UNITED STATES DISTRICT COURT
SOUTHERN DISTRICT OF FLORIDA

CASE NO.: 19-cv-14199-Middlebrooks/Maynard

CENTER FOR BIOLOGICAL DIVERSITY, CALUSA WATERKEEPER, WATERKEEPER ALLIANCE,

Plaintiffs,

v.

U.S. ARMY CORPS OF ENGINEERS, *et. al.*,

Defendants.
_____/

ORDER ON ESA PARTIAL SUMMARY JUDGMENT

This Cause is before the Court upon the Parties' Cross Motions for Partial Summary Judgment on claims arising under the Endangered Species Act of 1973, 16 U.S.C. § 1531–44 ("ESA"). Plaintiffs Center for Biological Diversity, Calusa Waterkeeper, and Waterkeeper Alliance (collectively "Plaintiffs") moved for Partial Summary Judgment on January 31, 2020. (DE 41). Defendants,[1] who include the U.S. Army Corps of Engineers and U.S. Fish and Wildlife Service (collectively "Defendants") responded to Plaintiffs' Motion and also moved for Partial Summary Judgment on March 13, 2020. (DE 52). Plaintiffs jointly responded and replied on March 27, 2020. (DE 56). Defendants replied on April 10, 2020. (DE 59). For the following reasons, both Motions are granted in part.

[1] On February 13, 2020, Plaintiffs entered into a partial settlement with the Fish and Wildlife Service ("The FWS") and National Marine Fisheries Service ("NMFS") and individuals named their official capacity working for these agencies. (DE 44). The Court has approved this settlement, as set forth at the conclusion of this Order.

I. The Endangered Species Act

The Endangered Species Act of 1973, 16 U.S.C. § 1531–44 ("ESA") is "the most comprehensive legislation for the preservation of endangered species ever enacted by any nation." *Tenn. Valley Auth. v. Hill*, 437 U.S. 153, 180 (1978). The purpose of the ESA is "to provide a means whereby the ecosystems upon which endangered species and threatened species depend may be conserved" and "to provide a program for the conservation of such endangered species and threatened species." 16 U.S.C. § 1531(b). The ESA is administered by the Secretary of the Interior through the Fish and Wildlife Service (the "FWS") and National Marine Fisheries Service ("NMFS"), with the FWS having jurisdiction over terrestrial species, the Manatee, and sea turtles while they are on land, and the NMFS having jurisdiction over marine species, including sea turtles while they are in the water. The FWS and the NMFS are required to consult with the agency taking the action under review (the "action agency"), in this case the Army Corps of Engineers ("the Corps").

The ESA contains both substantive and procedural requirements. Substantively, Section 9 prohibits the "taking" of any member of a listed endangered species. 16 U.S.C. § 1536(a)(2). The term "take" is defined broadly to mean "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). The term "harm" as used in the ESA includes any "significant habitat modification or degradation where it actually kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding or sheltering." 50 C.F.R. § 17.3.

Section 7 imposes a complex system of procedural requirements regarding consultation between the action agency and the FWS.[2] The purpose of consultation is to "insure" that agency actions are "not likely to jeopardize the continued existence of any endangered species or threatened species or result in the destruction or adverse modification of [critical] habitat of such species." 16 U.S.C. § 1536(a)(2). Either formal or informal consultation is required whenever an agency contemplates taking an "action," which is defined as "all activities or programs of any kind authorized, funded, or carried out, in whole or in part, by Federal agencies." 50 C.F.R. § 402.02. Actions include "directly or indirectly causing modifications to the land, water, or air." *Id.*

In determining whether formal consultation is necessary, the agency must prepare a Biological Assessment which evaluates the potential effects of its proposed action on those species on the endangered species list, as well as proposed species and designated and proposed critical habitat (collectively "protected species and habitats"). 50 C.F.R. § 402.12(a). The purpose of the Biological Assessment is to determine whether the protected species and habitats are likely to be adversely affected by the action. *Id.*

After preparing a Biological Assessment, the action agency determines whether the proposed action "may affect" a protected species and habitat. 16 U.S.C. § 1536(c). Generally, if the action agency determines that the action "may affect" a protected species or habitat, formal consultation is required. *Id.* The threshold for triggering formal consultation is "very low" and "any possible effect . . . triggers formal consultation requirements." 51 Fed. Reg. 19,926, 19,949 (June 3, 1986).

[2] Although consultation would be between either the NMFS or the FWS, depending on the species in question, as this action largely focuses on the Manatee, over which the FWS has jurisdiction, I refer exclusively to the FWS for the remainder of this section.

However, there is a third option to choosing whether an action "may" or "may not" effect a protected species or habitat. "[D]uring informal consultation" the action agency may review a written concurrence from the FWS, concluding that "the action is *not likely to adversely affect* listed species or critical habitat." 50 C.F.R. § 402.13 (emphasis added). In that case, "the consultation process is terminated, and no further action is necessary." *Id.* A written concurrence occurs as a result of a request by the action agency to the FWS. *Id.* A written request for concurrence with an action agency's "not likely to adversely affect" finding is required to "include information similar to the types of information described for formal consultation at § 402.14(c)(1) sufficient for the Service to determine if it concurs." *Id.*

If the action agency determines, following a Biological Assessment, that the proposed action "may affect" a species or habitat, and no written concurrence letter finds that "the action is not likely to adversely affect" a species or habitat, then the action agency must engage in formal consultation. 16 U.S.C. § 1536(c). In this process, the FWS is responsible for formulating a "Biological Opinion as to whether the action, taken together with cumulative effects, is likely to jeopardize the continued existence of listed species or result in the destruction or adverse modification of critical habitat." 50 C.F.R. § 402.14(g)(4). The FWS must "use the best scientific and commercial data available" to make their determination. 16 U.S.C. § 1536(a)(2); 50 C.F.R. § 402.14(a). If the FWS determines that the proposed action is likely to jeopardize the continued existence of a listed species, it must suggest reasonable and prudent alternatives to the proposed action, if any exist, that would not result in such jeopardy. 16 U.S.C. § 1536(b)(3).

Alternatively, if the FWS determines that the proposed action is *not* likely to jeopardize a protected species or habitat, but determines that the actions will nevertheless result in the "take" of listed species pursuant to Section 9, the FWS must issue an incidental take statement ("ITS"). 16 U.S.C. § 1536(b)(4). The action agency may then proceed with the action. However, if during

the course of the action more of the species or habitat is "taken" than provided for in the ITS, the action agency must reinitiate formal consultation pursuant to § 7(a)(2). 50 C.F.R. § 402.16(a).

Even if an action ends with formal consultation, additional formal consultation is triggered where "new information reveals effects of the action that may affect listed species or critical habitat in a manner or to an extent not previously considered." 50 C.F.R. § 402.16. The duty to reinitiate consultation lies with both the action agency and the consulting agency. *Salmon Spawning & Recovery All. v. Gutierrez*, 545 F.3d 1220, 1229 (9th Cir. 2008).

II. The Administrative Procedure Act

Summary judgment is appropriate only when there are no genuine issues of material fact and the movant is entitled to judgment as a matter of law. Fed.R.Civ.P. 56(c); *Celotex Corp. v. Catrett*, 477 U.S. 317, 322 (1986). Judicial review of administrative decisions involving the ESA is governed by section 706 of the Administrative Procedure Act ("APA"). 5 U.S.C. § 706; D*efs. of Wildlife v. Bureau of Ocean Energy Mgt.*, 684 F.3d 1242 (11th Cir. 2012). Under section 706, the reviewing court must determine that agency decisions are not "arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law." 5 U.S.C. § 706(2)(A); *Defenders of Wildlife v. Bureau of Ocean Energy Mgmt.*, 684 F.3d at 1248. The arbitrary and capricious test is a narrow scope of review of agency factfinding. *See Abbott Labs. v. Gardner*, 387 U.S. 136 (1967).

Applying this standard, the Court must determine whether "the [agency's] decision was based on a consideration of the relevant factors and whether there has been a clear error of judgment." *North Buckhead Civic Ass'n v. Skinner*, 903 F.2d 1533 (11th Cir.1990).

Although the Court must generally defer to agency determinations, the Court "must overturn agency actions which do not scrupulously follow the regulations and procedures promulgated by the agency itself." *Sierra Club v. Martin*, 168 F.3d 1, 4 (11th Cir.1999) (citation omitted).

A decision is arbitrary and capricious "where the agency has 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." *Defenders of Wildlife v. United States Dep't of the Navy*, 733 F.3d 1106, 1115 (11th Cir. 2013) (quoting *Miccosukee Tribe of Indians of Fla. v. United States*, 566 F.3d 1257, 1264 (11th Cir. 2009)). Although the court's review is to be searching and careful, the court cannot substitute its judgment for that of the agency's. *Citizens to Preserve Overton Park*, 401 U.S. at 416. This standard precludes a reviewing court from "deciding the facts anew, making credibility determinations, or re-weighing the evidence." *Natl. Parks Conservation Assn. v. U.S. Dept. of the Int.*, 835 F.3d 1377, 1384 (11th Cir. 2016) (*quoting Moore v. Barnhart*, 405 F.3d 1208, 1211 (11th Cir. 2005) (per curiam). The ability to find adequate support in the record for a contrary conclusion is insufficient to overturn an agency's factual conclusion. *Id.* (citing *DeKalb Cty. v. U.S. Dep't of Labor*, 812 F.3d 1015, 1020 (11th Cir. 2016)).

When a court reviews a decision under the APA, "[t]he focal point for judicial review of an administrative agency's action should be the administrative record." *Preserve Endangered Areas of Cobb's History, Inc. ("PEACH") v. U.S. Army Corps of Eng'rs*, 87 F.3d 1242, 1246 (11th Cir.1996) (citing *Florida Power & Light Co. v. Lorion*, 470 U.S. 729 (1985)).

III. Factual Background

In this case, Plaintiffs claim that the Corps likely causes or contributes to the growth of red algae, also known as red-tide, and blue-green algae (collectively "harmful algae blooms" or "HABs") by releasing fresh water from Lake Okeechobee. HABs, Plaintiffs argue, cause harm to endangered species such as the West Indian Manatee ("Manatee"). Plaintiffs contend that

Defendants acted contrary to the ESA by failing to engage in sufficient consultation regarding the effects of HABs on endangered species.

The Army Corps of Engineers (the "Corps") is the government agency tasked with managing the water levels within Lake Okeechobee (the "Lake") using a system of levees, canals, and pump stations. Flood Control Act of 1948, ch. 771, § 203, Pub. L. No. 80-858, 62 Stat. 1171, 1176 (1948). By regulating the amount of water within the Lake, the Corps works to ensure that the Lake does not overflow, flooding the nearby land. Corps AR 7112.

The Corps regulates the levels of the Lake pursuant to the Lake Okeechobee Regulation Schedule ("LORS"). The Corps enacted the most recent LORS in 2008 ("the 2008 LORS"). (DE 42 ¶ 51; DE 53 ¶ 51). The 2008 LORS remains in effect today. *Id.*

In 2007, before the Corps implemented the 2008 LORS (i.e. when the 2008 LORS was a "proposed action"), the Corps consulted with the FWS regarding the effect of the LORS on endangered species. (DE 52 at 3). The FWS issued a Biological Opinion ("2007 Opinion"). Within the 2007 Opinion, the FWS concurred with the Corps in a finding that the LORS was "not likely to adversely affect" the Manatee and its critical habitat. Corps AR 934. Significantly, the 2007 Opinion found that "[t]here is no direct link between upland run-off and red-tide events. Run-off from sources in the Caloosahatchee River basin has been examined since 1947, and while there may be a potential connection, researchers have been unable to establish a direct link with upland run-off and red-tide blooms. It appears that for such blooms to occur, the dinoflagellates need multiple sources of nutrients (Heil 2005)." Corps AC 933. The remainder of the 2007 Opinion is devoted to analyzing the effects of the proposed action on the Everglades Snail Kite, a bird of prey. The 2007 Opinion engages in some discussion of algae blooms in the context of determining the environmental baseline for the Snail Kite and states that "[h]igher concentrations of phosphorus also promote blooms of [blue-green algae]." Corps AC 979. The FWS noted that at the time of the

opinion, phosphorous was over five time higher than the "concentration goal" of 40 ppb. Corps AC 981. Otherwise, the 2007 Opinion engages in limited discussion of HABs.

In 2018, the Corps, prompted by the need for "quantification of incidental take for Snail Kites," reinitiated formal consultation with the FWS regarding the effect of the 2008 LORS. In the resulting Biological Opinion ("2018 Opinion"), the FWS begins by again concurring with the Corps that the 2008 LORS is not likely to adversely affect the Manatee. The 2018 Opinion does not discuss HABs.

On December 19, 2018, Plaintiffs issued a Notice of Intent to Sue letter ("NOI Letter") to the Corps. (*See* Corps AR 9428; DE 59 at 11). The letter contained 186 different scientific articles and reference documents. *Id.* Within their NOI letter, Plaintiffs argue that by discharging nutrient-rich water from the Lake into the St. Lucie and Caloosahatchee rivers and estuaries, the Corps is causing HABs and thereby harming endangered species. (DE 41 at 1-3). Plaintiffs allege that Defendants acted wrongfully by failing to consult on this topic and that Defendants are required to reinitiate consultation to address these potential harms. (DE 41 at 2-3).

Based on this letter, the Corps initiated informal consultation with the FWS. (DE 52 at 10). On June 6, 2019, the FWS concurred with the Corps' determination that none of the reinitiation triggers for formal consultation had been met. Corps AR 10065. Specifically, the FWS stated that "we have not found any causal links that effects to the West Indian Manatee result either directly or indirectly from Lake Okeechobee water releases." *Id.*

Plaintiffs now argue that the Corps and the FWS have failed to comply with their obligations under the ESA by never issuing a Biological Opinion which adequately addresses the effect of HABs on the Manatee and other endangered species. Specifically, Plaintiffs seek a finding that the FWS' 2018 Opinion and the Corps' reliance upon it is arbitrary and capricious. In the alternative, Plaintiffs argue that Defendant's refusal to reinitiate formal consultation in light of

new evidence is arbitrary and capricious. Accordingly, Plaintiffs seek a finding that Defendants must engage in formal consultation regarding the effect of HABs on listed species, including the Manatee. Plaintiffs also seek an injunction until consultation is complete. Although Plaintiffs state in their Complaint that the Court should "[p]reliminarily and permanently enjoin the Corps from authorizing any further releases from Lake Okeechobee under [the] LORS until the Corps fully complies with the requirements [of] . . . the ESA, and the APA," (DE 1 at 46) Plaintiffs stated in a hearing before the court that they no longer seek this form of injunctive relief and instead would be willing to brief alternatives if the Court rules in their favor.

Defendants counter that they have consistently maintained from 2007 to the present that (1) blue-green algae does not affect listed species and (2) while red algae may affect listed species, the 2008 LORS does not cause red algae. Defendants argue that this determination is supported by the administrative record and thus assert that their actions were not arbitrary and capricious.

IV. Discussion

a. Standing

Under the ESA's citizen-suit provision, "any person" may commence a civil suit to enjoin alleged violations of the ESA or regulations issued under its authority. 16 U.S.C. § 1540(g)(1). The citizen-suit provision is "an authorization of remarkable breadth." *Bennett v. Spear*, 520 U.S. 154, 164–66 (1997). It expands standing to the full extent permitted under Article III of the Constitution and eliminates any prudential standing requirements. To establish standing, Plaintiffs need only satisfy the "irreducible constitutional minimum of standing." *Lujan v. Defs. of Wildlife*, 504 U.S. 555, 560 (1992). That is, Plaintiffs must set forth facts sufficient to establish: (1) an injury in fact that is concrete and particularized and actual or imminent; (2) that the injury is fairly traceable to the defendant's challenged conduct; and (3) that the injury is likely to be redressed by a favorable decision. *Id.* at 560–61, 112 S.Ct. 2130. "[I]n reviewing the standing question, the

court must be careful not to decide the questions on the merits for or against the plaintiff, and must therefore assume that on the merits the plaintiffs would be successful in their claims." *Culverhouse v. Paulson & Co.*, Inc., 813 F.3d 991, 994 (11th Cir. 2016).

Defendants do not dispute that Plaintiffs have established a concrete and particularized injury in fact. However, Defendants argue (within a footnote) that "[f]or the same reasons that Plaintiffs cannot, as a matter of causation, demonstrate a violation of ESA Section 9, Plaintiffs also cannot show for purposes of Article III standing that their alleged injuries are caused by actions of the Federal Defendants or, for that matter, that such alleged injuries would be redressed by a favorable decision." (DE 52 at 21 note 11). Although Defendants do not explain this argument further, Defendants appear to be asserting that, to the extent endangered species were harmed, this harm did not result from conduct by Defendants.

However, Plaintiffs have alleged a *procedural injury* as their injury arises from Defendants' violation of the ESA. *See Lujan v. Defs. of Wildlife*, 504 U.S. 555, 573 (1992) (holding that violation of Section 7 of the ESA results in a procedural injury and discussing the parameters of procedural standing within that context). When considering standing for violation of a procedural injury, establishing an injury-in-fact is typically the most difficult showing, with causation and redressability usually following as a matter of course. This is because "[a] showing of procedural injury lessens a plaintiff's burden on the last two prongs of the Article III standing inquiry, causation and redressability. Plaintiffs alleging procedural injury must show only that they have a procedural right that, if exercised, *could* protect their concrete interests." *Salmon Spawning & Recovery Alliance v. Gutierrez,* 545 F.3d 1220, 1226 (9th Cir.2008) (emphasis in original) (internal citations and quotations omitted). In *Lujan v. Defenders of Wildlife,* the Supreme Court stated that "[t]here is this much truth to the assertion that 'procedural rights' are special: The person who has been accorded a procedural right to protect his concrete interests can assert that right

without meeting all the normal standards for redressability and immediacy." *Lujan v. Defs. of Wildlife*, 504 U.S. 555, 573 (1992)

I find here that requiring Defendants to engage in consultation regarding the effects of the LORS *could* protect endangered species, thereby redressing Plaintiffs' injury. Indeed, a primary purpose of a Biological Opinion is to determine whether actions could be taken to protect endangered species. Therefore, I find that Plaintiffs have established facts sufficient to support standing.

b. The 2018 Opinion

As previously discussed, the 2018 Biological Opinion contains a concurrence in which the FWS agrees with the Corps that the LORS is not likely to adversely affect the Manatee. Although the Opinion spans 159 pages, only two paragraphs are devoted to the Manatee, and only one paragraph discussed its habitat. Corps AR 9195. Several additional paragraphs are spent discussing other species upon which the FWS concurs as to the Corps' "not likely to adversely affect" determination. The 2018 Opinion then turns to the Snail Kite, engaging in an extensive discussion of whether the LORS will cause jeopardy to this bird.

Interestingly, Plaintiffs *do not* challenge the finding within the Biological Opinion that the LORS is not likely to adversely affect the Manatee or its habitat. That is to say, Plaintiffs do not specifically argue that the "not likely to adversely affect" finding is arbitrary and capricious. Instead, Plaintiffs argue that the Biological Opinion *as a whole* is arbitrary and capricious. Plaintiffs raise three independent arguments to support this position. First, Plaintiffs argue that the "environmental baseline" within the Opinion is not discussed with requisite detail because it omits a discussion of HABs. Second, Plaintiffs argue that the opinion improperly limits the "action area" to only the habitat of the Snail Kite. Finally, Plaintiffs argue that the Opinion fails to consider or address impacts of the LORS on the recovery of listed species.

The requirements Plaintiffs list are all requirements specific to Biological Opinions, which are produced as a result of formal consultation. The requirement to establish an "environmental baseline" and an "action area" comes from 50 C.F.R. § 402.14, which requires that Biological Opinions include, among other things "a detailed discussion of the *environmental baseline* of the listed species and critical habitat" and "[a] map or description of all areas to be affected directly or indirectly by the Federal action, and not merely the immediate area involved in the action (i.e., the *action area* as defined at § 402.02)." 50 C.F.R. § 402.14 (emphasis added). Section 402.14 also requires a jeopardy determination, which is defined as a determination of whether the "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). Again, these requirements only apply to Biological Opinions obtained through formal consultation. A Biological Opinion is only required where the FWS determines that the proposed (or ongoing) action "may affect" a listed species.

As stated previously, even when an action "may effect" a listed species, the FWS can terminate the consultation process by making a determination that the action "is not likely to adversely affect listed species or critical habitat." 50 C.F.R. § 402.13 (emphasis added). This, technically, is termed informal consultation. Once the FWS makes this determination, "the consultation process is terminated, and no further action is necessary." *Id.* For this reason, a written request for concurrence with [an action agency's] "not likely to adversely affect" determination is required to "include information similar to the types of information described for formal consultation at § 402.14(c)(1) sufficient for the Service to determine if it concurs." *Id.* This is because, if the FWS makes a "not likely to adversely affect" determination, that issue will never reach formal consultation.

In the 2018 Opinion, the FWS begins by concurring with the Corps regarding several "not likely to adversely affect" determinations, including for the Manatee. Plaintiffs understandably assume that this inclusion means that all of the requirements for a Biological Opinion then apply to the Manatee, such as the requirement to discuss the applicable action area and environmental baseline within the Biological Opinion. Indeed, the Manatee is seemingly discussed *within* the Biological Opinion. However, this is not the case. First of all, applying these requirements would render meaningless the statutory assurance that upon a "not likely to adversely affect" determination "the consultation process is terminated, and no further action is necessary." 50 C.F.R. § 402.13. Further, as shown by the fact that the 2007 Opinion uses the heading "BIOLOGICAL OPINION" *after* the section discussing not likely to adversely affect concurrences, Corps AC 940, this section is not truly a part of the Biological Opinion.

This distinction is significant because the three requirements which Plaintiffs argue make the 2018 Opinion arbitrary and capricious (environmental baseline, action area, and expected recovery) apply only to the species under consideration within the Biological Opinion: the Snail Kite. For example, in *Miccosukee Tribe of Indians of Fla. v. U.S.*, the plaintiff challenged a Biological Opinion as failing to include an adequate environmental baseline. 566 F.3d 1257, 1268 (11th Cir. 2009). The Biological Opinion in question also considered whether the Snail Kite was in jeopardy, in this case as a result of the Corp's Central & Southern Florida Flood Project. *Id.* at 1268. In analyzing the appropriate environmental baseline, the Eleventh Circuit considered whether the FWS had "failed to meet its obligation to create a complete environmental baseline *for the kite*." *Id.* (emphasis added) The opinion only addressed factors which may affect the Snail Kite, not other listed species. *See id.* (finding that the environmental baseline was adequately supported as "the Biological Opinion discusses the history of the kite population . . . [and]

discusses the effects of environmental problems in Lake Okeechobee and in the Kissimmee Chain of Lakes, which are the other parts of kite territory.").

Therefore, although the environmental baseline for other species may be larger than that of the Snail Kite, the 2018 Opinion only needed to include an environmental baseline and action area that was appropriate for the Snail Kite. As to the species and habitats for which the FWS made a "not likely to adversely affect" determination, the Corps is not required to consider these factors.[3] *See Conservation Cong. v. U.S. Forest Serv.*, 720 F.3d 1048, 1056 (9th Cir. 2013) (stating that although a "cumulative effects" analysis is required for a Biological Opinion, the Court is aware of "no statutory or regulatory provision, legislative materials, or other relevant authority" which extends this requirement to informal consultation).

Plaintiffs' objections to the 2018 Opinion all consist of arguments that consideration as to other species are not included. At no point do Plaintiffs dispute the outcome of the jeopardy determination regarding the Snail Kite, nor do Plaintiffs argue that it was necessary to discuss the effect of HABs *on the Snail Kite*. Instead, Plaintiffs argue that "the FWS did not analyze how HABs may affect other listed species." (DE 41 at 9). For example, Plaintiffs argue that the 2018 Opinion fails to include "the impact of past HABs that may be linked to Lake discharges on Manatees or their habitat" within the environmental baseline and omits the Caloosahatchee from the action area, even though this is where Manatees breed. (DE 41 at 9, 11). I have already concluded that these arguments do not render the 2018 Opinion arbitrary and capricious.

The question remains whether I should interpret Plaintiffs' argument as to the 2018 Opinion as a request that I review the determination that the LORS is "not likely to adversely affect" Manatees, as it can be inferred that Plaintiffs intended to raise such an argument. I decline

[3] As previously discussed, similar factors should be included in the request for a concurrence. However, as the request for concurrence is not under review, this is immaterial. 50 C.F.R. § 402.13.

to do so for two reasons. First, in the interest of fairness, I am reluctant to address an issue which has been raised, at best, by implication. Second, and more substantively, I find that Plaintiffs' arguments with respect to the Corps' failure to reinitiate consultation, discussed in the subsequent section, addresses those issues which would be raised in a challenge to the "not likely to adversely affect" concurrence. Thus, I find that Summary Judgment should be entered for Defendants and against Plaintiff on the issue of whether the 2018 Opinion is arbitrary and capricious, and turn to the issue of Defendants' failure to reinitiate.

c. Reinitiation of Consultation

Plaintiffs argue that Defendants are required to reinitiate consultation regarding the effect of HABs on listed species. Specifically, Plaintiffs argue that the FWS's 2019 determination that there was no need to engage in formal consultation in response to Plaintiff's NOI Letter was arbitrary and capricious.[4]

As previously discussed, regardless of whether an action ends with formal consultation, reinitiation of consultation may be necessary is four situations:

> (1) If the amount or extent of taking specified in the incidental take statement is exceeded;
>
> (2) If new information reveals effects of the action that may affect listed species or critical habitat in a manner or to an extent not previously considered;
>
> (3) If the identified action is subsequently modified in a manner that causes an effect to the listed species or critical habitat that was not considered in the Biological Opinion or written concurrence; or
>
> (4) If a new species is listed or critical habitat designated that may be affected by the identified action.

[4] As an initial matter, I note that failure to reinitiate consultation is a completed action ripe for judicial review. *Cottonwood Envtl. L. Ctr. v. U.S. Forest Serv.*, 789 F.3d 1075, 1084 (9th Cir. 2015) ("Because the alleged procedural violation—failure to reinitiate consultation—is complete, so too is the factual development necessary to adjudicate the case.").

50 C.F.R. § 402.16. Here, Plaintiffs argue that the second situation justifies reinitiation of consultation. The caselaw regarding reinitiation for new evidence is slim and consists only of Courts discussing the unambiguous language of the statute. Based on the term "new," the ESA requires reinitiation only when the effects of the action "are different or more extensive" than those analyzed in the Biological Opinion. *Loggerhead Turtle v. Volusia County*, 120 F. Supp. 2d 1005, 1025 (M.D. Fla. 2000). With regard to the standard necessary for reinitiation, "[t]he burden, of course, is on the Plaintiff[s] to make a showing that the [agency] acted arbitrarily and capriciously in failing to reinitiate consultation . . . ." *Miccosukee Tribe of Indians of Fla. v. United States*, 420 F. Supp. 2d 1324, 1337 (S.D. Fla. 2006).

To determine whether evidence is new, it is necessary to consider the agency's prior determinations. In its 2007 Biological Opinion, the FWS acknowledged that the LORS "has the potential to directly affect water quality within the St. Lucie and Caloosahatchee Rivers." Corps AR 933. However, the FWS stated that it "knows of no instance or recorded event where a Manatee was adversely affected by degraded water quality in these or any other areas." *Id.* In light of these determinations, the FWS concluded in its 2007 Biological Opinion that the LORS "may affect, but is not likely to adversely affect, the West Indian Manatee or its critical habitat." Corps AR 934. In its 2018 Biological Opinion, the FWS reaffirmed its determinations that the LORS may affect, but is not likely to adversely affect, the West Indian Manatee or its critical habitat, respectively." Corps AR 9195.

Defendants' position is that the FWS engaged in a proper exercise of discretion in declining to reinitiate consultation as to both the effects of red algae and blue-green algae. Defendants admit that red algae causes harm to listed species, but argue that the LORS does not cause red algae. Defendants concede the LORS causes blue-green algae, but argue that blue-green algae does not cause harm to any listed species. Therefore, the question is whether the FWS acted arbitrarily and

capriciously in determining that the LORS does not cause red algae, or that blue-green algae does not cause harm to listed species. In determining whether reinitiation of consultation is necessary, the question is not whether new evidence *establishes* that the LORS will cause harm to species by generating or exacerbating HABs, but simply whether new evidence "reveals effects of the action that *may affect*" the listed species. 50 C.F.R. § 402.16.

Before considering the record evidence relevant to red and blue-green algae respectively, I will briefly address an apparent disconnect between Plaintiff's NOI Letter and the FWS's concurrence. Plaintiffs state in their letter that "the FWS and the Corps must reinitiate consultation based on new information that reveals that the LORS may be causing or contributing to HABs which are taking species *like* the Florida Manatee." Corps AR 10064 (emphasis added). The FWS responds by stating that "we have not found any causal links that effects *to the West Indian Manatee*[] result either directly or indirectly from Lake Okeechobee water releases," and consequently determining that reinitiation is unnecessary. Corps AR 10065. Thus, although Plaintiffs used the Manatee as merely an example of a listed species effected by HABs, the FWS appears to have only analyzed harm to the Manatee and ignored the effect of HABs on all other listed species. Lest Plaintiffs be penalized for an oversight by the FWS, I will consider whether HABs resulting from the LORS cause harm to *any* listed species such that reinitiation of consultation is necessary. However, as the trigger for formal consultation is a "may affect" determination, not a finding that a taking occurred, I will disregard Plaintiff's comment that consultation is necessary as HABs are "taking" species.

i. Red Algae/Red-tide

The 2007 Opinion stated that "[t]here is no direct link between upland run-off and red-tide events. Run-off from sources in the Caloosahatchee River basin has been examined since 1947, and while there may be a potential connection, researchers have been unable to establish a direct

link with upland run-off and red-tide blooms. It appears that for such blooms to occur, the dinoflagellates need multiple sources of nutrients (Heil 2005)." Corps AC 933. In light of these determinations, the FWS concluded in its 2007 Biological Opinion that the LORS "may affect, but is not likely to adversely affect, the West Indian Manatee or its critical habitat." Corps AR 934. In its 2018 Biological Opinion, the FWS reaffirmed its determination, but failed to discuss red-tide. Corps AR 9195.

I have not been asked to determine the legality of the 2007 Opinion, and therefore express no opinion on whether it is arbitrary and capricious. I do note, however, that the Opinion places a heavy emphasis on the lack of a "direct connection," which is not necessarily required to determine whether an action is "not likely to adversely affect." Therefore, assuming that the 2007 Opinion correctly reached its "not likely to adversely affect" conclusion, this decision is a close one, and would likely have passed muster had the FWS instead determined that formal consultation was necessary. That is to say, a relatively small amount of additional information could trigger a different finding.

In the 2019 decision under review, the FWS declined to reinitiate consultation based on a finding that "[t]here was an apparent increase in manatee mortality associated with red-tide events, but we found no clear evidence that LORS contribute to red-tide events." Corps AC 10065. This "apparent increase" was actually far and away the largest killer of Manatees. Between December 2017 and August 18, 2018, FWC attributed 52 of 67 Manatee deaths to red algae. Corps AR 9913. This statistic is particularly shocking as the 2018 Opinion reports that "[f]rom 2000 through 2012 there were 64 manatee deaths reported from the Lake Okeechobee area." AC 9196. Assuming the area measured is roughly the same, this means that more Manatees died within an eight-month period of red-tide than died within 12 years. This figure undercuts the finding within the 2018 Opinion that "[t]he two most significant threats to the Florida manatee population statewide are

collisions with watercraft and loss of warm water habitat," with red-tide constituting only a secondary risk. Corps AC 9195. With 77.6% of manatee deaths within that period attributable to red-tide, red-tide is certainly not a secondary risk. It is therefore beyond dispute that red algae seriously harms Manatees; the only question is whether the LORS causes or contributes to red algae.

In the letter from the Corps recommending that the FWS decline to reinitiate consultation, the Corps notes that:

> While most scientists agree that runoff could help maintain a bloom once it migrates near enough to shore, whether runoff from land plays a role in the generation of red-tide blooms has been questioned with Stumpf, et al., 2008 conceptualizing generation of blooms in low nutrient waters and Brand and Compton 2007 supporting a hypothesis that watershed run off has increased the frequency of red-tide blooms. Lake Okeechobee releases add to water volume and nutrient load from the watershed. Scientists indicate that nutrients (particularly, nitrogen [Paerl, et al., 2008]) from a combination of non-point source input, river flow and ground water are sufficient to generate and maintain in-shore blooms of red-tide (Vargo, 2009). Population increases and other anthropogenic factors have led to significant nutrient enrichment of Florida coastal waters over the past several decades. Whether red-tides have increased, as suggested by Brand and Compton (2007), and whether that is related to Lake Okeechobee releases, is a highly debated topic (Mote Marine Lab, 2019).

The Corps concludes this discussion by noting that "manatee populations continue to increase despite the record of brevotoxicosis deaths. They have also continued to increase with the LORS in place. No new information is available that would indicate any risk of LORS 2008 jeopardizing the Manatee's existence." Corps AR 9913-14.

Of course, whether Manatee populations continue to increase despite red-tide related deaths has no bearing on whether the LORS causes red-tide deaths. Including this comment within the context of a discussion on reinitiating consultation has the potentially unintended consequence of suggesting that even if the LORS *is* causing red-tide, formal consultation is unnecessary as the extent of harm is limited. Such a suggestion has no place within an ESA analysis.

More to the point, the 2007 finding that there was no "direct link" between the LORS and red algae has now shifted to a finding that the LORS can "maintain" but may not be able to "generate" red algae. This is a substantial change. The ability to worsen an existing bloom certainly would support a "may affect" finding.

A 2018 internal email within the administrative record from Environmental Engineer James Riley states that "[i]t is speculated but not confirmed that additional nutrient loading may fuel or enhance a red-tide bloom." Corps AR 9367. He adds that "[t]he avg phosphorus nutrient loading from Lake O to the Caloosahatchee from WY 2013-2017 is 28% with the remainder from the local basin runoff. 39% of the nitrogen loading to the Caloosahatchee is from Lake O (same time period) with the rest from local basin runoff." *Id.* The email concludes by noting that "[r]ed tide is the clear immediate health issue." *Id.*

Also, while of course correlation is not causation, it is worth noting that Florida recently experienced one of the worst, if not *the* worst, red-tide events in recent history. (DE 41-1). Researchers have stated that red-tide is fueled by the type of nutrients found within the Lake such as phosphorus and nitrogen. *See* Corps AR 2690–99 (finding a nutrient source of a HAB could be nutrient-rich water from the Caloosahatchee); Corps AR 12527–40 ("During average estuarine flow years, combined estuarine sources contribute up to 17 and 69% of the [Nitrogen] and [Phosphorus] needs of these blooms, however local estuarine contribution can increase to 100% for exceptional, high flow years."); AR_009365–66 (reporting Mote Marine 17 scientists claim Lake pollution may enhance red-tide); AR_011454–65 (finding that while the origin of red-tide varies, "there is good agreement" that when red-tide encounters "nutrient-enriched conditions, growth and bloom intensity" may be enhanced). Leading up to that bloom, inflows into the Lake exceeded the total maximum daily load of 140 metric tons of total phosphorous by over 350 tons, and in 2018, total phosphorous spiked to 1,046 metric tons. Corps AR 9539. Thus, the facts are

clear that the water within the Lake was highly nutrient-rich, which experts believe causes red-tide, and that the Corps emitted nutrient rich water leading up to a severe red-tide bloom.

Based on this new information, I find that Defendants acted arbitrarily and capriciously by failing to reinitiate consultation. The Corps does not dispute that the red algae causes Manatee deaths and in fact concedes that the majority of Manatee deaths from December 2017 to August 2018 occurred as a result of red algae. Corps AR 9913. The Corps now states that "most scientists agree" that nutrient-rich discharges such as those from the Lake increase the severity of red algae blooms. Even giving the agency all due deference, I find that the Corps and the FWS acted arbitrarily and capriciously in concurring in a determination that it was unnecessary to reinitiate consultation. Accordingly, I find that the Corps must engage in additional consultation regarding HABs.

ii. Blue-Green Algae

The 2007 Opinion does not directly discuss blue-green algae, but states that "[t]here is no documentation or evidence that manatees are adversely affected by changes in water quality." Corps AR 933. However, the next several sentences of the Opinion, which discuss the risk posed to Manatees by red-tide, appear to undercut this statement as red-tide is clearly a factor in "water quality." Thus, the Opinion appears to conclude that there are no problems with water quality *other than* as a result of red-tide.

The Opinion goes on to discuss the Manatee's habitat, stating that "experts agree essential habitat features for the manatee include seagrasses for foraging, shallow areas for resting and calving, channels for travel and migration, warmwater refuges during cold weather, and fresh water for drinking." Corps AR 933. The Opinion expresses that sea grass is plentiful and unlikely to be impacted by the LORS. Corps AR 933. The 2018 Opinion engages in a brief discussion of

these risks, finding that "loss of warm water habitat poses a major risk to Manatees." Corps AC 9195.

In their 2019 concurrence, the FWS concedes that the LORS causes blue-green algae, but state that reinitiation of consultation is not necessary as it is not clear that blue-green algae harms Manatees. More specifically, the FWS states that:

> Scientists generally agree the combination of freshwater, high concentrations of nitrogen and phosphorus, warm water temperatures, and adequate sunlight contribute to the formation of these algal blooms. The cyanobacteria Microcystis aeruginosa is a toxic special that has been associated with the algal blooms of 2017 and 2018. However, it is still unclear if toxins produced by [blue-green algae] HABs affect Manatee health. For example, Manatee mortalities did not increase in areas where these HABs have occurred; however, carcasses from these regions continue to be investigated for any potential connection to cyanotoxins.

Corps AR 10065.

Plaintiffs argue that documents within the administrative record support a finding that blue-green algae causes harm to listed species. Blue-green algae contains BMAA, which has "been shown to be neurotoxic in a variety of animal models." Corps AR 3334. "Concentrations of BMAA found in the brains of dolphins that have died in the Indian River Lagoon are similar to the concentrations found in the brains of humans that have died of neurodegenerative diseases." Corps AR 3008–3009. Scientists have discovered high concentrations of BMAA in dead fish in the Caloosahatchee River, where many Manatees live. Corps AR 3343. Thus, although the administrative record contains no direct link between BMAA and Manatee deaths, there is a strong inference that BMAA may cause harm to Manatees or other listed species.

On a page of the FWS website, which is included within the administrative record, FWS states that "[b]lue-green algae blooms can, if present for extended periods of time, shade out aquatic grassbeds where manatees feed and can cause grassbeds to die. The temporary loss of these feeding sites will cause manatees to feed elsewhere until the grassbeds return." Corps AR 9452.

The webpage does not state where Manatees are likely to go during these periods. Given the risks posed by red-tide and loss of warm water habitat, requiring Manatees to feed elsewhere would appear to pose a substantial risk, even to the extent that enough seagrass still remains to support the existing Manatee population.

Given that the threshold for a "may affect" finding is "very low" and can be triggered by "any possible effect," 51 Fed. Reg. 19,926, 19,949, I find that Defendants acted arbitrarily and capriciously by failing to reinitiate consultation as to the effects of blue-green algae. Taking in combination the risks posed by BMAA and destruction of grass beds, failure to find that blue-green algae "may affect" listed species cannot be "ascribed to a difference in view."

iii. Scope of Reinitiation

Plaintiffs request that, if I find that Defendants wrongfully failed to reinitiate consultation, I should "[o]rder the Corps to initiate formal consultation with FWS . . . ."[5] To this end, I will require input from the Parties as to the scope of reinitiation that should be ordered. It appears that an order to reinitiate consultation as to a specific *harm* (HABs) is atypical. Instead, consultation is typically based upon a specific agency action or a component of that action, *see Defs. of Wildlife v. U.S. Dept. of Navy*, 733 F.3d 1106 (11th Cir. 2013) (analyzing that installation and operation phases of an underwater submarine warfare training range), or, more commonly, based upon a specific listed species or habitat. Therefore, the Parties should confer and attempt to reach an agreement regarding the scope of reinitiation. The Parties should work collaboratively to craft precise language specifying the scope of reinitiation. If the Parties are unable to reach an

[5] Plaintiffs also request that the Court order the NMFS to reinitiate consultation. However, per the Parties' Partial Settlement Agreement (DE 44), it appears that reinitiation with the NMFs is unnecessary. If this is not the case, Plaintiffs should also consult with the NMFS regarding the scope of reinitiation.

agreement, they should brief their positions in the manner described below. The Parties are encouraged to include ample caselaw to support their respective positions. The Parties should address whether reinitiation is most appropriate (1) as to HABs, (2) as to the species listed within Plaintiffs' Complaint, or (3) or as to some other category.

d. Injunctive Relief

In their Complaint, Plaintiffs request that the Court "[p]reliminarily and permanently enjoin the Corps from authorizing any further releases from Lake Okeechobee under LORS until the Corps fully complies with the requirements of . . . the ESA, and the APA." (DE 1 at 46). However, when asked at the recent summary judgment hearing whether Plaintiffs continued to pursue this relief, Plaintiffs stated that "plaintiffs do not seek to stop [the] LORS . . . but injunctive relief can take a variety of forms in this context including while the agencies are completing formal consultation there be monitoring of these species or additional data collection. We would look forward to an opportunity to discuss that type of remedy with defendants to see if there is interim relief that could be granted while they complete formal consultation." (Hearing Transcript 18:11-24).

Under "well-established principles of equity," a plaintiff seeking permanent injunctive relief must satisfy a four-factor test by showing:

> (1) that it has suffered an irreparable injury;
> (2) that remedies available at law, such as monetary damages, are inadequate to compensate for that injury;
> (3) that, considering the balance of hardships between the plaintiff and defendant, a remedy in equity is warranted; and
> (4) that the public interest would not be disserved by a permanent injunction.

eBay Inc. v. MercExchange, L.L.C., 547 U.S. 388, 391 (2006).

In my preliminary assessment, it would appear these factors are met here, and that some sort of injunctive relief is appropriate. However, because there is an absence of briefing on this

issue, I will allow the Parties to address these factors, if they so desire, before I order injunctive relief.

Additionally, assuming Plaintiffs satisfy the legal standard necessary to obtain injunctive relief, the Parties must confer regarding the specific type of injunctive relief to be granted in a good faith effort to reach an agreement about the language of any forthcoming injunction. If the Parties are unable to reach an agreement, they should brief their positions in the manner described below.

The Parties should supply the precise proposed language for the injunction they seek, which should include the scope and duration of the injunction in the ***clearest possible terms***. To the extent the Parties cannot reach agreement, in responding to the opposing Party's proposed injunction, the Parties should not only raise substantive arguments, but also should specifically identify any points of contention with respect to the clarity and precision of the opposing Party's proposed language. The opposing Party should then propose revisions to the objected-to language. Given the complexity of the subject matter, I am disinclined to independently craft injunctive language; therefore, the Parties are strongly encouraged to meaningfully confer and submit appropriate and thorough proposals.

V. CONCLUSION

Congress passed the ESA "to provide a means whereby the ecosystems upon which endangered species and threatened species depend may be conserved, [and] to provide a program for the conservation of such endangered species and threatened species." 16 U.S.C. § 1531(b). Essentially, the ESA was created to protect wildlife from the risk posed by man. There is perhaps no animal that embodies the need for the ESA more than the Manatee. Manatees have no natural

predators or enemies.[6] "They're the most docile, defenseless creature there is . . . Man is the only real enemy the manatees have ever had." *Id.* Elsewhere, manatees have been wiped out by human actions. For example, manatee hunts were common until the early 1900s, and thus the species is no longer found in Guadeloupe and other islands in the Lesser Antilles.[7] Harm to Manatees now occurs in less overt forms, and can result even from well-intentioned action. Still, the ESA mandates proactivity, helping agencies to root out the harms caused by their actions. Here, compliance with the ESA through reinitiation of consultation will help to ensure a bright future for the Manatee and other listed species.

ORDERED and ADJUDGED that:

1. Plaintiffs' Partial Motion for Summary Judgment (DE 41) is **GRANTED IN PART** in that Defendants' failure to reinitiate consultation is found to be arbitrary and capricious. Accordingly, Plaintiff's request that the Court "[d]eclare that the Corps' failure to reinitiate formal consultation with the FWS and NMFS is arbitrary, capricious, and not in accordance with the requirements of ESA section 7(a)(2), 16 U.S.C. § 1536(a)(2), 50 C.F.R. § 402.16, and in violation of the APA, 5 U.S.C. § 706(2)(A)" (DE 1 at 45 ¶ 2) is **GRANTED**.
2. Defendants' Partial Motion for Summary Judgment (DE 52) is **GRANTED IN PART** in that the Court has not found the 2018 Opinion to be arbitrary and capricious. Accordingly, Plaintiffs' request that the Court "[d]eclare that the FWS' issuance of and the Corps' reliance upon the FWS' 2018 Biological Opinion is arbitrary, capricious, and contrary to

[6] *8 things you didn't know about manatees*, PBS NEWSHOUR, https://www.pbs.org/newshour/science/8-things-didnt-know-manatees (last visited Aug 28, 2020).
[7] *West Indian manatee*, U.S. FISH & WILDLIFE SERVICE, https://www.fws.gov/southeast/wildlife/mammals/manatee/ (last visited Aug 28, 2020).

the consultation requirements of ESA section 7(a)(2), 16 U.S.C. § 1536(a)(2), 50 C.F.R. § 402.14, and in violation of the APA, 5 U.S.C. § 706(2)(A)" (DE 1 at 45 ¶ 3) is **DENIED**.

3. Plaintiffs' request that the Court "[p]reliminarily and permanently enjoin the Corps from authorizing any further releases from Lake Okeechobee under [the] LORS until the Corps fully complies with the requirements of . . . the ESA, and the APA" (DE 1 at 45 ¶ 9) is **DENIED** in light of Plaintiffs' abandonment of this request for relief.
4. The Parties shall meet and confer **within ten (10) days of the date of this Order** for the purpose of reaching an agreement regarding the scope of consultation upon reinitiation (described more fully above) and the appropriateness of and the scope of injunctive relief during the consultation process. The Parties shall exercise the utmost diligence in attempting to reach an agreement. If they are unable to agree, the Parties shall file separate legal memoranda setting out their positions with specificity, utilizing the instructions within this Order, on or before **September 18, 2020**. The Parties shall file responses to the opposing Party's memorandum on or before **September 30, 2020**. To be clear, based on my findings in this Order, I will enter an Order requiring that Defendants reinitiate consultation. Thus, the Parties are asked to provide additional briefing merely as to the content of this Order, not as to the necessity of reinitiation. Defendants are permitted to argue that no injunctive relief is appropriate, but should do so only after thoroughly discussing this issue with Plaintiffs in an attempt to reach an agreement.
5. The Parties' Motion for Parties' Settlement (DE 44) is **GRANTED**.
6. Pursuant to the Parties' Partial Settlement Agreement (DE 44), Plaintiffs' Second Claim for Relief (with respect to Plaintiffs' claim that the alleged failure of the Corps and NMFS to reinitiate formal consultation on the 2015 concurrence letter violates the ESA as set forth in Plaintiffs' Complaint, ECF No. 1 at ¶¶ 243-253) and the Fourth Claim for Relief (with

respect to Plaintiffs' claim that NMFS' issuance of and the Corps' reliance upon NMFS' 2015 concurrence letter regarding LORs is arbitrary and capricious and violates the ESA and the Administrative Procedure Act as set forth in Plaintiffs' Complaint (DE 1 at ¶¶ 261-265) are **DISMISSED WITH PREJUDICE** as to Defendants U.S. Army Corps of Engineers, Col. Andrew Kelly, in his official capacity, National Marine Fisheries Service, and Dr. Roy E. Crabtree, in his official capacity.

7. The Court shall reserve jurisdiction to oversee compliance with the terms of the Parties' Settlement Agreement.

SIGNED in Chambers, at West Palm Beach, Florida, this 28th day of August, 2020.

DONALD M. MIDDLEBROOKS
UNITED STATES DISTRICT JUDGE