UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF MARYLAND

SIERRA CLUB
2101 Webster Street, Suite 1300
Oakland, CA 94612,

CENTER FOR BIOLOGICAL DIVERSITY
378 N Main Avenue
Tucson, AZ 85701,

FRIENDS OF THE EARTH
1101 15th Street, NW
11th Floor
Washington, DC 20005,

and

TURTLE ISLAND RESTORATION NETWORK
9255 Sir Francis Drake Boulevard,
Olema, CA 94950,

Plaintiffs,

v.

NATIONAL MARINE FISHERIES SERVICE
1315 East-West Highway
Silver Spring, Montgomery County, MD 20910,

and

CHRIS OLIVER, in his official capacity as ASSISTANT ADMINISTRATOR for NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
1315 East-West Highway
Silver Spring, Montgomery County, MD 20910,

Defendants.

No. _____

COMPLAINT FOR DECLARATORY AND INJUNCTIVE RELIEF

INTRODUCTION

1. This case challenges the National Marine Fisheries Service's (NMFS) issuance of an arbitrary and capricious programmatic biological opinion governing federally authorized oil and gas activities in the Gulf of Mexico, projected over 50 years, in violation of the Endangered

Species Act (ESA) and Administrative Procedure Act (APA).

2. More than two dozen species listed as either threatened or endangered under the ESA inhabit the Gulf of Mexico. They include the critically imperiled Gulf of Mexico Bryde's whale, with less than 50 individuals remaining, and the Kemp's ridley sea turtle, the most endangered sea turtle in the world.

3. The Gulf is also the epicenter of the nation's offshore oil and gas industry, with tens of thousands of active wells, thousands of production platforms, tens of thousands of miles of underwater pipelines, and hundreds of thousands of vessel trips taking place annually.

4. The oil and gas operations harm threatened and endangered species, as well as the broader Gulf of Mexico ecosystem, in a variety of ways, on a daily basis. The harms sometimes become catastrophic, as when the Deepwater Horizon oil drilling rig exploded in 2010. The disaster killed 11 crew members and caused 4.9 million barrels (more than 200 million gallons) of oil to spew underwater for 87 days, spreading throughout the Gulf of Mexico and coating wildlife and ecosystems. The spill killed countless marine mammals, sea turtles, fish, birds, and other wildlife. Scientists continue to discover new, long-term harms from the spill to this day.

5. The ESA requires each federal agency, in consultation with the relevant federal wildlife service, to ensure that its actions are not likely to jeopardize the continued existence of any threatened or endangered species or destroy or adversely modify the critical habitat of any such species. This consultation process is a central feature of the ESA's framework for protecting endangered and threatened species.

6. The Department of the Interior (Interior) implements an oil and gas leasing and development program in federal waters of the Gulf of Mexico pursuant to the Outer Continental Shelf Lands Act (OCSLA). Because the program has numerous effects on threatened and

endangered species, Interior has engaged in ESA consultation with NMFS at various points in recent decades—completing the most recent previous biological opinion in 2007.

7. In the immediate wake of the Deepwater Horizon disaster, Interior and NMFS recognized that the spill called into question the previous analyses of oil spill risks in the 2007 biological opinion and significantly altered the statuses of ESA-listed species and critical habitats in the Gulf of Mexico. The agencies reinitiated ESA consultation later in 2010.

8. Nearly ten years later, NMFS finally completed consultation and issued a new programmatic biological opinion (the BiOp)—the subject of this suit. The BiOp, however, completely fails to address the two primary reasons the agencies reinitiated consultation. NMFS did not account for post-Deepwater Horizon population or habitat changes when assessing the effects of the program on ESA-listed species and habitats. And the agency once again arbitrarily assumed—as it did in 2007—that an extremely large oil spill will not result from Interior's oil and gas program. The BiOp is riddled with other inadequate analyses and flaws that violate the ESA. For example, NMFS ignored sublethal harms from the program and the increasing effects of climate change when assessing jeopardy, and failed to consider how the program will impede the recovery of species (as opposed to threatening their survival). And the BiOp's incidental take statement and reasonable and prudent alternatives fail to meet what the ESA legally requires.

9. Plaintiffs therefore ask this Court to declare that the BiOp is arbitrary and capricious and contrary to law, in violation of the APA and ESA, and to vacate and remand the BiOp to NMFS with an order to prepare a sufficiently protective biological opinion within six months.

JURISDICTION AND VENUE

10. This Court has jurisdiction over this action pursuant to 28 U.S.C. § 1333 (federal question) and 5 U.S.C. § 704 (APA).

11. Venue properly vests in this District pursuant to 28 U.S.C. § 1391(b) and (e)(i) because NMFS's headquarters are located in this District and a substantial part of the events and omissions which gave rise to this action occurred in this District.

12. This Court has authority to grant Plaintiffs' requested relief pursuant to the APA, 5 U.S.C. § 706(2), and the Declaratory Judgment Act, 28 U.S.C. §§ 2201–2202.

PARTIES

13. Plaintiff SIERRA CLUB is a not-for-profit organization dedicated to exploring, enjoying, and protecting the wild places of the earth; to practicing and promoting the responsible use of the earth's ecosystems and resources; to educating and enlisting humanity to protect and restore the quality of the natural and human environment; and to using all lawful means to carry out these objectives. Sierra Club is one of the oldest and largest conservation groups in the country, with about 800,000 members nationally in 67 chapters in all 50 states, the District of Columbia, and Puerto Rico; including over 17,000 members in Sierra Club's Maryland Chapter. Sierra Club members use the public lands and waters throughout the Gulf of Mexico, including those that would be affected by oil and gas activities, for quiet recreation, aesthetic pursuits, and spiritual renewal. Sierra Club members further observe and enjoy wildlife found in the Gulf that may be harmed by oil and gas activities, including threatened and endangered species such as sperm whales and green sea turtles. Sierra Club brings this action for itself and as representative of its members.

14. Plaintiff CENTER FOR BIOLOGICAL DIVERSITY (the Center) is a nonprofit

corporation that maintains offices across the United States and in Baja California Sur, Mexico. The Center advocates for the protection of threatened and endangered species and their habitats through science, policy, and environmental law. The Center's mission also includes protecting air quality, water quality, and public health. The Center's Oceans Program focuses specifically on conserving marine ecosystems, and seeks to ensure that imperiled species such as marine mammals, corals, and sea turtles are properly protected from destructive practices in our oceans. The Oceans Program also works to protect coastal communities from the air pollution, water pollution, and other impacts that result from such practices. In pursuit of this mission, the Center has been actively involved in protecting the Atlantic, Gulf of Mexico, California, and Alaska coasts from the harmful impacts of offshore oil and gas drilling. The Center has more than 81,800 members, including members who live and recreate throughout the Gulf of Mexico and Atlantic coast. The Center brings this action on behalf of itself and as representative of its members.

15. Plaintiff FRIENDS OF THE EARTH is a nonprofit organization with offices in Berkeley, California, and Washington, D.C. For more than 50 years, it has championed the causes of a clean and sustainable environment, protection of the nation's public lands and waterways, and the exposure of political malfeasance and corporate greed. Friends of the Earth's Oceans and Vessels Program works to fight industrialization of the ocean in all its forms, and has won regional, national, and international limits on air, water, and oil pollution from cruise ships, cargo ships, oil tankers, ferries, and recreational watercraft. Friends of the Earth has more than 127,000 members, including members who live and recreate along the coastlines of the Gulf of Mexico and the Atlantic seaboard. Friends of the Earth brings this action for itself and as representative of its members.

16. Plaintiff TURTLE ISLAND RESTORATION NETWORK (TIRN) is a nonprofit organization based in California. TIRN has been a leading advocate for the world's oceans and marine wildlife for more than 30 years. TIRN and its members work to protect and restore populations of endangered sea turtles and other vulnerable marine creatures—such as whales and dolphins—as well as marine biodiversity and ecosystems throughout the Gulf of Mexico and along the Atlantic Coast. TIRN has over 200,000 members and supporters, including members who live and recreate along the Atlantic and Gulf coasts. TIRN brings this action for itself and as representative of its members.

17. Plaintiffs and Plaintiffs' members and constituents regularly use, enjoy, and benefit from the marine environment of the Gulf of Mexico. Plaintiffs and Plaintiffs' members and constituents also regularly use, enjoy, and benefit from the presence of healthy marine life—including threatened and endangered species—within the Gulf of Mexico for recreational, aesthetic, commercial, scientific, and environmental purposes, such as whale watching, scientific study, boat touring, underwater diving, fishing, and photography. In addition, Plaintiffs and Plaintiffs' members and constituents regularly use, enjoy, and benefit from the presence of wildlife that migrate from the Gulf of Mexico to the Chesapeake Bay and marine environments along the Atlantic Coast—including ESA-listed whales and sea turtles—for recreational, aesthetic, commercial, scientific, and environmental purposes, such as whale watching, scientific study, boat touring, underwater diving, fishing, and photography. The ability of Plaintiffs and Plaintiffs' members to pursue these interests hinges not only on the well-being of threatened and endangered species that live, migrate, feed, and breed in areas affected by oil and gas activities in the Gulf, but also on the health of the marine ecosystems on which these species depend.

18. NMFS's failure to comply with the ESA and APA has caused and is causing

Plaintiffs' members and staff procedural harms connected to their substantive conservation, recreational, scientific, and aesthetic interests. Plaintiffs' members and staff rely on NMFS to comply with the requirements of the ESA to guide federal authorizations of Gulf oil and gas activities so as to protect endangered and threatened species from harmful effects of those activities. Interior continues to authorize Gulf oil and gas activities in reliance on the BiOp.

19. The interests of Plaintiffs and Plaintiffs' members have been, are being, and will be adversely affected by NMFS's violations of federal law, as described herein. These harms can only be remedied if the Court orders NMFS to comply with the ESA and APA. Plaintiffs have no other adequate remedy at law.

20. Defendant NATIONAL MARINE FISHERIES SERVICE is the federal agency within the U.S. Department of Commerce's National Oceanic and Atmospheric Administration with responsibility for administering and implementing the ESA with respect to marine species. Specifically, NMFS has responsibility under the ESA for sea turtles (while they are in the water), whales, sharks, rays, corals, and marine fish (including grouper, sawfish, and Gulf sturgeon). The principal offices of NMFS and the National Oceanic and Atmospheric Administration are located in Silver Spring, Montgomery County, Maryland.

21. Defendant CHRIS OLIVER is sued in his official capacity as the Assistant Administrator for National Oceanic and Atmospheric Administration's National Marine Fisheries Service (known as NMFS). The Assistant Administrator is responsible for implementing and fulfilling NMFS's duties under the ESA. The office of the Assistant Administrator is located in Silver Spring, Montgomery County, Maryland.

STATUTORY BACKGROUND

I. ENDANGERED SPECIES ACT

22. Congress enacted the ESA in 1973 in response to the extinction crisis to "provide

a means whereby the ecosystems upon which endangered species and threatened species depend may be conserved, [and] to provide a program for the conservation of such endangered species and threatened species." 16 U.S.C. § 1531(b). Congress defined "conservation" under the ESA as "the use of all methods and procedures which are necessary to bring any endangered species or threatened species to the point at which the measures provided pursuant to this chapter are no longer necessary"; that is, when the species has recovered and no longer needs the protection of the ESA. *Id.* § 1532(3).

23. In broad strokes, the ESA seeks to protect and recover imperiled species and populations by first listing them as threatened or endangered based on enumerated statutory factors. *Id.* § 1533(a)(1)(A)–(E); *see id.* § 1532(6), (20). The Act further provides for the designation of protected critical habitat for threatened and endangered species. *Id.* § 1533(a)(3)(A)(i).

24. Section 7(a)(2) of the ESA requires each federal agency to "insure that any action authorized, funded, or carried out by such agency . . . is not likely to jeopardize the continued existence of any endangered species or threatened species or result in the destruction or adverse modification of [critical] habitat of such species." *Id.* § 1536(a)(2).

25. The ESA and its implementing regulations establish an interagency consultation process to assist federal agencies in complying with this duty. An agency must consult with the appropriate wildlife service—the U.S. Fish and Wildlife Service or, as here, NMFS—under Section 7 whenever it takes an action that "may affect" a threatened or endangered species or critical habitat. *Id.*; 50 C.F.R. § 402.14(a). In fulfilling the requirements of Section 7, agencies must "use the best scientific and commercial data available." 16 U.S.C. § 1536(a)(2).

26. If the agency taking the action (the action agency) concludes the action may affect

listed species or their critical habitats, it must initiate formal consultation with NMFS, unless the action agency determines and NMFS concurs in writing that the action is "not likely to adversely affect" any listed species or critical habitat. 50 C.F.R. §§ 402.13(c), 402.14(a), (b)(1).

27. Formal consultation requires NMFS to 1) evaluate the current status and environmental baseline of affected species and critical habitats, 2) assess the effects of the action and cumulative effects on those species and habitats, and 3) analyze whether the effects of the action, when added to the environmental baseline together with any cumulative effects, is likely to jeopardize the continued existence of the species or adversely modify their critical habitats. *Id.* § 402.14(g). At the conclusion of formal consultation, NMFS issues a biological opinion assessing the effects of the action and making a formal determination regarding whether the action is likely to jeopardize the continued existence of the species or adversely modify their critical habitats. 16 U.S.C. § 1536(b)(3)(A); 50 C.F.R. § 402.14(e), (h).

28. Longstanding ESA regulations define "jeopardize the continued existence of" as, "to engage in an action that reasonably would be expected, directly or indirectly, to reduce appreciably the likelihood of both the survival and recovery of a listed species in the wild by reducing the reproduction, numbers, or distribution of that species." 50 C.F.R. § 402.02; *see also Defs. of Wildlife v. U.S. Dep't of the Interior*, 931 F.3d 339, 354 (4th Cir. 2019) (confirming that "the plain language" of the regulation requires the Services "to assess 'both the survival *and* recovery of a listed species'" (quoting 50 C.F.R. § 402.02)).

29. These regulations also define "destruction or adverse modification of critical habitat" as "a direct or indirect alteration that appreciably diminishes the value of critical habitat as a whole for the conservation of a listed species." 50 C.F.R. § 402.02.

30. If NMFS concludes that the proposed action is likely to jeopardize a listed species

or result in adverse modification of its critical habitat, it must propose reasonable and prudent alternatives (RPAs), if available, that will mitigate the proposed action to avoid jeopardy and adverse modification of critical habitat. 16 U.S.C. § 1536(b)(3); 50 C.F.R. §§ 402.02, 402.14(h)(2). RPAs must 1) be capable of being implemented in a manner consistent with the intended purpose of the action, 2) be within the scope and authority of agency's jurisdiction, 3) be economically and technologically feasible, and 4) avoid the likelihood of jeopardizing the continued existence of the species. 50 C.F.R. § 402.02.

31. Section 9 of the ESA prohibits "take" of endangered species by any person, which includes federal agencies. 16 U.S.C. § 1538(a)(1). "Take" means to "harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect." *Id.* § 1532(19).

32. If NMFS concludes that the proposed action (or an RPA) will not jeopardize a listed species or adversely modify its critical habitat, but will incidentally take members of a listed species, it must include with the biological opinion an "incidental take statement" that specifies the amount of take that may occur without causing jeopardy or adverse modification of critical habitat, as well as the measures required to limit take. 50 C.F.R. § 402.14(i)(1). For ESA-listed marine mammals, the incidental take statement must also include mitigation measures to comply with section 101(a)(5) of the Marine Mammal Protection Act, which requires that there be no more than a negligible impact on the species, among other restrictions. *Id.*

33. An incidental take statement serves as a check on the biological opinion's assumptions and conclusions, and provides for monitoring. *Id.* § 402.14(i)(3). The amount of take set out in the incidental take statement acts as a trigger that, if exceeded, invalidates the safe harbor and requires the agencies to immediately reinitiate consultation. *Id.* § 402.14(i)(4); *see*

Sierra Club v. U.S. Dep't of the Interior, 899 F.3d 260, 269 (4th Cir. 2018) (stating incidental take statement sets a "'trigger' that, when reached, results in an unacceptable level of incidental take" (citation omitted)).

II. OUTER CONTINENTAL SHELF LANDS ACT

34. OCSLA governs the leasing, exploration, and development of oil and gas deposits on the Outer Continental Shelf. 43 U.S.C. § 1331 *et seq.* The Outer Continental Shelf extends from the outer boundary of state waters—typically three miles from shore—to the outer boundary of the United States' Exclusive Economic Zone, 200 nautical miles from shore. *Id.* §§ 1301(a)(2), 1331(a); 48 Fed. Reg. 10,605 (Mar 14, 1983).

35. The Bureau of Ocean Energy Management (BOEM) is the federal agency within the Department of the Interior that manages these activities under OCSLA. 30 C.F.R. § 550.101. The Bureau of Safety and Environmental Enforcement (BSEE), also within the Department of the Interior, is the federal agency responsible for enforcing safety and environmental standards for offshore oil and gas activities and approving some activities. *Id.* § 250.101.

36. OCSLA prescribes four stages for BOEM to lease and allow development of oil and gas deposits in the Outer Continental Shelf: 1) five-year leasing programs; 2) lease sales; 3) exploration plans; and 4) development and production plans. 43 U.S.C. §§ 1337, 1340, 1344, 1351.

37. At the five-year program stage, BOEM proposes a schedule of lease sales over an upcoming five-year period. *Id.* § 1344(a).

38. At the lease sale stage, BOEM offers for sale leases that "entitle the lessee to explore, develop, and produce the oil and gas contained within the lease area," subject to certain additional approvals. *Id.* § 1337.

39. Lessees must obtain BOEM's approval of an Exploration Plan or Development

Operations Coordination Document before they may commence exploration or production, respectively, on a lease. *Id.* §§ 1340, 1351; 30 C.F.R. § 550.201.

40. Lessees also must obtain approval from BSEE before they may drill or install certain structures. 30 C.F.R. § 550.281.

III. ADMINISTRATIVE PROCEDURE ACT

41. The APA confers a right of judicial review on any person who is adversely affected by agency action. 5 U.S.C. § 702.

42. The APA provides that the reviewing court "shall . . . hold unlawful and set aside agency action, findings, and conclusions found to be . . . arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law." *Id.* § 706(2)(A).

STATEMENT OF FACTS

I. THREATENED AND ENDANGERED WILDLIFE IN THE GULF OF MEXICO

43. The Gulf of Mexico is home to some of the most productive and biodiverse tropical and temperate habitats in the United States, including coral reefs, wetlands, seagrass beds, mangroves, *Sargassum*, and hard- and soft-bottom marine communities. These ecosystems support thousands of species of fish, whales and dolphins, sea turtles, corals, and other animals. Many of the populations found in the Gulf of Mexico are listed as endangered or threatened under the ESA.

44. The Gulf of Mexico Bryde's whale, sperm whale, blue whale, sei whale, and North Atlantic right whale are found in the Gulf and listed as endangered. The Gulf of Mexico Bryde's whale is one of the most endangered populations of whales in the world, due primarily to oil and gas activity in its habitat.

45. All five sea turtle species found in the Gulf are listed as endangered or threatened: the Kemp's ridley sea turtle (the most endangered sea turtle in the world), hawksbill sea turtle,

and leatherback sea turtle are listed as endangered, while the loggerhead sea turtle (Northwest Atlantic Distinct Population Segment [DPS])[1] and green sea turtle (North Atlantic DPS and South Atlantic DPS) populations in the Gulf are listed as threatened.

46. Among the Gulf's fish species, the oceanic whitetip shark, giant manta ray, Gulf sturgeon, and Nassau grouper are listed as threatened, and the smalltooth sawfish is listed as endangered.

47. Seven species of coral in the Gulf of Mexico are listed as threatened: boulder star coral, lobed star coral, mountainous star coral, elkhorn coral, staghorn coral, rough cactus coral, and pillar coral.

48. Additionally, critical habitat is designated in or along the Gulf of Mexico for the loggerhead sea turtle, Gulf sturgeon, smalltooth sawfish, elkhorn coral, and staghorn coral.

II. PREVIOUS ESA CONSULTATIONS ON GULF OF MEXICO OIL AND GAS ACTIVITIES

49. Federally approved oil and gas exploration, development, and production activities in the Gulf of Mexico are extensive. Each year, oil and gas operators conduct hundreds of thousands of activities that adversely affect threatened and endangered species and their habitats in the Gulf, including but not limited to, drilling wells, constructing pipelines, installing entire subsea production systems, pumping oil and gas, and loading and transporting oil, gas, and cargo on ships. *See* Figure 1. These activities inflict harms to wildlife and the environment that include oil spills, vessel strikes, noise (from vessels, construction, and general operations), marine debris and other water pollution, and underwater explosions.

[1] The ESA allows NMFS to separately list individual DPSs of species as threatened or endangered. *See* 16 U.S.C. § 1532(16) (defining "species" to include "any distinct population segment of any species of vertebrate fish or wildlife which interbreeds when mature"). NMFS identifies DPSs based on the population's "discreteness," "significance," and "conservation status." 61 Fed. Reg. 4722, 4725 (Feb. 7, 1996).

50. Due to these effects, federal lease sales and authorizations pursuant to OCSLA are subject to the ESA's section 7 consultation requirements. *Vill. of False Pass v. Clark*, 733 F.2d 605, 609 (9th Cir. 1984).

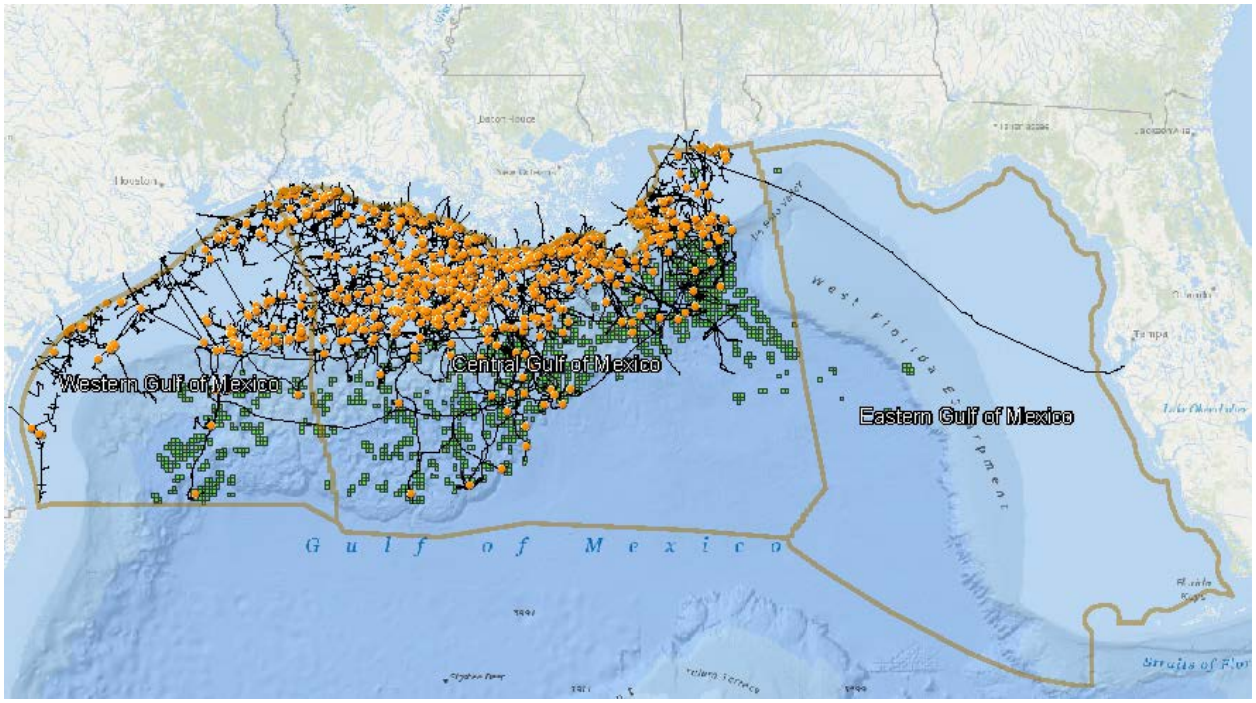

Figure 1 – Drilling platforms (orange), leases (green), and pipelines (black) in federal waters in the Gulf of Mexico as of February 2020 (source: BOEM ARCGIS Online Interactive Map)

51. NMFS and Interior completed ESA consultations on Gulf of Mexico oil and gas activities at several points in recent decades. Their most recent consultation (prior to the action challenged in this suit) concluded in 2007 with NMFS's issuance of a biological opinion.

52. NMFS concluded in that 2007 biological opinion that oil and gas exploration, development, and production in the Gulf would not jeopardize any listed species or adversely modify critical habitat.

53. Notably, NMFS predicted that oil spills from such activities would cause little harm. NMFS and Interior believed the largest spill possible would be *at most* 15,000 barrels, but that such a large spill was extremely unlikely.

III. THE DEEPWATER HORIZON EXPLOSION AND OIL SPILL

54. That prediction proved gravely wrong on April 20, 2010, when a series of human and mechanical failures culminated in an explosion that tore through the Deepwater Horizon oil drilling rig and caused the rig to sink and oil to gush from the seabed. Approximately 4.9 million barrels of oil—more than 325 times more than the worst case scenario in the 2007 biological opinion—flowed into the Gulf over the next 87 days.

55. The spill contaminated over 43,000 square miles of surface waters and over 1,300 miles of shoreline. Recent research indicates that toxic concentrations of invisible oil spread through the water column across an even larger area, extending past the Florida Keys and along the Atlantic Coast of Florida.

56. Scientists estimate the spill killed or seriously harmed billions, if not trillions, of animals, including over 100,000 individuals of species listed as threatened or endangered.

57. The spill's harm to marine species and the environment continues to this day, with long-term population declines, altered ecosystems, and persistent contamination.

IV. REINITIATED CONSULTATION AND THE NEW PROGRAMMATIC BIOLOGICAL OPINION ON GULF OF MEXICO OIL AND GAS ACTIVITIES

58. In late 2010, NMFS and Interior reinitiated formal consultation on federally authorized Gulf of Mexico oil and gas activities under OCSLA, in light of new information from the Deepwater Horizon disaster. The agencies agreed that the spill had called into question the assumptions behind their analyses in previous consultations. Specifically, the agencies believed they had underestimated the size and likelihood of a catastrophic spill and needed to reassess how the Deepwater Horizon spill had altered the status of listed species and critical habitats.

59. After nearly eight years had passed without completion of the consultation, some of the Plaintiffs in this case filed a lawsuit against NMFS to compel the agency to complete the

unreasonably delayed consultation. *See Gulf Restoration Network v. Nat'l Marine Fisheries Serv.*, No. 8:18-CV-1504-T-27AEP, 2020 WL 836516, at *1 (M.D. Fla. Feb. 20, 2020). As a result of a settlement in that case, NMFS finally completed the reinitiated consultation and issued the corresponding programmatic biological opinion on March 13, 2020. *See id.* at *1–3.

60. The Biological Opinion on the Federally Regulated Oil and Gas Program Activities in the Gulf of Mexico (the BiOp) covers "all activities associated with the Outer Continental Shelf (OCS) oil and gas program in the Gulf of Mexico" proposed to be taken by BOEM, BSEE, and other federal agencies involved with the program.

61. The covered actions include all those associated both with previously issued oil and gas leases, and with all new leases issued "through approximately 2029." Because leases have about a 40-year lifespan, "the proposed action is projected to cover 50 years."

62. NMFS concluded that the proposed action will jeopardize the continued existence of the Gulf of Mexico Bryde's whale, but determined that the imposition of certain proposed mitigation measures through an RPA would prevent jeopardy. NMFS concluded the action will not jeopardize the continued existence of the sperm whale, Kemp's ridley sea turtle, loggerhead sea turtle (Northwest Atlantic DPS), green sea turtle (North Atlantic DPS or South Atlantic DPS), hawksbill sea turtle, leatherback sea turtle, Gulf sturgeon, oceanic whitetip shark, or giant manta ray. NMFS further concluded the action will not adversely modify critical habitat for loggerhead sea turtles or Gulf sturgeon. NMFS also concluded that the proposed action is not likely to adversely affect the blue whale, sei whale, North Atlantic right whale, Nassau grouper, smalltooth sawfish, boulder star coral, elkhorn coral, lobed star coral, mountainous star coral, or critical habitat for the smalltooth sawfish. NMFS's no-jeopardy and no-adverse modification conclusions are arbitrary and capricious due to numerous flaws in the underlying analyses.

63. Chief among NMFS's errors are its failures to correct the admittedly flawed oil spill analyses from the 2007 biological opinion and to incorporate post-Deepwater Horizon population and habitat changes into the jeopardy and adverse modification analyses, as well as its failures to account for other important factors or use the best available science. NMFS also failed to issue a legally compliant incidental take statement, relied on legally and scientifically insufficient RPAs, and arbitrarily concluded that the action is not likely to adversely affect ESA-listed corals.

A. Flawed oil spill risk analysis

64. In its oil spill analysis, NMFS estimated the number of oil spills anticipated to occur as a result of the proposed action. NMFS characterized the spills into different spill size categories (*e.g.*, "extremely large" spills > 1 million barrels,[2] "very large" spills ≥ 10,000 barrels, and "large" spills 1,000–9,999 barrels), and purportedly analyzed the effects of those spills on ESA-listed species and critical habitats. However, NMFS irrationally excluded an extremely large spill from its analysis, failed to properly evaluate the frequency and magnitude of very large spills, and inaccurately analyzed the impacts of *all* foreseeable spills on ESA-listed species and habitat.

1. Exclusion of an extremely large oil spill from the effects analysis

65. NMFS indicated at several places in the BiOp and in Appendix G to the BiOp that it was necessary to consider the likelihood and effects of an extremely large spill because NMFS expected such a spill to result from the proposed action. That was in large part why the agency had reinitiated ESA consultation in 2010.

66. NMFS cited information indicating that an extremely large spill could occur within the timeframe of the proposed action.

[2] One million barrels of oil equates to 42 million gallons of oil.

67. Yet NMFS decided it would not analyze the effects from such a spill in its effects or jeopardy analyses, instead deferring to BOEM's assertion that the probability of such a spill was too low to consider it an effect of the action.

68. An extremely large spill, such as the Deepwater Horizon spill (~4.9 million barrels), is virtually certain to cause widespread, severe harms to ESA-listed species and critical habitats. The use of toxic dispersants and other spill response actions would further compound the damage.

69. The probability of an extremely large spill is even higher than a decade ago when the Deepwater Horizon disaster occurred and the agencies reinitiated consultation. Gulf drilling is moving into deeper waters, which increases the possibility of a catastrophic well blowout and extremely large oil spill. Additionally, hurricanes capable of causing severe damage to oil and gas facilities and triggering extremely large oil spills are increasing in frequency due to climate change. Neither NMFS nor BOEM accounted for these heightened risks when they considered the probability of an extremely large spill.

70. Furthermore, recent research indicates that the risk of extremely large spills caused by underwater landslides in the Gulf of Mexico is greater than previously understood. Submarine landslides abundantly and spontaneously occur throughout the Gulf, and can demolish oil and gas infrastructure and cause severe oil spills. Neither NMFS nor BOEM accounted for landslide risk when they considered the likelihood of an extremely large oil spill.

71. Despite reinitiating consultation primarily to determine the risks associated with another extremely large oil spill like Deepwater Horizon and acknowledging that such a spill may occur as a result of the proposed action, NMFS arbitrarily opted to "defer" to BOEM's opinion that an extremely large spill will not occur and failed to analyze the effects of an

extremely large oil spill on ESA-listed species. In doing so, NMFS failed to consider the relevant factors and did not use the best available science on extremely large oil spills.

2. Failure to properly consider the frequency and magnitude of very large oil spills

72. NMFS estimated the proposed action will result in two very large oil spills. NMFS allegedly estimated the frequency of such spills based on the historical oil spill rate in the Gulf from 1996 to 2010. It also estimated that the median spill size of the very large spill category is 100,000 barrels.

73. NMFS failed to use accurate data or assumptions in making these estimates. For one, NMFS assumed in its analysis that Deepwater Horizon was the only spill larger than 10,000 barrels to occur "in the last 20 years." NMFS did not include the 2004 Taylor Energy oil spill, which spilled more than 10,000 barrels, in its analysis. In addition, NMFS arbitrarily limited the timeline of its analysis such that it failed to account for the three-million-barrel 1979 Ixtoc I Gulf oil spill.

74. NMFS's failure to account for both the Taylor and Ixtoc I oil spills caused it to underestimate the frequency of the anticipated very large oil spills.

75. The failure to consider the Taylor and Ixtoc I spills also caused NMFS to underestimate the magnitude of the anticipated very large oil spills. Both spills released over 100,000 barrels of oil into the Gulf. Inclusion of these spills would increase the median spill size above 100,000 barrels.

76. NMFS's failure to properly analyze the frequency and magnitude of very large spills caused it to grossly underestimate the effects of these spills on ESA-listed species.

3. Failure to consider likely effects of foreseeable oil spills

77. In addition to underestimating the frequency and significance of extremely large

and very large oil spills, NMFS's analysis of oil spill effects on species failed to properly estimate 1) the extent of oil exposure from the anticipated oil spills and 2) the degree of harm such exposure will have on individual animals and populations of ESA-listed species.

78. First, to calculate the extent of oil exposure, NMFS purportedly estimated the number of individuals from each species likely to be exposed to oil spills by combining species distribution maps with the estimated spatial probabilities of large and very large oil spills in the action area. NMFS's methodology does not accurately assess the spatial or temporal extent of spilled oil that may harm species. For example, NMFS derived the spatial extent of oil spills by considering the footprint of only the *visible* oil on the surface of the water, omitting impacts from subsurface oil and invisible oil.

79. Like all pollution, oil spills are three-dimensional and extend far beyond what the naked eye can observe from one vantage point. Research shows that subsurface and invisible oil can be equally toxic as visible surface oil to ESA-listed species, their prey, and their habitats. By omitting subsurface and invisible oil from its analysis, NMFS failed to account for the true spatial extent of oil exposure resulting from oil spills and thus underestimated the number of individuals from each species that will be harmed by the proposed action.

80. Second, even with respect to the degree of harm from the visible surface oil, NMFS assumed the only consequential area of harm from an oil spill is one percent of the entire visible footprint resulting from a spill. NMFS provided no rational basis for discounting the harm caused by the other 99 percent of visible surface oil. Accordingly, NMFS vastly underestimated the degree to which oil exposure will harm individual ESA-listed animals.

81. NMFS also underestimated the population-level degree of harm from discrete large and very large oil spills by incorrectly apportioning that harm evenly across the 50-year

timeline of the proposed action. NMFS estimated the proposed action will result in five large oil spills and two very large oil spills. Although the seven large and very large spills expected to result from the proposed action will occur as discrete, acute pulses, NMFS calculated the oil spill exposures from those spills as an annual average across the action's timeline. By averaging the exposures evenly throughout the length of the proposed action instead of assessing the spills as pulse events, NMFS irrationally downplayed the severity and significance of each mass mortality or exposure event on each species' population numbers, thereby dramatically underestimating the impacts to each species' chances for survival and recovery.

82. NMFS also failed to assess the exposure or harm from oil spills of 1 to 1,000 barrels on ESA-listed species or critical habitat. NMFS concluded such spills are likely to adversely affect the Gulf of Mexico Bryde's whale, sperm whale, Kemp's ridley sea turtle, loggerhead sea turtle (Northwest Atlantic DPS), green sea turtle (North Atlantic DPS and South Atlantic DPS), hawksbill sea turtle, leatherback sea turtle, oceanic whitetip shark, giant manta ray, and critical habitat for the loggerhead sea turtle. And NMFS estimated that nearly 400 oil spills of 1 to 1,000 barrels will occur during the timeline of the proposed action. NMFS did not, however, assess those spills' effects on species or critical habitat, further underestimating the harm from oil exposures.

B. Failure to consider post-Deepwater Horizon population and habitat changes

83. NMFS acknowledged when describing species and habitat baselines in the BiOp that the Deepwater Horizon disaster significantly altered the populations and critical habitats of ESA-listed species. However, NMFS did not account for or otherwise incorporate such population and critical habitat changes in its analysis of whether the action would result in jeopardy or adverse modification to the species or their habitats.

84. NMFS stated that the Deepwater Horizon spill heavily affected the Gulf of

Mexico Bryde's whale and sperm whale populations, and that the Bryde's whale population in particular "is highly susceptible to further perturbations." However, NMFS based its jeopardy analyses on population data that predate the Deepwater Horizon disaster. NMFS applied inaccurate species baselines and failed to consider whether the harms caused by the proposed action, when added to Deepwater Horizon-related population declines and resulting susceptibility, would jeopardize the Gulf of Mexico Bryde's whale or sperm whale.

85. NMFS similarly described that the Deepwater Horizon spill had significant lethal and sublethal effects on sea turtles—especially on Kemp's ridley sea turtles, green sea turtles, and loggerhead sea turtles—and that the spill "impacted sea turtles at the population level and shifted the baseline for sea turtles." NMFS's assessment, however, failed to fully recognize or incorporate the degree to which the spill affected sea turtle populations. As with whales, NMFS relied heavily on data that predate the Deepwater Horizon spill to assess population-level impacts of the proposed action. The agency failed to consider several more recent studies on those effects.

86. In addition to failing to consider all relevant factors and the best available science, NMFS did not, for any sea turtle species, actually analyze how Deepwater Horizon-related harms affect the population trends, structures, or sensitivities, or otherwise consider Deepwater Horizon-related impacts in its assessment of whether the proposed action may appreciably reduce the likelihood of survival or recovery of any sea turtle species.

87. NMFS observed that approximately 63% of Gulf sturgeon from the Pearl, Pascagoula, Escambia, Blackwater, Yellow, and Choctawhatchee River populations were exposed to oil from the Deepwater Horizon spill, and that oil and dispersants used following the spill were found to have severe health impacts on sturgeon. Yet NMFS based its Gulf sturgeon

jeopardy analysis on population estimates derived from data that predate the Deepwater Horizon disaster. NMFS did not consider how Deepwater Horizon-related population declines may make the Gulf sturgeon more sensitive to additional effects from the proposed action.

88. NMFS acknowledged that "[a]lmost all types of nearshore ecosystem habitats in the northern Gulf of Mexico were oiled and injured as a result of the [Deepwater Horizon] oil spill, including shallow unvegetated habitats utilized by Gulf sturgeon." However, NMFS did not consider how the habitat-level harm from the Deepwater Horizon spill could make Gulf sturgeon critical habitat more sensitive to additional impacts from the proposed action.

89. NMFS described how the fitness of threatened and endangered whales, sea turtles, and Gulf sturgeon depends on healthy populations of animals, plankton, and plants as food supply in the Gulf. And NMFS acknowledged that the Deepwater Horizon disaster likely caused long-term declines "up and down the food web." As a result, individual animals from ESA-listed species in the Gulf may have lower fitness, making the species more susceptible to environmental perturbations. However, NMFS did not account for how such fitness impacts due to declines in food sources caused by Deepwater Horizon may affect ESA-listed whales, sea turtles, or Gulf sturgeon in conducting the jeopardy analyses for these species.

C. Failure to account for climate-related population shifts in jeopardy and critical habitat analyses

90. NMFS acknowledged that climate change will alter the population structure and distribution of threatened and endangered species in the foreseeable future. However, NMFS failed to account for how such changes will interact with the effects of the proposed action in its evaluation of species impacts.

91. Despite describing several ways that climate change will affect threatened and endangered species and critical habitat, NMFS failed to consider many relevant studies that

further detail those effects.

92. In addition to failing to consider the best available science, NMFS failed to actually apply the science it did acknowledge. Climate change is likely to make ESA-listed whale populations more susceptible to stressors caused by oil and gas development. NMFS acknowledged the existence of an example framework that could be used to assess the synergistic effects of climate change and the proposed action to evaluate the likelihood that the action will jeopardize the continued existence of the sperm whale or Gulf of Mexico Bryde's whale. NMFS, however, did not employ that framework, nor did NMFS even mention climate change in its jeopardy analysis for either species.

93. For sea turtles, NMFS described how climate change is expected to cause a shift in hatchling sex ratios, loss of nesting habitat, and change in the distribution and abundance of prey. Such changes are likely to make sea turtle populations more susceptible to the impacts of oil and gas development in the Gulf. NMFS did not, however, account for these changes in its jeopardy analysis for any species of sea turtle. Rather, NMFS posited that the cumulative impact of climate change and other threats on sea turtles is likely to remain stable or decrease over the span of the proposed action.

94. NMFS also noted that climate change "may affect Gulf sturgeon by leading to accelerated changes in habitats utilized by Gulf sturgeon through saltwater intrusion, changes in water temperature, and extreme weather periods that could increase both droughts and floods." Such changes may make Gulf sturgeon more susceptible to the impacts of oil and gas development in the Gulf. NMFS did not, however, account for these synergistic effects in its jeopardy or critical habitat analyses for Gulf sturgeon.

D. Arbitrarily limited consideration of effects on species survival and recovery

1. Gulf of Mexico Bryde's whale

95. NMFS concluded that the "wide-ranging, combined multiple effects" from the proposed action are likely to jeopardize the continued existence of the endangered Gulf of Mexico Bryde's whale. While NMFS concluded that the level of predicted harm would jeopardize the species, NMFS in fact *underestimated* the magnitude of harms and the degree to which those effects will hinder the species' survival and recovery.

96. NMFS only considered harm to Bryde's whales expected to occur within the "Bryde's whale area" in the eastern Gulf, outside the area currently under oil and gas development. The Bryde's whale area is the area that NMFS believes Bryde's whales "inhabit year round." NMFS acknowledged that Bryde's whales also are found outside that designated area. Yet NMFS generally did not consider harms that would occur to Bryde's whales found outside this designated area.

97. NMFS estimated that vessel strikes alone will kill 17 Bryde's whales—out of approximately 44 remaining—and cause sublethal harm to six other whales during the program period. NMFS further estimated that vessel sound, marine debris, oil spills, and other stressors will cause sublethal harm to additional whales. Despite acknowledging that sublethal harms can affect individual fitness and reproduction, NMFS did not assess how such harms will affect the Gulf of Mexico Bryde's whale population.

98. Although NMFS purported to assess whether expected declines in the Bryde's whale population due to the proposed action would reduce the likelihood of the species' survival, it did not consider whether the proposed action will reduce the likelihood of the species' recovery. For instance, NMFS did not consider whether oil and gas development may prevent Bryde's whales from expanding into habitats in the central and western Gulf that may be

necessary to their recovery, or whether effects from oil and gas development hinder population growth and affect the likelihood that the Bryde's whale will recover.

2. Sea turtles

99. NMFS estimated that the proposed action will kill thousands of green sea turtles, Kemp's ridley sea turtles, and loggerhead sea turtles, and dozens of hawksbill and leatherback sea turtles each year. Yet NMFS failed to rationally analyze whether the action's effects will jeopardize the species.

100. For each species (or, where relevant, DPS), NMFS concluded that it does not "expect" that the reductions in numbers "would reduce appreciably, the likelihood of both the survival and recovery" of the species. NMFS conducted no population modeling or other scientific analysis in reaching that conclusion. NMFS also did not analyze the degree to which deaths of hatchling, juvenile, and adult sea turtles will result in unrealized future reproduction.

101. These omissions are particularly egregious for the Kemp's ridley sea turtle, which nests almost exclusively along the western Gulf of Mexico. According to a recent NMFS status review, extinction of the species "is almost certain in the immediate future." Yet NMFS did not account for the turtle's highly precarious state when analyzing whether the proposed action would cause jeopardy.

102. In addition, NMFS did not independently analyze whether the proposed action will reduce the likelihood of recovery of any sea turtle species.

103. NMFS did not analyze the impact of sublethal harms to sea turtle populations. NMFS estimated that pile driving sound, vessel strikes, marine debris ingestion and entanglement, sound and impact from explosives, exposure to oil spills, and other stressors will cause sublethal harm to an extremely large number of individual sea turtles each year. Many of these individuals will be exposed to these sublethal stressors multiple times. These harms can

impede foraging, reduce individual turtle health condition, reduce reproductive rates and success, and result in other long-term declines in fitness. NMFS failed to assess the effects these harms will have at the population level, thereby irrationally underestimating the degree to which the proposed action will reduce the survival and recovery of the Kemp's ridley sea turtle, loggerhead sea turtle (Northwest Atlantic DPS), green sea turtle (North Atlantic DPS and South Atlantic DPS), hawksbill sea turtle, and leatherback sea turtle.

104. NMFS also failed to consider numerous studies on sea turtle ecology and population status that are relevant to assessing the status of each sea turtle species, the effects of the action on sea turtles, and the degree and manner in which such effects will impact sea turtle populations. In particular, NMFS failed to consider studies that contradict or call into question NMFS's interpretations of cited nesting data.

105. NMFS additionally failed to consider how adverse effects on sea turtle prey from the proposed action will impact sea turtles on either the individual (*e.g.*, fitness) or population level.

3. Gulf sturgeon

106. NMFS concluded that the proposed action will not jeopardize the continued existence of the Gulf sturgeon, despite acknowledging that the two sturgeon populations with the lowest population estimates (Pascagoula and Pearl River populations) are in close proximity to intensive oil and gas activity in the Gulf and will be adversely affected by the action.

107. NMFS estimated that vessel strikes alone from the proposed action will directly cause the mortality of up to 7% of the Pearl River population or up to 9% of the Pascagoula population. NMFS further estimated that exposure to oil spills and dispersants will cause sublethal harm to 8% of the entire Gulf sturgeon population. Oil spill effects are likely to be greater for the Pearl and Pascagoula River populations because they are closer to oil and gas

activity.

108. Gulf sturgeon populations are genetically distinct across river basins, and gene flow is low. Significant losses of fish from a given population, therefore, can appreciably reduce the genetic diversity in the entire species, leading to a reduction in the species' resilience and likelihood of survival. NMFS did not analyze whether expected losses of Gulf sturgeon from the Pearl or Pascagoula River population could affect the survival or recovery of the entire Gulf sturgeon population. NMFS specifically failed to consider whether significant impacts to those two populations would affect genetic diversity or gene flow in the species as a whole.

109. In addition, despite acknowledging that sublethal harms can affect individual fitness and reproduction, NMFS did not assess how such harms will affect the Gulf sturgeon population on the whole or on a river-specific basis.

E. Irrational consideration of adverse effects to critical habitat

1. Loggerhead sea turtle critical habitat

110. NMFS concluded the proposed action will not adversely modify designated loggerhead *Sargassum* critical habitat, despite acknowledging that the action is expected to cause "severe" and potentially "widespread" destruction of the habitat.

111. *Sargassum* provides critical shelter and food for oceanic juvenile loggerheads during the first seven to twelve years of their lives before they migrate to more coastal habitats.

112. NMFS explained that oil spills and spill response activities can kill and destroy large swaths of *Sargassum*, and can result in "foregone growth" of future *Sargassum* habitat.

113. NMFS also noted that even when oil and dispersants do not kill *Sargassum*, they may accumulate in *Sargassum* and expose loggerheads to high concentrations of contaminants or cause detrimental low-oxygen conditions.

114. NMFS found that "the death or contamination of the *Sargassum* community

would have a direct negative consequence of the ability of post-hatchling and subadult sea turtles to feed and find shelter and could lead to increased predation risks."

115. NMFS concluded, however, that because *Sargassum* is generally able to repopulate in one to two years following exposure to oil, it did not "expect" an oil spill "will affect *Sargassum*'s ability to support adequate prey abundance and cover for loggerhead turtles."

116. NMFS did not analyze or otherwise address how a one- to two-year loss of *Sargassum* habitat may affect a given age class of juvenile loggerheads or loggerhead populations more broadly.

117. NMFS also failed to address the likelihood that repeated losses of critical *Sargassum* patches may significantly impair the long-term conservation value of the habitat.

2. Gulf sturgeon critical habitat

118. NMFS concluded the proposed action will not adversely modify Gulf sturgeon critical habitat, despite acknowledging that "it is likely that Gulf sturgeon critical habitat would be exposed to an oil spill resulting from the proposed action," and that the oil spills and spill response efforts are expected to impair necessary critical habitat features.

119. NMFS explained that "oil spills and oil spill dispersants resulting from the proposed action will likely adversely affect" three essential features of Gulf sturgeon critical habitat: water quality, sediment quality, and prey abundance. Specifically, oil will persist throughout the water column and degrade water quality; oil will sink in the nearshore environment and persist in the sediments; and the contamination will lead to decreased abundance and diversity of benthic prey communities.

120. NMFS did not explain how the impacts to these three critical habitat features do not amount to an adverse modification of the Gulf sturgeon critical habitat. Instead, NMFS stated that it does not "anticipate" that these harms will appreciably diminish the value of Gulf

sturgeon critical habitat.

F. Arbitrary conclusion that the action is not likely to adversely affect listed corals

121. NMFS arbitrarily concluded that the proposed action is not likely to adversely affect elkhorn coral, lobed star coral, boulder star coral, or mountainous star coral, which are found in the Flower Garden Banks National Marine Sanctuary. Although NMFS acknowledged the corals will be severely harmed if contacted by oil or dispersants, it concluded that the probability of such contact occurring is low based solely on the unsupported assertion that an oil spill would not reach the corals.

122. Fifty-nine oil and gas lease blocks exist either wholly or partly within the boundaries of the four-mile protective buffer zones surrounding the East and West Flower Garden Banks of the Flower Garden Banks National Marine Sanctuary. Dozens of production platforms and miles of pipelines exist in close proximity to the fragile coral reefs—as near as one nautical mile. *See* Figure 2.

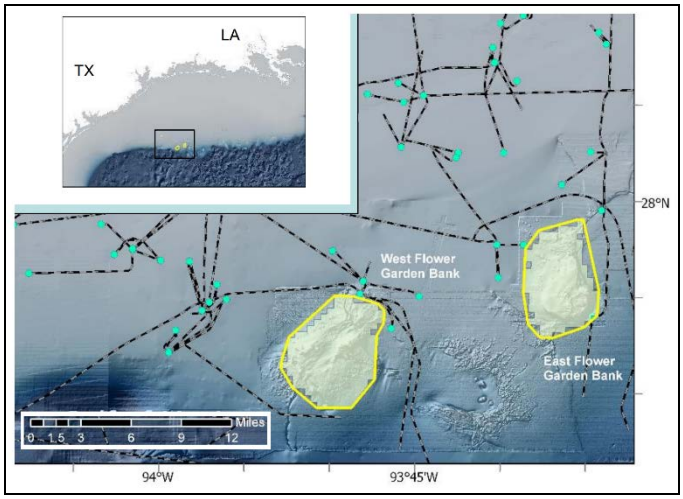

Figure 2 – Existing oil and gas platforms and pipelines in the Gulf of Mexico surrounding the Flower Garden Banks National Marine Sanctuary (credit: NMFS)

123. NMFS expected two very large oil spills to occur as a result of the proposed action and estimated that the radius of such a spill's footprint is 34 miles. NMFS also noted that

if an oil spill reached coral habitat, acute toxicity and smothering of corals could occur. The reefs are well within the 34-mile radius of a very large oil spill that could occur at one of the nearby production platforms or pipelines.

124. NMFS's conclusion that the action is not likely to adversely affect ESA-listed corals ignores the geographic proximity of oil production to these corals and irrationally departs from its own calculations of the reach and extent of expected oil spills from this action.

G. Legally insufficient reasonable and prudent alternatives

125. Although NMFS concluded that the proposed action is likely to jeopardize the continued existence of the Gulf of Mexico Bryde's whale due to the "combined multiple effects" from five stressors, it proposed an RPA that purports to address only two of the stressors: vessel strikes and vessel noise. NMFS did not propose any RPAs addressing the other identified causes of jeopardy. Even for the two stressors NMFS did attempt to address, the agency failed to establish that the proposed RPA would adequately reduce those stressors' harms.

126. NMFS proposed implementing "a nighttime closure and 10 knot or less speed restriction during the day year-round to all oil and gas program related vessels for the program duration in the Bryde's whale area."

127. NMFS asserted that "the proposed action as revised by this RPA would not likely jeopardize the continued existence of the Gulf of Mexico Bryde's whale." However, NMFS offered no reasoned analysis for that assertion.

128. NMFS predicted that full implementation of the RPA—assuming 100% compliance by vessel operators—will reduce the number of lethal vessel strikes to Bryde's whales over the duration of the proposed action from 17 to 12 whales and the number of sublethal vessel strikes from 6 to 4 whales.

129. NMFS's bare assertion that the small reduction in the number of vessel strikes

would avoid jeopardy was unsupported by any analysis. NMFS did not analyze whether 12 lethal and 4 sublethal vessel strikes—approximately one-third the current population—would appreciably reduce the likelihood of survival or recovery of the Bryde's whale. NMFS did not analyze whether the small reduction in vessel strikes would avoid any population-level effect, despite stating that the death of just one female "would constitute an acute effect on vital rates" and make "population level effects likely."

130. NMFS asserted that implementation of the RPA will reduce vessel noise impacts to Bryde's whales. NMFS did not assess whether or the degree to which the RPA will actually reduce vessel noise impacts or affect Bryde's whale responses to vessel noise.

131. NMFS also failed to consider the likelihood that imperfect compliance with the proposed RPA will limit its efficacy.

132. NMFS also did not consider whether BOEM and BSEE will use the measures NMFS identified to make the proposed RPA legally enforceable against vessels.

133. By failing to consider the efficacy or enforceability of the proposed RPA, NMFS failed to rationally consider whether the proposed RPA will prevent jeopardy of the Gulf of Mexico Bryde's whale.

H. Inadequate Incidental Take Statement

134. The BiOp includes an incidental take statement (ITS) covering the proposed action's incidental take of green sea turtles, Kemp's ridley sea turtles, loggerhead sea turtles, leatherback sea turtles, hawksbill sea turtles, Gulf sturgeon, giant manta rays, and oceanic whitetip sharks.

135. The ITS expressly does *not* cover incidental take of sperm whales or Bryde's whales, even though NMFS found that the proposed action *will* take individuals from both species.

136. NMFS set incidental take limits for the eight species the ITS covers for each of six stressors.

137. NMFS declared that it will use a three-year average of takes to determine if any annual limit is exceeded. As a result, NMFS is not prohibiting the action agencies from exceeding the annual take limit in any given year.

138. NMFS delineated "proxy indicators to determine when anticipated take levels have been exceeded." The proxy for incidental take from vessel strikes and marine debris is the number of vessel track kilometers reported by BOEM.

139. However, NMFS did not actually set any limit for its proxy indicators. Nor did NMFS set any standard to determine how the number of vessel track kilometers correlates with the take of individual animals. Accordingly, NMFS did not set a standard or trigger to determine when the level of anticipated take from vessel strikes or marine debris is exceeded.

140. In addition, NMFS did not identify how the proxy indicators can be implemented, given that BOEM lacks the ability to collect complete vessel track data.

141. As a result, the ITS fails to adequately specify the impact of such incidental taking on affected species.

CLAIMS FOR RELIEF

FIRST CAUSE OF ACTION – The Programmatic Biological Opinion's Analyses Are Arbitrary and Capricious and Contrary to the Best Available Science, in Violation of the APA and ESA

142. The allegations made in paragraphs 1–141 are realleged and incorporated by this reference.

143. Section 7 of the ESA requires each federal agency, in consultation and with the assistance of the expert fish and wildlife agency, to "insure that any action authorized, funded, or carried out by such agency is not likely to jeopardize the continued existence of any endangered

species or threatened species or result in the destruction or adverse modification of habitat of such species" which has been designated as critical habitat. 16 U.S.C. § 1536(a)(2). Such consultations must use the best available scientific information. *Id.*

144. In a formal consultation, NMFS, as the expert wildlife agency, must review all relevant information and issue a biological opinion evaluating the action's effects on the listed species and critical habitat, and making jeopardy and adverse modification determinations. *Id.* § 1536(b)(3)(A); 50 C.F.R. § 402.14(g)–(h). This includes evaluating the current status and environmental baseline of affected species and critical habitats, assessing the effects of the action and cumulative effects on those species and habitats, and analyzing whether the effects of the action, when added to the environmental baseline together with any cumulative effects, is likely to jeopardize the continued existence of the species or adversely modify their critical habitats. 50 C.F.R. § 402.14(g).

145. NMFS's BiOp is a final agency action as defined by the APA, for which there is no other adequate remedy in a court.

146. NMFS's analyses of the likelihood of jeopardy and adverse modification are arbitrary and capricious and contrary to law for several reasons.

147. NMFS improperly and arbitrarily concluded that an extremely large oil spill is not likely to result from the proposed action. NMFS failed to consider relevant factors or use the best available science in reaching that conclusion. As a result, NMFS failed to consider such a spill in analyzing whether the proposed action will jeopardize the continued existence of ESA-listed species or adversely modify designated critical habitat in the Gulf.

148. NMFS failed to rationally assess the likely effects of oil spills resulting from the proposed action on ESA-listed species and critical habitat in the Gulf, and failed to consider

relevant factors or use the best available science on oil spill exposure and effects.

149. NMFS arbitrarily and improperly failed to account for or otherwise incorporate population and habitat changes caused by the Deepwater Horizon oil spill when analyzing whether the harm caused by the proposed action, when added to Deepwater Horizon-related effects in the environmental baseline, would jeopardize ESA-listed species or adversely modify critical habitat. NMFS further failed to use the best available science on the spill's effects on threatened and endangered species and their habitats in the Gulf.

150. NMFS arbitrarily and improperly failed to account for how climate change-related alterations to the population structures and distributions of threatened and endangered species will interact with the effects of the proposed action when analyzing whether the action would jeopardize ESA-listed species or cause adverse modification to critical habitat. NMFS further failed to use the best available science on how climate change will affect threatened and endangered species and their habitats in the Gulf.

151. NMFS arbitrarily and improperly failed to account for or otherwise incorporate sublethal harms from the proposed action when analyzing whether the action would jeopardize ESA-listed species or cause adverse modification to critical habitat. NMFS further failed to use the best available science on how sublethal harms affect populations of threatened and endangered species in the Gulf.

152. NMFS arbitrarily and improperly failed to independently analyze whether the proposed action would reduce the likelihood of recovery—as opposed to survival—of the Bryde's whale or any sea turtle species. *See Defs. of Wildlife*, 931 F.3d at 354 (holding Service must "assess 'both the survival *and* recovery of a listed species'" (quoting 50 C.F.R. § 402.02)).

153. NMFS's conclusions that the proposed action will not jeopardize the continued

existence of the Kemp's ridley sea turtle, loggerhead sea turtle (Northwest Atlantic DPS), green sea turtle (North Atlantic DPS or South Atlantic DPS), leatherback sea turtle, hawksbill sea turtle, or Gulf sturgeon, or adversely modify the critical habitat for the loggerhead sea turtle or Gulf sturgeon are not based on any rational scientific analyses, nor do they consider all relevant factors or use the best available science.

154. Further, NMFS irrationally discounted the likely effects the proposed action will have on four ESA-listed coral species and arbitrarily and wrongly concluded that the action is not likely to adversely affect the species.

155. NMFS's BiOp is arbitrary, capricious, an abuse of discretion, and not in accordance with section 7 of the ESA, in violation of the APA. 5 U.S.C. § 706(2)(A).

SECOND CAUSE OF ACTION – The Proposed Reasonable and Prudent Alternatives Are Arbitrary and Capricious and Contrary to the ESA, in Violation of the APA and ESA

156. The allegations made in paragraphs 1–155 are realleged and incorporated by this reference.

157. If NMFS concludes that a proposed action is likely to jeopardize a listed species or result in adverse modification of its critical habitat, the ESA requires NMFS to propose RPAs that will mitigate the proposed action so as to avoid jeopardy and adverse modification of critical habitat. 16 U.S.C. § 1536(b)(3); 50 C.F.R. §§ 402.02, 402.14(h)(2). RPAs must 1) be capable of being implemented in a manner consistent with the intended purpose of the action, 2) be within the scope and authority of agency's jurisdiction, 3) be economically and technologically feasible, and 4) avoid the likelihood of jeopardizing the continued existence of the species. 50 C.F.R. § 402.02.

158. NMFS concluded the proposed action is likely to jeopardize the Gulf of Mexico Bryde's whale.

159. The agency's jeopardy analysis, however, underestimates the magnitude of the harm for which the RPA must compensate to avoid jeopardy. For example, NMFS failed to consider the proposed action's effects on the Bryde's whale recovery, effects outside the "Bryde's whale area," and effects from sublethal harms that affect individual fitness and reproduction.

160. NMFS proposed an RPA purporting to mitigate harm from vessel strikes and vessel noise within the designated Bryde's whale area. NMFS proposed no RPAs to mitigate the action's other stressors contributing to jeopardy of the Bryde's whale.

161. NMFS failed to analyze or establish that the RPA will sufficiently mitigate the harm from vessel strikes or vessel noise to avoid jeopardy. NMFS further failed to analyze or establish that the stressors left unmitigated by the RPA will not cause jeopardy to the Bryde's whale.

162. NMFS's RPA and its conclusion that the proposed action as revised by the RPA would not likely jeopardize the continued existence of the Gulf of Mexico Bryde's whale are arbitrary, capricious, an abuse of discretion, and not in accordance with section 7 of the ESA or its implementing regulations, in violation of the APA. 5 U.S.C. § 706(2)(A).

THIRD CAUSE OF ACTION – The Incidental Take Statement Is Arbitrary and Capricious and Contrary to the ESA, in Violation of the APA and ESA

163. The allegations made in paragraphs 1–162 are realleged and incorporated by this reference.

164. Section 7(b)(4) of the ESA requires NMFS to issue an incidental take statement whenever a proposed federal agency action will not jeopardize a protected species but will result in incidental take of members of the species. 16 U.S.C. § 1536(b)(4).

165. The incidental take statement must "specif[y] the impact, *i.e.*, the amount or

extent, of such incidental taking on the species." 50 C.F.R. § 402.14(i)(1)(i). Where the agency establishes that it cannot numerically quantify take, the statement may employ a "surrogate" to express the amount of take, but the surrogate must include "a clear standard for determining when the level of anticipated take has been exceeded." *Id.* If the amount of specified take is exceeded, the action agency "must reinitiate consultation immediately" with NMFS. *Id.* § 402.14(i)(4).

166. NMFS concluded the proposed action will cause lethal and nonlethal take of Gulf of Mexico Bryde's whales, sperm whales, Kemp's ridley sea turtles, loggerhead sea turtles (Northwest Atlantic DPS), green sea turtles (North Atlantic DPS and South Atlantic DPS), hawksbill sea turtles, leatherback sea turtles, Gulf sturgeon, oceanic whitetip sharks, and giant manta rays.

167. NMFS failed to include the Gulf of Mexico Bryde's whale and sperm whale in the BiOp's ITS. NMFS did not account for, minimize, require the reporting of, or authorize take of Gulf of Mexico Bryde's whales or sperm whales in accordance with the ESA.

168. NMFS employed a surrogate—vessel track kilometers—in lieu of monitoring the take of individual sea turtles and Gulf sturgeon. However, NMFS did not consider or establish any standard for how that surrogate correlates with individual take. Nor did NMFS set a surrogate level which, when exceeded, would indicate that the anticipated take has been exceeded or require reinitiating consultation. NMFS also failed to show that the surrogate can be implemented by the action agencies. The ITS's surrogate for take therefore violates 50 C.F.R. § 402.14(i).

169. The ITS allows the action agencies to exceed the amount of specified annual take without reinitiating consultation, contrary to 50 C.F.R. § 402.14(i)(4).

170. NMFS's inclusion of an inadequate ITS in the BiOp is arbitrary, capricious, an abuse of discretion, and not in accordance with section 7 of the ESA or its implementing regulations, in violation of the APA. 5 U.S.C. § 706(2)(A).

REQUEST FOR RELIEF

WHEREFORE, Plaintiffs pray that this Court:

1. Declare that the BiOp and ITS violate the ESA, its implementing regulations, and the APA;

2. Vacate the BiOp;

3. Remand the action to NMFS and order it to prepare a sufficiently protective biological opinion within six months;

4. Maintain jurisdiction over this action until NMFS is in compliance with the ESA, APA, and every order of this Court;

5. Award Plaintiffs their costs and reasonable attorney fees pursuant to 5 U.S.C. § 552(a)(4)(E) or 28 U.S.C. § 2412; and

6. Grant such other and further relief as the Court may deem just and proper.

Respectfully submitted this 21st day of October, 2020.

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