

UNITED STATES DISTRICT COURT  
FOR THE DISTRICT OF COLUMBIA

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| OCEANA, INC.,  | ) |                                |
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| Plaintiff,   | ) |                                |
|  | ) |                                |
| v.   | ) | Civil Action No. 15-0555 (PLF) |
|  | ) |                                |
| WILBUR ROSS,   | ) |                                |
| United States Secretary of Commerce, <u>et al.</u> , | ) |                                |
|  | ) |                                |
| Defendants.  | ) |                                |

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OPINION

Oceana, Inc. challenges a Biological Opinion issued by the National Marine Fisheries Service (“NMFS”), in which NMFS has determined that the continued operation of Southeast U.S. shrimp fisheries would not jeopardize the continued existence of loggerhead, green, leatherback, hawksbill, and Kemp’s ridley sea turtles (“sea turtles”). Oceana argues that the Shrimp BiOp is arbitrary and capricious and an abuse of NMFS’ discretion, constituting a violation of the agency’s duties under the Endangered Species Act (“EPA”) and the Administrative Procedure Act (“APA”), and asks the Court to vacate the agency’s biological opinion. NMFS responds that the BiOp is reasonable and supported by the administrative record, and that vacatur is not the appropriate remedy. Both sides have filed motions for summary judgment. Upon consideration of the parties’ briefs and representations at oral argument, the relevant legal authorities, and the entire record in this case, the Court will grant in

part and deny in part each party’s motion for summary judgment, and remand to the agency without vacatur.<sup>1</sup>

## I. STATUTORY AND REGULATORY FRAMEWORK

### A. *The Endangered Species Act*

The Endangered Species Act of 1973 (“ESA”), as amended, 16 U.S.C. § 1531 et seq., “seeks to protect species of animals against threats to their continuing existence caused by man.” Lujan v. Defs. of Wildlife, 504 U.S. 555, 558 (1992). The intent of Congress was “to halt and reverse the trend toward species extinction, whatever the cost.” Nat’l Ass’n of Home Builders v. U.S. Fish and Wildlife Serv., 786 F.3d 1050, 1052 (D.C. Cir. 2015) (quoting Tenn. Valley Auth. v. Hill, 437 U.S. 153, 184 (1978)). The Act “constitutes ‘the most comprehensive legislation for the preservation of endangered species ever enacted by any nation.’” Ctr. for Biological Diversity v. EPA, 861 F.3d 174, 177 (D.C. Cir. 2017) (quoting Tenn. Valley Auth. v. Hill, 437 U.S. at 180). “ESA compliance is not optional,” and its “no-jeopardy mandate applies to every discretionary agency action – regardless of the expense or burden its application might impose.” Nat’l Wildlife Fed’n v. Nat’l Marine Fisheries Serv., 524 F.3d 917, 929 (9th Cir. 2008) (citing Nat’l Ass’n of Home Builders v. Defs. of Wildlife, 551 U.S. 644, 671 (2007)).

Under the ESA, species may be listed as either “endangered” or “threatened.”

See 16 U.S.C. § 1533. An endangered species is “any species which is in danger of extinction

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<sup>1</sup> The Court has reviewed the following filings in resolving the pending motions: Oceana’s Complaint for Declaratory and Injunctive Relief (“Compl.”) [Dkt. No. 1]; Defendants’ Answer (“Answer”) [Dkt. No. 7]; Oceana’s Motion for Summary Judgment (“Oceana MSJ”) [Dkt. No. 19]; Defendants’ Combined Opposition to Plaintiff’s Motion and Cross-Motion for Summary Judgment (“NMFS MSJ”) [Dkt. No. 22]; Oceana’s Combined Reply in Support of its Motion for Summary Judgment and Opposition to Defendants’ Motion (“Oceana Reply”) [Dkt. No. 23]; Defendants’ Reply in Support of Cross-Motion for Summary Judgment (“NMFS Reply”) [Dkt. No. 25]; Administrative Record (“AR”) [Dkt. No. 26]; Defendants’ Notice of Publication of Final Rule (“NMFS’ Notice”) [Dkt. No. 34].

throughout all or a significant portion of its range.” 16 U.S.C. § 1532(6). A threatened species is “any species which is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range.” 16 U.S.C. § 1532(20). The ESA is jointly administered by two federal agencies: the Fish and Wildlife Service (“FWS”) and the National Marine Fisheries Service (“NMFS”). 50 C.F.R. § 402.01(b). FWS administers the statute with respect to species under the jurisdiction of the Secretary of the Interior, while NMFS covers those species under the jurisdiction of the Secretary of Commerce. Nat’l Ass’n of Home Builders v. Defs. of Wildlife, 551 U.S. at 651.

*B. Section 7 and Formal Consultation*

“Section 7 of the ESA prescribes the steps that federal agencies must take to ensure that their actions do not jeopardize endangered wildlife and flora.” Nat’l Ass’n of Home Builders v. Defs. of Wildlife, 551 U.S. at 652. An action “jeopardize[s] the continued existence of” a species if it “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. Under Section 7(a)(2), “[e]ach Federal agency shall, in consultation with and with the assistance of the [FWS or NMFS], 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.” 16 U.S.C. § 1536(a)(2).<sup>2</sup> To

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<sup>2</sup> The agency whose action is under examination is known as the “action agency,” while either FWS or NMFS serves as the expert or “consulting agency.” See Nat’l Wildlife Fed’n v. Nat’l Marine Fisheries Serv., 524 F.3d at 924. In this case, NMFS is both the “action agency” and the “consulting agency.” The Sustainable Fisheries Division of NMFS’ Southeast Regional Office administers the fisheries management programs governing the southeast U.S. shrimp fisheries, which makes it the action agency here. Compl. ¶ 18; see AR 857. The

achieve this end, the accompanying regulations specify that “[e]ach Federal agency shall review its actions at the earliest possible time to determine whether any action may affect listed species or critical habitat.” 50 C.F.R. § 402.14(a). Where a federal agency has concluded after an initial review that its action “may affect listed species or critical habitat,” the action agency must engage in “consultation” with the expert agency. *Id.*

“Broadly speaking, the object of consultation under the statute is for the expert agency to determine whether the project will violate [Section 7’s] prohibition on jeopardizing the continued existence of endangered and threatened species.” Ctr. for Biological Diversity v. Ross, Civil Action No. 18-0112, 2020 WL 1809465, at \*2 (D.D.C. Apr. 9, 2020). At the conclusion of the Section 7 consultation process, the expert or consulting agency must issue a Biological Opinion (“BiOp”), “setting forth [its] opinion, and a summary of the information on which the opinion is based, detailing how the agency action affects the species or its critical habitat.” 16 U.S.C. § 1536(b)(3)(A); see also 50 C.F.R. § 402.14(h). The BiOp can either find that the action does violate Section 7(a)(2) – “a ‘jeopardy’ biological opinion” – or that it does not – “a ‘no jeopardy’ biological opinion.” 50 C.F.R. § 402.14(h)(1)(iv).

### *C. The Biological Opinion*

The consulting agency’s responsibilities during the formal consultation process are established by regulation. These regulations ensure that a species cannot be “gradually destroyed, so long as each step on the path to destruction is sufficiently modest.” Nat’l Wildlife Fed’n v. Nat’l Marine Fisheries Serv., 524 F.3d at 930. In formulating a Biological Opinion, the consulting agency must “use the best scientific and commercial data available” and “[r]eview all

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Protected Resources Division of the NMFS’ Southeast Regional Office served as the expert or consulting agency. Compl. ¶ 19; see AR 857.

relevant information provided by the Federal agency or otherwise available.” 16 U.S.C. § 1536(a)(2); 50 C.F.R. § 402.14(g)(1), (8). The agency must first “[e]valuate the current status and environmental baseline of the listed species.” 50 C.F.R. § 402.14(g)(2). The “environmental baseline” is “the condition of the listed species . . . without the consequences to the listed species . . . caused by the proposed action.” Id. § 402.02. It includes (1) “the past and present impacts of all Federal, State, or private actions and other human activities in the action area,” (2) “the anticipated impacts of all proposed Federal projects in the action area that have already undergone formal or early section 7 consultation,” and (3) “the impact of State or private actions which are contemporaneous with the consultation in process.” Id. These factors include consequences to the listed species “from ongoing agency activities or existing agency facilities that are not within the agency’s discretion to modify.” Id.

The consulting agency must then “[e]valuate the effects of the action and cumulative effects on the listed species.” 50 C.F.R. § 402.14(g)(3). The “effects of the action” are “all consequences to listed species . . . that are caused by the proposed action, including the consequences of other activities that are caused by the proposed action.” Id. § 402.02. A consequence is caused by the proposed action if (1) “it would not occur but for the proposed action” and (2) “it is reasonably certain to occur.” Id. “Effects of the action may occur later in time and may include consequences occurring outside the immediate area involved in the action.” Id. “Cumulative effects” on the listed species are “those effects of future State or private activities, not involving Federal activities, that are reasonably certain to occur within the action area of the Federal action subject to consultation.” Id.

Once the consulting agency has established these components, it must then “[a]dd the effects of the action and cumulative effects to the environmental baseline and in light of the

status of the species and critical habitat, formulate the [FWS’ or NMFS’] opinion as to whether the action is likely to jeopardize the continued existence of listed species.” 50 C.F.R.

§ 402.14(g)(4).

In the event of a “jeopardy” biological opinion – when the BiOp concludes that jeopardy is likely to result from the action under review – the consulting agency “shall suggest those reasonable and prudent alternatives which [it] believes would not violate [Section 7(a)(2)] and can be taken by [the action agency].” 16 U.S.C. § 1536(b)(3)(A); see also 50 C.F.R.

§ 402.14(h)(3), (g)(5). “Following the issuance of a ‘jeopardy’ opinion, the agency must either terminate the action, implement the proposed alternative, or seek an exemption from the Cabinet-level Endangered Species Committee pursuant to 16 U.S.C. § 1536(e).” Nat’l Ass’n of Home Builders v. Defs. of Wildlife, 551 U.S. at 652.

#### *D. The Incidental Take Statement*

In the event of a no-jeopardy biological opinion – where the consulting agency concludes that the agency action is not likely to jeopardize the continued existence of the species but is nonetheless likely to result in some “incidental take” of the species – the BiOp must set forth an Incidental Take Statement (“ITS”), which specifies the permissible “amount or extent” of the impact on the species. 16 U.S.C. § 1536(b)(4); 50 C.F.R. § 402.14(i); see also 50 C.F.R. § 402.14(g)(7) (specifying that an ITS must be produced whenever incidental take is “reasonably certain to occur”). “Take” is defined by the ESA as meaning “to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct.” 16 U.S.C. § 1532(19). “Incidental take” is defined by regulation as “takings that result from, but are not the purpose of, carrying out an otherwise lawful activity conducted by the Federal agency or applicant.” 50 C.F.R. § 402.02. Although Section 9 of the ESA prohibits takes of listed

species, 16 U.S.C. § 1538(a)(1), incidental takes are permissible if they occur in accordance with the conditions set forth in an Incidental Take Statement. 50 C.F.R. § 402.14(i)(5).

There are a number of statutory and regulatory requirements for the Incidental Take Statement. First, the ITS must specify the impact on the species of the incidental taking resulting. See 16 U.S.C. § 1536(b)(4)(i); 50 C.F.R. § 402.14(i)(1)(i). The regulations allow for a “surrogate” to be used “to express the amount or extent of anticipated take provided that” the ITS (1) “[d]escribes the causal link between the surrogate and take of the listed species,” (2) “explains why it is not practical to express the amount or extent of anticipated take or to monitor take-related impacts in terms of individuals of the listed species,” and (3) “sets a clear standard for determining when the level of anticipated take has been exceeded.” 50 C.F.R. § 402.14(i)(1)(i). Second, the ITS must specify “reasonable and prudent measures” (“RPMs”) deemed “necessary or appropriate” to minimize incidental takes from the action. See 16 U.S.C. § 1536(b)(4)(ii); 50 C.F.R. § 402.14(i)(1)(ii). Third, the ITS must set forth “terms and conditions (including, but not limited to, reporting requirements) that must be complied with” in order to implement the reasonable and prudent measures specified. See 16 U.S.C. § 1536(b)(4)(iv); 50 C.F.R. § 402.14(i)(1)(iv).

The regulations require that the incidental take from the action be monitored and “the Federal agency or any applicant must report the progress of the action and its impact on the species to the [FWS or NMFS] as specified in the incidental take statement.” 50 C.F.R. § 402.14(i)(3). The action agency and consulting agency are “required” to reinitiate Section 7 consultation “immediately” if the amount or extent of taking specified in the Incidental Take Statement is exceeded. 50 C.F.R. §§ 402.14(i)(4), 402.16(a).

## II. BACKGROUND

### *A. Overview of the Impacted Species*

There are five sea turtle species that occur within the action area encompassed by the Biological Opinion before the Court: loggerheads, green sea turtles, hawksbills, Kemp's ridleys, and leatherbacks.

Loggerhead sea turtles have large heads, red-brown shells, and light yellow undersides. AR 897. They are generally three feet long and weigh about 250 pounds. Id. Loggerheads were first listed as threatened under the ESA in 1978. Id. In 2011, NMFS and FWS revised the classification for loggerhead sea turtles by designating nine distinct population segments ("DPSs"). Id. Loggerhead turtles in the Northwest Atlantic DPS are listed as threatened and are the only DPS that occur within the action area. Id. They nest from North Carolina to Florida, along the Gulf Coast of Florida, and the Eastern Yucatán Peninsula, the islands of Dry Tortugas, Bahamas, Lesser Antilles, and Great Antilles. Id. at 898.

Green sea turtles are the largest species of hard-shelled sea turtles. AR 904. Adults are generally greater than three feet long and weigh approximately 350 pounds. Id. Green sea turtles range from Texas to Massachusetts in the Atlantic Ocean and the Gulf of Mexico. Id. at 905. The vast majority of green sea turtle nesting in the southeastern United States occurs in Florida. Id. Green sea turtles are listed as threatened under the ESA, except for the breeding populations for Florida and the Pacific coast of Mexico, which are listed as endangered. Id. at 904.

Hawksbill sea turtles are small compared to other sea turtles, measuring only two to three feet long and generally weighing 100 to 150 pounds. AR 916-17. Their shells have tortoise-shell coloring, and they get their name from their distinctive, tapered, beak-like mouth. Id. In the western Atlantic, hawksbills are distributed throughout the Caribbean Sea, off the

coasts of Florida and Texas, in the Greater and Lesser Antilles, and along the mainland of Central America, down to Brazil. Id. They are capable of migrating long distances between nesting beaches and foraging areas. Id. Hawksbills have been listed as endangered throughout their entire range since before the ESA, and most populations are declining or depleted. Id. at 916, 918.

Kemp's ridley sea turtles are the smallest of the sea turtles. AR 920. Adults are only about two feet long and weigh less than 100 pounds. Id. Their shells are a black-grey at birth, which gradually turns to olive-grey. Id. They are generally found in the Gulf of Mexico basin, although recently they have been traveling as far north as Georgia and the Carolinas. Id. They prefer shallow sandy and shallow muddy areas, although they occasionally travel into deeper water. Id. The Kemp's ridley sea turtle was listed as endangered under the precursor to the ESA. Id. It is the most endangered of all sea turtles. Id.

Leatherback sea turtles are the largest living sea turtles in the world. AR 909. As adults, they can weigh up to 2,000 pounds and grow to more than six feet long, with a flipper span of nine feet. Id. The Leatherback sea turtle's name comes from the ridged, leathery, oil-saturated connective tissue that covers its back instead of a hard shell. Id. They are uniquely adapted to live in cold water and cover a wider range than any other sea turtle. Id. A leatherback can swim more than 6,000 miles in a single year. Id. at 909-10. Leatherback sea turtles are listed as endangered throughout their entire range, and the Florida nesting stock of leatherback sea turtles is "of growing importance" to the survival of the species. Id. at 909, 913.

### *B. Southeast Shrimp Fisheries*

The Southeast shrimp fisheries target brown, white, pink, royal red, and rock shrimp using a variety of vessels. AR 869. The otter trawl is the predominant gear used in

federal shrimp fisheries. Id. at 870. It is a heavy mesh bag with wings on each side to funnel the shrimp into the “cod end,” also known as the “tail bag.” Id. at 870-71. Shrimp trawls are pulled across the bottom of the water body and can sweep over sea turtles as they rest, forage, or swim on or near the bottom of the ocean. Id. at 991. A sea turtle can drown if it is forcibly submerged in the gear for too long. Id. at 992. By 1990, shrimp trawling was the most significant source of sea turtle mortality in U.S. waters. Id. at 949.

In the late 1980s, NMFS issued final regulations that required some shrimp trawl vessels to use turtle excluder devices (“TEDs”). AR 1144. TEDs are inserted into trawl nets and have an escape opening that allows sea turtles to escape from the nets. Id. TEDs have been developed to be 97% effective at excluding turtles, and the TEDs used with otter trawls typically allow sea turtles to escape within about 30 seconds. Id. at 989-90, 1144.

Some shrimp trawls are not required to install TEDs if they follow certain tow time restrictions. See AR 864 (citing 50 C.F.R. § 223.206(d)(ii)), AR 997. The exempted trawls are required to observe tow times of not more than 55 or 75 minutes, depending on the season. AR 997. Tow time restrictions do not reduce the number of turtles caught in trawls, but they are intended to reduce the likelihood of a turtle being submerged by the gear so long that it drowns. Id.

### *C. The Present Biological Opinion: the 2014 Shrimp BiOp*

At issue in the present case is a Biological Opinion – the “2014 Shrimp BiOp” – which addresses, in relevant part, the impact of shrimp trawling in the South Atlantic Ocean and the Gulf of Mexico on the ability of five different species of sea turtles to survive and recover.<sup>3</sup>

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<sup>3</sup> The BiOp’s formal name is the *Reinitiation of Endangered Species Act (ESA) Section 7 Consultation on the Continued Implementation of the Sea Turtle Conservation Regulations under the ESA and the Continued Authorization of the Southeast U.S. Shrimp*

The shrimp fishery is the largest and most valuable commercial fishery in the South Atlantic. See AR 877. There are thousands of shrimp vessels in both the Gulf of Mexico and the South Atlantic. Id. at 876-77.

Since 1987, NMFS has conducted a number of Section 7 consultations on its regulations governing the Southeast shrimp fisheries. See AR 858-62. NMFS released a BiOp in May 2012, at which time it anticipated issuing updated rules on the use of TEDs. See AR 861. After withdrawing the proposed rules, NMFS reinitiated consultation and produced the April 18, 2014 BiOp at issue in this case. See id. at 861-62. The 2014 Shrimp BiOp largely incorporated the 2012 BiOp and expanded upon the effects of trawling in light of the withdrawal of the proposed TED requirements. See id. at 862. With respect to all five species of sea turtles, NMFS concluded that the lethal interactions from the U.S. Southeast shrimp fisheries will not reduce the likelihood of survival and recovery of any of the Atlantic populations of sea turtles, and therefore, the proposed action “is not likely to jeopardize the continued existence of” green, hawksbill, leatherback, Kemp’s ridley, or loggerhead sea turtles. Id. at 1081-82.

Despite this conclusion, NMFS found that the continued operations of the shrimp fisheries would result in incidental take. As a result, the agency put forward an incidental take statement (“ITS”), setting a limit for incidental takes that would require NMFS to reinitiate consultation if reached. See AR 1082-85. NMFS determined that it “could not reliably determine actual take numbers for sea turtle species” from the proposed action, and that even if it could, it would not be able to “effectively monitor” any take limit. Id. at 1083. Instead, NMFS

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*Fisheries in Federal Waters under the Magnuson-Stevens Fishery Management Conservation Act*, Consultation No. SER-2013-12255 (Apr. 18, 2014), available at <https://www.fisheries.noaa.gov/content/endangered-species-act-section-7-biological-opinions-southeast>.

decided to use two surrogates: (1) shrimp fishing effort and (2) TED compliance, noting that shrimp fishing effort is “directly related to the number of turtles that interact with shrimp trawls” and that compliance with TED regulations is “directly related to the number of turtles captured and how many of those turtles are subsequently killed.” *Id.* at 1084.

#### *D. Previous Biological Opinions*

This Court has already addressed two other Biological Opinions regarding sea turtles. In December of 2014, the Court issued an Opinion and an Order addressing Oceana’s challenge to a separate Biological Opinion – the “Sea Scallop BiOp” – in which NMFS had concluded that the operation of the Atlantic Sea Scallop Fishery was not likely to jeopardize the continued existence of the Northwest Atlantic Distinct Population Segment of the loggerhead turtle population. *See Oceana, Inc. v. Pritzker* (“*Oceana I, pt. 1*”), 75 F. Supp. 3d 469 (D.D.C. 2014). The Court rejected most of Oceana’s arguments, but agreed with Oceana that the provisions of the BiOp’s Incidental Take Statement might not be sufficient to ensure that NMFS could determine when the take limits had been exceeded. *See id.* at 499 n.21. As a result, the Court remanded the BiOp to NMFS for reconsideration or further explanation of those provisions. *See id.* at 497-99. NMFS revised the ITS for the Sea Scallop BiOp in response to the Court’s 2014 Opinion. Upon review of the revised ITS, the Court found that the revised ITS suffered from the same defect that had warranted remand in the first instance – NMFS had again failed to adequately explain the rationale underlying its reliance on the dredge hour surrogate. *See Oceana, Inc. v. Ross* (“*Oceana I, pt. 2*”), 321 F. Supp. 3d 128, 138-39 (D.D.C. 2018). Accordingly, the Court remanded the revised ITS, telling NMFS to either more clearly explain its reliance on the chosen surrogate, or select a more appropriate surrogate or other mechanism to monitor loggerhead takes. *Id.* at 139. On October 1, 2020, this Court remanded the second

revised ITS to NMFS, directing NMFS for the third time to either more clearly explain its reliance on the chosen surrogate or select a more appropriate surrogate or other mechanism to monitor loggerhead takes. See Oceana, Inc. v. Ross, Civil Action No. 08-1881, 2020 WL 5834838, at \*11 (D.D.C. Oct. 1, 2020).

The Court also issued an Opinion and an Order in August 2015 addressing Oceana’s challenge to a different Biological Opinion – the “Batched Fisheries BiOp.” See Oceana, Inc. v. Pritzker (“Oceana II”), 125 F. Supp. 3d 232 (D.D.C. 2015). Similar to the Sea Scallop BiOp, NMFS concluded in the Batched Fisheries BiOp that the impact of seven fisheries – assessed together as a “batch” – was not likely to jeopardize the continued existence of the Northwest Atlantic Distinct Population Segment of loggerhead turtles. See id. at 235. Oceana challenged NMFS’ “no-jeopardy determination,” as well as the agency’s Incidental Take Statement. Id. at 239. The Court again rejected most of Oceana’s arguments. Nonetheless, it remanded the Batched Fisheries BiOp, directing NMFS to: (1) explain more clearly the connection between the evidence of short-term effects caused by climate change and the agency’s conclusion that climate change would not result in significant effects on loggerhead turtles in the short-term; and (2) provide further explanation regarding the sufficiency of its monitoring mechanisms to know when take limits have been exceeded. See id. at 252, 255. Upon consideration of the agency’s notice of completion of remand and the parties’ subsequent briefing and oral argument, this Court concluded that the agency had adequately responded to the Court’s directives on remand and entered final judgment for the defendants. See Oceana, Inc. v. Ross, Civil Action No. 12-0041, 2020 WL 5834832, at \*10 (D.D.C. Oct. 1, 2020).

### III. LEGAL STANDARD

A BiOp constitutes final agency action subject to judicial review under the Administrative Procedure Act. See Bennett v. Spear, 520 U.S. 154, 177-78 (1997). “[W]hen a party seeks review of agency action under the APA . . . the district judge sits as an appellate tribunal.” Rempfer v. Sharfstein, 583 F.3d 860, 865 (D.C. Cir. 2009) (quoting Am. Bioscience, Inc. v. Thompson, 269 F.3d 1077, 1083 (D.C. Cir. 2001)). The general standard for summary judgment set forth in Rule 56 of the Federal Rules of Civil Procedure does not apply to a review of agency action. Summary judgment nonetheless “serves as the mechanism for deciding, as a matter of law, whether the agency action is supported by the administrative record and otherwise consistent with the APA standard of review.” Sierra Club v. Mainella, 459 F. Supp. 2d 76, 90 (D.D.C. 2006) (citing Richards v. INS, 554 F.2d 1173, 1177 & n.28 (D.C. Cir. 1977)); accord UPMC Braddock v. Harris, 934 F. Supp. 2d 238, 245 (D.D.C. 2013); Cottage Health Sys. v. Sebelius, 631 F. Supp. 2d 80, 89-90 (D.D.C. 2009). In other words, “[t]he entire case on review is a question of law.” Marshall Cnty. Health Care Auth. v. Shalala, 988 F.2d 1221, 1226 (D.C. Cir. 1993).

Under the APA, a 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). “The arbitrary and capricious standard is deferential; it requires that agency action simply be ‘reasonable and reasonably explained.’” Cmtys. for a Better Env’t v. EPA, 748 F.3d 333, 335 (D.C. Cir. 2014) (quoting Nat’l Tel. Coop. Ass’n v. FCC, 563 F.3d 536, 540 (D.C. Cir. 2009)); see also Kennecott Greens Creek Min. Co. v. Mine Safety and Health Admin., 476 F.3d 946, 954 (D.C. Cir. 2007) (“[The] standard of review under the arbitrary and capricious test is only reasonableness, not perfection.”). “[A] court is not to substitute its judgment for that of the agency” if the agency

“examine[d] the relevant data and articulate[d] a satisfactory explanation for its action including a rational connection between the facts found and the choice made.” Airmotive Eng’g Corp. v. Fed. Aviation Admin., 882 F.3d 1157, 1159 (D.C. Cir. 2018) (quoting Motor Vehicle Mfrs. Ass’n of U.S. v. State Farm Mut. Auto. Ins. Co., 463 U.S. 29, 43 (1983)) (internal quotation marks omitted). Furthermore, a court will “give an extreme degree of deference to the agency when it is evaluating scientific data within its technical expertise.” Cmtys. for a Better Env’t v. EPA, 748 F.3d at 336 (quoting City of Waukesha v. EPA, 320 F.3d 228, 247 (D.C. Cir. 2003)) (internal quotation marks omitted). A court must remain mindful that it reviews an agency’s scientific judgments “not as the chemist, biologist, or statistician that [the court is] qualified neither by training nor experience to be,” and thus it may exercise only the “narrowly defined duty of holding agencies to certain minimal standards of rationality.” Troy Corp. v. Browner, 120 F.3d 277, 283 (D.C. Cir. 1997) (quoting Ethyl Corp. v. EPA, 541 F.2d 1, 36 (D.C. Cir. 1976) (en banc)).

“The Court’s review, however, must be ‘searching and careful.’” Colo. River Cutthroat Trout v. Salazar, 898 F. Supp. 2d 191, 199 (D.D.C. 2012) (quoting Nat’l Env’t. Dev. Ass’n’s Clean Air Project v. EPA, 686 F.3d 803, 810 (D.C. Cir. 2012)). “An agency decision is arbitrary and capricious if it ‘relied on factors which Congress has not intended it to consider, entirely failed to consider an important aspect of the problem, offered an explanation for its decision that runs counter to the evidence before the agency, or is so implausible that it could not be ascribed to a difference in view or the product of agency expertise.’” Cablevision Sys. Corp. v. FCC, 649 F.3d 695, 714 (D.C. Cir. 2011) (quoting Motor Vehicle Mfrs. Ass’n of U.S. v. State Farm Mut. Auto. Ins. Co., 463 U.S. at 43); accord Agape Church, Inc. v. FCC, 738 F.3d 397, 410 (D.C. Cir. 2013). Just as the Court may not “substitute [its] judgment for that of the agency” to

set aside an agency action, Rural Cellular Ass'n v. FCC, 588 F.3d 1095, 1105 (D.C. Cir. 2009), it also may not “affirm an agency decision on a ground other than that relied upon by the agency.” Manin v. Nat'l Transp. Safety Bd., 627 F.3d 1239, 1243 (D.C. Cir. 2011).

#### IV. DISCUSSION

##### *E. Article III Standing*

Although NMFS does not challenge Oceana's standing to bring this suit, the issue implicates this Court's subject matter jurisdiction and the Court therefore bears an “independent obligation” to ensure that standing exists. Chesapeake Climate Action Network v. EPA, 952 F.3d 310, 318 (D.C. Cir. 2020); see also Arbaugh v. Y & H Corp., 546 U.S. 500, 514 (2006). The Court undertook a similar analysis in its 2015 decision regarding the Batched Fisheries BiOp, also without an explicit challenge by the government as to Oceana's standing. See Oceana II, 125 F. Supp. 3d at 240-41.

“Article III of the Constitution limits federal-court jurisdiction to ‘Cases’ and ‘Controversies.’” Massachusetts v. EPA, 549 U.S. 497, 516 (2007). “To enforce this limitation, [federal courts] demand that litigants demonstrate a ‘personal stake’ in the suit.” Camreta v. Greene, 563 U.S. 692, 701 (2011) (quoting Summers v. Earth Island Inst., 555 U.S. 488, 493 (2009)). “The party invoking the Court's authority has such a stake when three conditions are satisfied: The [plaintiff] must show that he has ‘suffered an injury in fact’ that is caused by ‘the conduct complained of’ and that ‘will be redressed by a favorable decision.’” Id. (quoting Lujan v. Defs. of Wildlife, 504 U.S. at 560-61).

An organizational plaintiff, such as Oceana, “may have standing to sue on its own behalf ‘to vindicate whatever rights and immunities the association itself may enjoy’ or, under proper conditions, to sue on behalf of its members asserting the members’ individual rights.”

Common Cause v. FEC, 108 F.3d 413, 417 (D.C. Cir. 1997) (quoting Warth v. Seldin, 422 U.S. 490, 511 (1975)); see also People for the Ethical Treatment of Animals v. U.S. Dep’t of Agriculture, 797 F.3d 1087, (D.C. Cir. 2015) (“As an organization, PETA ‘can assert standing on its own behalf, on behalf of its members or both.’”) (quoting Equal Rts. Ctr. v. Post Props., Inc., 633 F.3d 1136, 1138 (D.C. Cir. 2011)).<sup>4</sup> “An organization has associational standing to bring suit on its members’ behalf when: (1) at least one of its members would have standing to sue in his or her own right; (2) ‘the interests it seeks to protect are germane to the organization’s purpose’; and (3) ‘neither the claim asserted nor the relief requested requires the participation of individual members in the lawsuit.’” Sierra Club v. Fed. Energy Regul. Comm’n, 827 F.3d 59, 65 (D.C. Cir. 2016) (quoting WildEarth Guardians v. Jewell, 738 F.3d 298, 305 (D.C. Cir. 2013)); see also Chesapeake Climate Action Network v. EPA, 952 F.3d at 318 (quoting Am. Trucking Ass’ns, Inc. v. Fed. Motor Carrier Safety Admin., 724 F.3d 243, 247 (D.C. Cir. 2013)).

Oceana has standing to challenge the BiOp on behalf of its members. Just as in Oceana I and Oceana II, in this case Oceana has proffered declarations from three members, each of whom states that he or she enjoys observing sea turtles and has plans to continue doing so. See Declaration of Gilbert Brogan [Dkt. No. 19-4] at ¶¶ 19-25; Declaration of Patrick Hinchliffe [Dkt. No. 19-5] at ¶¶ 2-9; Declaration of Rachel Reichert [Dkt. No. 19-6] at ¶¶ 2-7. They assert that the BiOp permits an unlawfully excessive amount of harm to sea turtles, which threatens their observation and enjoyment of those animals. Vacating the BiOp and directing NMFS to reinitiate consultation would redress that injury. These members therefore have standing to sue

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<sup>4</sup> Oceana asserts each of these forms of standing – organizational and representational. See Oceana MSJ at 22-24. Because the Court concludes that Oceana has standing to challenge the BiOp on behalf of several of its members, it does not reach the question whether Oceana would have standing to pursue this action on its own behalf.

in their own right. See Oceana I, 75 F. Supp. 3d at 479-80. In addition, the members' interests are germane to Oceana's purpose as an ocean conservation group, and their individual participation is not required either by the nature of Oceana's claims or by the relief that it requests, so Oceana has standing to sue on their behalf.

#### *F. Challenges to the Incidental Take Statement*

Oceana challenges the BiOp's Incidental Take Statement ("ITS") for failing to set measurable and enforceable take limits and for failing to adequately explain the rationale for the chosen surrogate for incidental take. Compl. ¶¶ 103-114; Oceana MSJ at 26-31; Oceana Reply at 4-9. Oceana also challenges the BiOp's failure to require adequate monitoring of the impacts of the authorized incidental takes, as is required by regulation. Compl. ¶¶ 115-125 (citing 50 C.F.R. § 402.14(i)(3)); Oceana MSJ at 31-32; Oceana Reply at 9-10. Each of these failures, Oceana argues, render the ITS, and therefore the BiOp, invalid under the APA as arbitrary, capricious, an abuse of discretion, or not in accordance with the law. Compl. ¶¶ 113, 124 (citing 5 U.S.C. § 706(2)(A)).

As discussed supra in section I, the ITS is crucial in a non-jeopardy BiOp. It sets forth the permitted incidental take of the listed species from the action under review that would otherwise be a prohibited take under Section 9 of the ESA. See 16 U.S.C. § 1536(o)(2); 50 C.F.R. § 402.14(i)(5); H.R. Rep No. 97-567 at 27 (1982). The ITS included in the BiOp must define the extent of the permitted incidental take of the species from the proposed action. 16 U.S.C. § 1536(b)(4); 50 C.F.R. § 402.14(i)(1). Of course, the amount of incidental take that is permitted cannot be at a level that would jeopardize the species. 16 U.S.C. § 1536(b)(4)(B).

The analysis by the expert agency during the formal consultation process is inherently forward-looking: the expert agency is making its best, most informed estimate as to

what impact the proposed action will have on the species. See 50 C.F.R. § 402.14(i)(1). If the expert agency concludes that the proposed action can go forward and issues a no-jeopardy BiOp, the ITS then serves to monitor the impact the approved action has on the species in real time. 50 C.F.R. § 402.14(i)(3). And “[i]f during the course of the action the amount or extent of incidental taking, as specified [in the ITS], is exceeded” – in other words, if the impact on the species from the proposed action is greater than what was anticipated and permitted by the expert agency – then “the Federal agency must reinitiate consultation immediately.” 50 C.F.R. § 402.14(i)(4).

#### 1. Use of Surrogates

The ITS in the Shrimp BiOp says that NMFS “could not reliably determine actual take numbers for sea turtle species adversely affected by the U.S. Southeast shrimp fisheries.” AR 1083. Instead, in order to determine whether the impacts from the proposed action exceed the expected impacts, the agency says that it will monitor both shrimp fishing “effort” levels and “TED compliance” to “determine if the impacts of [its] proposed action exceed those expected.” AR 1083-84. NMFS plans to compare the future annual shrimp fishing effort and compliance levels against the effort estimates and compliance levels that were anticipated in the 2014 Shrimp BiOp. AR 1084.

The limit for annual shrimp fishing effort levels is set to be the same as 2009 effort levels because the 2014 Shrimp BiOp’s effects analyses for sea turtles was based on the 2009 shrimp fishing effort levels. The reason for this, the ITS says, is because such fishing levels in the Southeast shrimp fisheries are “not expected to increase in the future.” AR 1084. The ITS explains that the 2009 shrimp fishing effort levels are a combination of days fished in the Gulf of Mexico by otter trawls and skimmer trawls, and trips made in the South Atlantic by

otter trawls and skimmer trawls. *Id.* The ITS sets the baseline for TED compliance at an unspecified level that will, the ITS says, result in TEDs being 88% effective at preventing lethal capture of sea turtles. *Id.*<sup>5</sup>

At the end of each year, both the fishing effort and compliance data will be analyzed. If either the fishing effort or compliance levels anticipated in the 2014 Shrimp BiOp are exceeded, then NMFS will infer that the incidental take limit has been exceeded and that “effects on sea turtles were greater than [the 2014 Shrimp BiOp had] analyzed.” AR 1084. If this happens, the ITS then says that “NMFS, in its action agency capacity, must decide whether it must reinitiate consultation.” *Id.* (emphasis added).

There is no doubt that the regulations permit the agency to use a surrogate for expressing the anticipated take of a species, so long as the surrogate has three necessary elements. See 50 C.F.R. § 402.14(i)(1)(i). First, the agency must provide a rational basis for why it needs to use a surrogate. The ITS must “explain[] why it is not practical to express the amount or extent of anticipated take or to monitor take-related impacts in terms of individuals of the listed species.” *Id.* Second, the agency must explain how the surrogate functions as an appropriate proxy for the take of the species; the ITS must “[d]escribe[] the causal link between the surrogate and take of the listed species.” *Id.* Finally, the surrogate must be one that “sets a clear standard for determining when the level of anticipated take has been exceeded.” *Id.* See also *Am. Rivers v. Fed. Energy Regul. Comm’n*, 895 F.3d 32, 48 (D.C. Cir. 2018) (reiterating

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<sup>5</sup> The TED “compliance” surrogate is a misnomer. The percentage, here 88%, represents a combination of compliance and effectiveness. TEDs are assumed to be 97% effective – meaning there is a 3% sea turtle catch rate if 100% of the vessels required to use TEDs are compliant. AR 1037. The 88% figure is a combination of this 97% effectiveness rate and an assumption that not all vessels are complying with the requirement to use TEDs. This opinion will continue to refer to this number simply as “compliance,” as the ITS does.

that a surrogate must function as a trigger for reinitiating consultation); Oregon Nat. Res. Council v. Allen, 476 F.3d 1031, 1038 (9th Cir. 2007) (“The chosen surrogate . . . must be able to perform the functions of a numerical limitation.”).

Oceana argues that the surrogates in the Shrimp BiOp fail each of these three regulatory elements for a proper surrogate. The Court will address each element in turn.

a. Need for a Surrogate for Incidental Take

Section 7 of the ESA requires an Incidental Take Statement to specify the “impact” of the incidental takings on the species. 16 U.S.C. § 1536(b)(4)(C)(i). With respect to Section 7(b)(4), Congress indicated that it preferred the ITS to contain a numerical value: “Where possible, the impact should be specified in terms of a numerical limitation on the Federal agency or permittee or licensee.” H.R. Rep. No. 97–567, at 27 (1982); see also Sierra Club v. U.S. Dep’t of the Interior, 899 F.3d 260, 270-71 (4th Cir. 2018) (noting that the Fourth, Ninth, and Eleventh Circuits have recognized this preference by Congress). Congress understood, however, that a numerical value would not always be available: “The Committee recognizes . . . it may not be possible to determine the number of eggs of an endangered or threatened fish which will be sucked into a power plant when water is used as a cooling mechanism. The Committee intends only that such numbers be established where possible.” H.R. Rep. No. 97-567, at 27 (1982). When, as here, an agency has decided to use a surrogate rather than articulate take in terms of a numerical limit for the species, the agency must explain “why it is not practical to express the amount or extent of anticipated take . . . in terms of individuals of the listed species.” 50 C.F.R. § 402.14(i)(1)(i).

The 2014 Shrimp BiOp explains that the agency attempted to specify the impact of incidental takings on the species in terms of individual sea turtles. The agency ultimately

concludes, however, that it could not reliably determine actual take numbers for the sea turtle species adversely affected by the U.S. Southeast shrimp fisheries. AR 1083. The most that could be done was to estimate sea turtle interactions, captures, and mortalities. AR 1036-41, 1058-61. For loggerheads, for instance, the agency's numerical estimates are that the U.S. Southeast shrimp fisheries would result in 81,358 interactions with loggerhead sea turtles annually, 7,778 of which were estimated to be lethal. AR 1036, 1062. But, as the agency explained in multiple sections of the BiOp, it concluded that "these estimates are all highly uncertain" and it therefore did not rely on these numbers when synthesizing the effects of the proposed action on sea turtles. AR 1062. Instead, in the jeopardy analysis for each sea turtle species, the agency identified a range of expected lethal takes from the shrimp fisheries: for loggerheads, "at least hundreds and possibly thousands" of lethal takes are expected; for green sea turtles, "hundreds and possibly thousands" of lethal takes are expected; for hawksbills, "no more than 71 mortalities" are estimated to occur as a result of the proposed action; for Kemp's ridleys, "thousands and possibly tens of thousands" of lethal takes are expected; and for leatherbacks, "a relatively small number" of lethal interactions are expected. See AR 1062 (loggerheads), 1066 (greens), 1068 (hawksbills), 1070 (Kemp's ridleys), 1073 (leatherbacks). Unable to produce a reliable numerical estimate for the incidental takes in terms of sea turtles, the agency determined that it needed to use surrogates in the Incidental Take Statement. AR 1083.

Oceana argues that NMFS did not sufficiently explain why using a numerical take limit of anticipated incidental sea turtle take is practically impossible and therefore the decision to use a surrogate should be deemed unlawful. Oceana MSJ at 27-28. Oceana maintains that NMFS could increase observer coverage and monitor takes directly, rather than use a surrogate.

See Oceana MSJ at 32; Oceana Reply at 6. Recognizing that some captured turtles may fall out of the net, Oceana notes that there are still some observable lethal takes in which turtles remain in the net. See Oceana Reply at 6. But NMFS describes the unique limitations on the ability to use observers to identify sea turtles takes from shrimp fisheries. See AR 1082-83.

The ITS states that “direct observer data cannot be used to determine the numbers of sea turtles taken in the shrimp fisheries,” for a number of reasons: (1) when the TED functions correctly, the vast majority of sea turtles are released under water, (2) when the TED is non-compliant and sea turtles are caught in otter trawls, they can still fall out and go unobserved, and (3) even captured sea turtles may fall out the front of the net at the last minute and go unobserved if the water is murky, there are high seas, it is night-time, and if the observer is in an inopportune position. See AR 1082-83. Increasing observer coverage is therefore “unlikely” to result in a “higher percentage” of observations of sea turtle takes, nor would it help NMFS more reliably determine a numerical take estimate of sea turtles from the shrimp fisheries. See NMFS MSJ at 32 (citing AR 1003). The Court concludes that the agency has articulated a reasoned basis for why it cannot monitor takes directly and why increased observer coverage is not a feasible alternative for determining the number of sea turtle takes from the shrimp fisheries.

But Oceana points out that the BiOp itself references studies based on observing interactions between sea turtles and shrimp trawl gear, and therefore, it asserts, observing these interactions is feasible. See Oceana MSJ at 28; Oceana Reply at 6. In response, NMFS explains that the studies Oceana identifies are no longer reliable because they were based on observer coverage conducted in the late 1990s before TEDs were used. NMFS Reply at 13 (citing AR 1083). While the implementation of regulations requiring TEDs benefits sea turtles by making it easier for them to escape trawls, it has the side-effect of “prevent[ing] observation of takes

because most sea turtles are released underwater where they cannot be observed.” Id. (citing AR 1083). In the ITS, NMFS explained that it “ha[s] not been able to reliably quantify the anticipated amount of take of sea turtles” because the “last real physical observations of fishery interactions are based on ‘naked net’ studies conducted in the late 1990s,” whose data, variables, and assumptions “are now nearly fifteen years old.” AR 1083. The ITS describes how NMFS “attempted to update the data . . . to reflect documented dramatic increases in abundance in Kemp’s ridleys and greens” since the 1990s studies but could not. Id. The Court finds that NMFS has provided a reasoned basis for its conclusion that the studies based on observer data are no longer reliable.

In sum, NMFS has adequately explained (1) why counting actual takes will not work, (2) why adding observer coverage will not help, and (3) why it cannot use the old studies and cannot update them. Accordingly, the Court concludes that the agency has provided a reasoned basis for why it needs to use a surrogate to express the amount or extent of anticipated takes from the proposed action, in compliance with its regulations. See 50 C.F.R. § 402.14(i)(1)(i) (requiring the agency to “explain[] why it is not practical to express the amount or extent of anticipated take or to monitor take-related impacts in terms of individuals of the listed species”).

b. Causal Link between the Surrogate and Take of Sea Turtles

While NMFS has given a satisfactory explanation for the use of a surrogate, it does not follow that it has met all of its statutory and regulatory obligations. As the regulations make clear, when deciding to use a surrogate, the agency must “[d]escribe[] the causal link between the surrogate and take of the listed species.” 50 C.F.R. § 402.14(i)(1)(i). NMFS chose two surrogates for the take of sea turtles: (1) shrimp fishing effort and (2) compliance with TED

regulations. The agency offers simple rationales for the two surrogates. The more fishing effort there is, the more turtle takes there likely will be. See NMFS Reply at 14 (citing AR 1084). And the more compliance with TED requirements, the fewer turtle takes there likely will be. Id.

Oceana first argues that both the fishing effort and compliance surrogates are arbitrary because NMFS has failed to relate either surrogate to a specific number of sea turtle takes. See Oceana MSJ at 28-30; Oceana Reply at 6. For instance, the fishing effort surrogate uses 2009 effort levels as a benchmark, and Oceana argues that “nowhere” has the agency “explained how its measure of effort is equivalent to the occurrence or non-occurrence of a specific number of turtle takes.” Oceana MSJ at 29. In response, NMFS concedes that “it cannot link fishing effort or TED compliance to a specific number of takes,” citing its inability to determine a numerical take limit as the need for NMFS to use surrogates in the first place. NMFS Reply at 14. NMFS distinguishes the surrogates used in the 2014 Shrimp BiOp from the surrogates in the Sea Scallop BiOp at issue in Oceana I. In Oceana I, NMFS was using a surrogate only for monitoring, whereas here, NMFS is using a surrogate for anticipated takes overall. Id. at 13-14 (citing Oceana I, pt. 1, 75 F. Supp. 3d at 496). The agency is using surrogates here because it has concluded that it cannot determine a specific number of takes from the proposed action in the first place. For this reason, the Court agrees that NMFS does not need to link its fishing effort and compliance surrogates to a specific number of takes.

Oceana also argues that the agency has not sufficiently explained the causal relationship between either surrogate and sea turtle takes. Oceana MSJ at 28-30. For the fishing effort surrogate, Oceana points to the record evidence that the number of sea turtle takes from shrimp fishing “varies” depending on environmental conditions and that even “small changes” in the population growth rate of sea turtles can have “large impacts on the catch and mortality

estimates” from sea turtles caught by shrimp fisheries. See Oceana Reply at 7 (citing AR 992-93, 1037). And the evidence in the record shows that the relationship between the population of sea turtles and the number of sea turtles caught as related to fishing effort is constantly changing. Id. In response, the agency asks the Court to respect its assumption that shrimp fishing effort levels will likely remain below the 2009 fishing effort levels. NMFS MSJ at 33-34. But even accepting that prediction by NMFS, the response by the agency does not address the flaw that Oceana has identified. Even if fishing effort levels remain below 2009 levels, the agency has not explained how fishing effort is a meaningful proxy for incidental sea turtle takes, considering the record evidence of wide variability between fishing effort and sea turtle takes. In light of this variability in the relationship between effort and takes, the agency must explain how it can assume that future fishing effort levels at or below the levels in 2009 will result in a similar number of sea turtle takes. It has failed to do so. On remand, if the agency continues to use fishing effort as a surrogate, the agency must explain how fishing effort has a causal link to sea turtle takes, given the wide variability between the two.

For the compliance surrogate, Oceana points out that the agency found that compliance levels are likely much lower than what is recorded because the fisheries know in advance when the agency’s representatives will be boarding fishing vessels and compliance is higher when agency enforcement officials are present. See Oceana MSJ at 30; Oceana Reply at 8 (citing AR 868, 1037-38, 1187-89). Oceana argues that NMFS has not accounted for this problem when it assumed that its TED compliance data would be representative of the entire shrimp fleet. See Oceana MSJ at 29. In response, NMFS says that it did address this concern by making a point of focusing efforts on “specific problem areas” when deciding when and where to board and collect data. See NMFS Reply at 16 (quoting AR 868). But this still does not account

for the underlying problem that Oceana has identified: the agency has acknowledged that the fisheries' compliance levels with the TED requirements – known to be abysmal – are likely lower wherever the agency isn't looking. See Oceana Reply at 8 (citing AR 1187-89). The agency has not accounted for this fact when explaining the rationale behind its compliance surrogate. On remand, if the agency decides to continue to use TED compliance as a surrogate, it must further explain the causal link between its recorded compliance and sea turtle takes in light of the record evidence that the compliance data is skewed.

c. Clear Standard for Reinitiation of Consultation

Oceana's next challenge to the two surrogates described in the ITS is that they do not function as a trigger, because the ITS "does not require the agency to do anything, let alone reinitiate consultation immediately if a take limit is exceeded." Oceana MSJ at 30-31 (emphasis in original). Nor does the ITS set a "clear standard" for determining when the level of anticipated takes has been exceeded, as is required by statute and regulation. Id. (citing 50 C.F.R. § 401.14(i)(1)(i)). In response, NMFS admits that with the surrogates in the ITS, "reinitiation is not automatic" and that it "appropriately reserves NMFS' discretion to decide whether it must reinitiate consultation." NMFS MSJ at 35; NMFS Reply at 18.

NMFS is wrong as a matter of law. Nowhere in the statutory and regulatory scheme governing an ITS is the agency given discretion to decide whether it must reinitiate consultation. Instead, the regulations make clear that the incidental take statement must set a "clear standard" for determining whether the level of anticipated take has been exceeded and, if so, then NMFS "must reinitiate consultation immediately." 50 C.F.R. §§ 402.14(i)(1)(i), (i)(4), 402.16(a). "The requirement to include a trigger for reinitiation of consultation necessitates

more than lip service. The lack of a clear trigger point to reinitiate consultation renders the [BiOp] unlawful.” Am. Rivers v. Fed. Energy Regul. Comm’n, 895 F.3d at 48-49.

The ITS in the 2014 Shrimp BiOp is unlawful because it does not have a clear standard for determining whether the level of anticipated take has been exceeded and has no trigger point at which NMFS must reinitiate consultation at all, let alone immediately. To repeat, the ITS sets forth two surrogates and says that it will use the 2009 fishing effort levels in the action area and a TED compliance level that results in 88% effectiveness as the two benchmarks chosen for the two surrogates for take limits. It specifically says that if either the “effort or compliance levels” are exceeded, the agency will “infer that take has been exceeded.” AR 1084. It goes on to say, however, that if either surrogate for the take limit is exceeded “then NMFS, in its action agency capacity, must decide whether it must reinitiate consultation.” AR 1084 (emphasis added). This final sentence clearly violates the regulatory requirement that once the take limit is exceeded, the agency must automatically reinitiate consultation and must do so immediately. 50 C.F.R. § 402.14(i)(4).

The BiOp must be evaluated on its face. See, e.g., Motor Vehicle Mfrs. Ass’n of U.S., Inc. v. State Farm Mut. Auto. Ins. Co., 463 U.S. at 50 (“[A]n agency’s action must be upheld, if at all, on the basis articulated by the agency itself.”); see also Oral Arg. Tr. at 79:06-13 (NMFS agreeing that the BiOp is being challenged on its face). Nonetheless, the agency’s post hoc explanations of the ITS in its briefs and oral argument in this Court only further demonstrate that the ITS is unlawful. In its reply brief, NMFS elaborated on how the two surrogates are evaluated together:

The determination as to whether take has been exceeded depends on an analysis of both compliance and effort. For example, TED compliance could be low for a certain time period, but if effort was also low then NMFS might determine that formal consultation was

not necessary. Thus, the biological opinion appropriately reserves NMFS' discretion to decide whether it must reinitiate consultation.

NMFS Reply at 18 (emphasis added). This explanation illuminates what the ITS means when it says that NMFS will “decide whether it must reinitiate consultation.” AR 1084 (emphasis added). But the explanation in the briefing only serves to illustrate the reality that there is no “clear standard” for when reinitiation of consultation must be triggered: there is nothing in the ITS about weighing the effect of effort and compliance together or how the agency would reach a decision. Far from being objective criteria, as the agency suggests, this amorphous determination by the agency for when to reinitiate consultation is opaque; it is a far cry from the “clear standard” that the regulations require. See 50 C.F.R. § 402.14(i)(1)(i).

This lack of a clear standard also creates a transparency problem. With no clear standard for when reinitiation of consultation is automatically triggered, the agency makes the decision about whether to reinitiate consultation behind closed doors and without a record. See Oral Arg. Tr. at 78:06-19; see also Sierra Club v. U.S. Dep't of the Interior, 899 F.3d at 272 (citing Ariz. Cattle Growers' Ass'n v. U.S. Fish & Wildlife, 273 F.3d 1229, 1250 (9th Cir. 2001) (holding that a surrogate for a take limit was unlawful when it left “no method by which the applicant or the action agency can gauge their performance”).

Other sections of the BiOp show that when the surrogate levels have been exceeded in the past, the agency has not automatically reinitiated consultation. For instance, an earlier 2012 version of this BiOp had the same two-part surrogate as the 2014 ITS at issue here. AR 265-66. Yet, despite the TED compliance level that results in 88% effectiveness (or 12% capture rate limit) being exceeded, the agency did not reinitiate consultation. See AR 1018 (acknowledging that “average sea turtle capture rates in otter trawls between May 2012 and October 2013 were greater than the 12% sea turtle capture rate that we set as one of our take

surrogates” and concluding that “effects on sea turtles from shrimp otter trawls were likely greater than we anticipated in the first year that has elapsed since the [2012] opinion was completed”). If the “effort” and “compliance” surrogates were true trigger points, then once they were exceeded, the agency would have reinitiated consultation immediately and without discussion. Indeed, the ITS says that if either the “effort or compliance levels” are exceeded, the agency will “infer that take has been exceeded and that effects on sea turtles were greater than analyzed.” AR 1084. In other words, the BiOp says that if either surrogate is exceeded, it will assume that the take limit has been exceeded. Under the regulations, once the anticipated incidental take from the action has been exceeded, the agency is required to reinitiate consultation immediately. See 50 C.F.R. §§ 402.14(i)(4), 402.16(a).

## 2. Monitoring

In challenging the ITS’ monitoring of incidental takes, Oceana makes two distinct arguments. First, Oceana argues that it would be better for NMFS to monitor actual takes, suggesting that the agency place more at-sea observers on fishing vessels. Oceana MSJ at 32. The ITS focuses on the fact that some incidental takes may go unobserved – whether from it being too dark, the observer not having the ideal position on the vessel, the TED rolling over when it reaches the surface of the water, or a turtle falling out of the front of the net as the net is hauled up. According to Oceana, this ignores the fact that “most lethal takes are observable when the TED fails or when a trawler does not use a TED, and the turtle drowns in the net.” Id. (citing AR 1083). But NMFS has explained that these limitations from at-sea observers combined with the overall low number of observed takes means that there are simply too few data points for the agency to estimate total bycatch from observer data, even if the agency were to increase the number of at-sea observers. See NMFS MSJ at 38 (citing AR 1082-84). The

agency has sufficiently explained why it cannot rely on Oceana's proposed alternative of increasing at-sea observers.

Second, Oceana argues that the agency cannot effectively monitor TED compliance because the record indicates that the agency's data from its compliance checks does not allow it to make reliable estimates about the overall fleet of shrimp fisheries. See Oceana MSJ at 31 (citing AR 1037-38). The BiOp itself identifies two problems with the data that the agency gathers about TED compliance. First, the data is collected primarily from boarding data where the vessels know in advance that the agency is planning an inspection. AR 1037-38. This advance knowledge means the collected data is likely biased: the inspected vessels have higher compliance rates than the non-boarded vessels. AR 1038. Nonetheless, the agency's assumption that compliance levels will result in TEDs being 88% effective "is predicated on" boarding information being "random" and "representative of the fleet" when, in fact, the boardings "are not usually random in nature." AR 1037. But the agency acknowledges that it has "no way of testing [its] assumption that boarding data on TED compliance [is] representative" of the entire fleet of shrimp fisheries. Id. Second, the agency expresses concern that the number of boardings is too small a sample to represent the entire fleet. AR 1038. Both problems, Oceana argues, hinder the agency's ability to monitor TED compliance.

Oceana argues that by not correcting for these two problems – either by making boardings random or by increasing enforcement efforts – the agency does not have the ability to effectively monitor its TED compliance surrogate. See Oceana MSJ at 31-32. NMFS responds by saying that the agency's updated policy is to analyze TED compliance data every four months. See NMFS Reply at 17. But the agency does not explain how increasing the frequency of the analysis addresses the underlying data problems that Oceana has illuminated. The record

indicates that NMFS cannot determine whether the boarding data from law enforcement accurately reflects TED compliance across the entire shrimp trawl fleet. AR 1037. It therefore is unclear whether the agency is able to meaningfully monitor its TED compliance surrogate. The agency has failed to articulate a reasoned basis for how it can effectively monitor its TED compliance surrogate and must address this issue on remand.

### *G. Jeopardy Analysis*

The 2014 Shrimp BiOp found that the proposed action – continued authorization of Southeast U.S. shrimp fisheries in federal waters – will not reduce the likelihood of survival and recovery of any of the Atlantic populations of sea turtles. AR 1081; see also id. at 857. It therefore concluded that the proposed action would not jeopardize the continued existence of the Atlantic populations of those sea turtles. Id. at 1081-82. Oceana raises a number of objections to the agency’s analysis, conclusions, and explanations for its conclusions in the Shrimp BiOp’s jeopardy analysis. The Court will address each in turn.

#### 1. Climate Change

The status of the species section of the 2014 BiOp acknowledges that climate change is a known threat to sea turtles, generally. See AR 896, 904, 915, 919. The BiOp identifies present and future effects from climate change both on sea turtles generally and on each sea turtle species individually. See id. For all sea turtles, the agency concluded that “significant impacts to the hatchling sex ratios of sea turtles may result” from climate change, and “[s]ea level rise from global climate change . . . may inundate nesting sites and decrease available nesting habitat.” AR 896. For loggerheads, specifically, the agency said that “[m]odeling suggests an increase of 2 [degrees Celsius] in air temperature would result in a sex ratio of over 80% female offspring for loggerheads nesting near Southport, North Carolina,” and

“close to 100% female offspring” in Florida, which “could undermine the reproductive capacity of the species.” AR 904. “More ominously,” the BiOp says, an air temperature increase of 3 degrees Celsius is “likely to exceed the thermal threshold of most clutches, leading to death.” Id. The BiOp’s description of the status of each of the other sea turtle species includes a similar section about the specific effects from climate change on that species. See AR 908-09, 915, 919, 922.

Oceana argues that the BiOp is arbitrary and capricious because the jeopardy analysis fails to analyze the record evidence of climate change’s effects on sea turtles. See Oceana MSJ at 33-34. It points out that not once in the jeopardy section for the sea turtle species does the agency use the words “climate change.” Id. at 33. In response, NMFS points to its discussion of climate change in the status of the species section. See NMFS MSJ at 23-24 (citing AR 896, 904, 915, 919). The agency then argues that when, in the jeopardy analysis, it said it was assessing the effects of the proposed action “in the context of the status of the species,” this sufficiently incorporated all the effects that the agency had previously acknowledged about the effects of climate change. Id. (citing AR 1061).

The Court agrees with Oceana that this is not enough. While incorporation by reference is not per se arbitrary and capricious, the BiOp’s single sentence at the beginning of the jeopardy section that its analysis is considered “in the context of the status of the species” does not do all the work of analyzing the known effects from climate change on sea turtles in the jeopardy analysis. In the status of the species section, NMFS has identified specific and significant effects on the various sea turtle species from climate change, both in the present and the future. But it must do more. NMFS must explain in its jeopardy analysis how it reached its no-jeopardy conclusion in light of these significant effects from climate change. Having not

made any attempt to do so, the agency has not provided a reasoned basis for its no-jeopardy conclusion.<sup>6</sup>

## 2. Recovery

The Endangered Species Act obligates federal agencies to ensure that their actions are “not likely to jeopardize the continued existence of any endangered species or threatened species,” 16 U.S.C. § 1536(a)(2), but the statute does not define the phrase “jeopardize the continued existence of.” The regulations define that phrase as meaning “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 (emphasis added).<sup>7</sup> Oceana argues that the BiOp fails to analyze whether the action would affect the likelihood of sea turtle “recovery,” as required by this regulation. Oceana MSJ at 37-38. NMFS responds that it did analyze the likelihood of sea turtle recovery, see NMFS MSJ at 24-26, and the Court agrees.<sup>8</sup>

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<sup>6</sup> The 2014 Shrimp BiOp’s discussion of climate change differs from other BiOps that this Court has reviewed in two key respects. Contra Oceana II, 125 F. Supp. 3d at 250 (noting that the Batched Fisheries BiOp’s discussion of climate change “bears some similarity to that featured in the Sea Scallop BiOp, which this Court previously reviewed”) (citing Oceana I, pt. 1, 75 F. Supp. 3d at 491-93). First, as just identified, the 2014 Shrimp BiOp’s jeopardy analysis does not analyze the significant effects from climate change on sea turtles identified in the BiOp as part of the jeopardy analysis. Second, the proposed actions reviewed in the Batched Fisheries BiOp and the Sea Scallop BiOp were limited to ten-year periods, whereas the 2014 Shrimp BiOp does not have any similar expiration date. See Oceana I, pt. 1, 75 F. Supp. 3d at 492; Oceana II, 125 F. Supp. 3d at 251.

<sup>7</sup> Section IV(C)(3) will discuss Oceana’s arguments that pertain to the meaning of the words “reduce appreciably.” See infra section IV(C)(3).

<sup>8</sup> As the Court will discuss, each of the criticisms that Oceana makes in its briefs about the Shrimp BiOp’s recovery analysis are misplaced because they focus on parts of the BiOp where NMFS is discussing sea turtle survival, not recovery. At oral argument, however, Oceana for the first time cited to cases that note on a higher level that a logical step in the jeopardy analysis is for the agency to articulate roughly the point at which the survival and

Oceana’s first challenge to the recovery analysis is to argue that the agency asked the wrong question and therefore the recovery analysis is inherently flawed. Specifically, Oceana takes issue with a sentence in the BiOp that says NMFS “expects” the western North Atlantic population of loggerhead sea turtles will “retain the potential for recovery.” See Oceana MSJ at 37 (citing AR 1064). Oceana argues that this approach waters down the purpose and requirements of the ESA by allowing the agency to take actions that diminish the species’ recovery prospects, so long as they retain some hope of recovery in spite of the action. See id.

But the language Oceana highlights in its attempt to show that the agency asked the wrong question when analyzing recovery – saying that the proposed action will allow the species to “retain the potential for recovery” – is taken out of context. In that paragraph of the BiOp, the agency is discussing the west North Atlantic populations of loggerhead sea turtles’ “survival,” concluding that “incidental take[s]” from the proposed action “are not reasonably expected to cause an appreciable reduction in the likelihood of survival of the NWA DPS of loggerhead sea turtles.” AR 1064. The paragraph goes on to explain why: the current population is large, it is showing signs of increasing, over the next several decades the agency expects the population to “remain large (i.e., hundreds of thousands of individuals) and to retain the potential for recovery,” – the language in question – and the proposed action is not expected to affect demographic representation, successful reproduction, etc. Id. Thus, the reference to

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recovery of the species will be placed at risk. See Ctr. for Biological Diversity v. Salazar, 804 F. Supp. 2d 987, 999 (D. Ariz. 2011) (quoting Wild Fish Conservancy v. Salazar, 628 F.3d 513, 527 (9th Cir. 2010) and Nat’l Wildlife Fed’n v. Nat’l Marine Fisheries Serv., 524 F.3d at 936. It is not clear whether NMFS articulated the point at which the survival and recovery of the species will be placed at risk before it concluded that the additional effects on the species from the proposed action will not exceed that tipping point and jeopardize the species. But because Oceana did not raise this argument in its briefing, or at any other time before oral argument, the Court will not consider it here.

the “potential for” recovery is in the survival context, not the “likelihood of recovery” analysis for loggerheads. Later in the BiOp, NMFS conducts an analysis of recovery and concludes that “the effects . . . [of] the proposed action are not reasonably expected to cause an appreciable reduction in the likelihood of recovery of the NWA loggerhead DPS,” the exact conclusion that Oceana says is required. AR 1066; see Oceana MSJ at 37 (“The question the Fisheries Service should have asked is whether its action will affect the likelihood of sea turtle recovery.”).

While Oceana further argues that the recovery analysis for each species is flawed, the BiOp shows this position is unfounded. Oceana first contends that the loggerhead recovery plan – which calls for the agency to “monitor” and “reduce effort” in the domestic commercial shrimp fishery in order to minimize loggerhead bycatch – is inconsistent with the BiOp’s finding that “the proposed action does not reduce interactions in Southeast shrimp fisheries.” Oceana MSJ at 38; AR 1066. But the BiOp explains that while “interactions” are not reduced, the proposed action is designed to “further minimize the impact of those interactions,” and is thereby consistent with the recovery plan’s objective to minimize bycatch. AR 1066.

Proceeding to challenge the green sea turtle recovery analysis, Oceana points to the part of the BiOp that concludes: “the proposed action is not reasonably expected to cause . . . an appreciable reduction in the likelihood of survival of the green sea turtle” and faults the BiOp for not analyzing the effect of the proposed action on the likelihood of recovery. See Oceana MSJ at 38 (citing AR 1067) (emphasis added). If Oceana continued reading, however, the section that follows the “survival” analysis is the “recovery” analysis for green sea turtles. The BiOp identifies the relevant recovery objectives from the Atlantic Recovery Plan for the population of Atlantic green sea turtles, see AR 1067, notes that the proposed action accomplishes all three of the relevant recovery actions, see AR 1068, and concludes that “the

proposed action is not likely to impede the recovery objectives . . . and will not result in an appreciable reduction in the likelihood of green sea turtles' recovery in the wild," see AR 1068.

For the remaining turtle species – Hawksbill, Kemp's ridley, and Leatherback sea turtles – Oceana's claim that the agency did not explain how its action will affect these species' likelihood of recovery is not tethered to any citations to the record. See Oceana MSJ at 38. The BiOp does analyze the proposed action's effect on the likelihood of recovery for each of these three species and concludes that for each species the proposed action will not result in an appreciable reduction in the likelihood of that species' recovery in the wild. See AR 1069-70 (Hawksbill sea turtles recovery analysis and conclusion); AR 1072-73 (Kemp's ridley sea turtles recovery analysis and conclusion); AR 1074-75 (Leatherback sea turtles recovery analysis and conclusion). In sum, the agency has articulated a reasoned basis for its sea turtle recovery analysis in the BiOp, consistent with its Section 7 regulatory obligations.

### 3. Definition of "Reduce Appreciably"

For the third time, Oceana makes an argument that this Court already has rejected. Oceana challenges NMFS' interpretation of a regulatory phrase that defines a key statutory term: "reduce appreciably." Oceana MSJ at 38-41.

The Endangered Species Act obligates federal agencies to ensure that their actions are "not likely to jeopardize the continued existence of any endangered species or threatened species," 16 U.S.C. § 1536(a)(2), but the statute does not define the phrase "jeopardize the continued existence of." NMFS and FWS define that phrase by regulation as meaning "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

(emphasis added). Just as it did with respect to the Sea Scallop BiOp and the Batched Fisheries BiOp, Oceana points out that the 2014 Shrimp BiOp does not expressly define “appreciable.” Oceana MSJ at 39; Oceana I, pt. 1, 75 F. Supp. 3d at 482; Oceana II, 125 F. Supp. 3d at 239. And just as in those two prior cases, Oceana argues that this omission is problematic because either the agency is implicitly relying on the definition it used in an earlier 2008 Sea Scallop BiOp, or the agency entirely failed to define “appreciable.” Oceana MSJ at 39; Oceana I, pt. 1, 75 F. Supp. 3d at 482; Oceana II, 125 F. Supp. 3d at 239. Oceana takes issue with the agency’s definition of “reduce appreciably” in the Sea Scallop BiOp that examines whether the action would cause “‘considerable’ or ‘material’ reduction in [the] likelihood of survival or recovery,” advocating instead for an interpretation that examines whether the action would cause any “noticeable” reduction in the likelihood of survival or recovery. Oceana MSJ at 39-40.

In response, NMFS points out that this Court has rejected these arguments by Oceana twice before and asks the Court to do so again. NMFS MSJ at 17-18; NMFS Reply at 3. To bolster its position, NMFS notes that the Endangered Species Consultation Handbook defines “appreciably” in the context of impact on listed species’ habitat in a similar way to the definition that Oceana finds so problematic. NMFS MSJ at 16. The Handbook defines “[a]ppreciably diminish the value” as “to considerably reduce the capability of designated or proposed critical habitat to satisfy requirements essential to both the survival and recovery of a listed species.” AR 17926 (emphasis added). NMFS also notes that NMFS and FWS rejected Oceana’s interpretation of “appreciably” when they made recent revisions to their joint critical habitat regulations. NMFS MSJ at 16-17.

This Court has twice rejected the definition that Oceana has put forth and upheld NMFS’ interpretation of “reduce appreciably” as consistent with both the regulation and the

underlying statute. See Oceana I, pt. 1, 75 F. Supp. 3d at 481-87; Oceana II, 125 F. Supp. 3d at 239. The Court sees no reason to deviate from its prior decisions here.

#### 4. Population Viability Analysis

Oceana argues that it was arbitrary and capricious for NMFS to either: (1) not use the quantitative population viability analysis (“PVA”) model that it had used in the Sea Scallop and Batched Fisheries BiOps for loggerhead sea turtles, or (2) not explain its departure from its precedent of using the PVA model. See Oceana MSJ at 34-36; Oceana Reply at 13-18. But in the earlier BiOps to which Oceana refers, the agency only relied on the PVA model as a small part of its overall jeopardy analysis. See Oceana I, pt. 1, 75 F. Supp. 3d at 491 (“[T]he PVA does not constitute the entirety of its analysis.”); Oceana II, 125 F. Supp. 3d at 245 (“NMFS relied on the PVA as an additional element of support for its determination, rather than as the sole or primary tool undergirding its analysis.”). And in the Batched Fisheries BiOp, the agency did not make any new calculations using the PVA model; it had just found a prior 2008 calculation to be “informative.” Oceana II, 125 F. Supp. 3d at 245.

When it challenged the Sea Scallop BiOp and the Batched Fisheries BiOp, Oceana criticized the agency’s reliance on this PVA model for multiple reasons, including that it was outdated. See Oceana I, pt. 1, 75 F. Supp. 3d at 491; Oceana II, 125 F. Supp. 3d at 245. Now, in its challenge to the 2014 Shrimp BiOp, Oceana makes an about face and argues that by not relying on the PVA model, the agency has failed to use the best available scientific information. See Oceana Reply at 14-15. Making an alternative argument, Oceana says that at the very least, the agency has not explained its departure from its own precedent. See Oceana MSJ at 36.

In response, NMFS says that it cannot use the PVA model because the agency lacks the necessary data to run the calculation. See NMFS MSJ at 27. The PVA model requires the agency to use incidental take estimates in order to run the PVA calculation. And, as NMFS has explained, it is unable to calculate reliable estimates of the incidental take attributable to the shrimp fisheries in terms of numerical takes of individuals. See supra section IV(B)(1)(a). Furthermore, NMFS argues that there was no departure from precedent. It notes that the three prior BiOps that Oceana references were written by regions within the agency that were different from the region that wrote the Shrimp BiOp. See NMFS MSJ at 27-28. NMFS explains that there are often discrepancies between the approaches taken by its regional offices, noting for instance, that the Southeast Region and Greater Atlantic Region have different approaches for estimating mortality of sea turtles after interactions with fishing gear. Id. at 30 n.10.

The Court agrees that NMFS was not required to rely on or even mention the PVA model in the BiOp. Its reliance on the PVA model in prior BiOps was minimal, and the agency has explained that it had no ability to use the PVA model in the 2014 Shrimp BiOp with the available data.

## 5. Environmental Baseline

Setting the environmental baseline is key to the agency's jeopardy analysis. As part of the formal consultation process, the agency must first "[e]valuate the current status and environmental baseline of the listed species." 50 C.F.R. § 402.14(g)(2). The "environmental baseline" is "the condition of the listed species . . . without the consequences to the listed species . . . caused by the proposed action." Id. at § 402.02. The environmental baseline includes (1) "the past and present impacts of all Federal, State, or private actions and other human activities in the action area," (2) "the anticipated impacts of all proposed Federal projects

in the action area that have already undergone formal or early section 7 consultation,” and (3) “the impact of State or private actions which are contemporaneous with the consultation in process.” Id. These factors include consequences to the listed species “from ongoing agency activities or existing agency facilities that are not within the agency’s discretion to modify.” Id. When the agency formulates its opinion as to whether the action is likely to jeopardize the continued existence of the listed species, it must “[a]dd the effects of the action and cumulative effects to the environmental baseline.” 50 C.F.R. § 402.14(g)(4).

Oceana argues that the agency’s no-jeopardy determination is arbitrary and capricious because it failed to consider all the past and present impacts on protected sea turtles. It specifically criticizes the jeopardy analysis’s failure to assess the new information regarding the Atlantic pelagic longline fishery, the effects from foreign activities on endangered sea turtles, and the Deepwater Horizon oil spill. See Oceana MSJ at 43-44. NMFS maintains that it adequately addressed each. See NMFS MSJ at 19-20. The Court will discuss each in turn.

a. Atlantic Pelagic Longline Fishery

First, Oceana argues that the Shrimp BiOp’s jeopardy analysis failed to include any assessment of the Atlantic pelagic longline fishery when it analyzed the environmental baseline in the jeopardy analysis for all sea turtle species, but especially for leatherbacks. See Oceana MSJ at 43-44; Oceana Reply at 22-23. In the environmental baseline section of the BiOp, NMFS describes the recent impacts on sea turtles from the pelagic longline fishery. AR 950-51. The incidental take levels for the pelagic longline fishery were exceeded in 2003 when the agency determined that takes from the fishery between 1992 and 2002 were 10,034 loggerheads and 9,302 leatherbacks. AR 950. These take levels did not account for post-release mortalities, which were likely substantial. Id. In response, the agency reinitiated consultation in

2003 and implemented reasonable and prudent alternatives (“RPAs”), thereby allowing the continued authorization of pelagic longline fishing that would not jeopardize leatherback sea turtles. Id. In 2004, NMFS published a final rule to implement management measures to reduce bycatch and bycatch mortality of Atlantic sea turtles in the Atlantic pelagic longline fishery. AR 951. The final rule is expected to have significantly benefited sea turtles by reducing mortality attributed to interactions with the fishery. Id. Nevertheless, ten years later, in 2014, NMFS requested that the consulting agency reinitiate consultation because of new information that indicated that the net mortality rate and total mortality estimates for leatherback sea turtles had been exceeded. Id.

NMFS points to this section of the BiOp to argue that it did, in fact, address the Atlantic pelagic longline fishery as part of the environmental baseline. See NMFS MSJ at 19 (citing AR 950-51). But Oceana argues that simply describing the Atlantic pelagic longline fishery is not enough; the agency must also “assess” these additional mortalities from the Atlantic pelagic longline fishery and the effects that they may have on the loggerhead and leatherback sea turtles’ populations. See Oceana Reply at 23. When the agency does “nothing more than to list and describe data that it purported to incorporate into its jeopardy analysis – without indicating how that data actually factors into the analysis – the Court might well [find] the BiOp deficient for such opacity.” Oceana I, 75 F. Supp. 3d at 489 (citing Tex Tin Corp. v. U.S. EPA, 935 F.2d 1321, 1324 (D.C. Cir. 1991) (per curiam)). There is certainly no mention, let alone analysis, of the Atlantic pelagic longline fishery in the jeopardy section of the Shrimp BiOp at issue here.

In its briefs before this Court, NMFS explains for the first time that, “[t]he jeopardy analysis was based on overall nesting trends, and those trends were positive despite any

take attributable to the Atlantic pelagic longline fishery.” NMFS Reply at 5. But the Court cannot uphold an agency decision based on post hoc rationalizations made by the agency. See, e.g., Motor Vehicle Mfrs. Ass’n of U.S., Inc. v. State Farm Mut. Auto. Ins. Co., 463 U.S. at 50 (“[A]n agency’s action must be upheld, if at all, on the basis articulated by the agency itself). The agency must articulate a reasoned basis for its conclusion based on the evidence in the record before it, and it has not done so with respect to its consideration of the effects from the Atlantic pelagic longline fishery in its jeopardy analysis.

b. Foreign Activities

Second, Oceana faults the Shrimp BiOp’s jeopardy analysis for not considering the effects of foreign activities on endangered sea turtles in the environmental baseline. See Oceana MSJ at 44; Oceana Reply at 23. Oceana points to the agency’s recognition in the status of the species section of the BiOp that foreign activities – such as fishing and poaching – pose a “significant” and “continuing” threat to sea turtles. See Oceana Reply at 23 (citing AR 894); see also Oceana MSJ at 44 (noting that hawksbill turtles are particularly susceptible to poaching) (citing AR 919). Oceana criticizes NMFS for not identifying and analyzing these threats from foreign activities when setting the environmental baseline. In response, NMFS acknowledges that it did not address foreign activities in the environmental baseline section. See NMFS Reply at 4. The agency explains that these foreign activities occur outside the action area, and the agency therefore appropriately addressed them only in the status of the species section. Id. Upon review of the governing regulations, the Court agrees with NMFS. The environmental baseline includes “the past and present impacts of all Federal, State, or private actions and other human activities in the action area.” 50 C.F.R. § 402.02 (emphasis added). While these foreign

activities outside the action area undoubtedly affect sea turtles, NMFS was not obligated to analyze them in the environmental baseline section as Oceana suggests.

c. Deepwater Horizon Oil Spill

Third, Oceana argues that the 2014 BiOp does not adequately address the effects on sea turtles from the Deepwater Horizon oil spill, especially its impact on Kemp's ridley turtles. Oceana points to the agency's findings that generally, the oil spill "is expected to have an adverse impact on the baseline for sea turtles." See Oceana MSJ at 44 (citing AR 971). Specifically, the agency found that Kemp's ridley sea turtles are "particularly vulnerable to new sources of mortality" like the oil spill and noted that the 481 dead Kemp's ridley sea turtles recovered from the spill are only a fraction of the actual losses to the species. See id. at 44 (citing AR 959); id. at 44 n.15 (citing AR 922).

In response to Oceana, NMFS points to how it "factored the effects of the oil spill into its qualitative jeopardy analysis" for each sea turtle species. See NMFS Reply at 5. For Kemp's ridley sea turtles, for instance, the agency acknowledged in the jeopardy analysis that they were the species likely "most affected by the DWH oil spill on a population level." AR 1072. The agency concluded, however, that the "tremendous growth in the population" means that the effects from the proposed action would not jeopardize the species, even after considering the impacts from the Deepwater Horizon oil spill. See id. Therefore, Oceana's criticism that the agency failed to explain its conclusion about the effects of the Deepwater Horizon oil spill for loggerheads is unfounded. Contra Oceana MSJ at 44. The agency considered the effects of the spill on each turtle species and incorporated this information into its jeopardy analysis for each species. See NMFS MSJ at 20 (citing AR 1064, 1067, 1069, and 1074). NMFS has thus

provided a reasoned explanation for its conclusion with respect to the Deepwater Horizon oil spill based on the record evidence.

## 6. Cumulative Effects

Oceana maintains that the BiOp is arbitrary, capricious, and contrary to law because it fails to take account of “cumulative effects,” as is required by the governing regulations. The term “cumulative effects” is defined in the regulations as “those effects of future State or private activities, not involving Federal activities, that are reasonably certain to occur within the action area of the Federal action subject to consultation.” 50 C.F.R. § 402.02. In formulating its Biological Opinion, NMFS is obligated to determine “whether the action, taken together with cumulative effects, is likely to jeopardize the continued existence of listed species.” 50 C.F.R. § 402.14(g)(4). In the 2014 Shrimp BiOp, NMFS has included a section entitled Cumulative Effects. AR 1060. This section identifies various state and private activities that are anticipated to negatively affect sea turtles in the action area including fisheries in state waters, poaching, habitat degradation, and farming. See id. This section also identifies natural conditions that are anticipated to negatively affect sea turtles in the action area such as cold stunning, hurricanes, and changes in oceanic conditions. See id. NMFS states that the past and present impacts of these various threats have already been discussed in the Environmental Baseline section of the BiOp and that the agency is not aware of any proposed or anticipated changes that would substantially change the impacts these threats have on sea turtles. See id.

Oceana first contends that the BiOp’s cumulative effects section fails to actually consider the future effects of state or private activities as part of the jeopardy analysis. See Oceana MSJ at 42-43. Oceana argues that NMFS “improperly rolled its discussion of cumulative effects into its discussion of the environmental baseline” and therefore failed to

consider or address cumulative effects, in violation of the ESA and its regulations. See id. at 42.<sup>9</sup> As NMFS explained, however, once it identified the relevant state and private activities – fisheries in state waters, poaching, habitat degradation, farming, etc. – the agency cross-referenced the discussion of anticipated trends in the status of the species and environmental baseline sections because it had reasonably assumed that future effects would be similar to past effects. See NMFS MSJ at 20-21 (citing AR 1060). In the absence of contrary information, the agency’s assumption that future effects from state and private activities would be similar to past effects was a rational one. See Oceana II, 125 F. Supp. 3d at 243.

The next issue that Oceana raises with respect to the Shrimp BiOp’s cumulative effects section is that NMFS failed to consider the glaringly obvious future impact on the species – climate change – when analyzing cumulative effects. See Oceana MSJ at 42-43.<sup>10</sup> NMFS responds by arguing that the cumulative effects analysis focuses on future state or private activities, noting that effects from climate change are neither “associated with a specific activity” nor “sufficiently certain to occur.” NMFS Reply at 6.

But regardless of whether NMFS was required to consider threats from climate change in the cumulative effects section, it did: the cumulative effects section states that NMFS

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<sup>9</sup> Oceana also cites to the Endangered Species Consultation Handbook (“Handbook”), arguing that the agency’s failure to speak to any of the state or private entities to collect information for the cumulative effects section was in violation of the agency’s “consulting regulations.” Oceana MSJ at 42 (citing AR 18026); id. at 42 n.14. This Court has already rejected this argument. See Oceana II, 125 F. Supp. 3d at 243 (“Even assuming that NMFS has some obligation to follow the guidance in the Handbook . . . it does not require the agency to undertake any particular data collection activities.”).

<sup>10</sup> This is a different argument from Oceana’s earlier argument, supra section IV(C)(1). That section addresses Oceana’s argument that the agency failed to analyze the effects of climate change in the jeopardy analysis. Oceana’s argument here is specific to a conclusion that the agency draws about climate change in its cumulative effects section.

was not aware of any “anticipated changes” in “natural conditions” such as “changes in oceanic conditions” that would substantially change the impacts that this threat has on sea turtles. AR 1060. This assertion – and the agency’s statement in the briefs before this Court that climate change is not sufficiently certain to occur – is directly contradicted by the substantial evidence of global climate change in the record and the “significant impacts” that NMFS itself has concluded will result for sea turtles. See AR 896 (describing anticipated impacts such as skewed hatchling sex ratios, exposure of nests to tidal overwash, decreased available nesting habitat, and shifts in the population and distribution of food sources). The agency therefore has failed to articulate a reasoned basis for its conclusion that future changes in oceanic conditions will not substantially impact sea turtles in light of the contrary record evidence. It must do so on remand.

#### 7. Aggregate Effects

Oceana levels one final attack on the agency’s no-jeopardy determination by arguing that it failed to consider the aggregate effects of the factors analyzed under the environmental baseline, effects of the action, and cumulative effects sections, and failed to view those cumulative effects against the status of the species. See Oceana MSJ at 45; Oceana Reply at 24 (citing AR 18027). Oceana contends that while NMFS paid lip service to these factors in the BiOp, such as by enumerating authorized takes from other fisheries, it never analyzed the effects of the incidental takes from the proposed action “combined with” the takes of the other fisheries in the jeopardy analysis. Oceana MSJ at 45.

The term “aggregate effects” is not found in the regulations. Oceana draws the term from the Handbook that NMFS uses to guide its performance of Section 7 consultations under the ESA. The Handbook states that a jeopardy determination is reached by assessing “whether the aggregate effects of the factors analyzed under [1] ‘environmental baseline,’

[2] ‘effects of the action,’ and [3] ‘cumulative effects’ in the action area – when viewed against the status of the species ... – are likely to jeopardize the continued existence of the species.” AR 18027.

With this definition in mind, NMFS maintains that it did account for the impact of takes from other federally authorized fisheries, and all the other impacts on sea turtles in the aggregate. See NMFS MSJ at 23; NMFS Reply at 6-7. To support this assertion, the agency points to various sections of the Shrimp BiOp that set forth narrative discussions of all federally authorized takes and mortalities from other fisheries, and from state and foreign fishing, the factors that Oceana has accused it of failing to consider. See NMFS MSJ at 23 (citing AR 894, 948-55, 964-67).

The agency’s defense is not responsive to Oceana’s criticism. The problem is not that NMFS did not identify these effects, but rather, that it did not consider them in the jeopardy analysis. NMFS is correct that it does not necessarily need to “numerically add the takes from the different sources together.” See NMFS MSJ at 23 (citing Oceana, Inc. v. Evans, 384 F. Supp. 2d 121, 230 (D.D.C. 2001)). But when the agency does “nothing more than to list and describe data that it purported to incorporate into its jeopardy analysis – without indicating how that data actually factors into the analysis – the Court might well [find] the BiOp deficient for such opacity.” Oceana I, pt. 1, 75 F. Supp. 3d at 489 (citing Tex Tin Corp. v. U.S. EPA, 935 F.2d 1321, 1324 (D.C. Cir. 1991) (per curiam)). The agency is required to address the impact of authorized incidental take “in the context of other incidental take authorized by [the agency].” Oceana, Inc. v. Evans, 384 F. Supp. 2d at 230. In the Shrimp BiOp’s qualitative jeopardy analysis for each sea turtle species, there is no mention of many of the anticipated effects on the species identified earlier in the BiOp, authorized incidental takes from other fisheries being just

one example. See AR 1062-66 (jeopardy analysis for Loggerheads), 1066-68 (Green sea turtles), 1068-70 (Hawksbill), 1070-73 (Kemp's Ridely), 1073-75 (Leatherbacks).

This is in stark contrast to the Sea Scallop BiOp that NMFS cites, where this Court approved the agency's jeopardy analysis. See NMFS MSJ at 23 (citing Oceana I, pt. 1, 75 F. Supp. 3d at 489). The jeopardy analysis in the Sea Scallop BiOp did analyze the effects from climate change, authorized takes and mortalities from other fisheries, and the rest of the effects on the species the BiOp had identified. Conversely, in the Shrimp BiOp at issue here, the jeopardy analysis for the sea turtles lacks any discussion of many of the effects on the species that are identified earlier in the BiOp. The agency's no-jeopardy conclusion therefore is arbitrary and capricious.

## V. REMEDY

Oceana has asked this Court to vacate the Shrimp BiOp. See Oceana MSJ at 45; Oceana Reply at 25. NMFS argues that this would be an inappropriate remedy and says that if the Court is going to remand, it should do so without vacatur. NMFS MSJ at 39-40. In its prior decisions regarding other BiOps, the Court has remanded without vacatur. In doing so, the Court emphasized that its decision to remand without vacatur was in part because the agency might be able to justify its choices on remand. See Oceana I, pt. 1, 75 F. Supp. 3d at 499; Oceana II, 125 F. Supp. 3d at 255. Such a rationale is not true in this case for one of the deficiencies the Court has identified. The Incidental Take Statement in the Shrimp BiOp is inherently flawed because it does not function as an automatic trigger and no amount of further explanation by the agency can remedy this flaw. See supra section IV(B)(1)(c).

Nonetheless, NMFS argues that vacating the 2014 Shrimp BiOp would disrupt the shrimp trawl fisheries and erase the protections for sea turtles provided by the BiOp's reasonable

and prudent measures (“RPMs”) and terms and conditions. See NMFS MSJ at 39-40 (citing Chamber of Com. of the U.S. v. SEC, 443 F.3d 890, 908-09 (D.C. Cir. 2006)). Further, NMFS has more recently notified the Court that it has already reinitiated consultation, one of Oceana’s requested remedies. See NMFS’ Notice at 1-2. If the Court were to vacate the 2014 Shrimp BiOp, these RPMs and terms and conditions that protect sea turtles would be eliminated until the agency completed its remand or issued a new superseding BiOp. Accordingly, the Court will remand to the agency without vacatur.

## VI. CONCLUSION

For the foregoing reasons, the Court will grant in part and deny in part each party’s motion for summary judgment. An order consistent with this opinion shall issue this same day.

SO ORDERED.

/s/  
PAUL L. FRIEDMAN  
United States District Judge

DATE: October 9, 2020