IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF COLUMBIA

CENTER FOR BIOLOGICAL DIVERSITY and MARY ADELE DONNELLY, Plaintiffs, v. NATIONAL MARINE FISHERIES SERVICE and JOHN E. BRYSON, United States Secretary of Commerce, Defendants.	) Case No.

COMPLAINT FOR DECLARATORY AND INJUNCTIVE RELIEF

INTRODUCTION

1. In this action for declaratory and injunctive relief, Plaintiffs challenge the failure of the National Marine Fisheries Service and the Secretary of Commerce (hereinafter "NMFS" or "Defendants") to comply with the Endangered Species Act ("ESA"), 16 U.S.C. §§ 1531 *et seq.*, in managing the United States Caribbean Reef Fish Fishery ("Fishery").

2. Specifically, pursuant to the Administrative Procedure Act ("APA"), 5 U.S.C. § 706, Plaintiffs seek judicial review of the October 4, 2011 Biological Opinion for the Continued Authorization of Reef Fish Fishing Managed under the Reef Fish Fishery Management Plan (FMP) of Puerto Rico and the U.S. Virgin Islands (CRFFMP) ("Biological Opinion"). Plaintiffs challenge NMFS's failure to ensure that its authorization of the U.S. Caribbean Reef Fish Fishery ("Fishery") is not likely to jeopardize the continued existence of elkhorn and staghorn coral, which are listed as "threatened" under the ESA. In addition, Plaintiffs challenge the failure by NMFS to ensure that its authorization of the Fishery will not destroy or adversely modify critical habitat for these two species of coral.

3. NMFS's continued authorization of targeted fishing for parrotfish and other grazing fish that play a key role in promoting the health of coral reefs poses substantial risk to elkhorn and staghorn coral. Such unsustainable fishing fosters algal overgrowth of coral reefs, crowding out reef-building corals and causing substantial harm to the critical habitat upon which the elkhorn and staghorn corals depend for their survival and recovery.

4. NMFS's Biological Opinion regarding the effects of the U.S. Caribbean Reef Fish Fishery on elkhorn and staghorn coral and their critical habitat violates the ESA in a number of ways. First, the Biological Opinion improperly compares the Fishery's effects with other threats to the corals and bases its analyses of the likelihood of jeopardy to elkhorn and staghorn coral and the possible destruction or adverse modification of critical habitat solely on the Fishery's incremental impacts, rather than

analyzing whether these impacts, when added to other threats facing the species, are likely to jeopardize the species or destroy or adversely modify their critical habitat. Second, the Biological Opinion disregards the best available science relevant to the Fishery's impacts and disregards studies indicating that the continued harvest of grazing fish, particularly large parrotfish, contributes to the degradation of coral habitat and the decline of the coral species themselves. Third, the Biological Opinion fails to draw a rational connection between the information it presents and its "no jeopardy" and "no adverse modification" conclusions. Finally, the Biological Opinion fails to establish an incidental take limit and accompanying monitoring measures that would allow NMFS to assess accurately the Fishery's ongoing impacts and provide a meaningful trigger for determining when those impacts have exceeded NMFS's predictions.

5. NMFS's continued authorization of the Fishery based on a fundamentally flawed Biological Opinion also violates the agency's substantive duty under Section 7 of the ESA to ensure that the actions it authorizes are not likely to jeopardize the continued existence of listed species or destroy or adversely modify their critical habitat.

6. Each of these actions and omissions fails to comply with the statutory requirements of the ESA and is arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with the law, in violation of the APA. These actions and failures to act by the Defendants have harmed Plaintiffs' interest in the survival and recovery of elkhorn and staghorn corals. In addition, the Defendants' actions and

failures have harmed the Plaintiffs' interests in the health of the coral reef ecosystems of which elkhorn and staghorn corals are a critical part, and in the health of important species that depend upon those ecosystems, including sea turtles. This harm will continue in the absence of action by this Court.

APPLICABLE STATUTES, JURISDICTION, AND VENUE

7. This action arises under the Endangered Species Act ("ESA"), 16 U.S.C. §§ 1531-1599 and the Administrative Procedure Act ("APA"), 5 U.S.C. §§ 701-706.

8. This Court has jurisdiction over this action pursuant to the APA. 5 U.S.C. §§ 701-706. This Court also has jurisdiction over this action pursuant to the ESA, which provides that the district courts of the United States "shall have jurisdiction over any actions arising under" that Act. 16 U.S.C. § 1540(c).

9. In addition, this Court has jurisdiction over this action pursuant to 28 U.S.C. § 1331 (federal question jurisdiction), which grants the district courts "original jurisdiction of all civil actions arising under the . . . laws . . . of the United States," and 28 U.S.C. § 1361, which grants the district courts "original jurisdiction of any action in the nature of mandamus to compel an officer or employee of the United States or any agency thereof to perform a duty owed to the plaintiff."

10. This Court has the authority to grant declaratory and injunctive relief pursuant to the Declaratory Judgment Act, 28 U.S.C. §§ 2201 – 2202, and may grant relief pursuant to the APA, 5 U.S.C. §§ 701-706, and the ESA, 16 U.S.C. § 1540(g). Venue is properly vested in this judicial district under 28 U.S.C. § 1391(b) & (e), because the federal Defendants reside in this district and a substantial part of the events

and omissions that gave rise to this action occurred in this district.

DESCRIPTION OF THE PARTIES

A. Plaintiffs

11. Plaintiff CENTER FOR BIOLOGICAL DIVERSITY is a non-profit organization that is actively involved in species and habitat protection issues throughout the United States, including efforts related to coral conservation and the effective implementation of the ESA. The Center has over 42,000 active members, including in the Caribbean. The Center has had a longstanding interest in efforts to conserve elkhorn and staghorn corals, including petitioning for the protection of these corals as threatened under the ESA. The Center's work also included efforts to secure critical habitat protections for elkhorn and staghorn corals in the Caribbean. The Center has been actively engaged in reducing threats to coral reefs from overfishing, pollution, global warming, and ocean acidification. The Center's members and staff include those who have visited areas where the coral species at issue in this case occur in order to enjoy, recreate, observe, and attempt to observe these corals in their natural habitat. Those members have concrete plans to travel to and recreate in areas where they can enjoy these habitats and corals. The Center's members and staff use the areas where these corals occur for wildlife observation, research, nature photography, aesthetic enjoyment, recreational, educational, and other activities.

12. Plaintiff MARY ADELE DONNELLY is a member of the Sea Turtle Conservancy ("Conservancy"), and serves as the Conservancy's Director of

International Policy. Since 1985, Ms. Donnelly has worked to conserve and protect sea turtles from the major threats they face, including the loss and alteration of turtle habitat, intentional capture in fisheries, directed hunting, and pollution. Hawksbill sea turtles and loggerhead sea turtles have been the particular focus of her work. She is particularly concerned about the precarious status of elkhorn and staghorn corals and the reef systems of which they are a part because those corals and reefs provide vital habitat and protection for hawksbill sea turtles. Ms. Donnelly has snorkeled extensively in Florida, Puerto Rico, the Virgin Islands and the Caribbean and has made more than 70 dives in the region. She travels regularly to Caribbean destinations to observe nesting females and turtles of all ages in near-shore and offshore habitats, including reef systems where elkhorn and staghorn corals are located. Her first visits to the Virgin Islands and Puerto Rico occurred in 1969. She has returned to those islands many times and plans to continue to do so in the future.

13. Plaintiffs derive scientific, recreational, health, conservation, spiritual, and aesthetic benefits from threatened elkhorn and staghorn corals and their critical habitat, as well as from key species that rely upon these corals and on healthy reef ecosystems, including hawksbill and other sea turtles. To preserve these interests, Plaintiffs rely on NMFS to comply fully with the provisions of the ESA that both protect elkhorn and staghorn corals and promote their recovery. Plaintiffs are adversely affected by NMFS's failure to comply with the ESA and APA in its promulgation of the Biological Opinion. Because this Biological Opinion fails to comply with the law, it cannot be relied upon to ensure that the operation of the U.S. Caribbean Reef Fish

Fishery is not likely to jeopardize the continued existence of elkhorn and staghorn corals or destroy or adversely modify their critical habitat. Plaintiffs and their interests in threatened corals, coral habitat, coral reef health and species such as sea turtles that rely upon healthy coral reefs, have been, are being, and unless the relief requested is granted, will continue to be injured by NMFS's violations of the ESA and APA. Plaintiffs have no adequate remedy at law.

B. Defendants

14. Defendant NATIONAL MARINE FISHERIES SERVICE ("NMFS") is the agency within the U.S. Department of Commerce's National Oceanic and Atmospheric Administration to which the Secretary of Commerce has delegated authority to conserve endangered and threatened marine species pursuant to the ESA.

15. Defendant JOHN E. BRYSON is the Secretary of the United States Department of Commerce, and has ultimate responsibility for the programs of the National Marine Fisheries Service. Secretary Bryson is sued in his official capacity.

LEGAL BACKGROUND

A. The Endangered Species Act

16. Recognizing that certain species of plants and animals "have been so depleted in numbers that they are in danger of or threatened with extinction," 16 U.S.C. § 1531(a)(2), Congress enacted the ESA to provide both "a means whereby the ecosystems upon which endangered species and threatened species depend may be conserved," and "a program for the conservation of such endangered species and

threatened species," *id.* § 1531(b). The ESA affords first priority to the preservation of endangered and threatened species. The ESA therefore establishes that it is "the policy of Congress that all Federal departments and agencies shall seek to conserve endangered species and threatened species and shall utilize their authorities in furtherance of the purposes of this chapter." *Id.* § 1531(c)(1). The principal duties that the ESA assigns to the Secretary of Commerce for protecting marine species have been delegated to NMFS. 50 C.F.R. § 222.101(a).

17. Under the ESA, a species is listed as "endangered" where it is "in danger of extinction throughout all or a significant portion of its range," 16 U.S.C. § 1532(6), and listed as "threatened" where it is "likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range," *id.* § 1532(20). Once listed, a species is entitled to a number of protections, including both prohibitions on harm and affirmative duties to promote the species' conservation and recovery.

18. Section 9 of the ESA prohibits any person from "taking" an endangered species with only limited exceptions. *Id.* § 1538(a)(1)-(2). NMFS regulations apply the Section 9 prohibition to elkhorn and staghorn coral. 50 C.F.R. § 223.208(a). A "person" includes private parties as well as local, state, and federal agencies. 16 U.S.C. § 1532(13). "Take" is defined broadly under the ESA to include harming, harassing, trapping, capturing, wounding, or killing a protected species either directly or by degrading its habitat sufficiently to impair essential behavior patterns, including feeding, breeding, and sheltering. *Id.* § 1532(19); 50 C.F.R. § 17.3. The ESA prohibits

the acts of parties directly causing a take as well as the acts of third parties such as governmental agencies whose acts authorize or otherwise bring about the taking. *Id.* § 1538(g). For federal agency actions, incidental take may only occur in accordance with an incidental take statement contained in a valid biological opinion and subject to all accompanying terms and conditions. *Id.* § 1536(o)(2); 50 C.F.R. § 402.14(i)(1)(5).

19. Section 7(a)(1) of the ESA directs that "[t]he Secretary shall review . . . programs administered by him and utilize such programs in furtherance of the purposes of this chapter." 16 U.S.C. § 1536(a)(1); *see also id.* § 1531(c)(1) (defining conservation as a policy of the ESA). It further requires that "Federal agencies shall, in consultation with and with the assistance of the Secretary, utilize their authorities in furtherance of the purposes of this chapter by carrying out programs for the conservation of endangered species and threatened species." *Id.* § 1536(a)(1). The ESA defines "conservation" to mean "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." *Id.* § 1532(3).

20. Section 7(a)(2) of the ESA requires each federal agency, in consultation with NMFS (or, depending on the species involved, the U.S. Fish and Wildlife Service ("FWS")) 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." *Id.* § 1536(a)(2). Agency "action" is defined in the ESA's implementing regulations to include "(c) the granting of licenses, contracts, leases,

easements, rights-of-way, permits, or grants-in-aid; or (d) actions directly or indirectly causing modifications to the land, water, or air." 50 C.F.R. § 402.02.

21. If the agency proposing the action determines that its action "may affect" a listed species, the agency must engage in "formal consultation" with NMFS or FWS. *Id.* § 402.14(a). Where the action agency and the consulting agency are the same, as in this case, the agency must engage in internal or intra-agency consultation. Here, this means that the NMFS Sustainable Fisheries Division, which is taking the action of authorizing the operation of the U.S. Caribbean Reef Fish Fishery, must consult with the NMFS Protected Resources Division. The result of this consultation is the Protected Resources Division's preparation of a "biological opinion" that describes the expected impact of the U.S. Caribbean Reef Fish Fishery on listed species. 16 U.S.C. § 1536(b); 50 C.F.R. § 402.14.

22. The biological opinion must include a summary of the information on which the opinion is based, an evaluation of "the current status of the listed species or critical habitat," the "effects of the action," and "cumulative effects." 50 C.F.R. § 402.14(g)(2)-(3). "Effects of the action" include both direct and indirect effects of an action "that will be added to the environmental baseline." *Id.* § 402.02. The environmental baseline includes "the past and present impacts of all Federal, State or private actions and other human activities in the action area" and "the anticipated impacts of all proposed Federal projects in the action area that have already undergone formal or early section 7 consultation." *Id.* NMFS must therefore consider not just the proportional share of responsibility for impacts to the species traceable to the particular

activity that is the subject of the biological opinion, but also the effects of that action when added to all other activities and influences in the action area that affect the status of that species.

23. After the consulting agency has added the direct and indirect effects of the action to the environmental baseline, the consulting agency must make its determination as to "whether the action is likely to jeopardize the continued existence of a listed species," *Id.* § 402.14(h)(3); 16 U.S.C. § 1536(b)(3)-(4). The term "jeopardize" is defined as an action that "reasonably would be expected . . . 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.

24. NMFS must base its determination of whether an activity is likely to jeopardize the continued existence of a species solely on "the best scientific and commercial data available." 16 U.S.C. § 1536(a)(2). The ESA does not permit the agency to base its jeopardy determination on other factors, such as the cost of protecting the species.

25. Pursuant to Section 7(b)(4) of the ESA, a biological opinion that concludes that the agency action is not likely to jeopardize a listed species also must include an incidental take statement, which specifies the impact of any allowable takes of individual members of the species, provides reasonable and prudent measures necessary to minimize the impact of those takes, and sets forth terms and conditions

that must be followed to insure against jeopardy. *Id.* § 1536(b)(4); 50 C.F.R. § 402.14(i)(1), (3).

26. Where possible, incidental take must be specified in terms of a numerical limitation. H.R. Rep. No. 97-567, at 27 (1982), *reprinted in* 1982 U.S.C.C.A.N. 2807, 2827. If it is not possible to specify incidental take in terms of a numerical limit, NMFS must explain why it is not possible and use a proxy for incidental take that bears a clear, rational relationship to the impacts of the action on the species, such that the incidental take limit provides an adequate trigger for reinitiation of consultation if the effects of the action exceed the effects that NMFS predicted in its Biological Opinion.

27. If NMFS determines that the action is likely to jeopardize a species, the biological opinion must outline "reasonable and prudent alternatives" to the action, if any exist, that will avoid jeopardy and "which [the Secretary] believes would not violate [Section 7(a)(2)]." 16 U.S.C. 1536(b)(3)(A); 50 C.F.R. § 402.14(h)(3).

28. The action agency has a continuing duty to ensure against jeopardy under section 7(a)(2). After the issuance of a final biological opinion and "where discretionary Federal involvement or control over the action has been retained or is authorized by law," the agency must, in certain circumstances, reinitiate formal consultation. 50 C.F.R. § 402.16. These circumstances include, *inter alia*, if "the amount or extent of taking specified in the incidental take statement is exceeded"; "new information reveals effects of the action that may affect listed species or critical habitat in a manner or to an extent not previously considered"; "the identified action is

subsequently modified in a manner that causes an effect to the listed species or critical habitat that was not considered in the biological opinion"; or "a new species is listed or critical habitat designated that may be affected by the identified action." *Id.*

29. The ESA grants the right to any person to bring suit "to enjoin any person, including the United States and any other governmental instrumentality or agency . . . who is alleged to be in violation of any provision of [the ESA] or regulation issued under the authority thereof." 16 U.S.C. § 1540(g)(1)(A). Under this citizen suit provision, the district courts have jurisdiction "to enforce any such provision or regulation, or to order the Secretary to perform such act or duty, as the case may be."

B. The Administrative Procedure Act

30. The Administrative Procedure Act ("APA") provides that "[a] person suffering legal wrong because of agency action, or adversely affected or aggrieved by agency action within the meaning of a relevant statute, is entitled to judicial review thereof." 5 U.S.C. § 702. The Biological Opinion is an agency action within the meaning of the APA.

31. In an APA suit, 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." 5 U.S.C. § 706(2)(A).

FACTUAL BACKGROUND AND ALLEGATIONS

A. Biology and Status of Elkhorn and Staghorn Corals

32. Coral reefs are the most diverse marine ecosystems on the planet – and are also among the most threatened. Coral reefs provide numerous and significant

benefits including supporting hundreds of species of fish, invertebrates, marine mammals, and sea turtles, protecting coastal areas from storm surge, and providing a main source of food and tourism income for much of the Caribbean.

33. Corals are invertebrate animals. Most coral species live in colonies of individual polyps that are connected by living tissue. The coral polyps produce calcified external skeletons that, in turn, form the structure of coral reefs.

34. Tropical corals obtain nutrition through two main means: filtering tiny plankton from the water column and absorbing sugars produced by symbiotic algae known as zooxanthellae that live in the corals' digestive system. Because these zooxanthellae require light to photosynthesize and produce the sugars the corals use for food, corals require clear water and access to ample sunlight. Unlike some other Caribbean coral species, elkhorn and staghorn corals are almost entirely dependent on sunlight for nourishment and may not be able to compensate for reduced photosynthesis by feeding on plankton.

35. Elkhorn coral (*Acropora palmata*) colonies form flattened branches radiating outward from a central trunk that is attached to hard substrate on the sea floor. Elkhorn coral is generally found in the shallower, turbulent, seaward-facing portion of the reef in water ranging from less than 1 meter to 30 meters in depth.

36. Staghorn coral (*Acropora cervicornis*) colonies also form branches, in this case branches that resemble the antlers of a deer. Staghorn coral is most often found at depths of 5 to 17 meters.

37. Both species reproduce sexually and asexually. Asexual reproduction occurs when a branch breaks off the original coral colony, lands on and attaches to suitable substrate, and develops into a new colony.

38. Sexual reproduction takes place by broadcast spawning, which occurs during a short spawning season of a few nights during July, August, and/or September. The coral polyps shed gametes (sperm and eggs) into the water column. These gametes form coral larvae that float as plankton before settling as planulae and developing into polyps and colonies. Though elkhorn and staghorn corals are hermaphroditic, they cannot self-fertilize, meaning that colonies with different genetic material must be present for sexual reproduction to occur.

39. Current low population levels of elkhorn and staghorn corals in the Caribbean have several negative implications for their reproductive potential: (1) fertilization success declines as adult density declines; (2) fertilization success is even lower in populations where much reproduction is accomplished by fragmentation because these species cannot self-fertilize; and (3) when adult abundance is reduced, the source for asexual reproduction via fragments is reduced. NMFS states "These conditions imply that once a threshold level of population decline has been reached (i.e., a density where fertilization success becomes negligible) the chances for recovery are low." Biological Opinion ["BiOp"] at 126-27. The Biological Opinion also acknowledges that "[c]urrent reproduction, especially sexual reproduction, is believed to be extremely low for elkhorn and staghorn corals." BiOp at 129.

40. Elkhorn and staghorn corals were once the major reef builders in the U.S. Caribbean. The unique branching structure of these corals forms structurally complex reef habitat that provides important shelter for reef-dependent animals like fish and sea turtles, and fosters greater diversity of reef life than other Caribbean coral species. The unique ecological role of staghorn and elkhorn corals cannot be filled by other reef-building corals.

41. Both elkhorn and staghorn corals have declined precipitously over the last several decades, with most populations losing 80 to 98% of their baseline from the 1970s. While NMFS uses the 1970s as a baseline for stable, healthy populations of elkhorn and staghorn corals, scientific evidence indicates that Caribbean reefs had already been overfished and coral habitat adversely affected since as early as the 19th century.

42. In the U.S. Virgin Islands, the abundance of elkhorn and staghorn corals has declined by over 97% since the early 1980s. In addition, many colonies are much smaller than they used to be and some colonies form a flattened crust instead of a complex, three-dimensional structure, meaning that substantial reef structure and habitat have been lost. The overall decline in elkhorn and staghorn corals continues today.

43. In response to a petition by the Center for Biological Diversity, NMFS listed elkhorn and staghorn corals as threatened species under the Endangered Species Act in 2006. 71 Fed. Reg. 26852 (May 9, 2006).

44. NMFS designated critical habitat for elkhorn and staghorn corals in 2008. The critical habitat areas designated for both species include waters off the southeast coast of Florida as well as the Florida Keys, coastal waters surrounding Puerto Rico, and coastal waters surrounding St. Thomas/St. John and St. Croix in the U.S. Virgin Islands. 73 Fed. Reg. 72210 (Nov. 26, 2008) (see Exhibit A).

45. Though these species are highly sensitive to water quality and water temperature, NMFS's critical habitat designation focused on a single essential habitat feature for the conservation of the species: availability of suitable substrate in water depths from the mean high tide line to 30 meters to support successful larval settlement, recruitment, and reattachment of fragments. "Suitable" substrate means consolidated hardbottom or dead coral skeletons that are free from fleshy macroalgae or turf algae and sediment cover.

46. Sedimentation and algal overgrowth of reef habitat in the U.S. Caribbean continues to significantly diminish the availability of suitable substrate for elkhorn and staghorn coral recruitment and growth.

47. These two coral species face numerous threats to their survival and recovery, including stress resulting from rising sea surface temperatures due to climate change, ocean acidification, hurricane damage, disease, and competition with algae, which is described in more detail below. These threats act in synergistic ways such that damage from one stressor leaves elkhorn and staghorn coral more vulnerable to damage from the others and less able to recover.

48. Elkhorn and staghorn corals and their critical habitat are in dire condition. The Biological Opinion notes that over the past 15 to 25 years, coral cover in the U.S. Virgin Islands has declined dramatically, macroalgal cover has increased, and fish of multiple species have become smaller and less abundant. BiOp at 59. In addition, synergistic threats such as coral disease and sedimentation of reef habitat have significantly increased. *Id.*

49. NMFS acknowledges that the baseline condition of elkhorn and staghorn corals and their critical habitat is likely to continue to decline due to these threats. NMFS particularly asserts that stressors such as climate change, hurricanes, and disease are "severe, unpredictable, likely to increase in the foreseeable future, and, at current levels of knowledge, unmanageable." BiOp at 125.

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B. Relationship between Herbivorous Reef Fish and Coral Health

50. One threat that NMFS acknowledges that it can and must manage is unsustainable fishing for herbivorous fish and the algal overgrowth of coral reefs that result from such fishing. BiOp at 179-80.

51. In general, competition between hard corals and benthic algae, particularly macroalgae and dense turf algae, is considered fundamental to the overall status of coral reefs. Algae and corals are widely considered to be in competition for available space and light. Competition between macroalgae and coral can cause "feedback loops," driving reefs with high coral cover and low macroalgal cover to shift toward high macroalgal coral cover and low coral cover.

52. Such shifts have been common in the Caribbean since the 1980s, and macroalgae now dominate most of the space on Caribbean reefs. This regional shift is generally attributed to the decline of herbivorous grazing species that control macroalgal growth, stemming from the twin phenomena of "[h]uman overexploitation of herbivorous fishes" and the mass die-off of the herbivorous sea urchin *Diadema antillarum*. BiOp at 55.

53. Algal overgrowth of coral harms the coral in a number of ways. First, it can directly harm coral by overgrowing it and starving it of sunlight necessary to feed the symbiotic zooxanthellae in the coral's tissues, which provide nutrition to the coral polyp. Overgrowth generally interferes with the coral's growth; severe overgrowth can result in coral mortality. Second, algal overgrowth interferes with the coral's sexual and asexual reproduction by monopolizing the space where larvae or fragments would otherwise settle and grow. Finally, algae also trap sediment, further reducing suitable substrate for settlement and growth. Such interference with the corals' successful reproduction impairs the ability of staghorn and elkhorn corals to survive and recover.

54. Macroalgae also harms coral through other means. Studies indicate that algal domination of reefs can promote coral diseases. In addition, macroalgae overgrows crustose coralline algae, which is thought to provide chemical cues to coral larvae indicating that an area is appropriate for settlement, and secretes substances that are toxic to coral larvae. Other substances secreted by macroalgae commonly cause coral bleaching (expulsion of the symbiotic, photosynthetic zooxanthellae that provide nutrition for the coral), decreased photosynthetic efficiency, and death of coral tissue.

55. Algae can also reduce available substrate for coral larvae settlement and fragment attachment by trapping sediment. Coral reefs off Puerto Rico and the U.S. Virgin Islands receive significant inputs of sediment washed into coastal areas from land, and the trapping effect of reef algae can amplify the effects of this sedimentation.

56. Grazing by herbivorous fish is critical to the health of the coral reef ecosystem. Such grazing removes algae from the reef, thereby reducing competition between algae and coral as well as providing clear substrate for new corals to settle and develop. It is well-established in peer-reviewed scientific literature that an abundant, diverse herbivorous fish population that includes many large fish is critical to removing macroalgae and facilitating coral recovery or, at a minimum, preventing macroalgae from overgrowing more of the reef. Studies show that any level of fishing pressure can greatly reduce the grazing functionality of the herbivorous fish population.

57. Large-bodied fish species like parrotfish are significantly more effective at removing macroalgae from reefs than are small-bodied fish species. Similarly, larger individual fish are significantly more effective at removing macroalgae than smaller individuals of the same species.

58. Fish populations in the U.S. Caribbean have been depleted by overfishing for decades. Some studies indicate that fish populations in the Caribbean have been depleted since the 19th century.

59. Current data indicate that parrotfish populations in the U.S. Caribbean are heavily skewed towards smaller individuals, indicating that larger individuals have been disproportionately removed by fishing and that the populations are experiencing

unsustainable fishing pressure. At the time that it issued the Biological Opinion, NMFS had already determined that parrotfish were subject to overfishing.

60. In some areas of the Caribbean, the depletion of fish populations led to the long-spined black sea urchin, *Diadema antillarum*, becoming the main functional grazer. In the 1980s, a massive die-off of *Diadema* occurred, followed by an outbreak of disease that decimated elkhorn and staghorn coral populations. These events are believed to have contributed to the shift from coral-dominated reefs to algae-dominated reefs in the Caribbean.

61. The long-spined black urchin has not recovered to numbers that would allow it to play an ecologically significant role in grazing on Caribbean reefs. Parrotfish – large-bodied fish with powerful, beak-like mouths that scrape algae off coral and other substrate – are now the only major grazer left in the U.S. Caribbean.

62. Scientific studies show that coral reef ecosystems subjected to significant levels of fishing tend to be less resilient and slower to recover from other stressors than reef systems where fishing is tightly controlled. Therefore, NMFS concluded that the management of so-called "secondary" threats such as overfishing should be the focus of regulatory and recovery efforts for staghorn and elkhorn corals in order to allow the species to be more resistant and resilient to the continuing impacts of "primary" stressors such as climate change, hurricanes, and disease. "[M]anaging these less severe threats may assist in decreasing the rate of elkhorn and staghorn corals' decline by enhancing coral condition and decreasing synergistic stress effects." BiOp at 179.

63. Algal-dominated reefs provide less valuable habitat and host fewer species than coral-dominated reefs. Degradation of the coral reef habitat includes loss of shelter for many fish species, as well other species like the hawksbill sea turtle that are protected under the ESA.

C. The Biological Opinion

64. On October 4, 2011, NMFS completed a Biological Opinion regarding the effects of the U.S. Caribbean Reef Fish Fishery on ESA-listed species, titled "Continued Authorization of Reef Fish Fishing Managed under the Reef Fish Fishery Management Plan (FMP) of Puerto Rico and the U.S. Virgin Islands (CRFFMP)." The management measures authorized by this Biological Opinion include those contained in Amendment 5 to the U.S. Caribbean Reef Fish Fishery Management Plan, the regulations for which are scheduled to become effective on January 30, 2012.

65. NMFS has determined that parrotfish in the U.S. Caribbean are undergoing overfishing, as that term is defined under the Magnuson-Stevens Fishery Conservation and Management Act, 16 U.S.C. §§ 1801 – 1891d. Nevertheless, the Biological Opinion authorizes the continued, targeted harvest of parrotfish around the U.S. Virgin Islands and Puerto Rico.

66. Amendment 5 establishes annual catch limits for parrotfish taken from Puerto Rico, St. Thomas/St. John, and St. Croix. These annual catch limits are based on the estimated average annual commercial catch of parrotfish during 1999-2005 for Puerto Rico and St. Croix and during 2000-2005 for St. Thomas/St. John. Those average catch levels are reduced by 15% to account for both management uncertainty

(*e.g*. difficulty monitoring the fishery and detecting overfishing) and scientific uncertainty (*e.g*. errors in estimating parrotfish abundance or biomass). Catch levels for St. Croix are reduced by an additional 5-6%, purportedly to address harm to elkhorn and staghorn coral that occurs when parrotfish are overfished.

67. The Fishery Management Plan, as amended by Amendment 5, prohibits the harvest of three very rare parrotfish species: midnight, blue, and rainbow. However, Amendment 5 does not require that parrotfish catch be reported by species, meaning that any parrotfish caught – striped, stoplight, princess, midnight, blue, rainbow, or other – are reported simply as "parrotfish."

68. The Biological Opinion finds that the Fishery adversely affects the entire area of critical habitat designated for elkhorn and staghorn coral in the U.S. Caribbean.

69. Fishing is the most widespread exploitative activity on coral reefs and poses significant threats to the biodiversity and condition of marine ecosystems. Fishing modifies species interactions such as competition and predation by altering structural complexity. All of the fishing methods commonly used in the U.S. Caribbean reef fishery – hook-and-line, SCUBA and skin diving, traps or pots, and nets (gill nets, trammel nets, and bait cast nets) – are associated with significant ecological impacts to corals and their habitat, as is the heavy boat traffic in shallow waters that is generated by the reef fishery fleet. Because of their branching morphology and shallow habitat requirements, elkhorn and staghorn corals are among the most susceptible species to fishing and associated boating, diving, and gear deployment impacts. The

effects considered in the Biological Opinion include direct damage from fishing gear breaking or abrading coral as well as indirect effects from removing grazing fish.

70. The trap gear that is used to catch parrotfish and other reef fish can damage coral by landing on it when deployed or by entangling or abrading coral when the line connecting the trap to the surface comes into contact with coral. In addition, traps can destroy newly settled coral planulae and prevent larval settlement by blocking substrate.

71. NMFS's Biological Opinion analyzes the direct impacts of fishing gear in terms of the removal of available, suitable hard substrate and the estimated area of coral and critical habitat that would be destroyed by trap damage each year. The Biological Opinion assumes that damage to critical habitat and damage to elkhorn and staghorn coral are equivalent. The Biological Opinion assumes that trap damage is temporary and that there will be no cumulative effects to the corals or their critical habitat from trap deployment year after year. NMFS did not explicitly consider the reduction in reproductive potential associated with damage to adult coral and their critical habitat.

72. The Biological Opinion estimates that fishing gear would directly damage 0.004 square mile of staghorn and elkhorn coral and critical habitat per year.

73. The Biological Opinion also considers the Fishery's indirect impacts to elkhorn and staghorn corals' critical habitat from the continued harvest of grazing fish. The Biological Opinion states that the massive die-offs of *Diadema* and elkhorn and staghorn corals during the 1980s allowed macroalgae to spread and outcompete corals

in occupying the suitable substrate left barren by coral mortalities. It also acknowledges that the continued removal of remaining grazers (parrotfish) has likely maintained and exacerbated this negative feedback loop, allowing macroalgae to continue to dominate reef habitat and preempt coral growth and reproduction.

74. However, NMFS's Biological Opinion asserts that while the continued harvest of parrotfish and other herbivorous fish exacerbates the already poor condition of elkhorn and staghorn critical habitat, it is not a "primary" cause of habitat degradation.

75. The Biological Opinion further asserts that macroalgal domination of elkhorn and staghorn critical habitat is only a "moderate" threat to the species compared to the threats posed by climate change, hurricanes, and disease, all of which NMFS considers unmanageable and likely to increase in the foreseeable future.

76. The Biological Opinion's critical habitat analysis also asserts that measures in the Fishery Management Plan are anticipated to increase grazing relative to current levels. NMFS acknowledges that it only anticipates a detectable herbivorous fish population response to the proposed decreases in catch levels in St. Croix. Elsewhere in the Biological Opinion, however, NMFS asserts that these measures may have little or no effect on grazing by herbivorous fish, and may not even significantly change the level of fishing effort directed at herbivorous fish.

77. Nonetheless, the Biological Opinion concludes that the incremental impacts caused by the Fishery are not "in and of themselves" destroying or adversely modifying elkhorn and staghorn critical habitat. BiOp at 175.

78. Based on a similar analysis, the Biological Opinion also concludes that the Fishery is not likely to jeopardize the continued existence of elkhorn and staghorn coral.

79. The Biological Opinion sets an incidental take limit only for the amount of damage to coral and critical habitat caused by direct gear effects. The incidental take limit allows the damage or destruction of 10,619 m^2 (0.0041 mi^2) of elkhorn and staghorn coral and critical habitat per year.

80. NMFS asserts that it is unable to quantify how much elkhorn and staghorn coral will be indirectly affected by the Fishery and does not set an incidental take limit for indirect effects. Instead, the Biological Opinion establishes a reasonable and prudent measure ("RPM") aimed at monitoring and tracking the herbivorous fish population in St. Croix as a proxy for indirect incidental take of elkhorn and staghorn coral.

81. The Biological Opinion includes a number of terms and conditions necessary to implement this reasonable and prudent measure. These terms and conditions require NMFS to complete an initial assessment of the most abundant herbivorous fish stocks in St. Croix and follow-on assessments within three years of the first assessment; as well as to monitor the length composition of herbivorous fish (based on landings) in St. Croix and fund a research project on the importance of herbivorous fish in the recovery of corals. Finally, the terms and conditions require NMFS to work with the commonwealth and territorial governments on improved fisheries reporting, including collection of species-specific landings data. None of the

terms and conditions require NMFS to focus on the main grazing fish species, parrotfish.

CLAIMS FOR RELIEF

First Claim for Relief

VIOLATION OF ESA AND APA:
THE BIOLOGICAL OPINION IS UNLAWFUL BECAUSE OF FLAWED JEOPARDY ANALYSIS

82. Plaintiffs re-allege, as if fully set forth herein, each and every allegation set forth in this Complaint.

83. The APA prohibits an agency from taking action that is "arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law." 5 U.S.C. § 706(2)(A).

84. Section 7(a)(2) of the ESA requires each federal agency, "in consultation with and with the assistance of the Secretary," to "insure that any action . . . is not likely to jeopardize the continued existence of any endangered species or threatened species." 16 U.S.C. § 1536(a)(2). In making its jeopardy determination to satisfy this requirement in completing a biological opinion, the consulting agency must evaluate "the current status of the listed species or critical habitat," the "effects of the action," and "cumulative effects." 50 C.F.R. § 402.14(g)(2)-(3). "Effects of the action" include both direct and indirect effects of an action "that will be added to the environmental baseline." *Id.* § 402.02.

85. The "environmental baseline" includes "the past and present impacts of all Federal, State or private actions and other human activities in the action area" and

"the anticipated impacts of all proposed Federal projects in the action area that have already undergone formal or early section 7 consultation." *Id.* § 402.02.

86. Despite admitting that elkhorn and staghorn coral populations and their critical habitat are likely to continue to decline in the future, NMFS failed to take this continued decline into account when it analyzed the effects of continued adverse effects from the Fishery.

87. Rather than add the effects of the ongoing operation of the U.S. Caribbean Reef Fish Fishery to the environmental baseline as required by ESA Section 7(a)(2), 16 U.S.C. § 1536(a)(2); 50 C.F.R. § 402.02, the Biological Opinion compares the effects of the Fishery to other threats that NMFS claims are "unmanageable," including climate change, hurricanes, and disease. Moreover, NMFS failed to analyze the Fishery's effects in the context of the already poor and declining status of elkhorn and staghorn coral, and in addition to increasing baseline threats. Instead, NMFS unlawfully merely compared the effects of the Fishery to other threats and concluded that Fishery effects, "in and of themselves," were not likely to jeopardize the continued existence of elkhorn and staghorn coral or destroy or adversely modify their critical habitat.

88. Because NMFS has failed to analyze the likelihood that the action would jeopardize the continued existence of elkhorn and staghorn coral or destroy or adversely modify their critical habitat in accordance with the requirements of ESA § 7(a)(2), the Biological Opinion violates the ESA and is agency action that is "arbitrary,

capricious, an abuse of discretion or otherwise not in accordance with law," 5 U.S.C. § 706(2)(A).

89. These actions have harmed Plaintiffs and Plaintiffs have no adequate remedy at law.

Second Claim for Relief

VIOLATION OF ESA AND APA:
THE BIOLOGICAL OPINION IS UNLAWFUL BECAUSE IT IS NOT BASED ON THE BEST AVAILABLE SCIENCE

90. Plaintiffs re-allege, as if fully set forth herein, each and every allegation set forth in this Complaint.

91. The APA prohibits an agency from taking action that is "arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law." 5 U.S.C. § 706(2)(A).

92. Section 7(a)(2) of the ESA requires consultations to be based upon "the best scientific . . . data available." 16 U.S.C. § 1536(a)(2).

93. Defendants did not rely upon the best available scientific data in reaching the no jeopardy conclusion in the Biological Opinion. Among other deficiencies, Defendants disregarded scientific evidence showing that macroalgal dominance of reef habitat poses a significant threat to the survival and recovery of elkhorn and staghorn coral, as well as to their critical habitat, particularly in the context of the myriad and intensifying threats that these species otherwise face. Defendants also disregarded scientific evidence showing that even moderate levels of fishing can adversely affect the grazing efficacy of herbivorous fish populations and that an intact,

unfished grazing fish population is necessary to mediate competition between coral and macroalgae and facilitate successful sexual and asexual reproduction of these species. Defendants further disregarded scientific evidence showing that the grazing efficiency of herbivorous populations, or parrotfish specifically, is more closely linked to the number of large fish in the population rather than overall numbers or biomass of fish. In addition, while acknowledging that the loss of a major grazing animal, the long-spined black urchin, is a factor contributing to the degradation of elkhorn and staghorn habitat in the U.S. Caribbean, NMFS failed to properly consider substantial scientific evidence that the continued removal of the only remaining major grazing animal, parrotfish, is currently contributing to the decline of elkhorn and staghorn corals and to the degradation of their critical habitat.

94. Defendants' failure to base the Biological Opinion's conclusions upon the best available scientific data violates ESA section 7(a)(2) and is arbitrary, capricious, an abuse of discretion, or not in accordance with law, contrary to the APA, 5 U.S.C. § 706(2)(A).

95. These actions have harmed Plaintiffs and Plaintiffs have no adequate remedy at law.

Third Claim for Relief

VIOLATION OF ESA AND APA:
THE BIOLOGICAL OPINION'S CONCLUSIONS ARE ARBITRARY AND CAPRICIOUS BECAUSE THEY ARE UNSUPPORTED

96. Plaintiffs re-allege, as if fully set forth herein, each and every allegation set forth in this Complaint.

97. The APA prohibits an agency from taking action that is "arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law." 5 U.S.C. § 706(2)(A).

98. The Biological Opinion contains no rational connection between the facts presented and NMFS's conclusion that continued Fishery operations are not likely to jeopardize the continued existence of elkhorn and staghorn corals or destroy or adversely modify their critical habitat. For example, NMFS fails to acknowledge the importance of maintaining a healthy, intact population of the only major grazers left on the Caribbean reef ecosystem – parrotfish – even as it blames the loss of coral and coral habitat on the loss several decades ago of another major grazer, the long-spined black urchin. In addition, NMFS's conclusion that grazing by the most prevalent species of parrotfish in the U.S. Caribbean is not a major factor in mediating algal overgrowth is internally inconsistent with its assertion that protecting the three rarest species of parrotfish in the U.S. Caribbean will lead to increases in grazing. Moreover, NMFS's assumption that fishery management measures will actually achieve reductions in parrotfish catch and will thus increase grazing has no basis, as these measures lack effective monitoring and reporting requirements. Furthermore, NMFS offers no

rational explanation for its assumption that whatever reductions in parrotfish catch are achieved as a result of this action will be sufficient to increase grazing and reduce algal overgrowth so as to avoid jeopardy to elkhorn and staghorn coral and destruction or adverse modification of their critical habitat. Finally, NMFS's dismissal of macroalgal overgrowth of reefs as a "moderate" threat to elkhorn and staghorn coral conflicts with its own admission that macroalgal overgrowth acts synergistically with other threats to degrade the status of the species and their critical habitat and renders them more vulnerable to those threats.

99. NMFS's determination in the Biological Opinion that the operation of the U.S. Caribbean Reef Fish Fishery is not likely to jeopardize the continued existence of elkhorn and staghorn corals or destroy or adversely modify their critical habitat has no rational basis in the record. Therefore, NMFS's determination violates the ESA and is arbitrary and capricious, an abuse of discretion, and not in accordance with law, in violation of the APA, 5 U.S.C. § 706(2).

100. These actions have harmed Plaintiffs and Plaintiffs have no adequate remedy at law.

Fourth Claim for Relief

VIOLATION OF ESA AND APA:
THE BIOLOGICAL OPINION FAILS TO INCLUDE AN ADEQUATE INCIDENTAL TAKE STATEMENT, REASONABLE AND PRUDENT MEASURES, AND TERMS AND CONDITIONS

101. Plaintiffs re-allege, as if fully set forth herein, each and every allegation set forth in this Complaint.

102. The APA prohibits an agency from taking action that is "arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law." 5 U.S.C. § 706(2)(A).

103. Where Defendants determine that an agency action complies with Section 7(a)(2) of the ESA, ESA Section 7(b)(4) requires that the Biological Opinion specify the impact (i.e., the amount or extent) of the action's incidental take on the affected species, reasonable and prudent measures necessary or appropriate to minimize the impact of that take, and terms and conditions with which the action agency must comply to implement the incidental take limit and reasonable and prudent measures. 16 U.S.C. § 1536(b)(4), 50 C.F.R. § 402.14(i)(1)(i)-(iii).

104. Where possible, incidental take must be specified in terms of a numerical limitation. H.R. Rep. No. 97-567, at 27 (1982), *reprinted in* 1982 U.S.C.C.A.N. 2807, 2827. If it is not possible to specify incidental take in terms of a numerical limit, NMFS must explain why it is not possible and use a proxy for incidental take that bears a clear, rational relationship to the impacts of the action on the species, such that the incidental take limit provides an adequate trigger for reinitiation of consultation if the effects of the action exceed the effects that NMFS predicted in its Biological Opinion.

105. The Biological Opinion does not offer a rational explanation why it cannot quantitatively assess the Fishery's indirect impacts to elkhorn and staghorn coral that will result from removing large grazing fish, especially large parrotfish, and thereby fostering continued macroalgal overgrowth.

106. The Biological Opinion does not establish a clear, reasonable proxy for coral taken by indirect impacts, and thus does not establish a meaningful trigger for the reinitiation of consultation if Fishery effects exceed NMFS's expectations. Specifically, NMFS's use of current herbivorous fish biomass on St. Croix as a measuring stick to determine whether the Fishery is adversely affecting elkhorn and staghorn corals is flawed in numerous respects. First, the information presented in the Biological Opinion shows that the present populations of herbivorous fish in St. Croix, particularly of parrotfish, are significantly depleted from past levels; hence, current population levels may already be insufficient to mediate competition between macroalgae and corals. Therefore, measuring changes in herbivorous fish biomass against this already depleted condition does not reflect the true extent of Fishery impacts.

107. Second, while NMFS acknowledges that parrotfish play a unique role in removing fleshy macroalgae and that such a role cannot be filled by other herbivorous fish species, the Biological Opinion purports to measure the Fishery's effects by monitoring the biomass of a generic suite of herbivorous fish and linking its assessments of Fishery effects with overall herbivorous fish biomass, rather than considering the specific ecological roles of different herbivorous fish species.

108. Third, the Biological Opinion's reliance on biomass as a proxy for the grazing efficacy of herbivorous fish disregards established science showing that the size of fish plays a key role in determining their grazing efficacy and that the size structure of the fish population is a key factor in determining whether that population can

effectively mediate competition between macroalgae and coral. Merely measuring biomass simply does not account for the crucial, scientifically-recognized, importance of fish size.

109. Fourth, NMFS's reliance on landings data (*i.e*. data on fish that have been caught and retained by fishermen) to determine changes in fish biomass and to monitor the size of fish disregards evidence that such landings data do not provide a representative or reliable estimate of fish abundance or size of fish on the reef.

110. Finally, the Biological Opinion fails to offer any numerical limit or proxy for incidental take stemming from indirect Fishery effects in Puerto Rico or St. Thomas/St. John.

111. For the reasons set forth above, NMFS's incidental take statement fails to specify properly the impacts of the Fishery in a way that would allow the agency to accurately monitor and measure the Fishery's impacts on elkhorn and staghorn coral through the removal of parrotfish and fostering of algal overgrowth. The incidental take statement therefore fails to provide a meaningful trigger for the reinitiation of consultation. Moreover, the Biological Opinion fails to specify adequate reasonable and prudent measures and implementing terms and conditions necessary to minimize the impact of such incidental take. Therefore, the Biological Opinion violates the ESA and is arbitrary and capricious, an abuse of discretion, and not in accordance with law, in violation of the APA, 5 U.S.C. § 706(2).

112. These actions have harmed Plaintiffs and Plaintiffs have no adequate remedy at law.

Fifth Claim for Relief

VIOLATION OF ESA AND APA:
NMFS IS FAILING TO ENSURE THAT ITS ACTIONS ARE NOT LIKELY TO JEOPARDIZE THE CONTINUED EXISTENCE OF STAGHORN AND ELKHORN CORAL OR DESTROY OR ADVERSELY MODIFY CRITICAL HABITAT

113. Plaintiffs re-allege, as if fully set forth herein, each and every allegation set forth in this Complaint.

114. In addition to its duty as the expert consulting agency (in its role as the Protected Resources Division), NMFS has an independent duty as the agency authorizing fishing activities (in its role as the Sustainable Fisheries Division) to ensure that its actions avoid the likelihood of jeopardy to ESA-listed species or destruction or adverse modification of their critical habitat. Because NMFS may not rely on the legally invalid Biological Opinion to meet its duty to ensure against jeopardy to elkhorn and staghorn coral or destruction or adverse modification of their critical habitat, NMFS's continued authorization of the U.S. Caribbean Reef Fish Fishery violates section 7(a)(2) of the ESA, 16 U.S.C. § 1536(a)(2) and is arbitrary, capricious, an abuse of discretion, and not in accordance with law, contrary to the APA, 5 U.S.C. § 706(2). [1]

115. These actions have harmed Plaintiffs and Plaintiffs have no adequate remedy at law.

[1] Pursuant to 16 U.S.C. § 1540(g), Plaintiffs are submitting a 60-day notice of violation and intent to sue Defendants for their failure to comply with their substantive duty under Section 7 of the Endangered Species Act, 16 U.S.C. § 1536(a)(2), to ensure that their actions are not likely to jeopardize elkhorn and staghorn coral or destroy or adversely modify their critical habitat. Plaintiffs intend to amend this Complaint accordingly unless Defendants take action to cure the violation before the 60-day notice period expires.

PRAYER FOR RELIEF

WHEREFORE, Plaintiffs respectfully request that the Court:

(1) Adjudge and declare that Defendants' Biological Opinion (including its "no jeopardy" and "no adverse modification" findings) is arbitrary and capricious in violation of the ESA and APA;

(2) Set aside and vacate the Biological Opinion as in violation of the ESA and APA;

(3) Order Defendants to reinitiate ESA Section 7 consultation on the Fishery and complete a new legally valid biological opinion by a date certain;

(4) Order Defendants to comply with the ESA in connection with any further action taken regarding the Fishery;

(5) Award Plaintiffs their fees, costs, expenses, and disbursements, including reasonable attorneys' fees, associated with this litigation; and

(6) Grant such additional relief as the Court deems just and proper.

Respectfully submitted this 30th day of January, 2012,

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