the GOM Program Area could be narrowed by removing, among other options, . . . biologically sensitive areas and areas of potential conflict with other uses and users of the marine

³ See, e.g., White House, *FACT SHEET: President Biden Sets 2030 Greenhouse Gas Pollution Reduction Target Aimed at Creating Good-Paying Union Jobs and Securing U.S. Leadership on Clean Energy Technologies* (Apr. 22, 2021), <https://www.whitehouse.gov/briefing-room/statements-releases/2021/04/22/fact-sheet-president-biden-sets-2030-greenhouse-gas-pollution-reduction-target-aimed-at-creating-good-paying-union-jobs-and-securing-u-s-leadership-on-clean-energy-technologies/>, attached hereto.

⁴ See Healthy Gulf Comments, *supra* note 2, at 15–17.

⁵ *Id.* at 27–42.

⁶ See, e.g., 43 U.S.C. § 1344(a) (“The leasing program shall consist of a schedule of *proposed* lease sales”) (emphasis added); *California ex rel. Brown v. Watt*, 712 F.2d 584, 588 (D.C. Cir. 1983); *Ctr. for Biological Diversity v. U.S. Dep’t of Interior*, 563 F.3d 466, 480 (D.C. Cir. 2009); National OCS Program, *supra* note 2, at 3, 1–12.

⁷ See, e.g., 43 U.S.C. §§ 1337(a), 1344(a); 30 C.F.R. §§ 556.301, .302(a)–(c); *Watt*, 712 F.2d at 588; National OCS Program, *supra* note 2, at 3, 1–12.

⁸ *Watt*, 712 F.2d at 588 (emphasis added).

⁹ *Ctr. for Sustainable Econ. v. Jewell*, 779 F.3d 588, 594 (D.C. Cir. 2015) (emphasis added); see, e.g., 43 U.S.C. §§ 1332, 1344(a)(1).

¹⁰ National OCS Program, *supra* note 2, at 1–12 to 1–13, 6–6.

¹¹ *Id.* at 1–12 to 1–13.

¹² *Id.* at 6–5 to 6–6.

environment.”¹³ This approach should “appropriately weigh[] environmental protection, other uses of the ocean and seabed, and other considerations, consistent with the policy of [OCSLA] to . . . consider[] safeguards for the human, marine, and coastal environment.”¹⁴

BOEM has already recognized that consideration of an approach limiting areas for leasing is warranted here.¹⁵ For any lease sale that may occur, best available evidence and information demonstrates that BOEM should (1) exclude the habitat of the critically endangered Rice’s whale from leasing; (2) expand areas considered to contain topographic features with sensitive biological habitat and exclude these areas from leasing; (3) exclude the entire Flower Garden Banks National Marine Sanctuary from leasing; (4) exclude non-energy marine mineral borrowing areas from leasing; (5) conduct suitability analyses and exclude areas unsuitable for oil and gas development from leasing; (6) exclude final and potential Wind Energy Areas from oil and gas leasing; and (7) exclude areas identified by other agencies as unsuitable areas or conflict areas from leasing.¹⁶

A. Best Available Science Demonstrates That the Continued Existence of the Critically Endangered Rice’s Whale Is Incompatible with New Leasing in and Adjacent to the Species’ Habitat.

Residing exclusively in waters off the United States, the Rice’s whale (*Balaenoptera ricei*) is one of the most endangered marine mammal species in existence.¹⁷ Only an estimated 51 whales remain on this planet.¹⁸ The whale is listed as endangered under the Endangered Species Act (ESA) and as “critically endangered”—the most severe rating short of extinction—on the International Union for Conservation of Nature Red List.¹⁹ The National Marine Fisheries Service (NMFS) has concluded that “[r]ecovery of the species depends upon the protection of each remaining whale.”²⁰

¹³ *Id.* at 7.

¹⁴ *Id.*

¹⁵ BOEM Call for Information, *supra* note 1, at 67,802–03.

¹⁶ Insofar as DOI believes it is effectively compelled to hold a lease sale due to the Inflation Reduction Act’s (IRA) linkage of oil and gas leasing and offshore wind leasing, there is no reason for BOEM to offer any more than 60 million acres for leasing. The IRA only provides that, if the DOI were to issue offshore wind leases, then the agency must offer 60 million acres of offshore land for oil and gas leasing within the previous year. IRA § 50265(b)(2), Pub. L. No. 117-169, 136 Stat. 1818 (2022). Our recommendations below do not preclude DOI from meeting this requirement.

¹⁷ National Marine Fisheries Service (NMFS), Rice’s whale, www.fisheries.noaa.gov/species/rices-whale, attached hereto (last visited Oct. 26, 2023).

¹⁸ *Id.*; NMFS, *Proposed Rule: Designation of Critical Habitat for the Rice’s Whale*, 88 Fed. Reg. 47,453, 47,459–60 (July 24, 2023); Melissa S. Soldevilla et al., *Acoustic localization, validation, and characterization of Rice’s whale calls*, 151 J. Acoustical Soc’y Am. 4264, 4264 (2022), <https://doi.org/10.1121/10.0011677>, attached hereto; Lance P. Garrison et al., Nat’l Oceanic and Atmospheric Admin. (NOAA), *Abundance of Marine Mammals in Waters of the U.S. Gulf of Mexico During the Summers of 2017 and 2018*, at 20 Table 7 (2020), <https://repository.library.noaa.gov/view/noaa/26505>, attached hereto.

¹⁹ 50 C.F.R. §§ 17.11(h), 224.101(h) (ESA listing); P. Rosel et al., *Balaenoptera ricei*, Rice’s Whale, in *The IUCN Red List of Threatened Species* (2022) (IUCN listing), <https://www.iucnredlist.org/species/215823373/208496244>, attached hereto.

²⁰ NMFS, Rice’s whale, *supra* note 17.

The Rice's whale is especially vulnerable to even low levels of human-caused mortality.²¹ In particular, oil and gas activities in the Gulf pose a serious threat to the continued survival of the whale.²² Such threats include the curtailment of habitat due to oil and gas development, oil spills and oil spill response, anthropogenic noise associated with oil and gas activities, collisions with oil and gas vessels, and more.²³ The species is especially susceptible to vessel strikes because they spend a considerable amount of time at the water's surface, compared to other endangered whales in the Gulf.²⁴ A study has shown that the Rice's whale occupies the upper 15 meters of the water column at night, within the draft depths of most commercial vessels, which significantly raises the risk of vessel strikes.²⁵ Oil spills pose an existential threat to the species. In 2010, the BP *Deepwater Horizon* oil spill disaster caused up to a 22 percent decline in the Rice's whale population.²⁶

In 2019, NMFS listed the Rice's whale as endangered under the ESA primarily due to the species' small population size, restricted range, and harm from oil and gas activities.²⁷ On March 13, 2020, BOEM, in coordination with NMFS, completed ESA consultation pursuant to 16 U.S.C. § 1536, resulting in a "Biological Opinion on the Federally Regulated Oil and Gas Program Activities in the Gulf of Mexico."²⁸ In the Biological Opinion, NMFS found that the loss of even a single reproductive female would be devastating for the species.²⁹ NMFS concluded that, without mitigation measures, oil and gas activities in the Gulf are likely to jeopardize the continued existence of the Rice's whale.³⁰ As troubling as this finding of jeopardy was, the situation is even more dire than NMFS realized at that time. The Biological Opinion's conclusion was based on the assumption that the Rice's whale exclusively inhabits the northeastern Gulf centered in De Soto Canyon.³¹ But best available science now shows that the

²¹ See, e.g., *Endangered Status of the Gulf of Mexico Bryde's Whale*, 84 Fed. Reg. 15,446, 15,474–76 (Apr. 15, 2019).

²² See, e.g., NMFS, *Biological Opinion on the Federally Regulated Oil and Gas Program Activities in the Gulf of Mexico* 355–363 (March 13, 2020), attached hereto [hereinafter Gulf Program BiOp]; Patricia E. Rosel et al., *Status review of Bryde's whales (Balaenoptera edeni) in the Gulf of Mexico under the Endangered Species Act* 130–32 (2016) (NOAA Tech. Memo. NMFS-SEFSC-692), <https://repository.library.noaa.gov/view/noaa/14180>, attached hereto; 84 Fed. Reg. at 15,474–76; Melissa S. Soldevilla et al., *Rice's whale in the northwestern Gulf of Mexico: call variation and occurrence beyond the known core habitat*, 48 *Endang. Species Res.* 155, 172 (2022), <https://www.fisheries.noaa.gov/resource/peer-reviewed-research/rices-whales-northwestern-gulf-mexico-call-variation-and-occurrence>, attached hereto; Patricia E. Rosel et al., *A new species of baleen whale (Balaenoptera) from the Gulf of Mexico, with a review of its geographic distribution*, 37 *Marine Mammal Sci.* 577, 598–99 (Jan. 2021), <https://repository.library.noaa.gov/view/noaa/47278>, attached hereto; Melissa S. Soldevilla et al., *Spatial distribution and dive behavior of Gulf of Mexico Bryde's whales: Potential risk of vessel strikes and fisheries interactions*, 32 *Endangered Species Res.* 533, 545–546 (2017), <https://repository.library.noaa.gov/view/noaa/16050>, attached hereto.

²³ See, e.g., Gulf Program BiOp, *supra* note 22, at 355–363, 550; Rosel, *A new species of baleen whale*, *supra* note 22, at 36; Rosel, *Status review of Bryde's whales*, *supra* note 22, at 23–32; Soldevilla, *Spatial distribution and dive behavior*, *supra* note 22, at 545–546.

²⁴ Soldevilla, *Spatial distribution and dive behavior*, *supra* note 22, at 540.

²⁵ *Id.*

²⁶ 88 Fed. Reg. at 47,455.

²⁷ 84 Fed. Reg. at 15,466.

²⁸ Gulf Program BiOp, *supra* note 22.

²⁹ *Id.* at 553.

³⁰ *Id.* at 550–554.

³¹ *Id.*

whale persistently inhabits the Western and Central Gulf as well, where the risks to the whale are even more significant.

In 2021, NMFS completed its five-year study of the Rice's whale habitat, titled "Trophic Interactions and Habitat Requirements of Gulf of Mexico Rice's Whales," that was designed to develop "a comprehensive ecological understanding" of the species' habitat use by integrating research along multiple lines.³² Together and individually, these multiple lines of evidence demonstrates that, in addition to occupying the De Soto Canyon, the Rice's whale persistently inhabits the waters off Louisiana and Texas in the western and central Gulf in water depths between 100 and 400 meters (m) isobath.³³ More than 40 percent of the whale's population is believed to be found in the western and central Gulf.³⁴

One component of this five-year study, through the use of passive acoustics, detected Rice's whale vocalizations as frequently as one in every six days sampled at the westernmost survey site (Flower Garden West), with no obvious evidence of seasonality.³⁵ In other words, the vocalizations documented a persistent occurrence of Rice's whales throughout the year in this region. These findings, although significant, are likely to underestimate the frequency of Rice's whale calling in the northwestern Gulf, since background noise from shipping traffic and seismic surveys around the three westernmost survey sites may have reduced the detection distance of calls by 50 percent and the area sampled by 75 percent.³⁶

The shelf-break habitat identified through passive acoustic monitoring of the whales matches the habitat features identified in another component of the five-year study as essential to Rice's whale foraging. Using a trawl, researchers sampled aggregations of prey at particular water depths and locations used by the whale for feeding, and they supplemented these data with staple isotope and energy density analyses, based on skin biopsies, to determine the whale's primary prey.³⁷ They concluded that the Rice's whale is a selective predator, focused on aggregations of

³² NOAA RESTORE Sci. Program, *Trophic Interactions and Habitat Requirements of Gulf of Mexico Rice's Whales*, <https://restoreactscienceprogram.noaa.gov/projects/rices-whales/> (last visited October 26, 2023), attached hereto.

³³ See, e.g., Soldevilla, *Rice's whale in the northwestern Gulf of Mexico*, *supra* note 22, at 155–173; Jeremy J. Kiszka et al., *Critically endangered Rice's whale (Balaenoptera ricei) selectively feed on high-quality prey in the Gulf of Mexico*, 13 *Sci. Reps.* 6710, 6710 (2023), <https://doi.org/10.1038/s41598-023-33905-6>, attached hereto; Nicholas A. Farmer et al., *Modeling protected species distributions and habitats to inform siting and management of pioneering ocean industries: A case study for Gulf of Mexico aquaculture*, 17 *PLoS ONE* 1, 7, 12 (2022), <https://doi.org/10.1371/journal.pone.0267333>, attached hereto.

³⁴ NMFS, *Taking Marine Mammals Incidental to Geophysical Surveys in the Gulf of Mexico*, 88 *Fed. Reg.* 916, 944 (Jan. 5, 2023) (stating "core habitat area [in De Soto Canyon] contains approximately 57 percent of predicted Rice's whale abundance").

³⁵ Soldevilla, *Rice's whale in the northwestern Gulf of Mexico*, *supra* note 22, at 172–173. Acoustic monitoring is conventionally used in marine mammal science as an often-necessary supplement to vessel surveys for determining the distribution and density of cetaceans. Indeed, it is well established that vocalizing species may be detected far more frequently through acoustic recorders than through sightings. See, e.g., Kaitlin E. Frasier et al., *Cetacean distribution models based on visual and passive acoustic data*, 11 *Sci. Reps.* 8240, at 6 Table 2 (Apr. 15, 2021), <https://doi.org/10.1038/s41598-021-87577-1>, attached hereto (showing that, relative to visual survey data, passive acoustic data resulted in higher encounter rates and mean density estimations for Cuvier's beaked whale and sperm whale).

³⁶ Soldevilla, *Rice's whale in the northwestern Gulf of Mexico*, *supra* note 22, at 171–172.

³⁷ Kiszka, *supra* note 33, at 2.

certain high-energy content fish—primarily a schooling fish known as *Ariomma bondi*, with lesser contributions from several other small fish and squid.³⁸ Both historical catch records and near-bottom trawling data shows *A. bondi* favoring the same shelf-break habitat throughout the northern Gulf of Mexico where the whales have been shown to persistently occur.³⁹

This evidence is further complemented by recent habitat suitability analyses from the National Oceanic and Atmospheric Administration (NOAA), which delineates the same shelf-break waters across the northern Gulf as highly suitable habitat for the whale.⁴⁰ The analysis identified extended habitat in the northwestern Gulf based on three largely independent lines of information: sightings data from the government’s large-vessel surveys, acoustic data from NMFS’ multi-year monitoring effort (described above), and a habitat suitability model rooted in salient oceanographic features, including water depth, bottom temperature, and primary productivity.⁴¹

Moreover, the sightings record for the Rice’s whale includes at least one observation seaward of the 400 m isobath, which suggests that some whales occasionally occupy habitat outside of the 100 to 400 m isobath in the Gulf.⁴²

In light of this critical new information about the Rice’s whale, on July 24, 2023, NMFS proposed to formally designate the habitat in the DeSoto Canyon and the expanded habitat in the western and central Gulf (100 to 400 m isobath) as the species’ critical habitat under the ESA.⁴³ BOEM in October 2022 also requested that NMFS formally reinstate consultation on the Gulf Program’s Biological Opinion to reevaluate oil spill risks and address impacts to the Rice’s whale.

Consistent with NMFS’s proposed critical habitat designation, BOEM should exclude blocks between 100 and 400 m isobath in the western and central Gulf from oil and gas leasing. This is necessary to protect the highly vulnerable Rice’s whale. BOEM has stated that NMFS’s critical habitat designation will be considered “in the analyses and preparation leading to individual lease sale decisions” for 2024–2029.⁴⁴ BOEM has also noted that it will consider “offer[ing] additional mitigations or exclude acreage from the sale area to protect . . . the Rice’s whale.”⁴⁵

Exclusion of these areas is necessary because the Rice’s whale is at significant risk from oil and gas activity in the western and central Gulf of Mexico. As discussed above, the Rice’s whale is particularly susceptible to human-caused mortality, particularly from oil and gas activity, such as vessel strikes. The expanded habitat area has more human activity than the De Soto Canyon

³⁸ *Id.* at 10.

³⁹ *Id.*

⁴⁰ Farmer, *supra* note 33.

⁴¹ *Id.* at 1, 7, 12–13, 20–21.

⁴² Soldevilla, *Spatial distribution and dive behavior*, *supra* note 22, at 540 Fig. 2.

⁴³ 88 Fed. Reg. at 47,453.

⁴⁴ National OCS Program FEIS, *supra* note 2, at 111.

⁴⁵ *Id.*

region, so the risk of vessel strike is significantly higher in this region.⁴⁶ This is particularly true for oil and gas vessels: research shows that oil and gas vessel traffic accounts for an average of 40 percent of traffic throughout the northern Gulf of Mexico, including the whale's expanded habitat.⁴⁷

Exclusion of these areas is also consistent with BOEM's decision to eliminate blocks in Rice's whale habitat in the western and central Gulf from wind leasing.⁴⁸ It would be irrational and a double standard for BOEM to include this area for oil and gas leasing in Rice's whale habitat when it has decided wind leasing in the same areas would be too harmful.

In addition to excluding the 100 to 400 m isobath in the western and central Gulf, BOEM should designate a 10-kilometer (km) or greater buffer around this critical habitat to account for whale movement and exclude this area from oil and gas leasing.⁴⁹ In defining the Rice's whale habitat in the De Soto Canyon, BOEM added a buffer of 20 km to account for the possible movement whales could make in any one direction from an observed sighting.⁵⁰ Moreover, as noted above, the sightings record indicates at least one observation of a Rice's whale occupying an area close to but outside of the proposed critical habitat, which further demonstrates the need for a buffer. A 10-km buffer would allow BOEM to meet the 60-million-acre threshold for lease sales necessary to enable offshore wind leasing under the IRA.⁵¹

⁴⁶ Benjamin D. Best, *Spatial analysis of ship-strike risk for Rice's whale in the Gulf of Mexico* 11–12 Table 3 (Aug. 23, 2023), attached hereto [hereinafter Best Report]; Gulf Program BiOp, *supra* note 22, at 356, 357, 360 (figures showing highest relative vessel strike risk for Rice's whale in the central and western Gulf). Notably, the Gulf Program Biological Opinion's analysis was completed before the agency's density estimates were revised to reflect higher numbers of Rice's whales in the central and western Gulf.

⁴⁷ Best Report, *supra* note 46, at 10–11 Table 2.

⁴⁸ Mem. from Michael Celata, Reg'l Dir., GOM Reg'l Office, to Amanda Lefton, Dir., BOEM, Gulf of Mexico Area Identification Process Pursuant to 30 C.F.R. § 585.211(b), at 36 Table 2 (July 20, 2022) (assigning Rice's whale 100m to 400m habitat a suitability value of 0), <https://www.boem.gov/sites/default/files/documents/renewable-energy/state-activities/4683-Memorandum-for-Area-ID-GOM.pdf>, attached hereto [hereinafter Final GOM1 WEA Memo]; A.L. Randall et al., *A Wind Energy Area Siting Analysis for the Gulf of Mexico Call Area 31–32*, <https://www.boem.gov/sites/default/files/documents/renewable-energy/state-activities/GOM-WEA-Modeling-Report-Combined.pdf>, attached hereto [hereinafter WEA Modeling Report].

⁴⁹ A larger buffer would provide enhanced protection for Rice's whales. Moreover, a 10-km buffer may be insufficient to meet the requirements of the ESA or the Marine Mammal Protection Act. BOEM should therefore consider excluding from leasing a buffer around Rice's whale habitat that is larger than 10 km.

⁵⁰ See 88 Fed. Reg. 916 (Jan. 5, 2023). NMFS explained: "This buffer was identified by examining the daily movement data from a whale tagged for 33 days in 2010 with a satellite-linked telemetry tag. Two alternative methods were used to identify the best indicator of possible daily distance traveled by a whale. First, a 'daily range' of movement was estimated by calculating swim speeds (km/hr) based upon the distances (and times) between successive satellite-tag returns and multiplying that by 24 hr. These daily ranges were highly skewed, with most in the 10–30 km range when the whale remained in a relatively small area and a few large ranges when the whale was traveling northeast to southeast through the habitat. The mean of this daily range was 46 km and the median was 21 km. To reduce the influence of differences in the number of satellite positions returned on any given day, the total distance moved within each 24-hr period was summed using all satellite positions in that day. The median of this daily range was 17 km and the mean was 30 km. As the median is a better measure of central tendency than the mean of highly skewed distributions such as those seen here, 20 km was chosen as the most likely distance a given observed whale could move within a day of the detection." *Id.* at 925.

⁵¹ A 10-km buffer around Rice's whale habitat would be approximately 5.7 million acres in size, based on internal Natural Resources Defense Council (NRDC) calculations using GIS software. The ROD for lease sale 261 notes that, as a result of several areas being excluded (including the Rice's whale habitat, areas currently covered by the

Excluding these areas, including the 10-km buffer, across the Gulf would result in a significant benefit for the critically endangered Rice's whale. As discussed above, the whale is incredibly vulnerable to harms from oil and gas activities, including development, spills, and vessel collisions. The loss of even a single member of the Rice's whale from vessel strikes or other harms caused by oil and gas activity could lead to this species' extinction. Exclusion of this area from oil and gas leasing is necessary to preserve and prevent the extinction of the only great whale known to solely inhabit the waters of the United States.

B. Recent Evidence Demonstrates the Need to Expand Areas with Topographic Features with Sensitive Biological Habitat and Exclude Those Areas from Leasing.

Currently, BOEM attempts to protect certain areas containing topographic features with sensitive biological habitat in the Gulf of Mexico from the impacts of oil and gas activity through lease stipulations. However, a recent study funded by NOAA and BOEM has shown that these stipulations are outdated and do not fully encompass vulnerable coral communities.⁵² BOEM should first update and expand the areas considered to have topographic features with sensitive biological habitat, and BOEM should then exclude these updated areas from oil and gas leasing.

The reefs and banks along the continental shelf of the northwestern Gulf of Mexico provide extensive habitats that support vulnerable mesophotic coral forests in densities greater than those documented to date in the Caribbean Sea, the North Atlantic Ocean, and the Mediterranean Sea.⁵³ Oil and gas activity around these features in the Gulf has been extensive.⁵⁴ Routine activities associated with oil and gas exploration, production, and decommissioning—including, anchoring, pile driving, platform placement and removal, explosive use, pipeline laying, and material disposal—are all detrimental to coral communities because they cause sedimentation, contamination, and physical disturbance.⁵⁵ Corals' life history traits, including slow growth rates, late maturity, low recruitment, and long life spans, make them unlikely to recover quickly from the detrimental impacts of oil and gas activity.⁵⁶

“Topographic Features” stipulation, Significant Sediment Resource areas, final and potential Wind Energy Areas, and more), the lease sale would offer 67.3 million acres. See BOEM, *Record of Decision for Gulf of Mexico Outer Continental Shelf Oil and Gas Lease Sale 261 3* (Aug. 22, 2023), attached hereto [hereinafter Lease Sale 261 ROD]. Assuming that BOEM excludes similar areas for any future oil and gas lease sale, excluding an additional 5.7 million acres for the buffer would still allow BOEM to offer 60 million acres and meet the IRA threshold.

⁵² Marissa F. Nuttall et al., *Do Oil and Gas Lease Stipulations in the Northwestern Gulf of Mexico Need Expansion to Better Protect Vulnerable Coral Communities? How Low Relief Habitats Support High Coral Biodiversity*, 8 *Front. Marine Sci.* 1 (2022), <https://repository.library.noaa.gov/view/noaa/34128>, attached hereto [hereinafter Nuttall].

⁵³ *Id.* at 9–10.

⁵⁴ *Id.* at 10.

⁵⁵ *Id.*; Erik E. Cordes et al., *Environmental Impacts of the Deep-Water Oil and Gas Industry: A Review to Guide Management Strategies*, 4 *Front. Env't. Sci.* 58 (Sept. 16, 2016), <https://doi.org/10.3389/fenvs.2016.00058>, attached hereto.

⁵⁶ Nuttall, *supra* note 52, at 2.

Current lease stipulations aimed at protecting topographic features are based on outdated biological characterizations from the 1980s.⁵⁷ NTL No. 2009-G39 (“Biologically-Sensitive Underwater Features and Areas”) and the “Topographic Features” lease stipulation establish certain No-Activity Zones (NAZs) for oil and gas activity.⁵⁸ No oil and gas activity, including the placement of structures, drilling rigs, pipelines, or anchoring, is allowed in any area designated as a NAZ in the “Topographic Features” stipulation. NAZs generally have associated no-activity buffer zones, which prohibit bottom-disturbing activity within 500 feet of the NAZs.⁵⁹ Most, but not all, NAZs also have corresponding buffers that restrict the release of drilling wastes.⁶⁰

In addition, NTL No. 2009-G39 classifies medium to high relief features outside of NAZs, which provide habitat for the growth of benthic invertebrates and attract large numbers of fish, as Potentially Sensitive Biological Features (PSBF).⁶¹ Bottom-disturbing activities are prohibited in these areas.⁶² However, NTL No. 2009-G39 and the “Topographic Features” stipulation do not identify and designate specific PSBFs; instead, these features may be identified on a case by case basis through environmental assessments.⁶³ The remaining habitat that falls outside of the NAZ and PSBF definitions are not subject to the lease stipulations.⁶⁴

A 2021 study (Nuttall et al.) funded by NOAA and BOEM found that these lease stipulations do not sufficiently protect vulnerable mesophotic coral forests and carbonate producers in the Gulf of Mexico from oil and gas activities.⁶⁵ In particular, the study found that, while currently designated NAZs continue to support unique and moderately dense coral communities and extensive rhodolith bed substrates that play a critical role in the ocean carbon cycle, important coral communities exist in *higher* densities, diversity, and richness in low relief substrates outside of the present NAZs.⁶⁶ Due to their low relief, these areas also are not considered PSBFs and do not receive any protection.⁶⁷ Because BOEM’s current lease stipulations do not encompass these vulnerable coral communities, the study concluded that BOEM’s current NAZ and PSBF designations “need to be enlarged to include assemblages on features of lower relief.”⁶⁸ The study explained:

An expansion of these lease stipulations will not only provide active protection for the vulnerable coral communities within the low relief substrates, but also support

⁵⁷ *Id.* at 2, 10.

⁵⁸ Minerals Management Service, *Biologically-Sensitive Underwater Features and Areas*, NTL No. 2009-G39 (2010), <https://www.boem.gov/sites/default/files/regulations/Notices-To-Lessees/2009/09-G39.pdf>, attached hereto [hereinafter NTL No. 2009-G39]; see, e.g., BOEM, *Final Notice of Sale: Gulf of Mexico Oil and Gas Lease Sale 257 Lease Stipulations* 10–12 (2021), <https://www.boem.gov/sites/default/files/documents/oil-gas-energy/leasing/Sale-257-Lease-Stipulations.pdf>, attached hereto [hereinafter Lease Sale 257 Stipulations].

⁵⁹ NTL No. 2009-G39, *supra* note 58, at 3.

⁶⁰ Lease Sale 257 Stipulations, *supra* note 58, at 10–12.

⁶¹ NTL No. 2009-G39, *supra* note 58, at 2.

⁶² *Id.* at 7.

⁶³ Nuttall, *supra* note 52, at 2.

⁶⁴ *Id.*

⁶⁵ *Id.* at 1, 9–12.

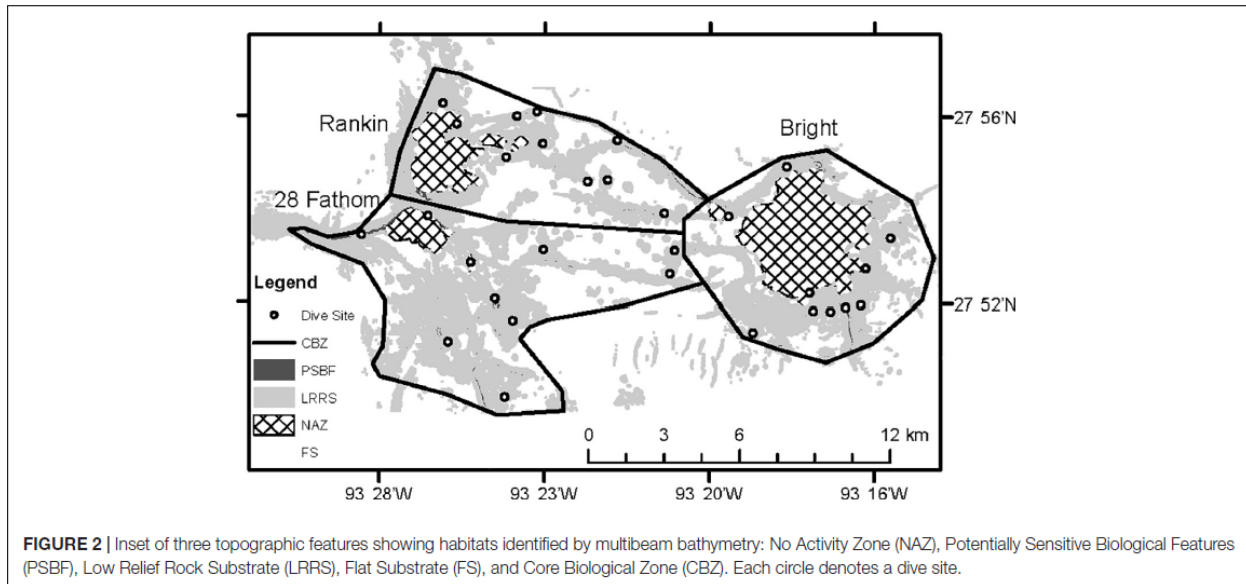
⁶⁶ *Id.*

⁶⁷ *Id.*

⁶⁸ *Id.* at 12.

the preservation of broader ecosystems and ecosystem services. Generally, the number of species protected increases with increasing size of the protected area, especially for species with smaller home ranges and where habitats are diverse. In dynamic open ocean environments like the study area, spatial prioritization to protect a wide representation of habitats is critical to support spatial connectivity at the population, genetic, and ecosystem level. Further, these protections should not be limited to a single sector (i.e., oil and gas) and instead need an integrated approach to better safeguard these vulnerable communities from other threats such as fishing and anchoring. Though not addressed here, further consideration should also be given to the delineating boundaries that can facilitate management and enforcement within these areas.⁶⁹

Consistent with the results of this study, BOEM should first update the areas considered by the agency to contain topographic features with sensitive biological habitat. Current lease stipulations are based on outdated data from the 1980s and do not account for the mapping, exploration, and characterization that have occurred along the continental shelf in the Gulf in the decades since then.⁷⁰ Best available science shows that vital mesophotic coral communities exist in higher density, diversity, and richness outside of the NAZs and PSBFs covered by NTL No. 2009-G39 and the “Topographic Features” lease stipulation. Despite their importance, these communities currently receive no protection. BOEM should designate all the low relief areas that the Nuttall et al. study identified as vital topographic features with sensitive biological habitat. The image below, reproduced from the Nuttall et al. study, demonstrates a small region of the study area and denotes the locations of low relief coral communities that are currently unprotected by BOEM’s stipulations.⁷¹ BOEM should also look beyond this study area and reevaluate all the areas with topographic features in the Gulf.



⁶⁹ *Id.*

⁷⁰ *Id.* at 2, 12.

⁷¹ *Id.* at 5 Fig. 2.

Second, BOEM should exclude the blocks containing the updated areas with topographic features with sensitive biological habitat from oil and gas leasing. As discussed, oil and gas activities are detrimental to vital coral communities. Activities that cause physical damage can reduce the three-dimensional structure created by the corals into rubble fields.⁷² Sedimentation from dredging, construction, and drilling can cause smothering or burial of coral polyps and shade light dependent corals and can result in tissue necrosis and promote disease and infection.⁷³ Accidental discharges, spills, and dredging can introduce contaminants and pollutants into the water column that can cause patchy tissue death and non-acute general declines in coral condition.⁷⁴

For lease sales 259 and 261, BOEM decided to exclude the blocks currently subject to the “Topographic Features” stipulations from leasing (the blocks in purple in the figure reproduced below from BOEM’s final environmental impact statement for lease sales 259 and 261).⁷⁵

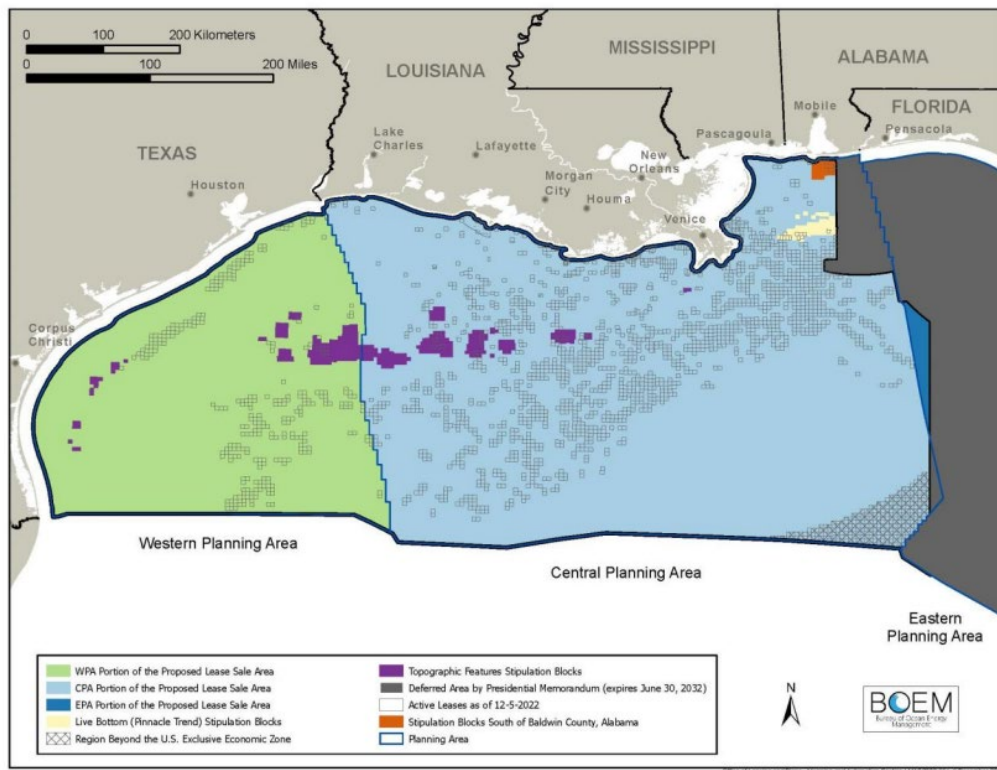


Figure 2-4. Identified Topographic Features, Pinnacle Trend, and Blocks South of Baldwin County, Alabama, Stipulation Blocks in the Gulf of Mexico (a total of approximately 91.90 million acres with approximately 78.54 million acres available for lease as of December 2022).

⁷² *Id.* at 2, 10.

⁷³ *Id.*; Erik E. Cordes et al., *Environmental Impacts of the Deep-Water Oil and Gas Industry: A Review to Guide Management Strategies*, *supra* note 55, at 10.

⁷⁴ Nuttall, *supra* note 52, at 2.

⁷⁵ BOEM, *Gulf of Mexico OCS Oil and Gas Lease Sales 259 and 261 Final Supplemental Environmental Impact Statement 2-9 Fig. 2-4* (Jan. 2023), attached hereto [hereinafter Lease Sales 259 and 261 FEIS]; *see* Lease Sale 261 ROD, *supra* note 51, at 2–3; BOEM, *Record of Decision for Gulf of Mexico Outer Continental Shelf Oil and Gas Lease Sale 259 2–3* (Feb. 22, 2023), attached hereto [hereinafter Lease Sale 259 ROD].

BOEM recognized that exclusion of these blocks would better protect the sensitive coral communities in these areas from routine oil and gas activities or accidental events.⁷⁶ This reasoning should also apply to any updated areas with topographic features with sensitive biological habitat (including low relief features, as discussed in Nuttall et al.). While expanded NAZ and PSBS designations can better safeguard these currently unprotected coral communities than the current stipulations do, excluding all blocks with topographic features with sensitive biological habitat will provide a wider range of protection.⁷⁷ First, because PSBFs are defined in individual environment assessments rather than in the stipulations, there is potential for inconsistent application of PSBF protections. Indeed, it is unclear whether the agency currently takes the time to identify and protect PSBFs as part of individual environmental assessment processes before approving exploration and development. Second, with NAZs, there is currently only a 500-foot buffer for no activity around the NAZ. There are also 1,000-meter or 1-mile buffer zones restricting release of drilling wastes around the NAZ for many banks, but these buffers do not fully protect coral communities from routine oil and gas activities or accidental discharges and spills. Exclusion of the blocks with topographic features, on the other hand, would provide more protection by disallowing oil and gas activity adjacent to these features. As BOEM recognized when it excluded blocks covered under the current “Topographic Features” stipulation from lease sales 259 and 261, exclusion of these areas would mean that “topographic features would experience fewer impacts through the additional distancing of OCS oil- and gas-related activities, further reducing the probability of impacts.”⁷⁸ “An accidental spill may still reach a topographic feature, but it is expected that the increased distance would provide more dispersal time, and subsequent time for impact mitigation, as the spill travels the additional distance across unleased blocks.”⁷⁹

In the context of wind leasing, BOEM has also opted to remove blocks covered by the current “Topographic Features” lease stipulation from wind leasing consideration (see Figure 2.2-2 from BOEM’s Gulf of Mexico wind lease final environmental assessment, reproduced below).⁸⁰

⁷⁶ Lease Sales 259 and 261 FEIS, *supra* note 75, at xvi–xvii.

⁷⁷ See BOEM, *Western and Central Gulf of Mexico Topographic Features Stipulation Map Package for Oil and Gas Leases in the Gulf of Mexico* (Mar. 2018), <https://www.boem.gov/sites/default/files/oil-and-gas-energy-program/Leasing/Regional-Leasing/Gulf-of-Mexico-Region/Topographic-Features-Stipulation-Map-Package.pdf>, attached hereto [hereinafter BOEM Topo Features Stip. Map].

⁷⁸ Lease Sales 259 and 261 FEIS, *supra* note 75, at xvii.

⁷⁹ *Id.*

⁸⁰ BOEM, *Commercial and Research Wind Lease and Grant Issuance and Site Assessment Activities on the Outer Continental Shelf of the Gulf of Mexico, Final Environmental Assessment 2-7 to 2-8 Fig. 2.2-2* (May 2023), https://www.boem.gov/sites/default/files/documents/renewable-energy/state-activities/GOM%20Wind%20Lease%20EA_0.pdf [hereinafter GOM1 Wind Lease EA]; see also BOEM, *Commercial and Research Wind Lease and Grant Issuance and Site Assessment Activities on the Outer Continental Shelf of the Gulf of Mexico, Finding of No Significant Impact 3–4, 10* (May 2023), https://www.boem.gov/sites/default/files/documents/renewable-energy/state-activities/FONSI_Signed20230524.pdf, attached hereto [hereinafter GOM1 Wind Lease FONSI].

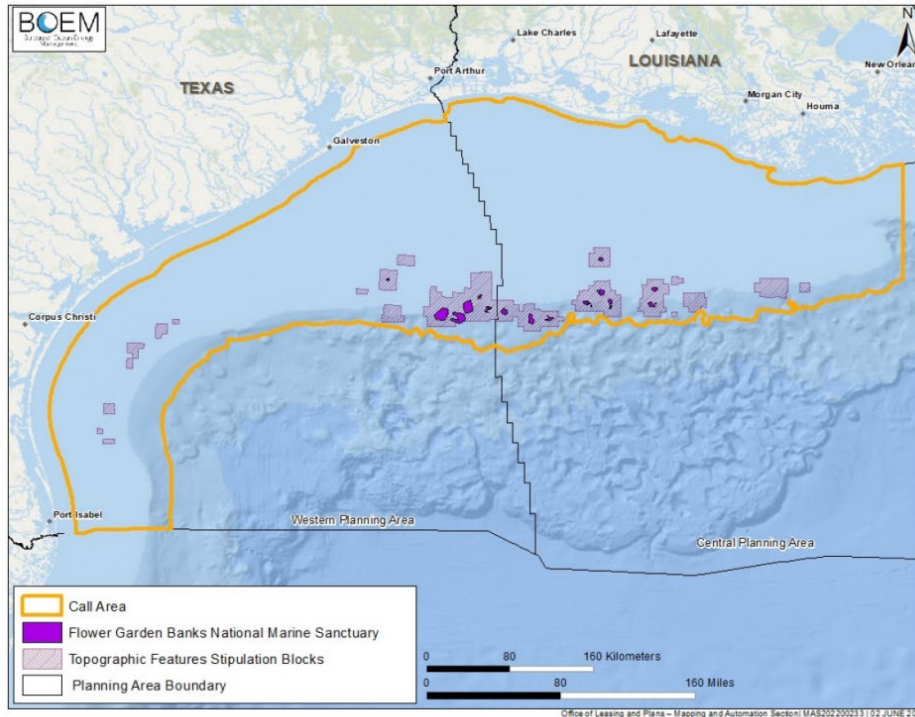


Figure 2.2-2. Gulf of Mexico Call Area Excluding the Topographic Features Stipulation Blocks.

Exclusion of these blocks amounted to more areas being protected from wind development than what is protected by the current oil and gas NAZ designations.⁸¹ BOEM removed these blocks because these features provide habitat for sensitive benthic and fish species in the Gulf of Mexico.⁸²

It would be arbitrary and a double standard for BOEM to determine that the need to protect sensitive habitat warrants excluding these topographic features from lease sales 259 and 261 and from wind leasing, but not from any future oil and gas leasing. To better protect the vital coral communities that exist outside of the areas covered by the current “Topographic Features” stipulation, as discussed above, the area exclusion for oil and gas leasing should also apply to low relief areas that currently are not covered by oil and gas lease stipulations.

C. Available Evidence Supports the Exclusion of the Entire Flower Garden Banks National Marine Sanctuary from Leasing.

The only sanctuary site located in the Gulf of Mexico, the Flower Garden Banks National Marine Sanctuary (FGBNMS), provides essential habitat for numerous marine species, including a variety of fish species, and several endangered or threatened species, including sea turtles, corals, and giant manta rays.⁸³ BOEM has excluded only about one-third of the FGBNMS from the

⁸¹ Compare GOM1 Wind Lease EA, *supra* note 80, at 2-7 to 2-8 Fig. 2.2-2 to BOEM Topo Features Stip. Map, *supra* note 77.

⁸² GOM1 Wind Lease FONSI, *supra* note 80, at 10.

⁸³ NMFS, *NOAA expands Flower Garden Banks National Marine Sanctuary in the Gulf of Mexico* (Jan. 19, 2021), <https://www.noaa.gov/media-release/noaa-expands-flower-garden-banks-national-marine-sanctuary-in-gulf-of-mexico>, attached hereto.

area considered in this call for information. BOEM states that “[t]he Call Area excludes areas withdrawn pursuant to section 12 of OCSLA (43 U.S.C. 1341) by Presidential memoranda dated . . . July 17, 2008, (withdrawing the Flower Garden Banks National Marine Sanctuary within the boundaries that existed on July 14, 2008).”⁸⁴ However, in 2021, NOAA expanded the FGBNMS from approximately 56 square miles to 160.4 square miles, adding fourteen reefs and banks to the sanctuary in order to protect sensitive marine habitats and features in the northwestern Gulf of Mexico.⁸⁵ BOEM should exclude the entire FGBNMS from leasing.

In expanding the FGBNMS, NOAA recognized that there was a need “to provide comprehensive and coordinated management of, and additional regulatory protection for, sensitive underwater features and marine habitats associated with continental shelf-edge reefs and banks in the northwestern Gulf of Mexico.”⁸⁶ NOAA noted that “[t]he sanctuary expansion areas are recognized as hotspots of marine biodiversity that provide vital habitat for many important species in the Gulf of Mexico region.”⁸⁷ They are “home to the most significant examples of coral and algal reefs, mesophotic and deepwater coral communities, and other biological assemblages in the Gulf of Mexico. Furthermore, these areas provide important habitat for vulnerable species such as mobula rays, sea turtles, and whale sharks, while serving as nurseries for numerous fish species of commercial and recreational importance.”⁸⁸

NOAA also recognized that the expanded habitats are vulnerable to oil and gas exploration and development activities.⁸⁹ NOAA stated that “[t]he protection of these ecologically significant sites [from oil and gas activities and other harmful activities] would increase the resilience of marine ecosystems and enhance the sustainability of the region’s thriving recreation, tourism, and commercial economies” and “help ensure that valuable marine resources remain available for the use and enjoyment of future generations of Americans.”⁹⁰ NOAA also noted that “[p]rotecting additional habitat in the northwestern Gulf of Mexico emerged as one of the highest priorities identified during a vigorous public review process of FGBNMS management issues.”⁹¹

To protect this important sanctuary from the impacts of oil and gas activities, BOEM should exclude the entire expanded FGBNMS from leasing in any future Gulf of Mexico lease sale. First, as discussed above, oil and gas activity—including activities that cause physical damage, sedimentation, and accidental releases of drilling waste—are detrimental to coral communities. Second, it is arbitrary for the agency to exclude only part of a marine sanctuary from oil and gas leasing. The reasoning behind the presidential withdrawal of the marine sanctuary, as it existed in 2008, from oil and gas leasing continues to apply for the similarly vulnerable and vital coral communities in the fourteen added banks. Third, BOEM recently decided to exclude the expanded FGBNMS from wind leasing—as well as the blocks with topographic features surrounding the FGBNMS (see Figure 2.2-2 from BOEM’s Gulf of Mexico wind lease

⁸⁴ BOEM Call for Information, *supra* note 1, at 67,802.

⁸⁵ NOAA, *Expansion of Flower Garden Banks National Marine Sanctuary*, 86 Fed. Reg. 4937 (Jan. 19, 2021).

⁸⁶ *Id.* at 4837.

⁸⁷ *Id.* at 4938.

⁸⁸ *Id.*

⁸⁹ *Id.* at 4938.

⁹⁰ *Id.*

⁹¹ *Id.*

environmental assessment, reproduced above).⁹² It would be irrational and inequitable for the agency to reach a different conclusion for oil and gas leasing, which is more harmful to deepwater corals than wind development.

While many of the areas in the expanded FGBNMS are designated as NAZs by the current “Topographic Features” stipulation, BOEM has acknowledged that excluding such areas from leasing better protects these vital reefs and banks than a NAZ designation does.⁹³ Moreover, there are still considerable portions of the sanctuary that are not protected as a NAZ.⁹⁴ Several of these unprotected zones fall within NAZ buffer zones, but these buffers only have restrictions on the release of drilling wastes and are not designated as no-activity areas.⁹⁵ Thus, coral communities and other marine species within the FGBNMS may still be impacted by oil and gas activity occurring within the buffer zones. The 1-mile buffer zone may also be too small to protect the banks from bottom-disturbing oil and gas activity occurring just outside the buffer zone.⁹⁶ Exclusion of the entire expanded FGBNMS (as well as the topographic features blocks surrounding much of the FGBNMS) from oil and gas leasing is necessary to adequately protect this important marine sanctuary.

D. Available Evidence Demonstrates the Need to Exclude Non-Energy Marine Mineral Borrowing Areas, Particularly Significant Sediment Resource Areas, from Leasing.

Coastal wetlands provide vital ecosystem services to the health and well-being of Gulf communities, including serving as buffers protecting coastal areas from storm damage and sea level rise, providing nesting and foraging habitat for wildlife, and more.⁹⁷ However, the Gulf has experienced significant loss of critical wetland habitats, erosion of barrier islands, and substantial coastal land loss.⁹⁸ Over the past century, scientists estimate Louisiana has lost over 1.2 million acres of land, continuing at the rate of 32 football fields every 24 hours.⁹⁹ Evidence shows that up to 11,000 million cubic meters of sediment are needed to restore just the Louisiana

⁹² GOM1 Wind Lease EA, *supra* note 80, at 2-8 Fig. 2.2-2.

⁹³ See Lease Sales 259 and 261 FEIS, *supra* note 75, at xvii.

⁹⁴ NOAA, Flower Garden Banks National Marine Sanctuary, *NW Gulf of Mexico Management Zones*, <https://flowergarden.noaa.gov/protection/managementzones.html>, attached hereto (last visited October 26, 2023).

⁹⁵ See *Lease Sale 257 Lease Stipulations* at stip. 5.

⁹⁶ As explained below, current lease stipulations impose 4-mile buffer zones—not 1,000-meter or 1-mile—restricting release of drilling wastes around some portions of the FGBNMS (the East Flower Garden Bank and West Flower Garden Bank). At the very least, BOEM should impose 4-mile buffer zones around all the banks of the FGBNMS.

⁹⁷ See, e.g., U.S. Env'tl. Prot. Agency, *Why is Habitat Restoration Near the Gulf of Mexico Essential?* (last updated Nov. 23, 2022), <https://www.epa.gov/gulfofmexico/why-habitat-restoration-near-gulf-mexico-essential>, attached hereto.

⁹⁸ NOAA, *A Strategy for a Healthy Gulf of Mexico: Resilience through Ecosystem Restoration* 1 (Apr. 2015), https://www.ncei.noaa.gov/data/oceans/coris/library/NOAA/other/healthy_gulf_of_mexico_april2015.pdf, attached hereto.

⁹⁹ See April Reese, *Advocates Renew Calls for Large-Scale Restoration of La.'s Coastal Wetlands*, N.Y. Times (Aug. 20, 2009), <https://archive.nytimes.com/www.nytimes.com/gwire/2009/08/20/20greenwire-advocates-renew-calls-for-large-scale-restorat-15272.html>, attached hereto.

coastline.¹⁰⁰ A major contributor to this major land loss in the Gulf is the sprawling network of canals that have carved up the coastal marshlands, undertaken in part to facilitate the oil and gas industry’s extensive infrastructure.¹⁰¹

Access to so-called “non-energy marine minerals”—sand, gravel, silt, clay, and shell—are essential to coastal restoration initiatives in the [Gulf] Region, such as the construction of wetlands.¹⁰² “To date, BOEM has authorized more than 165 million cubic yards of OCS material for nearly 60 coastal restoration projects in eight states to restore more than 380 miles of the nation’s coastline.”¹⁰³ The need for these minerals is only expected to increase in the near future because several major restoration projects will begin construction and BOEM expects to receive new requests of OCS minerals.¹⁰⁴ Sand is particularly scarce, in large part because “vast areas of . . . offshore sand resources are not extractable because of the presence of oil and gas infrastructure”¹⁰⁵—which is ironic, given that, as noted above, oil and gas infrastructure and development is one of the primary causes of the coastal land loss in the Gulf in the first place.

In a 2021 report, the Governmental Accountability Office (GAO) found that “80 percent of known areas of Significant Sediment Resources cannot be used for coastal restoration purposes due to interference by the existing network of offshore oil and gas infrastructure, including pipelines.”¹⁰⁶ GAO further found that the Bureau of Safety and Environmental Enforcement (BSEE) has allowed industry to leave over 97 percent (about 18,000 miles) of all decommissioned pipeline mileage on the Gulf of Mexico seafloor since the 1960s.¹⁰⁷ While BSEE has guidance asking oil and gas operators to “[m]ake sure that bottom-disturbing activities . . . avoid, to the maximum extent practicable, significant OCS sediment resources,”¹⁰⁸ GAO

¹⁰⁰ Sara Sneath, *Louisiana needs sand to rebuild its coast. Old oil and gas pipelines are blocking the way.*, Wash. Post (Aug. 5, 2021), <https://www.washingtonpost.com/climate-environment/2021/08/05/louisiana-gulf-abandoned-pipelines/>, attached hereto.

¹⁰¹ See, e.g., John W. Day et al., *Life Cycle of Oil and Gas Fields in the Mississippi River Delta: A Review*, 12 Water 1492, at 1–2 (May 2020), <https://www.mdpi.com/2073-4441/12/5/1492/htm>, attached hereto; see also Tristan Baurick, *‘It’s too far gone’: Old oil wells and pipelines doom big effort to save this Louisiana island*, Nola (May 26, 2020), https://www.nola.com/news/environment/its-too-far-gone-old-oil-wells-and-pipelines-doom-big-effort-to-save-this/article_7c9bfb34-9c6b-11ea-819e-d32606b97a31.html, attached hereto (“A Louisiana island President Theodore Roosevelt tried to save more than a century ago has been so damaged by the oil industry, so tangled with forgotten pipelines, gouged by canals and pockmarked by oil wells, that the state has finally decided to cut its losses and end a decades-long effort to restore it.”).

¹⁰² National OCS Program, *supra* note 2, at 7-15.

¹⁰³ BOEM, *About BOEM Fact Sheet* (Revised Mar. 2023), https://www.boem.gov/sites/default/files/documents/newsroom/fact-sheets/About_BOEM_3_23.pdf, attached hereto.

¹⁰⁴ National OCS Program, *supra* note 2, at 7-15 to 7-16.

¹⁰⁵ *Id.* at 7-16. BOEM’s Marine Minerals Information System provides interactive mapping with layers for known sand/sediment resource areas and for OCS oil and gas infrastructure, including platforms and pipelines. BOEM, Marine Minerals Information System, <https://mmis.doi.gov/boemmmis/> (last visited Oct. 26, 2023).

¹⁰⁶ GAO, *Report to Congressional Requesters, Offshore Oil and Gas: Updated Regulations Needed to Improve Pipeline Oversight and Decommissioning*, GAO-21-293, at 16 (Mar. 2021), <https://www.gao.gov/assets/gao-21-293.pdf>, attached hereto [hereinafter GAO Report].

¹⁰⁷ *Id.* at 12.

¹⁰⁸ BSEE, *Significant OCS Sediment Resources in the Gulf of Mexico*, NTL No. 2009-G04, at 2, <https://www.bsee.gov/sites/bsee.gov/files/notices-to-lessees-ntl/notices-to-lessees/09-g04.pdf>. The NTL notes: “For the purpose of this NTL, any activity that lasts more 180 days and is located within 305 lateral meters (1,000 feet)

found that BSEE has “allowed almost 194 miles (about 100 pipeline segments) to be decommissioned-in-place or partially decommissioned-in-place in areas of significant sediment resources” since October 2016, which is actively interfering with use of these areas for coastal restoration purposes.¹⁰⁹

Given the severity of the conflict between oil and gas development and non-energy marine mineral uses, BOEM should exclude areas with important marine mineral borrowing areas from oil and gas leasing. As GAO’s report makes clear, BOEM and BSEE’s current policies are not enough to protect these important areas—and other areas that may also contain sand and other mineral deposits for future coastal restoration efforts—from the impacts of oil and gas development and infrastructure, particularly as the need for coastal restoration grows. Moreover, evidence shows that even one additional pipeline in a sediment resource area will make significant amounts of sand inaccessible for restoration projects.¹¹⁰

For lease sales 259 and 261, BOEM excluded Significant Sediment Resource areas from oil and gas leasing.¹¹¹ In defining areas for potential wind leasing, BOEM also excluded lease blocks with Significant Sediment Resources.¹¹² The agency should do the same for any future oil and gas leasing because new leasing and development will render these Significant Sediment Resources unusable for restoration purposes. In addition, the agency should analyze other areas that may contain important sediment resources and consider excluding those areas as well.

E. Similar to Its Approach for Wind Leasing, BOEM Should Utilize Available Data to Conduct Suitability Analyses and Exclude Unsuitable Areas from Oil and Gas Leasing.

To identify areas most suitable for wind development in the Gulf of Mexico, BOEM conducted geospatial suitability modeling by utilizing approximately 75 data layers representing major oceans characteristics and resources in the Gulf.¹¹³ All data layers were assigned scores of relative compatibilities, allowing the calculation of an overall suitability score for each 10-acre grid cell of the study area.¹¹⁴ Using this analysis, BOEM identified potential wind energy areas and decided to exclude areas in the Gulf that had low suitability scores. For example, BOEM excluded areas of moderate-high shrimp fishing, Rice’s whale habitat, significant sediment

and 20 vertical meters (65 feet) below the natural seafloor of any designated sediment resources is considered bottom-disturbing and inconsistent with this policy.” *Id.*

¹⁰⁹ GAO Report, *supra* note 106, at 15–16.

¹¹⁰ Sara Sneath, *Louisiana needs sand to rebuild its coast. Old oil and gas pipelines are blocking the way.*, Wash. Post (Aug. 5, 2021), <https://www.washingtonpost.com/climate-environment/2021/08/05/louisiana-gulf-abandoned-pipelines/> (“Dredges used to suction up sand from the bottom of the gulf are not allowed to excavate within 1,000 feet of pipelines. This is to keep the pipelines intact and to ensure the safety of workers. It is estimated that a pipeline one kilometer long (0.6 miles) — in addition to the required offset — will make about 2.3 million cubic yards of sand inaccessible.”); *see also* BOEM, *Meeting Summary: Gulf of Mexico Offshore Sand Management Group 8* (Dec. 7, 2017), https://rsm.usace.army.mil/techtransfer/FY18/BOEM_GOM_2017_Summary.pdf (Dr. Mike Miner, geologist with BOEM, noting that only about 10 percent of Ship Shoal sand is accessible due to pipeline infrastructure), attached hereto.

¹¹¹ Lease Sale 261 ROD, *supra* note 51, at 2–3; Lease Sale 259 ROD, *supra* note 75, at 2–3.

¹¹² Final GOM1 WEA Memo, *supra* note 48, at 36 Table 2.

¹¹³ WEA Modeling Report, *supra* note 48, at 1.

¹¹⁴ *Id.*

resources, menhaden fishing, unexploded ordinances, and others, and created a buffer around other features such as artificial reefs.¹¹⁵

BOEM should conduct a similar analysis for the suitability of oil and gas leasing in the Gulf of Mexico region. First, as appropriate, BOEM should consider excluding the blocks with the same resources that were deemed unsuitable for wind leasing. If BOEM is excluding certain areas from wind leasing due to unacceptable effects or conflicts, the agency should do the same for oil and gas leasing and not apply a double standard. To the extent that BOEM believes that a given area found unsuitable for wind leasing is nonetheless suitable for oil and gas leasing, BOEM should provide reasoned explanations for why this is the case.

Second, BOEM should conduct independent suitability modeling for oil and gas leasing, just as it did for wind leasing, to determine which other areas in the Gulf of Mexico would not be suitable for oil and gas leasing. For example, BOEM could eliminate lease blocks based on a single particularly important resource: under this approach, blocks that score low for that resource would be automatically excluded. Alternatively, BOEM could decide to exclude blocks based on a composite suitability model incorporating several resources that need to be shielded from undue impacts of oil and gas development.

F. BOEM Should Avoid Conflicts with Renewable Energy Uses of the Gulf of Mexico by Excluding Final and Potential Wind Energy Areas from Oil and Gas Leasing.

If BOEM is serious about offshore wind development in the Gulf of Mexico, BOEM should exclude final and potential Wind Energy Areas (WEAs) in the Gulf from any future oil and gas leasing—as BOEM has done for lease sales 259 and 261.¹¹⁶ Additional oil and gas leasing in WEAs will conflict with future development of offshore wind and hinder this nation’s transition to a clean energy economy.

WEAs are offshore areas that BOEM has deemed the most suitable for wind energy development. In its suitability analysis to identify WEAs, BOEM declared all areas within active oil and gas lease blocks as “no go” areas, with a suitability score of 0.¹¹⁷ BOEM also declared “no go” areas within 200 feet of oil and gas pipelines (active only), boreholes, test wells, and wells, and within 500 feet of oil and gas platforms.¹¹⁸ Platforms that have been converted to artificial reefs and inactive pipelines also create physical barriers to offshore wind development.¹¹⁹ Existing oil and gas leases and infrastructure accordingly rendered a significant part of the Gulf off limits for the WEAs.¹²⁰ Any additional oil and gas leases sold from 2024 to 2029 presumably would make those areas inaccessible for wind leasing. The same would be true for new pipelines and other infrastructure installed to develop those leases. Oil and gas blocks are usually held for several decades, so any new oil and gas leasing would therefore render the

¹¹⁵ *Id.* at 22; Final GOM1 WEA Memo, *supra* note 48, at 36 Table 2.

¹¹⁶ Lease Sale 260 ROD at 2–3; Lease Sale 259 ROD at 2–3.

¹¹⁷ Final GOM1 WEA Memo, *supra* note 48, at 36 Table 2.

¹¹⁸ *Id.*

¹¹⁹ *See, e.g., id.* (imposing setbacks around Texas and Louisiana permitted artificial reefs).

¹²⁰ *See* WEA Modeling Report, *supra* note 48, at 22.

areas off-limits for wind leasing and development for a very long time. This is simply inconsistent with the Biden Administration’s vision for a clean energy future.

To avoid this serious conflict with offshore renewable energy, BOEM should exclude areas that are potentially suitable for wind development from oil and gas leasing. In 2022, BOEM designated two WEAs in the Gulf of Mexico, and on October 27, 2023, BOEM finalized four more areas as WEAs.¹²¹ Moreover, BOEM has identified several other areas as potential wind energy area options.¹²² BOEM’s siting analysis determined that many of these additional areas are highly suitable for wind energy development.¹²³ All of these areas—final wind energy areas and potential wind energy area options—should be excluded in their entirety from oil and gas leasing. This is the approach BOEM took with lease sales 259 and 261: recognizing the space-use conflicts between wind energy and oil and gas development, the agency opted to exclude both potential wind energy areas and final wind energy areas from leasing.¹²⁴

If BOEM plans to analyze other areas in the Gulf of Mexico for suitability for wind development in the near future, BOEM should also exclude these additional areas determined to be potential wind energy area options from leasing.

At a minimum, BOEM should exclude the areas that have already been sold for wind leasing. In August 2023, BOEM held its first offshore wind energy lease sale for the Gulf of Mexico, resulting in the Lake Charles area—which has the potential to generate approximately 1.24 GW of capacity—being sold.¹²⁵ Exclusion of this area is consistent with the approach BOEM has taken with offshore wind leasing. When identifying WEAs in the Gulf of Mexico, BOEM opted to exclude active oil and gas lease blocks from potential wind leasing.¹²⁶ Similarly, exclusion of wind lease blocks from oil and gas leasing is necessary to avoid conflicts with wind development.

G. BOEM Should Exclude Areas That Have Been Identified as Unsuitable Areas or Conflict Areas by Other Agencies.

Where other agencies have identified particular areas in the Gulf as unsuitable for oil and gas leasing—for example, because of potential conflicts with other important uses—BOEM should exclude those areas from leasing. As an example, BOEM noted in the National OCS Program that the Department of Defense (DOD) requested that several areas in the Gulf be excluded due to conflicts with military uses such as aviation flight training, sea trials, and combat systems ship

¹²¹ Final GOM1 WEA Memo, *supra* note 48, at 1; Mem. from Michael Celata, Reg’l Dir., GOM Reg’l Office, to Amanda Lefton, Dir., BOEM, Gulf of Mexico Wind Lease 2 (GOMW-2) Area Identification Process Pursuant to 30 C.F.R. § 585.211(b) (Oct. 20, 2023).

¹²² Initially, BOEM identified 14 potential wind energy areas in the Gulf, but one area was eliminated due to a preliminary Department of Defense (DOD) assessment. WEA Modeling Report, *supra* note 48, at 1.

¹²³ WEA Modeling Report, *supra* note 48, at 68 Table 3.8.

¹²⁴ Lease Sale 260 ROD, *supra* note 51, at 2–3; Lease Sale 259 ROD, *supra* note 75, at 2–3.

¹²⁵ DOI, *Biden-Harris Administration Holds First-Ever Gulf of Mexico Offshore Wind Energy Auction* (Aug. 29, 2023), <https://www.doi.gov/pressreleases/biden-harris-administration-holds-first-ever-gulf-mexico-offshore-wind-energy-auction>.

¹²⁶ Final GOM1 WEA Memo, *supra* note 48, at 36 Table 2.

qualification trials.¹²⁷ BOEM noted that “[a]nalysis of DOD uses of the OCS was considered . . . and discussions involving potential conflict mitigation are ongoing.”¹²⁸ Given that other agencies may be experts regarding important, non-oil and gas uses in the Gulf, BOEM should defer to other agencies regarding other uses of a given area and grant other agencies’ requests to exclude those areas from leasing.

II. AVAILABLE EVIDENCE DEMONSTRATES THE NEED FOR BOEM TO INCLUDE PROTECTIVE MITIGATION MEASURES AND LEASE STIPULATIONS IN EVERY OIL AND GAS LEASE.

In addition to limiting the OCS area available for leasing, BOEM should ensure that any oil and gas leases issued are subject to robust mitigation measures and stipulations that protect Gulf communities, marine life and ecosystems, and the climate.¹²⁹ Mitigation measures are acts taken not only to avoid, minimize, rectify, reduce, or eliminate impacts but also to “compensat[e] for the impact by replacing or providing substitute resources or environments.”¹³⁰ Available evidence demonstrates that BOEM should, at a minimum, (1) impose mandatory ship-strike prevention measures throughout the Rice’s whale habitat, including a 10-knot speed limit and a nighttime transit prohibition; (2) expand lease stipulation protections for topographic features with sensitive biological habitat; (3) clarify that lessees are not permitted to utilize oil and gas leases for carbon storage under OCSLA; (4) improve methane emissions data and reporting from oil and gas sites through the incorporation of top-down measurements; (5) collaborate with impacted environmental justice communities and co-develop mitigation measures with these communities; (6) incentivize lessees to enter into community benefit agreements with environmental justice communities; (7) evaluate the agency’s commonly applied post-lease mitigation measures and incorporate them as mandatory lease stipulations where appropriate; (8) require additional safeguards to prevent blowouts and catastrophic oil discharges; and (9) require lessees to decommission idle wells prior to bidding on new leases.

A. Available Evidence Demonstrates the Need to Impose Mandatory Ship-Strike Prevention Measures Throughout the Rice’s Whale Habitat, Including a 10-Knot Speed Limit and a Nighttime Transit Prohibition.

Regardless of whether BOEM excludes the critically endangered Rice’s whale habitat from oil and gas leasing (which BOEM should, for the reasons discussed above), BOEM should impose mandatory ship-strike prevention measures on *all* leases, including those outside the habitat, that (1) require all vessels to follow a 10-knot speed restriction at all times when traveling within the habitat and (2) prohibit transit through the habitat after dusk and before dawn and during other times of low visibility. These restrictions would only not apply when compliance would place the safety of the vessel or crew, or the safety of life at sea, in doubt. These measures are necessary to protect the critically endangered Rice’s whale from becoming extinct.

¹²⁷ National OCS Program, *supra* note 2, at 7-12 to 7-14.

¹²⁸ *Id.* at 7-14.

¹²⁹ *See, e.g.*, 40 C.F.R. §§ 1502.14(e), 1502.16(a).

¹³⁰ *See* Council on Env’tl. Quality (CEQ), *Final Guidance for Federal Departments and Agencies on the Appropriate Use of Mitigation and Monitoring and Clarifying the Appropriate Use of Mitigated Findings of No Significant Impact*, 76 Fed. Reg. 3843, 3847 (Jan. 21, 2011).

As discussed above, vessel strikes are one of, if not the, primary threat to Rice’s whales. The Rice’s whale is unique among whale species in that it spends most of its time near the water’s surface, particularly at night, which makes them particularly vulnerable to vessel strikes.¹³¹ A majority of vessel strikes are likely to go undetected,¹³² but at least two Rice’s whales have been struck by vessels in recent years.¹³³ Even when healed, injuries from vessel strikes can result in mortality at a later date.¹³⁴ Even one vessel strike can put the Rice’s whale in severe danger of extinction.¹³⁵ Because the western and central Gulf contain extensive human activity, including oil and gas activity, whales occupying this important habitat area are at increased risk.¹³⁶ Moreover, since oil and gas vessel traffic accounts for 40 percent of the traffic throughout the northern Gulf of Mexico, restrictions on oil and gas vessels in the Rice’s whale expanded habitat is necessary to protect the whale.¹³⁷

BOEM currently requires vessels to follow these ship-strike prevention measures in Rice’s whale habitat in the eastern Gulf.¹³⁸ BOEM also recently updated the “Protected Species” lease stipulation to include interim measures for the expanded habitat area for new leases issued while the reinstated ESA consultation with NMFS is ongoing.¹³⁹ BOEM has also included ship-strike prevention measures in an NTL for lessees and operators while traveling in the Rice’s whale expanded habitat.¹⁴⁰

For any new lease issued from 2024 to 2029, BOEM should require oil and gas vessels, regardless of size, to observe at all times a 10-knot or less, year-round speed restriction in the Rice’s whale habitat (including the 100 to 400 m isobath across the northern Gulf of Mexico). There is precedent for such a restriction. NMFS currently imposes mandatory 10-knot speed

¹³¹ See Section I.A, *supra*.

¹³² As a comparative example, only 36 percent of North Atlantic right whale carcasses were detected from 1990 to 2017. Richard M. Pace III et al., *Cryptic Mortality of North Atlantic Right Whales*, *Conservation & Practice* e346 (Feb. 2, 2021), <https://doi.org/10.1111/csp2.346>, attached hereto.

¹³³ In 2009, an adult, lactating female was stranded in Tampa Bay, Florida, with injuries consistent with blunt force trauma. In 2019, a free-swimming whale was observed in the northeastern Gulf of Mexico with a severely deformed spine posterior to the dorsal fin consistent with a vessel strike. Patricia E. Rosel et al., *A New Species of Baleen Whale (Balaenoptera) from the Gulf of Mexico, with a Review of its Geographic Distribution*, *J. of Marine Mammal Sci.* 577, 599-600 (2021).

¹³⁴ For example, a North Atlantic right whale female that had healed from a vessel strike, only to have the wounds reopen and become fatal upon the whale’s becoming pregnant. S.M. Sharp et al., *Gross and histopathologic diagnoses from North Atlantic right whale *Eubalaena glacialis* mortalities between 2003 and 2018*, *135 Diseases of Aquatic Organisms* 14 (2019), <https://doi.org/10.3354/dao03376>, attached hereto.

¹³⁵ See Section I.A, *supra*.

¹³⁶ See, e.g., Best Report, *supra* note 46, at 11–12 Table 3; Gulf Program BiOp, *supra* note 22, at 356, 357, 360.

¹³⁷ Best Report, *supra* note 46, at 10–11 Table 2.

¹³⁸ See Lease Sale 257 Stipulations, *supra* note 58, at 8.

¹³⁹ BOEM included this stipulation for lease sale 261. In September 2023, the U.S. District Court for the Western District of Louisiana enjoined BOEM from implementing this stipulation for that lease sale, but the Fifth Circuit recently stayed the district court’s injunction pending the appellate court’s decision. It is also important to note that the district court did not find this sort of Rice’s whale stipulation is per se impermissible, only that BOEM should have noticed it in the proposed notice of sale for lease sale 261 and provided a more thorough justification for the stipulation.

¹⁴⁰ BOEM, *Expanded Rice’s Whale Protection Efforts During Reinitiated Consultation with NMFS*, NTL No. 2023-G01 3 (Aug. 17, 2023), <https://www.boem.gov/sites/default/files/documents/about-boem/regulations-guidance/BOEM%20NTL%202023-G01.pdf>.

restrictions for certain vessels in three seasonal management areas in the Atlantic Ocean to reduce the threat of collisions with North Atlantic right whales.¹⁴¹ The state of Massachusetts imposes a mandatory 10-knot seasonal speed limit on all vessels in certain areas of the Cape Cod Bay to safeguard these whales.¹⁴² Similarly, Canada imposes mandatory 10-knot speed zones for certain vessels in the Gulf of St. Lawrence for the protection of right whales.¹⁴³

Evidence shows that voluntary speed restrictions are ineffective. In addition to the mandatory speed limit in certain areas discussed above, NMFS has also established a program of voluntary slow speed in certain other areas to protect the Atlantic right whale.¹⁴⁴ NMFS has since evaluated the efficacy of this program and found that compliance with the speed restriction was very limited within areas with the voluntary program.¹⁴⁵ Similarly, evidence shows that NMFS' voluntary ship speed restrictions to protect blue whales in the Santa Barbara Channel go almost entirely unheeded.¹⁴⁶ Vessels generally have not observed voluntary speed measures in the Cabot Strait to protect Atlantic right whales.¹⁴⁷ All of this evidence shows that, in order to protect the Rice's whale, BOEM must impose a mandatory a 10-knot speed limit for all vessels traveling throughout the expanded habitat. In addition, a recent report analyzing vessel speeds in NMFS' right whale management zones found that vessels routinely speed through areas with mandatory speed restrictions as well, which highlights the urgent need for agencies to couple mandatory speed limit restrictions with robust enforcement of these requirements.¹⁴⁸ Agencies must put adequate resources towards enforcement to ensure vessel compliance with speed limit restrictions.

BOEM should also prohibit transit of oil and gas vessels through the habitat after dusk and before dawn and during other times of low visibility. As discussed above, the Rice's whale is unique because it occupies the water's surface at night, making it particularly vulnerable to vessel collisions due to poor visibility conditions. As one of the most endangered marine

¹⁴¹ NMFS, *Reducing Vessel Strikes to North Atlantic Right Whales*, <https://www.fisheries.noaa.gov/national/endangered-species-conservation/reducing-vessel-strikes-north-atlantic-right-whales#current-vessel-speed-restrictions>, attached hereto (last visited Aug. 26, 2023); see also NMFS, *North Atlantic Right Whale (Eubalaena glacialis) Vessel Speed Rule Assessment* 6–8 (June 2020), available at https://tethys.pnnl.gov/sites/default/files/publications/NOAA_fisheries_et_al_2020.pdf, attached hereto (discussing other mandatory 10-knot speed restrictions imposed by several state and international jurisdictions).

¹⁴² 322 CMR 12.05.

¹⁴³ See Transport Canada, *Backgrounder: Protecting North Atlantic right whales* (modified Oct. 27, 2023), <https://tc.canada.ca/en/marine-transportation/navigation-marine-conditions/protecting-north-atlantic-right-whales-collisions-vessels-gulf-st-lawrence>, attached hereto.

¹⁴⁴ *Reducing Vessel Strikes to North Atlantic Right Whales*, supra note 141.

¹⁴⁵ *North Atlantic Right Whale (Eubalaena glacialis) Vessel Speed Rule Assessment*, supra note 141, at i, 8–17, 35–38.

¹⁴⁶ Megan F. McKenna, *Response of commercial ships to a voluntary speed reduction measure: are voluntary strategies adequate for mitigating ship-strike risk?*, 40 COASTAL MGMT. 634 (2012), <http://dx.doi.org/10.1080/08920753.2012.727749>, attached hereto.

¹⁴⁷ See, e.g., Oceana Canada, *Dangerous Passage. Make ten knots mandatory for ships in the Cabot Strait* 5 https://oceana.ca/wp-content/uploads/sites/24/dangerous_passage_final_en.pdf, attached hereto

¹⁴⁸ Oceana, *Go Slow, Whales Below: Vessel Strikes Continue To Threaten North Atlantic Right Whales* (Oct. 2023), <https://oceana.org/reports/go-slow-whales-below-vessel-strikes-continue-to-threaten-north-atlantic-right-whales>, attached hereto; see also Oceana, *Speeding Toward Extinction: Vessel Strikes Threaten North Atlantic Right Whales* (July 2021), <https://usa.oceana.org/reports/speeding-toward-extinction-vessel-strikes-threaten-north-atlantic-right-whales/>, attached hereto.

mammal species in existence today, the Rice’s whale could become extinct if even one whale is struck by a vessel.¹⁴⁹ While industry claims that this measure would impose an undue burden on oil and gas vessels, any such burden can be minimized because operators can and should plan their transits ahead of time to avoid travel plans through Rice’s whale habitat between dusk and dawn. Moreover, this restriction would not apply in cases where compliance would place the safety of the vessel or crew, or the safety of life at sea, in doubt, so this prohibition would not place any personnel in danger. In any case, if BOEM has concerns regarding the impacts of this measure on the oil and gas industry, the agency should thoroughly study and evaluate the veracity of any industry claims of impracticality—while taking into account that the cost of foregoing these measures is the likely extinction of a species whose residence is entirely within the waters off the United States.

B. Best Available Evidence Confirms That the Topographic Features with Sensitive Biological Habitat Covered by Existing Lease Stipulations Must Be Expanded.

As discussed above, BOEM should revise its outdated designations of areas with topographic features containing sensitive biological habitat and exclude the blocks with the updated areas from leasing.¹⁵⁰ BOEM should also exclude the entire FGBNMS from leasing.¹⁵¹ But if these important areas are not excluded from leasing, BOEM should at a minimum (1) expand the “Topographic Features” stipulation and NTL No. 2009-G39 to protect low relief features that host vulnerable mesophotic coral communities, as recommended by the Nuttall et al. study funded by BOEM and NOAA; (2) increase the buffer zones in the “Topographic Features” stipulation and NTL No. 2009-G39 to a minimum of 1 mile for discharge of cuttings and drilling fluids and 1000 meters for bottom-disturbing activities; and (3) update the NAZs in the “Topographic Features” lease stipulation to include the expanded FGBNMS, with associated buffers of 4-Mile Zones around relevant banks of the expanded FGBNMS.

First, BOEM should expand the outdated “Topographic Features” stipulation and NTL No. 2009-G39 to protect low relief features with sensitive biological habitat. These lease stipulations are based on information from the 1980s and do not take into account the research that has been conducted since.¹⁵² The stipulations protect certain coral communities by establishing NAZs, which have corresponding limited buffers prohibiting activity as well as other buffers restricting the release of drilling waste.¹⁵³ NTL No. 2009-G39 also aims to protect PSBFs by prohibiting bottom-disturbing activities in those areas, but the definition of a PSBS is currently limited to high and moderate relief features (i.e., about 8 feet or higher).¹⁵⁴ The Nuttall et al. study funded by BOEM and NOAA found that, while dense and diverse mesophotic coral forests and carbonate producers exist in these present regulatory zones that prohibit or restrict oil and gas activities, coral communities actually exist in higher densities, diversity, and richness in low relief substrates outside of NAZs.¹⁵⁵ Due to their low relief, these features are not protected by

¹⁴⁹ See Section I.A, *supra*.

¹⁵⁰ See Section I.B, *supra*.

¹⁵¹ See Section I.C, *supra*.

¹⁵² Nuttall, *supra* note 52, at 2, 12.

¹⁵³ See Section I.B, *supra*.

¹⁵⁴ NTL No. 2009-G39, *supra* note 58, at 2.

¹⁵⁵ Nuttall, *supra* note 52, at 1, 12.

the PSBF designation either. Because these “low relief rock substrates serve as important habitat for abundant and diverse mesophotic coral forests,” the authors concluded that BOEM’s “current NAZ and PSBF lease stipulations do not fully encompass vulnerable mesophotic communities and would need to be enlarged to include assemblages on features of lower relief.”¹⁵⁶ In particular, the study recommended that the stipulations include biota on features of low relief down to 0.33 meters (around 1 foot).¹⁵⁷ BOEM should follow these recommendations and (1) designate the low relief features studied by Nuttall et al. as NAZs, with corresponding buffer zones, or (2) at a minimum, re-define PSBF to include low relief features (down to around 1 foot).

Second, BOEM should increase the buffer zones in the “Topographic Features” stipulation and NTL No. 2009-G39. Currently, for certain banks, BOEM requires operations within a 1-mile buffer zone of the NAZs to shunt all drill cuttings and drilling fluids to the bottom through a structurally sound downpipe that terminates at an appropriate distance (but no more than 10 meters) from the bottom.¹⁵⁸ However, for several other banks, BOEM applies only a 1000-meter buffer zone for the shunting of drill cuttings and drilling fluids.¹⁵⁹ And for certain other banks, particularly low relief banks that have been designated as NAZs, BOEM applies no buffer zones to restrict drilling wastes.¹⁶⁰ It is unclear how or why BOEM makes these distinctions. Risks to coral communities in these banks from sedimentation or accidental discharge do not decrease simply because they are low relief banks or other types of banks. Indeed, the Nuttall et al. study confirms the importance of protecting low relief features.¹⁶¹ BOEM should impose a 1-mile buffer zone for all banks designated as NAZs.

NTL No. 2009-G39 currently imposes a no-bottom-disturbing-activity buffer within 152 meters (500 feet) of designated NAZ areas of a topographic feature.¹⁶² BOEM should increase this buffer to at least 1000 feet. As explained in the Nuttall et al. study, vital coral communities reside outside of, but in close proximity to, existing NAZs.¹⁶³ Increasing the no-activity buffer to 1000 feet would protect more of these communities. Increasing the no-activity buffer would also protect the corals within the NAZ areas by better shielding them from potential nearby accidental discharge and spills.

Third, if BOEM does not exclude the entire FGBNMS from leasing, it should at least update the NAZs in the “Topographic Features” lease stipulation to include the entire expanded FGBNMS. As explained above, the boundaries of the expanded FGBNMS do not fully align with the current NAZs.¹⁶⁴ Moreover, BOEM currently protects portions of FGBNMS (the East Flower Farden Bank and the West Flower Garden Bank, the two initial banks that made up the sanctuary) by imposing 4-mile buffer zones around the banks in the sanctuary.¹⁶⁵ These 4-mile buffer zones

¹⁵⁶ *Id.* at 12.

¹⁵⁷ *Id.*

¹⁵⁸ Lease Sale 257 Stipulations, *supra* note 58, at 10–12.

¹⁵⁹ *Id.*

¹⁶⁰ *Id.*

¹⁶¹ Nuttall, *supra* note 52, at 12.

¹⁶² NTL No. 2009-G39, *supra* note 58, at 3.

¹⁶³ Nuttall, *supra* note 52, at 12.

¹⁶⁴ *See* Section I.C, *supra*.

¹⁶⁵ Lease Sale 257 Stipulations, *supra* note 58, at 10–12.

restrict the release of drilling waste. BOEM should impose these 4-mile buffer zones around all the banks of the FGBNMS.

C. BOEM Should Clarify That Lessees Are Not Permitted to Utilize Oil and Gas Leases for Carbon Storage.

While industry has touted carbon capture and storage (CCS) as a climate solution that will reduce greenhouse gas emissions, the efficacy and viability of these technologies remain unproven. CCS technologies capture carbon emissions at industrial facilities and then transport the carbon to other facilities to be used, injected underground for storage, or—most commonly—re-purposed to extract more fossil fuels. Around 60 percent of carbon captured in the United States is used for “enhanced oil recovery,” which involves pumping pressurized carbon dioxide (CO₂) to force more oil out of the ground (thus creating more emissions).¹⁶⁶ All but one CCS project currently operating in the United States use the captured carbon for enhanced oil recovery.¹⁶⁷ Globally, enhanced oil recovery projects have used about 73 percent of the CO₂ captured each year.¹⁶⁸ Moreover, a study found that leakage of CO₂ from stored carbon can potentially undermine the value of carbon storage as a mitigation option, estimating that, if storage wells leaked at a rate of 0.1 percent per year, an additional 25 gigatons of CO₂ would be added to the atmosphere by the end of the twenty-first century.¹⁶⁹ Evidence also shows that CCS projects routinely fail to reach their CO₂ capture targets. A report studying 13 flagship CCS cases globally found that a vast majority of those projects failed or underperformed.¹⁷⁰

CCS also involves significant risks. Leakage is a huge concern: CO₂ leaking from storage could be harmful to people living nearby, cause groundwater contamination, and more.¹⁷¹ Pipelines transporting pressurized CO₂ also puts communities and the environment at risk. Three years ago, dozens of people became sick and had to be hospitalized after a CO₂ pipeline ruptured in Mississippi.¹⁷² Marginalized communities are likely to be most impacted by these impacts because pipelines have historically been built through such communities.¹⁷³ Offshore storage of carbon also presents its own particular challenges. A study of two CCS projects storing CO₂

¹⁶⁶ See U.S. Env'tl. Prot. Agency, *Supply, Underground Injection, and Geologic Sequestration of Carbon Dioxide* (last updated Oct. 5, 2023), <https://www.epa.gov/ghgreporting/supply-underground-injection-and-geologic-sequestration-carbon-dioxide>, attached hereto.

¹⁶⁷ Global CCS Institute, *Global Status of CCS 2021*, at 62–63 (2021), <https://www.globalccsinstitute.com/wp-content/uploads/2021/10/2021-Global-Status-of-CCS-Report-Global-CCS-Institute.pdf>, attached hereto.

¹⁶⁸ Bruce Robertson & Milad Mousavian, Inst. for Energy Econ. and Financial Analysis (IEEFA), *The Carbon Capture Crux: Lessons Learned* 8 (Sept. 2022), <https://ieefa.org/resources/carbon-capture-crux-lessons-learned>, attached hereto.

¹⁶⁹ See, e.g., Vinca et al., *Bearing the Cost of Stored Carbon Leakage*, 6 *Front. Energy Res.* 40, 1 (2018), <https://doi.org/10.3389/fenrg.2018.00040>, attached hereto.

¹⁷⁰ IEEFA, *The Carbon Capture Crux*, *supra* note 168, at 77–78.

¹⁷¹ See, e.g., Vinca, *supra* note 169, at 3.

¹⁷² Julia Simon, *The U.S. is expanding CO₂ pipelines. One poisoned town wants you to know its story*, NPR (Sept. 25, 2025), <https://www.npr.org/2023/05/21/1172679786/carbon-capture-carbon-dioxide-pipeline>, attached hereto.

¹⁷³ Jean Chemnick, *EJ communities are wary as CCS racks up policy wins*, E&E News (Sept. 7, 2022), <https://subscriber.politicopro.com/article/eenews/2022/09/07/ej-communities-are-wary-as-ccs-racks-up-policy-wins-00050896>, attached hereto.

offshore found that the carbon stored beneath the seafloor began to migrate unexpectedly within the subsurface, posing the possibility of leaks and potential subsurface geological failure.¹⁷⁴

In lease stipulations (or other binding documents), BOEM should clarify that lessees and operators are not permitted to utilize any oil and gas leases issued to them for carbon storage purposes. The Infrastructure Investment and Jobs Act provided DOI with separate authority to grant a lease, easement, or right-of-way on the OCS for carbon storage.¹⁷⁵ BOEM and BSEE are currently working on draft regulations for public comment for offshore carbon storage. Any CCS projects should therefore fall under the process governed by those regulations—not the present oil and gas leasing process. Moreover, the National OCS Program treats the possibility of CCS projects in the Gulf as an “other use.”¹⁷⁶ This demonstrates that BOEM is not permitted under OCSLA to allow operators to use this oil and gas leasing process for the development of CCS projects.

Before moving forward with any CCS leasing in the Gulf, BOEM should fully assess the viability and efficacy of potential CCS projects. BOEM should evaluate how CCS leasing and development may conflict with other uses of the Gulf Coast—particularly the development of offshore renewable energy, but also other uses such as commercial and recreational fishing, tourism, and non-energy mineral extraction.¹⁷⁷ Given that CCS projects thus far have largely failed to reduce emissions as promised, BOEM should not prioritize CCS projects that extend dependency on fossil fuels and cause harm to communities over true climate solutions such as offshore wind development.

D. Available Evidence Demonstrates the Need for BOEM to Improve Offshore Oil and Gas Methane Emissions Data and Reporting Through the Incorporation of Top-Down Measurements.

Methane is a highly potent greenhouse gas released into the air during the production and transport of oil and natural gas. Methane has more than 80 times the warming power of carbon dioxide over the short term and has accounted for roughly 30 percent of global warming since pre-industrial times.¹⁷⁸ According to the International Energy Agency, “[t]ackling methane emissions from oil and gas operations is one of the most important measures to limit near-term global warming.”¹⁷⁹

¹⁷⁴ Grant Hauber, IEEFA, *Norway’s Sleipner and Snøhvit CCS: Industry models or cautionary tales?* (June 14, 2023), <https://ieefa.org/resources/norways-sleipner-and-snohvit-ccs-industry-models-or-cautionary-tales>, attached hereto.

¹⁷⁵ 43 U.S.C. § 1337(p)(1).

¹⁷⁶ National OCS Program, *supra* note 2, at 7-1 to 7-2.

¹⁷⁷ BOEM should also avoid potential conflicts between carbon storage and oil and gas development—for example the risk that oil drilling could cause leaks from carbon storage formations—by excluding areas from oil and gas leasing that it expects will be used for carbon storage. *See* Section I.F, *supra*.

¹⁷⁸ U.N. Env’t. Prog., *Methane emissions are driving climate change. Here’s how to reduce them.*, <https://www.unep.org/news-and-stories/story/methane-emissions-are-driving-climate-change-heres-how-reduce-them>, attached hereto.

¹⁷⁹ Int’l Energy Agency, *Financing Reductions in Oil and Gas Methane Emissions: A World Energy Outlook Special Report on the Oil and Gas Industry and COP28* 3 (2023), <https://www.iea.org/reports/financing-reductions-in-oil-and-gas-methane-emissions>, attached hereto.

Offshore oil and gas facilities produce a higher quantity of emissions relative to production when compared to onshore facilities: according to a recent study, offshore facilities have a methane loss rate (i.e., the measure of emissions relative to production) of 23 percent to 66 percent, while onshore facilities in places like the Permian basin have a methane loss rate of 3.3 percent to 3.7 percent.¹⁸⁰ Moreover, methane emissions from offshore oil and gas facilities are highly underestimated. A 2023 study found that methane pollution from oil platforms in the Gulf of Mexico exceeded the emissions estimated in BOEM’s emissions inventory, which in turn elevated the average climate impact of the Gulf basin over twice of what the inventory estimates.¹⁸¹ The study noted that “[a]t the site level, the inventory does not correlate with observations and underpredicts high-emitting sites, especially a number of central hubs.”¹⁸² A 2020 study similarly found that BOEM’s emissions inventory underestimates emissions for shallow water facilities.¹⁸³

BOEM should promulgate regulations that better quantify and reduce methane emissions from offshore oil and gas facilities. BOEM’s current plans to perform top-down measurement flight campaigns to “identify facilities and emissions sources to target for potential rulemaking and reduction” for methane is a first step towards much-needed regulation.¹⁸⁴

In the meantime, BOEM should include stipulations in oil and gas leases that, at a minimum, require operators to measure and report more accurate methane emissions data to BOEM by incorporating top-down measurements into their emissions reporting. BOEM has the clear authority to impose such a stipulation: BOEM’s regulations broadly require offshore facilities to monitor their emissions and submit this information to BOEM monthly.¹⁸⁵ Currently, this monthly information is based on bottom-up emissions factors—some of which are based on information from the 1990s—and operational data.¹⁸⁶ Incorporating top-down measurements is necessary to improve the accuracy of operators’ emissions reports. A variety of top-down quantification technologies—such as aircraft mass balance,¹⁸⁷ aerial and satellite remote sensing,¹⁸⁸ and more—are available for operators to utilize for these purposes.

¹⁸⁰ Alana K. Ayasse et al., *Methane remote sensing and emission quantification of offshore shallow water oil and gas platforms in the Gulf of Mexico*, 17 *Envtl. Res. Letters* 1, 9 (Aug. 11, 2022), <https://doi.org/10.1088/1748-9326/ac8566>, attached hereto.

¹⁸¹ Alan M. Gorchov Negron et al., *Excess methane emissions from shallow water platforms elevate the carbon intensity of US Gulf of Mexico oil and gas production*, 120 *Earth Atmospheric and Planetary Sci.* e2215275120, 1 (Apr. 3, 2023), <https://doi.org/10.1073/pnas.2215275120>, attached hereto.

¹⁸² *Id.* at 3.

¹⁸³ Alan M. Gorchov Negron et al., *Airborne Assessment of Methane Emissions from Offshore Platforms in the U.S. Gulf of Mexico*, 54 *Envtl. Sci. & Tech.* 5112 (April 13, 2020), <https://doi.org/10.1021/acs.est.0c00179>, attached hereto.

¹⁸⁴ BOEM, *Studies Development Plan 2023–2024*, at 214, <https://www.boem.gov/sites/default/files/documents/environmental-studies/Studies-Development-Plan-2023-2024.pdf>, attached hereto.

¹⁸⁵ 30 C.F.R. § 550.303(k); 30 C.F.R. § 550.303(g).

¹⁸⁶ BOEM, *Studies Development Plan 2023–2024*, *supra* note 184, at 214.

¹⁸⁷ Alan M. Gorchov Negron, *Airborne Assessment of Methane Emissions from Offshore Platforms in the U.S. Gulf of Mexico*, *supra* note 183.

¹⁸⁸ Alana K. Ayasse, *supra* note 180; Jean-Philippe W. MacLean et al., *Offshore methane detection and quantification from space using sun glint measurements with the GHGSat constellation*, *EGUsphere* [preprint] (2023), <https://doi.org/10.5194/egusphere-2023-1772>, attached hereto.

Moreover, BOEM should continue to partner with top-down technology providers and conduct its own measurements of emissions from offshore facilities. BOEM's current plan to utilize top-down measurement flight campaigns is a good first step. Doing more independent measurement projects such as this will allow BOEM to better evaluate the data reported by operators and to improve the agency's emissions inventory.

E. BOEM Should Meaningfully Collaborate with Environmental Justice Communities and Co-Develop Mitigation Measures That Will Protect These Communities from the Impacts of Oil and Gas Development.

Communities along the Gulf Coast have had fossil fuel infrastructure that transports, stores, and processes OCS oil and gas imposed upon them. These facilities include ports, pipelines, processing facilities, and refineries, among others. Within the Gulf of Mexico, effects of this oil and gas industrialization are not evenly distributed, with environmental justice communities in Louisiana and Texas bearing the brunt of the harm.¹⁸⁹

Executive Order 12,898 requires federal agencies to incorporate environmental justice as part of its mission and address disproportionate adverse human health or environmental effects of its actions on minority and low-income populations.¹⁹⁰ Executive Order 14,096 directs agencies to build upon and strengthen the government's commitment to delivering environmental justice to all communities across the country.¹⁹¹ The Council on Environmental Quality's (CEQ) guidance for considering environmental justice under the National Environmental Policy Act (NEPA) instructs agencies to "elicit the views of the affected populations on measures to mitigate a disproportionately high and adverse human health or environmental effect on a low-income population, minority population, or Indian tribe and . . . carefully consider community views in developing and implementing mitigation strategies."¹⁹² Mitigation measures "should reflect the

¹⁸⁹ See, e.g., Kimberly Terrell & Gianna St. Julian, *Air pollution is linked to higher cancer rates among black or impoverished communities in Louisiana*, 17 *Env'tl. Res. Letters* 014033 (Jan. 13, 2022), <https://doi.org/article/10.1088/1748-9326/ac4360>, attached hereto; Wesley James et al., *Uneven Magnitude of Disparities in Cancer Risks from Air Toxics*, 9 *Int. J. Environ. Res. Public Health* 4365 (Dec. 3, 2012), attached hereto; NAACP & Clean Air Task Force, *Fumes Across the Fence-Line* (Nov. 2017), https://www.catf.us/wp-content/uploads/2017/11/CATF_Pub_FumesAcrossTheFenceLine.pdf, attached hereto; Lylla Younes et al., *In a Notoriously Polluted Area of the Country, Massive New Chemical Plants Are Still Moving In*, *ProPublica* (Oct. 30, 2019), <https://projects.propublica.org/louisiana-toxic-air/>, attached hereto; Env'tl. Integrity Project, *Nearly Half of U.S. Refineries Releasing Benzene at Levels That Could Pose a Long-Term Health Threat* (May 12, 2022), <https://environmentalintegrity.org/news/nearly-half-of-u-s-refineries-releasing-benzene-at-levels-that-could-pose-a-long-term-health-threat/>, attached hereto; Savanna Strott, *Nearly all unplanned chemical releases in Texas go unpunished*, *Texas Tribune* (Aug. 17, 2022), <https://www.texastribune.org/2022/08/17/texas-unplanned-chemical-release-air-pollution/>, attached hereto.

¹⁹⁰ Exec. Order No. 12,898, 59 C.F.R. 32 (1994) (agencies must "make achieving environmental justice part of its mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations," including tribal communities).

¹⁹¹ Exec. Order No. 14,096, 88 Fed. Reg. 25,251 (Apr. 26, 2023).

¹⁹² CEQ, Environmental Justice, *Guidance Under the National Environmental Policy Act* 16 (1997).

needs and preferences of affected low-income populations, minority populations, or Indian tribes to the extent practicable.”¹⁹³

BOEM has committed to “advancing meaningful engagement with communities that may potentially be impacted by oil and gas activities” for lease sales from 2024 to 2029, and it has stated that it will consider “community-initiated discussions of potential impacts and community-informed mitigation measures.”¹⁹⁴

Before BOEM proceeds further into the leasing process, BOEM must engage meaningfully with vulnerable Gulf communities that suffer the devastating and disproportionate impacts of offshore oil and gas production, including impacts from midstream and downstream oil and gas infrastructure associated with offshore development. Such engagement should include (1) holding in-person meetings with at least 10 to 20 impacted communities in the Gulf of Mexico; (2) collaborating with trusted community-based organizations to help the agency understand community concerns and needs; (3) conducting targeted outreach and disseminating information in a manner that will reach the intended communities; (4) providing translation and interpretation services for materials and meetings in the top languages spoken in the communities; (5) ensuring that materials are in plain language and accessible; and (6) providing incentives for participation in BOEM meetings.

BOEM should identify and fully understand all potential impacts to communities as well as community concerns. In particular, BOEM should evaluate, prior to 2025, how additional OCS leasing will impact Gulf communities through further midstream and downstream oil and gas infrastructure. BOEM should take the results of this assessment into consideration when making leasing decisions for 2025. Moreover, BOEM should disclose this information to the public prior to 2025, to increase accountability and transparency into the leasing process.

In collaboration with environmental justice communities, BOEM should also co-develop and adopt mitigation measures that will adequately protect communities from the health, environmental, and social consequences of additional oil and gas leasing and development in the Gulf of Mexico. Co-development of measures is necessary to help ensure that the agency is truly addressing community concerns and adhering to community priorities.

F. BOEM Should Incentivize Lessees to Enter into Community Benefit Agreements with Environmental Justice Communities.

Community benefit agreements (CBAs) are agreements signed by community benefit groups and developers, identifying a range of community benefits the developer agrees to provide as part of the development, in return for the community’s support of the project.¹⁹⁵ The goal of CBAs is to

¹⁹³ *Id.*; see also Federal Interagency Working Group on Environmental Justice & NEPA Committee, *Promising Practices for EJ Methodologies in NEPA Reviews* (Mar. 2016), attached hereto; Federal Interagency Working Group on Environmental Justice & NEPA Committee, *Community Guide to Environmental Justice and NEPA Methods* (Mar. 2019), attached hereto.

¹⁹⁴ National OCS Program FEIS, *supra* note 2, at 66.

¹⁹⁵ See Columbia Law School, Sabin Ctr. for Climate Change Law, *Community Benefits Agreements Database*, <https://climate.law.columbia.edu/content/community-benefits-agreements-database> (last visited Oct. 26, 2023), attached hereto.

ensure that measurable, local benefits will be given to a community.¹⁹⁶ These agreements are enforceable, legally-binding contracts for all parties that stipulate community benefits and are the direct result of substantial community input.¹⁹⁷

For wind leasing in California, BOEM has previously provided a 2.5 percent credit to bidders if they entered into qualifying CBAs.¹⁹⁸ Lessees receiving the credit were required to enter in a CBA with a community or stakeholder group whose use of the geographic space of the lease area, or whose use of resources harvested from that geographic space, is expected to be impacted by the lessee’s potential offshore wind development.¹⁹⁹ In the recent Gulf of Mexico wind lease sale, BOEM included in lease provisions that lessees are strongly encouraged to enter into “formal agreements to monitor community impacts and implement community benefits.”²⁰⁰ But BOEM does not make similar efforts for oil and gas leases.

The health and safety of Gulf communities would be most protected if BOEM does not issue new additional oil and gas leases. However, if BOEM plans on issuing any such leases, the agency should ensure that vulnerable coastal communities do not face further harms from additional oil and gas leasing *and* that they receive health and economic benefits despite the leasing. As such, BOEM should incentivize lessees to enter into CBAs with more than just those that “utilize the geographic space of the Lease Area.”²⁰¹ A CBA in this context cannot be equitable or beneficial—and may be harmful—if it does not include Gulf communities that bear the burdens of offshore drilling, including the midstream and downstream impacts of such drilling, regardless of whether they utilize the geographic area of the lease or not.

Potential CBAs could, for example, stipulate that lessees will provide annual funding for coastal habitat restoration projects, emissions reduction programs, health services, school districts, scholarships, and more. These requirements would be consistent with the terms of other CBAs between fossil fuel infrastructure companies and communities.²⁰²

¹⁹⁶ *See id.*

¹⁹⁷ *See id.*

¹⁹⁸ BOEM, Bidder’s Financial Form 5, 8 (Apr. 2022), https://www.boem.gov/sites/default/files/documents/renewable-energy/state-activities/CA%20BFF_2.pdf, attached hereto; Renewable Energy Lease No. OCS-P 0562, https://www.boem.gov/sites/default/files/documents/renewable-energy/state-activities/2023-05-16_BOEM_CA-North-Float_POCSR_Lease-0562.pdf, attached hereto.

¹⁹⁹ Renewable Energy Lease No. OCS-P 0562, *supra* note 198, at C-27.

²⁰⁰ Renewable Energy Lease No. OCS-G 37334, at C-5, <https://www.boem.gov/sites/default/files/documents/renewable-energy/state-activities/GOMW-1%20OCS-G%2037334%20Lake%20Charles%20Lease.pdf>, attached hereto.

²⁰¹ *See* Renewable Energy Lease No. OCS-P 0562, *supra* note 198, at C-27.

²⁰² Columbia Law School, Sabin Ctr. for Climate Change Law, *supra* note 195 (Dec. 16, 2014, City of Salem and Footprint Power Salem Harbor Development CBA in Massachusetts included “[a]nnual payments for 3 to 10 years will be used to fund benefits including but not limited to public harbor access, an off-site emission reduction program, public safety training, funding school districts, and supporting public art initiatives,” and Aug. 4, 2014, City of Richmond and Chevron Products Company CBA included “[a]nnual payments . . . for programs including greenhouse gas reduction programs, scholarships, and public safety programs.”).

G. BOEM Should Evaluate Its Commonly Applied Post-Lease Mitigation Measures and Incorporate Them into Lease Stipulations as Appropriate.

BOEM's final multisale environmental impact statement for its 2017 to 2022 oil and gas lease sales contains a list of "commonly-applied" or "standard" mitigation measures that the agency could apply to permits and approvals at the post-lease stage.²⁰³ These mitigations relate broadly to air quality, archaeological resources, artificial reef material, FGBNMS, topographic features, hydrogen sulfide, hard bottoms/pinnacles, drilling hazards, and more.²⁰⁴ BOEM notes that "[m]any of these mitigating measures have been adopted and incorporated into regulations and/or guidelines governing OCS oil and gas exploration, development, and production activities."²⁰⁵ BOEM should take a close look at its entire list of commonly applied mitigation measures and determine which of the current commonly applied mitigation measures should be mandatory lease stipulations for all oil and gas operations.

While mitigation measures at the post-lease stage can mitigate harms from oil and gas operations, there is considerable risk of inconsistency in application because BOEM does not uniformly apply these measures to all oil and operations. Incorporating protective mitigation measures into all lease stipulations at the beginning of the leasing process, and making them mandatory, will better accomplish BOEM's goal of ensuring that oil and gas operations are always conducted in an environmentally sound manner.²⁰⁶

In particular, we recommend that BOEM evaluate and incorporate many of the post-lease commonly applied mitigation measures that relate to air quality—including the use of ultra-low sulfur content fuel, performance of stack testing to verify emission limits of engines, production curtailment during sulfur recovery unit shutdown, and more—into lease stipulations.²⁰⁷ BOEM should also incorporate the measures regarding anchoring approval into lease stipulations in order to protect reef materials.²⁰⁸ BOEM should also incorporate the "zero discharge" and other practices to mitigate harm to chemosynthetic communities, as well as the measures to protect the FGBNMS, topographic features, and hard bottoms, pinnacles, and potentially sensitive biological features.²⁰⁹ We also recommend making the pipeline corrosion inspection requirements mandatory in lease stipulations.²¹⁰ Some of the requirements outlined for these mitigation measures are already part of current lease stipulations (for example, some of the topographic features mitigations), and incorporation of more of these post-lease measures into the lease stipulations, as appropriate, will lead to more uniform and transparent mitigation.

²⁰³ BOEM, *Gulf of Mexico OCS Oil and Gas Lease Sales: 2017–2022, Final Multisale Environmental Impact Statement* Appx. B (Mar. 2017), <https://www.boem.gov/sites/default/files/environmental-stewardship/Environmental-Assessment/NEPA/BOEM-EIS-2017-009-v3.pdf>, attached hereto.

²⁰⁴ *Id.* at B-3.

²⁰⁵ *Id.*

²⁰⁶ *Id.*

²⁰⁷ *Id.* at B-6 to B-10.

²⁰⁸ *Id.* at B-16 to B-18.

²⁰⁹ *Id.* at B-21 to B-23, B-25 to B-26.

²¹⁰ *Id.* at B-24.

H. Available Evidence Demonstrates the Need for BOEM to Include as Stipulations Additional Safeguards to Prevent Blowouts and Catastrophic Oil Discharges.

The 2010 BP *Deepwater Horizon* catastrophe arose from a single accident on an offshore drilling rig involving a failed cement installation, failed cement testing, and a failed blowout preventer system. The BSEE recently finalized changes to the Well Control Rule,²¹¹ which was first published in 2016 to correct some of the deficiencies that investigators found contributed to the *Deepwater Horizon* disaster. Although the final Well Control Rule improved standards for operations using blowout preventers, significant gaps remain. BOEM should include several additional mitigation measures as lease stipulations that require operators to implement additional safeguards to help prevent another similar catastrophe in the Gulf of Mexico.

First, BOEM should stipulate that all lessees must have the capability to deploy the full range of Source Control and Containment Equipment (SCCE) to control or contain a blowout. BSEE regulations currently require drilling operations to have access to SCCE generally but do not require that operations have access to specified types of SCCE.²¹² The mitigation measure should require drilling operations to have access to *all* eight types of SCCE listed as voluntary in BSEE regulations.²¹³ Increasing the amount of mandatory SCCE equipment would provide necessary protections for worker safety and the environment. Well control cooperatives were set up after the BP *Deepwater Horizon* spill, and oil and gas companies can join these cooperatives to access the full suite of well control equipment for an annual fee.

Second, BOEM should stipulate that operators must have cement evaluation logs for all offshore wells. Cement failure was a root cause of the *Deepwater Horizon* blowout, yet BSEE generally relies on industry volunteering to run cement evaluation logs. Cement evaluation logs are critical to ensuring correct cement placement and verifying cement repairs. They should therefore be required for all offshore wells, and, in particular, for complex wells or wells in environmentally sensitive locations.

Third, BOEM should prohibit the use of a blowout preventer that is under investigation by BSEE. If a component failure or other issue is serious enough to warrant a BSEE-required investigation, it is serious enough to halt use of that same blowout preventer during that investigation until corrective actions are made and the blowout preventer has been verified fit for service.

I. Available Evidence Demonstrates the Need for BOEM to Require Lessees to Decommission Idle Wells Prior to Bidding on New Leases.

Poorly decommissioned, orphaned, and abandoned wells harm the marine environment and contribute to climate change. Such wells are at a high risk of leaking or spilling oil into the

²¹¹ BSEE, *Final rule: Oil and Gas and Sulfur Operations in the Outer Continental Shelf-Blowout Preventer Systems and Well Control Revisions*, 88 Fed. Reg. 57,334 (Aug. 23, 2023).

²¹² 30 C.F.R. § 250.462(b).

²¹³ *Id.*

ocean.²¹⁴ They can also emit methane—a climate pollutant that, as noted above, has eighty times the warming power of carbon dioxide in the short term.²¹⁵

Lessees are required by law and the terms of their leases to decommission offshore wells, yet thousands of idle wells remain unplugged in federal waters.²¹⁶ To prevent and mitigate further environmental harm from abandoned wells, BOEM should stipulate that historic or current owners of abandoned or idle wells in federal waters that require decommissioning are not eligible for new leases. Companies who have not fulfilled their decommissioning obligations in the past should not be awarded new leases until their prior commitments have been met.

III. CONCLUSION

We appreciate the opportunity to comment on BOEM’s call for information and nominations for the Gulf of Mexico OCS oil and gas lease sales for 2024 to 2029. We urge BOEM to consider the information and evidence presented above and accordingly minimize leasing in the Gulf of Mexico, exclude several important areas from any oil and gas leasing, and impose robust mitigation measures and lease stipulations for any oil and gas lease issued.

Sincerely,

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²¹⁴ Zainab Mirza et al., *Fixing Abandoned Offshore Oil Wells Can Create Jobs and Protect the Ocean*, Ctr. for Am. Progress (Apr. 20, 2022), <https://www.americanprogress.org/article/fixing-abandoned-offshore-oil-wells-can-create-jobs-and-protect-the-ocean/>, attached hereto.

²¹⁵ *Id.*

²¹⁶ Mark Agerton et al., *Financial liabilities and environmental implications of unplugged wells for the Gulf of Mexico and coastal waters*, 8 *Nature Energy* 536 (2023), attached hereto.

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