

**UNITED STATES DISTRICT COURT
MIDDLE DISTRICT OF FLORIDA
JACKSONVILLE DIVISION**

ST. JOHNS RIVERKEEPER, INC.,

Plaintiff,

Case No. 3:17-cv-398-J-34MCR

vs.

UNITED STATES ARMY CORPS OF
ENGINEERS,

Defendant,

vs.

JACKSONVILLE PORT AUTHORITY,

Intervenor Defendant.

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ORDER

The question before the Court in this action is a narrow one. The Court must determine whether the St. Johns Riverkeeper, Inc. has shown that the United States Army Corps of Engineers violated the National Environmental Policy Act (NEPA) by failing to consider the environmental impacts of a proposal to dredge the Lower St. Johns River. Significantly, “NEPA establishes procedures that a federal agency must follow before taking any action,” but does not mandate any particular result. See Sierra Club v. Van Antwerp, 526 F.3d 1353, 1360 (11th Cir. 2008) (emphasis added). Thus, the Court is neither asked nor permitted to opine as to whether additional dredging of the St. Johns River is wise or unwise. Nor is the Court asked or permitted to conduct its own investigation or substitute its own judgment for that of the federal agency. See id. at 1360. Rather, the Court’s “only role [under NEPA] is to ensure that the agency has taken a hard look at the

environmental consequences of the proposed action.” Fund for Animals, Inc. v. Rice, 85 F.3d 535, 546 (11th Cir. 1996) (alteration in original) (quoting Druid Hills Civic Ass’n v. Fed. Hwy. Admin., 772 F.2d 700, 709 (11th Cir. 1985)). So long as the agency has followed the required procedures and considered the environmental consequences, it is not for this Court to “interject itself within the area of discretion of the executive” in deciding whether continued dredging of the St. Johns River is the “right” decision for the people of northeast Florida. Id. at 547 (quoting Strycker’s Bay Neighborhood Council, Inc. v. Karlen, 444 U.S. 223, 227 (1980)). As the entity challenging the Corps’ decision, Riverkeeper bears the difficult burden of establishing that the Corps failed to comply with NEPA’s procedural requirements. The record before the Court compels a finding that Riverkeeper has not met this burden and as such, the Court must enter judgment in favor of the Corps.

Before the Court are the parties’ cross-motions for summary judgment. On August 1, 2019, Plaintiff St. Johns Riverkeeper, Inc. (Riverkeeper) filed Plaintiff’s Combined Motion for Summary Judgment and to Supplement the Record and Incorporated Memorandum of Law (Doc. 69; Riverkeeper Motion). In accordance with the Court’s scheduling Order (Doc. 67), Defendant United States Army Corps of Engineers (the Corps) and Intervenor Defendant Jacksonville Port Authority (JaxPort) filed their respective responses to the Riverkeeper Motion combined with cross-motions for summary judgment on September 19, 2019. See Federal Defendant’s Cross Motion for Summary Judgment and Opposition to Plaintiff’s Motion for Summary Judgment (Doc. 71; Corps Motion); JaxPort’s Combined Motion for Summary Judgment and Opposition to Riverkeeper’s Motion for Summary Judgment (Doc. 73; JaxPort Motion). On October 3, 2019, Riverkeeper filed Plaintiff’s Reply and Opposition to Defendant’s and Intervenor’s Motions for Summary Judgment

(Doc. 75; Riverkeeper Response). Last, on October 24, 2019, the Corps and JaxPort filed replies in support of their respective Motions. See Federal Defendant's Reply in Support of its Cross Motion for Summary Judgment (Doc. 76; Corps Reply); JaxPort's Reply in Support of Motion for Summary Judgment (Doc. 77; JaxPort Reply). In addition, the Corps has filed the complete administrative record with the Court. See Notices of Filing (Docs. 25, 45, 58, 68).¹ Given its size, the Administrative Record (A.R.) is not available electronically on CM/ECF and is instead contained on multiple USB drives on file with the Clerk of the Court. On May 12, 2020, the Court held a hearing on the Motions at which all parties were present via videoconference, the record of which is incorporated herein by reference. See Minute Entry (Doc. 84; Hearing). Accordingly, this matter is ripe for review.

I. Procedural History

Plaintiff, St. Johns Riverkeeper, Inc., is a nonprofit organization "dedicated to the protection, preservation, and restoration of the ecological integrity of the St. Johns River watershed for current users and future generations." See First Amended Complaint for Declaratory and Injunctive Relief (Doc. 23; Amended Complaint) ¶ 7. Riverkeeper "monitors the environmental quality of the St. Johns River and its tributaries" and works to educate its members and the public "about the River and its management." Id.

¹ The Court notes that on March 23, 2018, Riverkeeper moved to supplement the administrative record to allow consideration of a document outside the administrative record in this case. See Motion to Supplement Record and Allow Consideration of Extra Record Document (Doc. 51). Although the Corps agreed to supplement the record with documents it had considered in the decision-making process, the Corps and JaxPort opposed the consideration of any extra-record evidence. See Order (Doc. 56) at 2-3. The Court directed Riverkeeper to file the document at issue and explained that it would determine whether it was appropriate to consider this evidence when it addressed the merits of the claims raised in this action. See Order (Doc. 56). Accordingly, Riverkeeper filed the extra-record evidence on December 11, 2018. See Plaintiff, St. Johns Riverkeeper, Inc.'s [sic] Notice of Filing Proposed Extra Record Evidence (Doc. 57), Ex. 1: Phase II Storm Surge Analysis (Doc. 57-1; Charleston Study). Notably, in the instant Motion, Riverkeeper also asks the Court to consider an additional document outside the administrative record. That document is attached as Exhibit A to the Riverkeeper Motion. See Riverkeeper Motion, Ex. A: Archival Water-Level Measurements: Recovering Historical Data to Help Design for the Future (Doc. 69-1; Water Level Study).

Riverkeeper maintains that it “has over 1000 members who use and enjoy the waters of the St. Johns River including its tributaries and estuarine marshes for recreational, scientific, aesthetic, and commercial purposes including boating, fishing, scientific monitoring, and observing birds and wildlife.” Id. ¶ 8. In addition, “[m]any Riverkeeper members live on the banks of or very near to the river and are directly affected by flooding and exacerbation of pollution caused by flooding.” Id. The Jacksonville Port Authority joined this action as an Intervenor Defendant on July 10, 2017. See Order (Doc. 12). JaxPort “was created by legislation in 1963 to own and operate marine facilities in Duval County, Florida.” See JaxPort’s Answer to the First Amended Complaint and Affirmative Defenses (Doc. 31) at 1 n.1. Pursuant to the JaxPort Charter, JaxPort is now a political body of the City of Jacksonville. Id.

The Corps, in coordination with JaxPort, is currently proceeding with a plan to dredge a portion of the Jacksonville Harbor in the St. Johns River. As required by law, the Corps embarked upon an environmental study of the impacts of a deepening project and in April 2014 issued an environmental impact statement on the project. See April 2014 General Reevaluation Report II and Supplemental Environmental Impact Statement (A.R. at 323606; April 2014 Report).² The United States Congress authorized construction of the dredging project in 2014, and the Assistant Secretary of the Army signed the Record of Decision on April 8, 2015. Two years later, on April 7, 2017, Riverkeeper initiated this action challenging the adequacy of the Corps’ consideration of the environmental impacts of the dredging project. See Complaint for Declaratory and Injunctive Relief (Doc. 1; Initial

² The public can access the April 2014 General Reevaluation Report II and Supplemental Environmental Impact Statement at:

<http://cdm16021.contentdm.oclc.org/cdm/ref/collection/p16021coll7/id/2118>.

Complaint). In its six-count Initial Complaint, Riverkeeper alleged that the Corps failed to comply with the requirements of NEPA in considering the dredging project and preparing the April 2014 Report on that project. Specifically, Riverkeeper challenged the Corps' study of the proposed project's environmental impacts on salinity and turbidity, the adequacy of its mitigation plan, and the economic analysis of the project's costs and benefits. Riverkeeper also alleged that the Corps failed to adequately provide for public participation, and failed to prepare a supplemental environmental impact statement to address changes in the economic landscape surrounding the project and non-compliance with state water quality standards for turbidity. However, Riverkeeper did not move for a preliminary injunction to prohibit the Corps from moving forward with the dredging project or otherwise seek expedited consideration of this case at that time.

On November 9, 2017, with leave of Court, Riverkeeper filed the Amended Complaint, which is the operative pleading before the Court. In the Amended Complaint, Riverkeeper added two new claims challenging the Corps' failure to prepare an environmental impact statement for an 11-mile dredge (Count I), and its failure to prepare a supplemental environmental impact statement to address new information stemming from Hurricane Irma (Count II). Riverkeeper also expanded on its claim regarding the adequacy of the Corps' environmental impacts analysis to include new allegations that, in addition to salinity and turbidity, the Corps failed to adequately study the impact of the proposed dredging project on flooding. Nearly a month after filing the Amended Complaint, Riverkeeper filed a motion seeking preliminary injunctive relief to enjoin the dredging project solely on the basis of the newly added claims in Counts I and II. See generally

Plaintiff's Motion for Preliminary Injunction and Memorandum of Law (Doc. 24), filed December 4, 2017.

On January 19, 2018, the Court denied Riverkeeper's request for preliminary injunctive relief premised on Counts I and II of the Amended Complaint. See Order (Doc. 42; January 2018 Order).³ Dredging commenced soon thereafter. At the time the instant Motions were filed, the first phase of the dredging project, pertaining to river miles 0-3, was scheduled to be completed on March 31, 2020. See Affidavit of Frederick P. Wong, Jr. (Doc. 72-1; Wong Aff.) ¶ 5, dated September 17, 2019. The second portion of the dredging project, as to river miles 3-8, had also commenced, with an anticipated completion date of May 12, 2021. Id. ¶¶ 3, 6-7. Actual funding for the project totaled \$240.9 million, with funding commitments from the federal government, the Florida Department of Transportation, JaxPort, and JaxPort's tenants. See Wong Aff. ¶ 9.

II. Applicable Law

A. NEPA

i. Purpose

The purpose of NEPA, the National Environmental Policy Act, 42 U.S.C. § 4321 et seq., is to protect and promote environmental quality. See N. Buckhead Civic Ass'n v. Skinner, 903 F.2d 1533, 1540 (11th Cir. 1990). To achieve this goal, "NEPA establishes procedures that a federal agency must follow before taking any action." Sierra Club v. Van

³ The Court also denied the Corps' motion to dismiss Riverkeeper's claim as to Hurricane Irma, set forth in Count II of the Amended Complaint, and found that "Riverkeeper may proceed in Count II with its challenge to the Corps' decision not to prepare a supplemental environmental impact statement to address Hurricane Irma," as set forth in the January 2018 Supplemental Environmental Assessment and Finding of No Significant Impact. See Order (Doc. 42) at 44-45, entered January 19, 2018. The Court dismissed as moot the portion of that claim which alleged that the Corps had failed to consider Hurricane Irma at all. Id. In addition, the Court dismissed without prejudice Count I of the Amended Complaint in which Riverkeeper alleged that the Corps failed to prepare an environmental impact statement for an 11-mile dredge. See id. at 28-34, 44.

Antwerp, 526 F.3d 1353, 1360 (11th Cir. 2008). These procedures require an agency “to document the potential environmental impacts of significant decisions before they are made.” See Wilderness Watch & Public Emps. For Env'tl. Responsibility v. Mainella, 375 F.3d 1085, 1094 (11th Cir. 2004). In this way, NEPA aims to: “(1) ensur[e] that agency attention will be focused on the probable environmental consequences of [a] proposed action and (2) assur[e] the public that the agency has considered environmental concerns in its decision making process.” See N. Buckhead Civic Ass'n, 903 F.2d at 1540; Mainella, 375 F.3d at 1094 (explaining that NEPA requires agencies to document environmental impacts to ensure that “environmental issues are considered by the agency and that important information is made available to the larger audience that may help to make the decision or will be affected by it”). As the Supreme Court explained in Marsh:

NEPA promotes its sweeping commitment to ‘prevent or eliminate damage to the environment and biosphere’ by focusing Government and public attention on the environmental effects of proposed agency action. 42 U.S.C. § 4321. By so focusing agency attention, NEPA ensures that the agency will not act on incomplete information, only to regret its decision after it is too late to correct.

See Marsh v. Oregon Natural Res. Council, 490 U.S. 360, 371 (1989). No doubt, early consideration of environmental impacts allows “the public and other government agencies to react to the effects of a proposed action at a meaningful time.” Id.

Importantly, however, NEPA does not mandate that agencies achieve “particular substantive environmental results.” See id. (emphasis added). Unlike other statutes which may impose substantive environmental obligations on federal agencies, “NEPA merely prohibits uninformed—rather than unwise—agency action.” Robertson v. Methow Valley Citizens Council, 490 U.S. 332, 351 (1989). Thus, “[i]f the adverse environmental effects of the proposed action are adequately identified and evaluated, the agency is not

constrained by NEPA from deciding that other values outweigh the environmental costs.” Van Antwerp, 526 F.3d at 1360 (quoting Robertson, 490 U.S. at 350); see also id. at 1361 (“[W]hether the federal agency ends up taking the ‘major Federal action’ at issue has nothing to do with NEPA compliance; NEPA only requires that the agency follow a certain process in deciding whether to take the action.”); N. Buckhead Civic Ass’n, 903 F.2d at 1540-41. As such, the role of a reviewing court is to determine whether the agency “has satisfied the requirements of NEPA by taking a ‘hard look’ at the environmental consequences of its actions, the court cannot interfere with the agency decision made within its statutory discretion.” See S. La. Envtl. Council, Inc. v. Sand, 629 F.2d 1005, 1011 (5th Cir. 1980);⁴ see also Mainella, 375 F.3d at 1094 (“[S]o long as an agency has taken a ‘hard look’ at the environmental consequences, a reviewing court may not impose its preferred outcome on the agency.”).

ii. Procedures

Before taking any action, NEPA requires an agency to first “determine whether the action to be taken constitutes a ‘major Federal action’—that is, an action ‘significantly affecting the quality of the human environment.’” See Van Antwerp, 526 F.3d at 1360 (quoting 42 U.S.C. § 4332(C)); see also 40 C.F.R. § 1508.18 (defining “major Federal action”).⁵ To make this determination, an agency must prepare an environmental

⁴ In Bonner v. City of Prichard, 661 F.2d 1206, 1209 (11th Cir. 1981) (en banc), the Eleventh Circuit adopted as binding precedent all the decisions of the former Fifth Circuit handed down prior to the close of business on September 30, 1981.

⁵ The Council on Environmental Quality (CEQ) promulgated regulations to implement NEPA. See N. Buckhead Civic Ass’n, 903 F.2d at 1541. These CEQ regulations are entitled to substantial deference. See Marsh, 490 U.S. at 372. The term “[m]ajor Federal action” as defined by the CEQ regulation includes “actions with effects that may be major and which are potentially subject to Federal control and responsibility. Major reinforces but does not have a meaning independent of significantly (§1508.27). . . . (a) Actions include new and continuing activities, including projects and programs entirely or partly financed, assisted, conducted, regulated, or approved by federal agencies” See 40 C.F.R. §1508.18.

assessment (EA). See Sierra Club v. U.S. Army Corps of Eng'rs (Suncoast Pkwy Case), 295 F.3d 1209, 1215 (11th Cir. 2002); see also 33 C.F.R. § 230.10 (Corps regulation on Environmental Assessments). “The EA should provide enough evidence and analysis to guide the agency to one of two conclusions: (1) a finding that the project will have a significant effect, or (2) a finding of no significant impact,” commonly referred to as a “FONSI.” Suncoast Pkwy Case, 295 F.3d at 1215; see also Dep't of Transp. v. Public Citizen, 541 U.S. 752, 757 (2004) (“The EA is to be a ‘concise public document’ that ‘[b]riefly provide[s] sufficient evidence and analysis for determining whether to prepare an [EIS].’” (quoting 40 C.F.R. § 1508.9(a))). If the agency determines that the action will have no significant impact, it “issues a FONSI, which incorporates the EA and explains why the action will not have a significant effect on the human environment.” Suncoast Pkwy Case, 295 F.3d at 1215 (citing 40 C.F.R. § 1508.13); see also 33 C.F.R. § 230.11 (Corps regulation governing a FONSI).

However, if an agency determines in the EA that an action will have a significant effect, then the project is “major,” and “the agency must prepare an environmental impact statement (‘EIS’), as described in 42 U.S.C. § 4332(2)(C).” Suncoast Pkwy Case, 295 F.3d at 1215; see also Antwerp, 526 F.3d at 1360; 33 C.F.R. § 230.6 (Corps regulation on actions normally requiring an EIS). The EIS is considered the “heart of NEPA.” See Public Citizen, 541 U.S. at 757. Specifically, NEPA mandates that “in every recommendation or report on proposals for legislation and other major Federal actions significantly affecting the quality of the human environment,” a federal agency must prepare and include a “detailed statement” on:

- (i) the environmental impact of the proposed action,
- (ii) any adverse environmental effects which cannot be avoided should the proposal be implemented,
- (iii) alternatives to the proposed action,
- (iv) the relationship between local short-term uses of man's environment and the maintenance and enhancement of long-term productivity, and
- (v) any irreversible and irretrievable commitments of resources which would be involved in the proposed action should it be implemented.

See 42 U.S.C. § 4332(2)(C)(i)-(v). According to the CEQ regulations governing the preparation of an EIS, the statement must provide a “full and fair discussion of significant environmental impacts.” See Suncoast Pkwy Case, 295 F.3d at 1215 (quoting 40 C.F.R. § 1502.1); see also 33 C.F.R. § 230.13 (Corps regulation governing the EIS). While these “action-forcing” procedures require agencies to “take a ‘hard look’ at environmental consequences,” they do not “mandate particular results.” See Robertson, 490 U.S. at 350 (quoting Kleppe v. Sierra Club, 427 U.S. 390, 410 n.21 (1976)).

The preparation of the EA and subsequent issuance of a FONSI or an EIS, however, is not the end of an agency's obligations under NEPA. “In some cases, after an agency publishes a FONSI or an EIS, but before any action is taken, the proposed action changes, or the agency receives additional information.” Van Antwerp, 526 F.3d at 1360. Under those circumstances, the agency must “make an additional NEPA determination.” Id. The agency once again must take a “hard look” and determine “whether the changes create, or the information reveals, significant effects on the quality of the human environment not previously considered.” Id.; see Marsh, 490 U.S. at 385 (“[R]egardless of its eventual assessment of the significance of this information, the Corps had a duty to take a hard look at the proffered evidence.”). Significantly, “an agency need not supplement an EIS every time new information comes to light after the EIS is finalized.” See Marsh, 490 U.S. at 373.

Such a requirement would “render decisionmaking intractable, always awaiting updated information only to find the new information outdated by the time a decision is made.” Id. Thus, it is only where “new, significant effects are shown,” that an agency must prepare a supplemental environmental impact statement (SEIS). Van Antwerp, 526 F.3d at 1360.

The Eleventh Circuit summarizes the duty to supplement as follows:

[i]f, after the original EIS is prepared, the agency ‘makes substantial changes in the proposed action that are relevant to environmental concerns,’ or if there are ‘significant new circumstances or information relevant to environmental concerns and bearing on the proposed action or its impacts,’ the agency is required to prepare a supplemental environmental impact statement (SEIS).

Suncoast Pkwy Case, 295 F.3d at 1215 (quoting 40 C.F.R. § 1502.9(c)(1)). As such, “[t]he standard for determining when an SEIS is required is ‘essentially the same’ as the standard for determining when an EIS is required.” Id. at 1215-16 (quoting Envtl. Def. Fund v. Marsh, 651 F.2d 983, 991 (5th Cir. Unit A July 1981)); see also Marsh, 490 U.S. at 374. A supplement is necessary “if the new information is sufficient to show that the remaining action will ‘affec[t] the quality of the human environment’ in a significant manner or to a significant extent not already considered . . .” by the federal agency. See Marsh, 490 U.S. at 374 (quoting 42 U.S.C. § 4332(2)(C)); see also Suncoast Pkwy Case, 295 F.3d at 1216.

B. Administrative Procedure Act (APA)⁶

“Because NEPA does not provide for a private right of action, plaintiffs challenging an agency action based on NEPA must do so under the Administrative Procedure Act.” Ouachita Watch League v. Jacobs, 463 F.3d 1163, 1173 (11th Cir. 2006) (internal quotation omitted); see Van Antwerp, 526 F.3d at 1359-60; Suncoast Pkwy Case, 295 F.3d at 1216. The APA authorizes judicial review of “[a]gency action made reviewable by statute and final agency action for which there is no other adequate remedy in a court” See 5 U.S.C. § 704. In reviewing a final agency action, a court must “‘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 [or found to be] without observance of procedure required by law.’” See Van Antwerp, 526 F.3d at 1360 (alteration in original) (quoting 5 U.S.C. § 706(2)); see also Suncoast Pkwy Case, 295 F.3d at 1216 (“Challenges brought under [NEPA] are reviewed by the arbitrary and capricious standard, as defined by the [APA].”). The Eleventh Circuit has instructed that this standard of review is an “‘exceedingly deferential’” standard and the court’s only role is to “ensure that the agency came to a rational conclusion, ‘not to conduct its own investigation and substitute its own judgment for the administrative agency’s decision.’” See Van Antwerp, 526 F.3d at 1360 (quoting Fund for Animals, Inc. v. Rice, 85 F.3d 535, 541 (11th Cir. 1996) and

⁶ The parties filed their cross-motions for summary judgment pursuant to Rule 56, Federal Rules of Civil Procedure (Rule(s)). Under Rule 56, “[t]he court shall grant summary judgment if the movant shows that there is no genuine dispute as to any material fact and the movant is entitled to judgment as a matter of law.” See Rule 56(a). As this case comes before the Court pursuant to the judicial review standards of the APA, the normal rules of summary judgment do not apply. Rather, summary judgment “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 standard of review.” See Black Warrior Riverkeeper, Inc. v. U.S. Army Corps of Eng’rs, 354 F. Supp. 3d 1253, 1267 (N.D. Ala. 2018); Sea Turtle Conservancy v. Locke, No. 1:09-CV-259-SPM-GRJ, 2011 WL 13227945, at *2 (N.D. Fla. July 5, 2011). The standards governing judicial review of agency action under the APA are set forth below.

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)). Nonetheless, in the context of a NEPA challenge the court must "look beyond the scope of the decision itself to the relevant factors that the agency considered" and "ensure that the agency took a 'hard look' at the environmental consequences of the proposed action." See Suncoast Pkwy Case, 295 F.3d at 1216; see also Marsh, 490 U.S. at 378 (explaining that while the arbitrary and capricious inquiry "must be searching and careful," the "ultimate standard of review is a narrow one" (internal quotations omitted)). As such, the court must consider "not only the final documents prepared by the agency, but also the entire administrative record." Suncoast Pkwy Case, 295 F.3d at 1216.

In the Suncoast Parkway Case, the Eleventh Circuit elaborated on the "hard look" requirement as follows:

An agency has met its "hard look" requirement if it has "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." The court will overturn an agency's decision as arbitrary and capricious under "hard look" review if it suffers from one of the following: (1) the decision does not rely on the factors that Congress intended the agency to consider; (2) the agency failed entirely to consider an important aspect of the problem; (3) the agency offers an explanation which runs counter to the evidence; (4) the decision is so implausible that it cannot be the result of differing viewpoints or the result of agency expertise.

Id. at 1216 (internal citation omitted) (alterations in original) (quoting Motor Vehicle Mfrs. Ass'n of the U.S., Inc. v. State Farm Mut. Auto. Ins. Co., 463 U.S. 29, 43 (1983)). Notably, "[w]hen specialists express conflicting views, an agency must have discretion to rely on the reasonable opinions of its own qualified experts even if, as an original matter, a court might find contrary views more persuasive." See Marsh, 490 U.S. at 378.

Courts also apply the arbitrary and capricious standard when reviewing an agency's decision not to prepare an SEIS. See id. at 377-78. As above, "the reviewing court 'must consider whether the decision was based on a consideration of the relevant factors and whether there has been a clear error of judgment.'" Id. at 378 (quoting Citizens to Preserve Overton Park, Inc. v. Volpe, 401 U.S. 402, 416 (1971)). Significantly, in this context, "courts should not automatically defer to the agency's express reliance on an interest in finality without carefully reviewing the record and satisfying themselves that the agency has made a reasoned decision based on its evaluation of the significance-or lack of significance-of the new information." Id.

Ultimately, the challenging party bears the burden of showing by a preponderance of the evidence that the agency failed to comply with NEPA's procedural requirements. See Citizens for Smart Growth v. Sec'y of Dep't of Transp., 669 F.3d 1203, 1211 (11th Cir. 2012). Given this deferential standard of review, "a party seeking to have a court declare an agency action to be arbitrary and capricious carries 'a heavy burden indeed.'" See Legal Envtl. Assistance Found., Inc. v. U.S. Envtl. Prot. Agency, 276 F.3d 1253, 1265 (11th Cir. 2001) (quoting Transmission Access Policy Study Grp. V. FERC, 225 F.3d 667, 714 (D.C. Cir. 2000)); see also Black Warrior Riverkeeper, Inc. v. Ala. Dep't of Transp., No. 2:11-CV-267-WKW, No. 2:13-cv-79-WKW, 2016 WL 233672, at *9 (M.D. Ala. Jan. 19, 2016) ("At the judicial stage of review, '[a]dministrative action . . . comes before the courts clothed with a presumption of regulatory,' and Plaintiff bears the 'difficult' and 'heavy' burden to demonstrate that the agency decisions were arbitrary, capricious, or otherwise not in accordance with the law." (emphasis and alterations in original) (quoting Sierra Club, 295 F.3d at 1222-23)).

III. Factual Background

The “Jacksonville Harbor consists of 20 river miles starting at the mouth of the St. Johns River where it empties into the Atlantic Ocean.” See April 2014 Report at i. Pursuant to a long-standing resolution from the Committee on Public Works and Transportation, United States House of Representatives, the Corps has undertaken numerous studies of navigation improvements to the Jacksonville Harbor. See id. at 1. As relevant to this action, in the April 2014 Report, the Corps examined whether navigation improvements to the Jacksonville Harbor, including widening and deepening the Harbor, “are warranted and in the Federal interest.” Id. Ultimately, the Corps determined that “[t]here is an opportunity to improve navigation at Jacksonville Harbor by reducing transportation costs for larger ships forecast to call at Jacksonville Harbor.” Id. at iii. Notably, the St. Johns River has been the subject of deepening projects in the past. Specifically, in the 1999 Water Resource Development Act, Congress authorized deepening the Jacksonville Harbor to river mile 14.7, from 38 feet to 40 feet, and construction was completed in 2003. See id. The Corps later recommended deepening the Jacksonville Harbor from river mile 14.7 to river mile 20, from 38 feet to 40 feet. Id. Congress authorized that project in the FY2006 Appropriations Act and construction was completed in 2010. Id.

On April 13, 2007, the Corps published in the Federal Register a “Notice of Intent” to prepare a supplemental environmental impact statement on an additional deepening project. Id. at 265. After years of study, public workshops, and public meetings, the Corps issued a draft report for public comment on May 31, 2013. Id. at 265-66. All analyses, including modeling, were completed and available to the public via the study website by September 30, 2013. Id. at 266. The Corps provided a comment period, beginning May

31, 2013, which it extended through October 24, 2013, “in order to provide stakeholders an opportunity to review and comment on all completed analyses and modeling.” Id. At the conclusion of this seven-year process, the Corps issued the Final Integrated General Reevaluation Report II and Supplemental Environmental Impact Statement in April 2014, which the Court refers to in this Order as the April 2014 Report.

In the April 2014 Report, the Corps evaluated various deepening and widening alternatives, turning basins, nonstructural alternatives, as well as the alternative of taking no action. Id. at iv. Ultimately, the Corps concluded that:

The recommended plan is the locally preferred plan (LPP), **which includes deepening the Federal channel to 47 feet from the entrance channel to approximately River Mile 13**; two areas of widening at the Training Wall Reach and St. Johns Bluff Reach; and two new Turning Basins at Blount Island and Brills Cut.

See April 2014 Report at i. (emphasis added). Congress authorized construction of the recommended plan in section 7002(1) of the Water Resources and Development Act of 2014. The Assistant Secretary of the Army (Civil Works) signed the Record of Decision (ROD) on April 8, 2015. See A.R. at 313242-43. The Court will refer to the locally preferred plan of deepening the channel to 47 feet from the entrance channel to river mile 13 as the Project.

A. Salinity and Wetlands

As significant to this action, the April 2014 Report analyzes both how the Project will impact salinity levels in the River, and the extent to which any increases in salinity will impact the surrounding riverine and tributary wetlands. See generally April 2014 Report §§ 2.2.7.1, 7.2.7.1, 7.2.7.2, 7.3.9 (A.R. 323649-50, 323807-10, 323852-55). Specifically, the Corps used hydrodynamic modeling to estimate potential salinity changes to the

average salinity in the Lower St. Johns River (LSJR). See id., App. A, Attach. K, Phase 1 at i (A.R. at 326185). The Corps generated twelve different model simulations “that provide the means to evaluate circulation and salinity in the river for the no project scenarios (baseline)” as well as under several dredging alternatives. See id., App. A, Attach K, Phase 2 at 34 (A.R. at 326463). The Corps’ models included “2018 conditions,” representing the projected construction year,⁷ as well as “2068 conditions,” representing fifty years in the future and including the projected impact of sea level rise and public water withdrawals. Id. As to both 2018 conditions and 2068 conditions, the Corps then compared salinity levels in the river without the Project (the Baseline) and under various dredging depth alternatives. According to the Corps’ analysis, under both 2018 and 2068 conditions, “salinity generally increas[es] with deeper and longer dredged channels,” although “salinity increase fades upstream of the Buckman Bridge” (river mile 34-35), and only “very small changes in median salinity” are indicated at the Shands Bridge (river mile 50), and upstream. See April 2014 Report at 179 (A.R. at 323807). Notably, these models applied “hydraulic and meteorological conditions that are weighted toward low flow dry years,” such that the salinity impacts projected in the models are “likely greater” than would occur during “an average hydrological and meteorological year.” Id., App. A, Attach K., Phase 2 at iii (A.R. at 326419). The Corps also modeled salinity impacts in three LSJR marshes and tributaries under 2018 conditions, with and without the Project. See April 2014 Report at

⁷ “The 2018 Baseline simulation represents the site as it would exist at the time of project construction with the existing 40 ft. channel depth. The 2018 Baseline includes the bathymetry for the recently completed deepening of the Federal Navigation Channel for the Naval Station-Mayport as well as the proposed construction of the Mile Point Training Wall Reconfiguration project.” See April 2014 Report, App. E at 12 (A.R. at 327754). The 2018 Baseline does not factor in sea level rise (SLR) or public water withdrawal (PWW) conditions. Id. at 12-13.

182 (A.R. at 323810). These simulations “showed that the [P]roject would have very little effect on marsh and tributary salinity.” Id.

The Corps then took the data generated from the hydrodynamic modeling and input it into ecological models to determine whether the minimal increases in salinity projected by the modeling would affect the surrounding wetlands, submerged aquatic vegetation (SAV), fish and macroinvertebrates. See generally id., App. D: Ecological Modeling (A.R. at 327308). As to wetlands in particular, the impacts of salinity changes were “evaluated based on recently analyzed results of a decade-long wetlands monitoring study from the lower Cape Fear River in North Carolina (Hackney 2013), together with field observations of wetland vegetation distribution and salinity stress indicators in tidal wetlands of the LSJR.” See id. at 224, App. D at 50-51. Based on his observations from the Cape Fear Deepening Project, Dr. Courtney Hackney developed “a method to characterize wetlands by the frequency of high tides with a salinity concentration greater than or equal to 1 ppt [part per thousand].” See id., App. E at 30 (A.R. at 327772). Hackney found that “the frequency of occurrence of high tide salinity exceeding 1.0 ppt predicted the saline condition that resulted in wetland transition.” Id., App. D at 51 (A.R. at 327376). Where >1 ppt salinity occurred in less than 12% of high tides, tidal swamps were present. Where >1 ppt salinity occurred in more than 25% of high tides, tidal marsh, which is dominated by salt-tolerant vegetation, occurred. Id. For those areas falling in between the 12% - 25% range, “wetlands appeared in transition from tidal swamp to tidal marsh,” and “freshwater vegetation exhibited indicators of salt-stress and salt intolerant vegetation disappeared from the wetlands.” Id.

Using the grid from its hydrodynamic models, the Corps examined the shoreline cells along the main stem of the River because these cells “represent the water that would inundate wetlands adjacent to the river.” Id. Specifically, the Corps determined “the frequency of occurrence of >1ppt high tide salinity in each cell and the locations of the 12% and 25% frequencies.” Id. at 51-52. This data “allowed comparison of the simulated project alternatives to the without project conditions.” Id., App. D at 52. Based on this analysis, the Corps determined that “none of the project alternatives will cause a substantial shift in the location of salinity-based wetland community distribution” (i.e., conversion of tidal swamp to tidal marsh communities). Id., App. D at 53. Simulations of both 2018 and 2068 conditions showed that “small increases in salinity in the tidal marsh zone could cause some changes in wetland community composition,” but the Corps found that “[o]ver time . . . changes in tidal marsh communities due to salinity and water level changes occurring with to [sic] sea level rise may obscure any wetland community differences caused by the relatively small project-induced salinity changes.” See id., App. D at 53.

The Corps also analyzed how potential salinity changes in the tributary systems could affect those wetland areas. Id., App. D at 53-54. These simulations showed that the Project “would cause only very small changes in salinity relative to the 2018 Baseline.” Id., App. D at 54. As such, the Corps concluded that “[t]he proposed project would likely have negligible effect on wetlands in these tributary systems.” Id., App. D at 54; see also id., App. E at 39 (A.R. at 327781) (“The model results indicate that the proposed project would have non-existent to minor effects on the wetlands within the LSJR.”); April 2014 Report at vi (A.R. at 323614) (“The predicted ecological effects would be a minor increase in salinity stress on some wetlands . . .”).

In addition, the Corps used the Uniform Mitigation Assessment Method (UMAM) “to assess how the changes in salinity would affect the functions of wetlands and SAV and also to determine the mitigation needed to offset the functional effects.” See April 2014 Report, App. E at 14 (A.R. at 327756). To conduct the UMAM assessments, the Corps assembled an “interagency assessment team” (IAT) from various federal and state agencies. Id., App. E at 15. This team engaged in “[n]umerous meetings and site visits” in order “to characterize the wetland areas and evaluate effects related to the proposed project.” Id. To classify the LSJR wetland areas, the Corps utilized the “Venice System for estuarine classification,” which it describes as “the most familiar description framework.” Id. This system “provides a template for identifying zones within the LSJR based on average salinity concentrations.” Id. Specifically, the “Polyhaline and Mesohaline areas are characterized by average salinities that occur between 18 to 30 ppt (parts per thousand) and 5 to 18 ppt respectively” Id., App. E at 15-16, Fig. 1. Areas where the average salinity ranges from 0.5 to 5 ppt are classified as an Oligohaline Zone. See id., App. E at 15, Fig. 1. This zone “is composed of plants of varying tolerances to salinity, and generally transitions from scrub/shrub or marsh downstream to forested areas further upstream.” Id., App. E at 18. Areas with less than 0.5 ppt average salinity are considered a Tidal Freshwater zone. Id., App. E at 15, Fig. 1. In Section 2 of Appendix E, the Corps described the existing wetlands in the LSJR and classified them based on these zones. Notably, the Corps observed that some tress in the middle oligohaline zone exhibit “poor, stunted growth” and slower leaf production due to salinity stress. Id., App. E at 19. The Corps explained that its modeling efforts focus on “river miles 25-58 because this is a transition zone between mesohaline to oligohaline to tidal freshwater, where the highest

risk for impacts to submerged aquatic vegetation and wetlands would be observed.” Id., App. E at 24.

After classifying the wetlands areas, the IAT assigned numerical UMAM scores to the main stem and tributary wetlands which reflect the current condition of those wetlands. Id., App. E at 35-40. The IAT also calculated a UMAM score for the wetlands based on projected post-Project conditions and estimated any functional losses to the wetlands due to potential salinity increases. Id. Accompanying the numerical scores are brief qualitative descriptions which explain the assessment rationale for each particular area. Id. In presenting the UMAM findings, the Corps acknowledged that “extremely subtle effects cannot typically be quantified in a UMAM if they do not exceed” a 10% change threshold. Id., App. E at 35.

Based on its salinity models and the foregoing analysis, the Corps determined that the average salinity increases in the mesohaline and/or polyhaline areas of the River were “not sufficient to cause near a 10% change,” given that “salt marshes are extremely resistant to change caused by salinity increases” Id.; see also id., App. E at 39 (“For average salinities, increases in concentration within mesohaline and/or polyhaline salt marsh areas would have a negligible effect on these wetlands, as those systems are adapted for higher salinities and the slight elevations in concentration would not be significant enough to cause a change.”). As to the areas in the oligohaline zone, “predicted changes would only result in an increase of 0-0.1 ppt of average salinity,” which would result in change that was “unquantifiable under a UMAM, as there would be either no change or substantially less than 10% change.” Id., App. E at 35. Indeed, the Corps explains that “[c]hanges of this magnitude would only cause extremely minor changes in

vegetation composition or structure, including tree stress or senescence, and would not lead to any quantifiable increase in sulfur reduction, soil mineralization or other soil effects that would alter the ecology of the area.” Id., App. E at 40. And, for the tidal freshwater zone, “no effects were predicted by the modeling.” Id., App. E at 35, 40. As such, “no project effects were quantified with the UMAM for any of the wetland areas in the [LSJR] that could potentially be affected by the proposed project.” Id. Accordingly, the Corps concluded that “the proposed project would have non-existent to minor effects on the wetlands within the LSJR.” Id., App. E at 39.

Nevertheless, acknowledging that “[u]ncertainty exists about the magnitude of both the effect of deepening on salinity and the ecological response to changes in salinity,” the Corps proposed what it described as a “conservative” mitigation plan. See April 2014 Report at vi (A.R. at 323614). Specifically, to “offset any minor effects that may occur as a result of the proposed project,” the Corps’ mitigation plan “consists of conservation land purchase of approximately 638 acres of freshwater wetlands, uplands, river shoreline, and salt marsh wetlands.” See April 2014 Report at 137. In addition, the Corps prepared a “long-term Corrective Action Plan, which includes field data collection,” in order to “provide assurances that actual effects will be assessed and corrective actions coordinated.” Id.; see also April 2014 Report, App. E at 69-98 (A.R. at 327811). If the results of this monitoring program indicate that “impacts from the project are greater than were anticipated during feasibility; a Post Authorization Change (PAC) report would be done to determine if further mitigation actions are warranted.” See April 2014 Report at vi.

B. Cumulative Impacts

Section 7.13 of the April 2014 Report contains a discussion of the cumulative impacts of the Project in connection with other past, present and future projects. See April 2014 Report at 245-55 (A.R. at 323873). The Corps acknowledged that past “[h]ydrologic alteration and manipulation of the river and its tributaries (such as dredging, filling, impoundment, shoreline hardening/stabilization, and construction of levees and artificial waterways),” among other things, have contributed to changes in the River. See id. at 245. The Corps then summarized the “Relevant Past and Present Actions,” including numerous projects that have altered the river channel, beginning in 1899 when a federal channel 200 feet wide and 13 feet deep was authorized from Jacksonville to Palatka. Id. at 247. According to the April 2014 Report, “the first 20 miles of the Federal channel was deepened in 1965 to a depth of 38 feet with widths varying from 400 to 1,200 feet.” Id. In 1999, Congress authorized the deepening of the channel to a depth of 40 feet from the entrance to approximately river mile 14.7. Id. In 2002, Congress authorized a deepening project extending the 40-foot depth from river mile 14.7 to river mile 20. Id. In addition, Mayport Naval Station has also deepened its basin and channel, most recently with a project authorizing a depth of 50 feet. Id. Following this summary of past projects, the Corps stated that:

These past deepening events may have already resulted in some upstream movement of salinity. An assessment of river shoreline wetlands within the project area indicate[s] that salinity stress occurs upstream to approximately Black Creek, just upstream of Doctors Lake. The condition of the wetlands suggests that the stresses have occurred relatively recently (Courtney Hackney, Ph.D., personal communication, December 2012).

Id. The Corps further recognized that “[t]he potential cumulative impacts resulting from the combination of past, present and future actions within the river and the watershed include

those on the following resources: water (quality, both salinity and nutrient concentrations); marine mammal, fish, and invertebrate communities; wetlands; and SAV.” Id. at 250.

Although the Corps’ “Cumulative Impact Analysis” extends over several pages of the April 2014 Report, the Court highlights a few pertinent findings here. See id. at 250-55. One of the potential cumulative impacts the Corps considered was the impact of upstream public water withdrawals. The Corps explained that these withdrawals are a “very likely future occurrence” and “[s]alinity increases will likely continue to occur in the LSJR as additional water withdrawals are permitted and occur.” Id. at 251. The St. Johns River Water Management District (SJRWMD) estimated only a “minor” degree of salinity increase from these water withdrawals for “most of the ecosystem components they considered.” Id. A separate study, using “a slightly different model with a more detailed and current representation of LSJR main channel bathymetry,” also identified “only relatively small shifts in salinity regimes within the study area.” Id. Nonetheless, the Corps concluded that “such changes in salinity will result in the development of a greater area of estuarine marsh primarily at the expense of freshwater forested wetlands.” Id.

In addition, the Corps considered the cumulative impact of salinity changes on endangered species and marine mammals, as well as fishes and macroinvertebrates. Id. at 251-52. The Corps found that “[e]ndangered species will likely incur no greater cumulative impacts with the project than without it” and that “the changes in salinity would not likely cause any significant issues” for marine mammals. Id. at 251. According to the Corps, fishes and macroinvertebrates “will see an upstream shift towards higher salinity levels in the area of effect.” Id. at 252. The Corps further explained that “[i]t is conceivable that there would be a reduction in habitat utilization for freshwater fish and

macroinvertebrates in the future with a near equal increase in habitat utilization for those that are adapted to estuarine conditions.” Id. Significantly, the Corps found that “[t]his change would likely occur regardless of the proposed project, with sea level rise likely being the major contributor towards the upstream shift to higher salinity levels. Cumulatively, however, there could be some intensification caused as a result of the project.” Id.

As to wetlands, the Corps explained that “[e]xposure to increased salinity could further impact freshwater wetlands already responding to past channel deepening activities, changes in stormwater runoff patterns, and sea level rise.” Id. at 253 (emphasis added). The Corps cited to its ecological modeling efforts which “describe potential effects on wetlands due to salinity changes from combinations of channel deepening, sea level rise, and water withdrawals.” Id. Based on these models, the Corps projected that “[o]ver the 50-year time frame, the potential impact on the location of tidal swamp to tidal marsh transition due to sea level rise and water withdrawal is much greater than the initial effect of the channel deepening.” Id. The ecological models described above are set forth in more detail in Appendixes D and E of the April 2014 Report.

C. Flooding

In the April 2014 Report, the Corps also analyzed the impact that the proposed dredging project would have on tide and storm surge water levels. See April 2014 Report at 173, App. A at A-6 (A.R. at 323930); see also id., App. A, Attach. J (A.R. at 326093). To conduct this analysis, the Corps modeled the maximum water surface elevation in the Jacksonville Harbor during hypothetical 50- and 100-year storm events in combination with different scenarios of sea level rise.⁸ See id., App. A, Attach. J at 3, Table 2.1. To “calibrate

⁸ 50-year and 100-year storm events are defined as “those that produce 50- and 100- year water levels off-shore of the entrance to the Jacksonville Harbor Navigation Channel.” See April 2014 Report, App.

and verify” its modeling of the storm event scenarios, the Corps used data from two storm events, Hurricane Dora and Hurricane Frances. See id., App. A at A-6; see also id., App. A, Att. J, App. D at 6 (A.R. at 326160). The Corps ran these models at the Jacksonville Harbor’s existing depth and with the proposed 47-ft depth. The Corps then compared the difference in maximum water surface elevations between the two depths under the various storm and sea level rise scenarios. Id. This difference showed the impact the dredging project would have on storm surge water surface elevations. See id., App. A, Att. J at 23, Table 3.1. Based on this comparison, the Corps determined that:

The model results indicate the 47-ft. channel configuration scenario produces only slightly elevated peak water levels as compared to the baseline channel configuration and negligible changes in pre-storm tides. The largest difference in maximum Water Surface Elevation of 0.3 ft, between the without project depths and the 47-ft project depths, occurs for the 0.4 ft sea level rise and 50-year storm event.

See id., App. A at A-6, Attach. J at 27. The Corps also ran its model using a simulation of Hurricane Dora under existing and post-dredging conditions, without including sea level rise. The Corps found that “simulations of Hurricane Dora for existing and post-dredging conditions did not yield differences in peak surge, timing of the peak surge, or inundation [flood] area; therefore, peak surge (for storm tracks and characteristics similar to Hurricane Dora) does not show a sensitivity to changes in Jacksonville Harbor channel depth.” See id., App. A, Attach. J at 24.

A, Attach. J., App. E at 1 (A.R. at 326176). The target 50 and 100-year offshore water levels utilized in the Corps’ study were 9.4 and 12.0-ft NAVD88 respectively, based on a 1991 study by R.G. Dean, T.Y. Chiu and S.Y. Wang. Id. at 3. To create simulated storms that would meet these target water levels “the study team applied variations of the Hurricane Dora (1964) wind and pressure fields.” Id. By shifting the Hurricane Dora track northward by 2 miles, the study team was able to generate in the model the target offshore water level for a 50-year storm. Id. To generate the 100-year target water level, “the study shifted the Hurricane Dora track by 8 miles and increased the wind speeds by a factor of 1.25.” Id. Notably, the models show that “[a]s expected, the water level diminishes from the offshore area moving landward.” Id. at 4. As such, the water levels near the mid-point of the Jacksonville Harbor Navigation Channel design study area reach approximately 7 ft-NAVD88 in the model of the 50-year storm, and 10 ft-NAVD88 for a 100-year storm. Id.

Hurricane Irma hit the Jacksonville area on September 10-11, 2017, immediately following a nor'easter, and caused historic flooding in the Jacksonville Harbor Navigation Project area. See Supplemental Environmental Assessment and Finding of No Significant Impact (Doc. 37-1; A.R. 322856-96; SEA/FONSI) at 3, 8. On September 19, 2017, the Corps awarded the first of four deepening contracts, Contract A, pertaining to river miles 0-3. See January 2018 Order at 16, 22. Thereafter, on November 9, 2017, Riverkeeper filed the Amended Complaint in which it challenged the Corps' failure to consider Hurricane Irma as new information relevant to the project. See Amended Complaint at 10-12, 27-28. On November 30, 2017, the Corps issued a scoping letter stating:

Concurrent with preparation of NEPA documentation on the berthing area improvements, to further the purposes of NEPA, the Corps will also consider whether the recent flooding conditions in the vicinity of the Jacksonville Harbor Navigation Project following the 2017 nor'easter and Hurricane Irma constitute significant new circumstances or information relevant to environmental concerns and bearing on the Jacksonville Harbor Navigation Project or its impacts.

See A.R. at 322397. In December of 2017, the Corps issued a Draft Supplemental Environmental Assessment, see A.R. at 322697-723 (Draft EA) and Draft Finding of No Significant Impact, see A.R. at 322669-70 (Draft FONSI). In the Draft EA, the Corps reviewed recent storm events and flooding in the vicinity of the Jacksonville Harbor Navigation Project. See generally Draft EA. The Corps concluded in the Draft FONSI that "these events do not constitute significant new circumstances or information relevant to environmental concerns and bearing on the project or its impacts." See Draft FONSI at 1. The Corps received public comments on the Drafts, and on January 3, 2018, issued a final Supplemental Environmental Assessment (SEA) and Finding of No Significant Impact (FONSI). See SEA/FONSI (A.R. at 322856-96).

In the SEA, the Corps “considered the recent storm events and flooding in the vicinity of the Jacksonville Harbor Navigation Project following the 2017 nor’easter and Hurricane Irma.” See FONSI at 1. The Corps compared the maximum water surface elevations from recent storms, including Irma, with the data used in the storm surge analysis contained in the April 2014 Report. The Corps determined that it had previously “modeled events comparable to or more severe than Hurricane Irma.” See SEA at 13. Specifically, the Corps modeled a hypothetical 50-year storm event with maximum water levels that exceeded the high-water marks that occurred during Hurricane Irma. See id. at 13-14. For example, the Corps modeled a 50-year storm with a maximum water surface elevation of 8.01 feet at Mayport, 6.57 feet at Dames Point, and 7.59 feet at San Marco. Id. at 13-14, Table 2. The water level measurements and high-water marks that occurred for Hurricanes Dora, Matthew, and Irma “range from about 5 ft at Mayport”, “5 to 6.5 ft at Dames Point,” and “5.0 to 5.7 ft at San Marco,” all lower than the maximum water surface elevation utilized by the Corps in its model. Id. at 13.⁹

	Mayport	Dames Point	Downtown
Hypothetical 50-year storm w/ 0.4' SLR	8.01 ft	6.57 ft	7.59 ft (San Marco)
Dora	4.3 ft	--	5.5 ft (Fuller Warren Bridge)
Matthew	5.22 ft	4.18 ft	2.76 ft (Main St. Bridge)
Irma	5.6 ft	5.1 ft	5.7 ft (San Marco)

⁹ In the SEA, the Corps wrote that the high-water marks that occurred for Hurricanes Dora, Matthew, and Irma at Dames Point range from 5-6.5 feet. See SEA at 13. It is unclear where the Corps obtained the 6.5 ft figure as Matthew and Irma both recorded water levels lower than that at Dames Point, and data for Dora at Dames Point is unavailable. See SEA at 9, Table 1; see also April 2014 Report, App. A, Attach. J, App. C, Tables 2-3 (A.R. at 326150-52).

Compare SEA at 9, Table 1 with SEA at 14, Table 2. As such, the Corps stated in the FONSI that it has determined that the recent storm events and flooding following the 2017 nor'easter and Hurricane Irma “do not constitute significant new circumstances or information relevant to environmental concerns and bearing on the project or its impacts.”

See FONSI at 1.

IV. Discussion¹⁰

Riverkeeper contends that the Corps' actions must be set aside as arbitrary and capricious because it failed to comply with the requirements of NEPA in three ways. First, Riverkeeper argues that the Corps' cumulative impacts analysis is insufficient because the Corps failed to analyze the present effects of past dredging activities in the River, specifically as to salinity impacts on wetlands and increased storm surge. Next, Riverkeeper maintains that because the Corps failed to consider the cumulative impact that increases in salinity have had on the River's surrounding wetlands, the Corps' mitigation plan is inadequate. Last, Riverkeeper asserts that the Corps' decision not to

¹⁰ Riverkeeper moves for summary judgment in its favor solely as to Counts II, III and IV. See Riverkeeper Motion at 1-2. In their cross-motions for summary judgment, both the Corps and JaxPort seek final summary judgment in their favor on all of Riverkeeper's claims. See Corps Motion at 23-24; JaxPort Motion at 20-22. Riverkeeper does not address Counts V-VIII in its Response to those Motions. See generally Riverkeeper Response. At the Hearing, Riverkeeper conceded that it had not responded to the Corps and JaxPort's request for summary judgment on those Counts and did not object when the Court reasoned that Riverkeeper's failure to respond warranted entry of summary judgment as to those claims. As such, the Court finds that Riverkeeper has abandoned its claims in Counts V-VIII. See Resolution Trust Corp. v. Dunmar Corp., 43 F.3d 587, 599 (11th Cir. 1995) (“In opposing a motion for summary judgment, ‘a party may not rely on his pleadings to avoid judgment against him.’ There is no burden upon the district court to distill every potential argument that could be made based upon the materials before it on summary judgment. Rather, the onus is upon the parties to formulate arguments; grounds alleged in the complaint but not relied upon in summary judgment are deemed abandoned.” (internal citations omitted)); see also McIntyre v. Eckerd Corp., 251 F. App'x 621, 625-26 (11th Cir. 2007) (finding that plaintiff had abandoned claim by failing to offer argument in support of the claim in response to defendant's motion for summary judgment and affirming district court's entry of summary judgment in favor of defendant); Black Warrior Riverkeeper, Inc. v. United States Army Corps of Engineers, 354 F. Supp. 3d 1253, 1257 n.1 (N.D. Ala. 2018).

prepare a supplemental environmental impact statement based on the events of Hurricane Irma was arbitrary and capricious.

A. Count III: Cumulative Impacts Analysis

“NEPA requires that a federal agency examine not only the impact directly attributable to one project, but also the cumulative effects of that project.” See C.A.R.E. Now, Inc. v. F.A.A., 844 F.2d 1569, 1574 (11th Cir. 1988); 40 C.F.R. § 1508.25(c)(3).

Pursuant to 40 C.F.R. § 1508.7, a “cumulative impact” is defined as:

the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time.

As such, “an environmental impact statement must ‘catalogue adequately past projects in the area’ and provide a ‘useful analysis of the cumulative impact of past, present, and future projects.’” See Nw. Env'tl. Advocates v. Nat'l Marine Fisheries Serv., 460 F.3d 1125, 1134 (9th Cir. 2006) (quoting City of Carmel-By-The-Sea v. U.S. Dep't of Transp., 123 F.3d 1143, 1160 (9th Cir. 1997)). Courts have reasoned that a “meaningful” cumulative impacts analysis must identify:

(1) The area in which effects of the proposed project will be felt; (2) the impacts that are expected in the area from the proposed project; (3) other actions—past, proposed, and reasonably foreseeable—that have had or are expected to have impacts in the same area; (4) the impacts or expected impacts from these other actions; and (5) the overall impact that can be expected if the individual impacts are allowed to accumulate.

See Fritiofson v. Alexander, 772 F.2d 1225, 1245 (5th Cir. 1985) abrogated on other grounds by Sabine River Auth. v. U.S. Dep't of Interior, 951 F.2d 669, 677-78 (5th Cir. 1992); see also San Juan Citizens Alliance v. Stiles, 654 F.3d 1038, 1056 (10th Cir. 2011);

Grand Canyon Trust v. F.A.A., 290 F.3d 339, 345 (D.C. Cir. 2002); Black Warrior Riverkeeper, Inc. v. U.S. Army Corps of Eng'rs, 354 F. Supp. 3d 1253, 1274 (N.D. Ala. 2018); Ga. River Network v. U.S. Army Corps of Eng'rs, 334 F. Supp. 2d 1329, 1341 (N.D. Ga. 2003). The goal of the analysis is “to highlight any environmental degradation that might occur if the minor effects of multiple actions accumulate over time,” and thus, avoid “the tyranny of small decisions.” See Habitat Educ. Ctr., Inc. v. U.S. Forest Serv., 593 F. Supp. 2d 1019, 1029 (E.D. Wis. Jan. 2009) (quoting Council on Environmental Quality, Considering Cumulative Effects Under the National Environmental Policy Act 1 (January 1997) (CEQ Handbook)). Thus, for example, courts have found an agency’s cumulative impacts analysis to be insufficient under NEPA where an agency “failed to conduct any inquiry into the existence of present effect[s] of past actions,” Ohio Valley Envtl. Coalition v. Hurst, 604 F. Supp. 2d 860, 886 (S.D.W.Va. 2009), or where the agency calculated the incremental impact of an action but failed to consider the total harm when that impact is aggregated with the impacts of other actions, see Grand Canyon Trust, 290 F.3d at 345-47.

Significantly, in conducting a cumulative impacts analysis, an agency “may satisfy NEPA by aggregating the cumulative effects of past projects into an environmental baseline, against which the incremental impact of a proposed project is measured.” See Cascadia Wildlands v. Bureau of Indian Affairs, 801 F.3d 1105, 1111 (9th Cir. 2015). Indeed, agencies generally may “conduct an adequate cumulative effects analysis by focusing on the current aggregate effects of past actions without delving into the historical details of individual past actions.” See Council on Environmental Quality, Guidance on the Consideration of Past Actions in Cumulative Effects Analysis (2005) at 1, available at

https://www.energy.gov/sites/prod/files/nepapub/nepa_documents/RedDont/G-CEQ-PastActsCumulEffects.pdf) (CEQ Guidance).¹¹ The degree of detailed data about the effects of past projects that is required largely depends on the degree to which such data is useful to the analysis of alternatives presented for the current project. Compare Lands Council v. Powell, 395 F.3d 1019, 1027-28 (9th Cir. 2005) (“The issue then is whether the description of past timber harvests and previous environmental harms caused by these past timber harvests was set forth in sufficient detail to promote an informed assessment of environmental considerations and policy choices by the public and agency personnel upon review of the [FEIS].”) (finding that the FEIS did not provide the data necessary for the public and agency personnel to adequately evaluate the cumulative effects of past harvests) with Nw. Env'tl. Advocates, 460 F.3d at 1140 (reasoning that, in light of the present-day studies showing that deepening would have little or no impact on salinity, a detailed cataloguing of past projects’ effects on salinity was unnecessary, as it “would not have informed assessments about the project and its alternatives”).

As noted above, the parties cite to a 2005 memorandum issued by the Chairman of the CEQ providing “guidance on the extent to which agencies of the Federal government are required to analyze the environmental effects of past actions when they describe the cumulative environmental effect of a proposed action” pursuant to NEPA and the CEQ regulations. See CEQ Guidance at 1. According to this Guidance, the CEQ interprets the NEPA regulations on cumulative effects “as requiring analysis and a concise description of the identifiable present effects of past actions to the extent that they are relevant and useful

¹¹ Courts have relied on the CEQ’s interpretation of its own regulation reflected in this memorandum, see, e.g., League of Wilderness Defenders-Blue Mtns. Biodiversity Project v. U.S. Forest Serv., 549 F.3d 1211, 1217 (9th Cir. 2008); Habitat Educ. Ctr., 593 F. Supp. 2d at 1032 n.17, and both Plaintiff and Defendants rely on this Guidance in their briefs.

in analyzing whether the reasonably foreseeable effects of the agency proposal for action and its alternatives may have a continuing, additive and significant relationship to those effects.” Id. at 1. Significantly, the CEQ Guidance instructs that “[a]gencies are not required to list or analyze the effects of individual past actions unless such information is necessary to describe the cumulative effect of all past actions combined,” and that “[a]gencies retain substantial discretion as to the extent of such inquiry and the appropriate level of explanation.” Id. at 2 (emphasis added). The CEQ Guidance summarizes the analysis as follows:

The analysis of cumulative effects begins with consideration of the direct and indirect effects on the environment that are expected or likely to result from the alternative proposals for agency action. Agencies then look for present effects of past actions that are, in the judgment of the agency, relevant and useful because they have a significant cause-and-effect relationship with the direct and indirect effects of the proposal for agency action and its alternatives. CEQ regulations do not require the consideration of the individual effects of all past actions to determine the present effects of past actions. Once the agency has identified those present effects of past actions that warrant consideration, the agency assesses the extent that the effects of the proposal for agency action or its alternatives will add to, modify, or mitigate those effects. The final analysis documents an agency assessment of the cumulative effects of the actions considered (including past, present, and reasonably foreseeable future actions) on the affected environment.

Id. at 2-3. The Guidance then reiterate that “the agency must determine what information regarding past actions is useful and relevant to the required analysis of cumulative effects.”

Id. at 3 (emphasis added).

i. Salinity Levels and Wetlands

In the April 2014 Report, the Corps identified “the area in which the effects of the proposed project will be felt,” and “the impacts that are expected in that area from the proposed project,” as relevant here—increased salinity and impacts to the wetlands in and

around the Lower St. Johns River. In addition, the Corps described “other actions—past, proposed, and reasonably foreseeable that have had or are expected to have impacts in the same area.” Such actions include prior deepening projects, current projects at the Mayport Naval Station, as well as reasonably foreseeable future public water withdrawals and sea level rise. As described at length above, the Corps modeled salinity levels in the River based on current conditions, incorporating the Mayport project, and compared them to conditions fifty years in the future, accounting for sea level rise and public water withdrawals. Against these 2018 and 2068 baselines, the Corps modeled the extent to which the Project could increase average salinity and salinity frequencies greater than 1 ppt. The Corps also studied, classified and quantified the current condition of the LSJR wetlands and analyzed whether the projected increases in salinity would affect the functionality of these wetlands. Ultimately, the Corps acknowledged that the LSJR wetlands are showing signs of salinity stress from prior deepening projects, sea level rise and public water withdrawals, but found that the current Project will result in only minor increases in salinity which will have only a nonexistent to minor effect on surrounding wetlands.

In its Motion, Riverkeeper argues that the Corps’ cumulative impacts analysis was insufficient because the Corps failed to adequately consider the present effects of past projects on the LSJR wetlands. Specifically, Riverkeeper maintains that the Corps acted arbitrarily and capriciously in conducting this analysis because it:

- 1) failed to justify its decision to describe the present effects of its past dredging projects as speculative; 2) failed to explain its omission of extensive areas of presently impacted tributary wetlands identified by its own wetlands experts which were previously included in the draft SEIS; and
- 3) failed to explain its rejection of a scientific methodology for identifying

impacted wetlands developed by its own wetlands experts which was used to identify such wetlands in the draft SEIS.

Id. Thus, of the five factors set forth in Fritiofson, Riverkeeper's argument focuses on prong four of the cumulative impacts analysis—the "impacts . . . from [past] actions." See Fritiofson, 772 F.2d at 1245. Upon careful consideration of these arguments and extensive review of the April 2014 Report, the Court finds that Riverkeeper has failed to show that the Corps' analysis of the cumulative impact of rising salinity levels on the River's wetlands is insufficient to satisfy the requirements of NEPA.

Riverkeeper contends that the Corps unjustifiably characterized the present effects of past dredging projects as speculative. Id. at 9-10. In support, Riverkeeper cites to the statement in the April 2014 Report that "[t]hese past deepening events may have already resulted in some upstream movement of salinity." See Riverkeeper Motion at 9; April 2014 Report at 247 (A.R. at 323875) (emphasis added). According to Riverkeeper, the Corps failed to justify its decision to characterize the present salinity impacts of past projects as "speculative," and there is no "evidence in the record of a decision-making process leading to this conclusion." See Riverkeeper Motion at 9. However, upon consideration of the purportedly objectionable statement in context, the Court is not persuaded by Riverkeeper's characterization of the Corps' analysis. The Corps recounts the long history of deepening projects in the River and acknowledges that prior deepening "may have already resulted in some upstream movement of salinity." See April 2014 Report at 247. In support of this statement, the Corps identifies the evidence which indicates a correlation between prior deepening projects and salinity increases—the presence of salinity stresses in the surrounding wetlands which "have occurred relatively recently." Id. But, the Corps also discusses other factors which impact salinity in the LSJR such as public water

withdrawals, seasonal rainfall patterns, and sea level rise. Id. at 250. Later in its analysis, the Corps acknowledges that “[e]xposure to increased salinity could further impact freshwater wetlands already responding to past channel deepening activities, changes in stormwater runoff patterns, and sea level rise.” Id. at 253 (emphasis added). Thus, the Corps’ cumulative impacts analysis acknowledges the presence of salinity stress in the LSJR wetlands, identifies several factors that may be contributing to that stress, and cites some evidence that prior deepening projects are a contributing factor.

Significantly, Riverkeeper does not identify any evidence in the April 2014 Report or elsewhere in the record from which one could draw more definitive conclusions about the impact of prior deepening projects on the LSJR wetlands. Thus, in arguing that it was arbitrary and capricious for the Corps to describe the present salinity impacts of past projects as “speculative,” what Riverkeeper is actually contending is that the Corps should have done further analysis to generate more definitive conclusions about the cause of the observed salinity stress and its relationship to past dredging. See Riverkeeper Motion at 10; Riverkeeper Response at 4. Indeed, during the study period, both SJRWMD and Riverkeeper requested that the Corps analyze the impact of prior deepening projects on salinity levels and surrounding wetlands. (A.R. at 273925, 299575, 313426). The Corps responded to these requests in the April 2014 Report with a statement that such data or analyses are not available. See April 2014 Report, App. K at 18, 73 (A.R. at 328232, 328287). Riverkeeper contends that these statements cannot justify the Corps’ limited analysis of the present impacts of past actions because they are “post-decisional statements” and contradicted by an email in the administrative record. See Riverkeeper Motion at 9-10; Riverkeeper Response at 3-4. Neither argument is persuasive.

Riverkeeper's characterization of these statements as "post-decisional" responses and the equivalent of "post-hoc justifications" that do not reflect actual decision-making by the agency, see Riverkeeper Motion at 8, is not supported by the record. "The rule barring consideration of post hoc agency rationalizations operates where an agency has provided a particular justification for a determination at the time the determination is made, but provides a different justification for that same determination when it is later reviewed by another body." See Independence Mining Co., Inc. v. Babbitt, 105 F.3d 502, 511 (9th Cir. 1997). That is not what has happened in this case. Here, the purportedly post-decisional statements are included in the April 2014 Report as part of Appendix K which documents the "Public and Agency Comments" on the Draft Report and includes the Corps' responses to those comments. See April 2014 Report, App. K (A.R. at 328213). Thus, the Corps reviewed the comments to its Draft Reports and developed these responses while it was preparing the Final April 2014 Report. As such, these statements indicate the Corps' position at the time its decision was made. See Nat'l Audubon Soc'y v. Dep't of Navy, 422 F.3d 174, 185 (4th Cir. 2005) (explaining that the NEPA process requires a draft EIS, notice and comment, a final EIS, a supplemental EIS in the event of a change in circumstances or new information, the publication of an ROD, and "[o]nly then may an agency finalize its action"). Indeed, a draft version of Appendix K from October of 2013 also reflects the Corps' position that data and analyses on how past deepening projects have impacted LSJR wetlands were not available. See Oct. 2013 Draft App. K at 38 (A.R. at 271670) ("[T]here is no data or analyses on how past deepening may have affected wetlands in the study area."). The Corps maintains the same position in the instant lawsuit.

Riverkeeper's reliance on Colorado Environmental Coalition v. Salazar, 875 F. Supp. 2d 1233, 1258 (D. Colo. 2012) is unavailing. There, the "post-decisional responses" were made in 2008, whereas the agency had issued the final EIS in 2006 and made the decision to adopt the proposed plan in 2007. See Colo. Env'tl. Coalition, 875 F. Supp. 2d at 1242-43, 1258. On those facts, the Colorado Environmental Coalition court was "extremely reluctant to treat conclusory factual assertions in post-decisional responses to comments as the equivalent of contemporaneous evidence of the agency's actual decision-making process." Id. As the Corps' responses to stakeholder comments cited in this case were generated during the NEPA process, as early as October 2013, and included in the April 2014 Report, they constitute "contemporaneous evidence of the agency's actual decision-making process" at the time it issued the Report and do not present the same concerns at issue in Colorado Environmental Coalition.

In addition, Riverkeeper argues that "record evidence conflicts" with the Corps' contention that data and analyses were not available to study the impacts of past actions. See Riverkeeper Motion at 10. In support, Riverkeeper points to an email where the Corps indicated that it could look into whether the 2010 deepening had an impact on salinity levels. Id. at 10 (citing A.R. at 300610-11). Specifically, Riverkeeper cites to an email chain between Michael Hollingsworth and Steven Bratos, dated April 10, 2014.¹² Hollingsworth notes in an email to Bratos that the Florida Department of Environmental Protection (FDEP) has asked whether the Corps has seen "a bump in salinity in the

¹² Hollingsworth and Bratos are co-authors, among many others, of the April 2014 Report. See April 2014 Report at 289 (A.R. at 323917). Hollingsworth is identified as a biologist in the planning division of the Corps' Jacksonville District and Bratos is an engineer in the engineering division of the Corps' Jacksonville District. See id.

historical data after 2010 that was caused by the Contract III deepening.” (A.R. at 300611).

Hollingsworth writes that: “[t]he answer is likely a bit harder to obtain, but we should provide an answer with the permit application.” Id. Bratos writes back that

[w]e did not look at data to detect changes due to the 2010 deepening. But we can look at that. As you know that is difficult to do since there are several changes happening (mainly wet/dry year variation). Would need to look at long term to include wet and dry years. Might be a [sic] make good test for developing thresholds. Remember that the EFDC model was sensitive to the 2010 deepening. Not having that in the baseline lead to significantly larger impacts.

(A.R. at 300610). Riverkeeper argues that Bratos’ statement that “we can look at that” conflicts with the Corps’ position that “no data or analyses are available to assess how past deepening or other changes in the watershed may have affected salinity levels, water quality or shoreline erosion within the study area.” See Riverkeeper Motion at 9-10; April 2014 Report, App. K at 18 (A.R. at 328232) and 73 (A.R. at 328287) (“Field observations suggest that LSJR wetlands have been affected by past or ongoing salinity changes. However, no data or analyses are available to assess how past deepening or other changes in the watershed may have affected wetlands in the study area.”). According to Riverkeeper, this email shows that the modeling necessary to answer this question “would be difficult but not impossible.” See Riverkeeper at 10 n.6.

However, there is no inherent contradiction between the statement in this email that Bratos could look into the question of whether the 2010 deepening increased salinity, noting the difficulties of such an analysis, and the Corps’ ultimate determination that the data and/or analyses necessary to provide such an assessment were not available. Indeed, Riverkeeper fails to cite to any record evidence suggesting that the Corps actually had the necessary data or analyses, or that the necessary data did, in fact exist, contrary to its

statements in the Report. Absent any evidence to the contrary, the Court must presume that the Corps has acted in accordance with the law. See Suncoast Pkwy Case, 295 F.3d at 1223; see also Black Warrior Riverkeeper, Inc., 2016 WL 233672, at *9 (“At the judicial stage of review, ‘[a]dministrative action . . . comes before the courts clothed with a presumption of regulatory,’ and Plaintiff bears the ‘difficult’ and ‘heavy’ burden to demonstrate that the agency decisions were arbitrary, capricious, or otherwise not in accordance with the law.” (emphasis and alterations in original) (quoting Sierra Club, 295 F.3d at 1222-23)). More importantly, even if Riverkeeper is correct in faulting the Corps for not explaining why it could not conduct the requested analysis, for the reasons that follow, Riverkeeper has not shown that the Corps’ failure to conduct a more detailed analysis of the specific impacts from prior dredging activities renders its cumulative impacts analysis insufficient under NEPA. See Citizens for a Healthy Cmty. V. U.S. Bureau of Land Mgmt., 377 F. Supp. 3d 1223, 1239 (D. Colo. 2019) (“Plaintiffs are free to ask such questions, but it is not the role of the court to decide whether Defendants choices were ideal; [the Court is] merely tasked with determining whether Defendants’ analyses met the minimum threshold necessary to constitute a ‘hard look.’”).

The Corps’ analysis allows the reader to understand the current salinity conditions in the River and the state of the surrounding wetlands, conditions which necessarily reflect the impact of all past actions. However, the Corps made no attempt to separately consider the effects of past actions, individually or in the aggregate, in order to understand the degree to which past actions have contributed to the current environmental baseline. See CEQ Handbook at 42 (“Initially, the analyst will usually determine the separate effects of past actions, present actions, the proposed action (and reasonable alternatives), and other

future actions. Once each group of effects is determined, cumulative effects can be calculated.” (emphasis added)). As such, while the Corps’ analysis allows the reader to assess the incremental impact of the proposed Project and add it to the environmental baseline, one is unable to ascertain the specific incremental impact of past projects, individually or in the aggregate, in contributing to this baseline. Without this information, one cannot discern what specific impact past deepening projects have had on the salinity levels in the River and the surrounding wetlands. See Ohio Valley Env’tl. Coalition, 604 F. Supp. 2d at 887 (explaining that “accumulated harms” from prior actions do not “become the baseline from which future impacts are measured”); see also CEQ Handbook at 43 (“The separation of effects into those attributable to the proposed action or a reasonable alternative versus those attributable to past and future actions also allows the analyst to determine the incremental contribution of each alternative.”).

Nevertheless, Riverkeeper has not shown that this level of detail is necessary to accurately assess the cumulative impact of the instant Project on the surrounding wetlands. See Habitat Educ. Ctr., 593 F. Supp. 2d at 1033 (finding a cumulative impact analysis to be sufficient where the plaintiffs did not explain “why more details about individual past projects would be necessary or meaningful”). Significantly, the Corps has “substantial discretion” in determining “the extent of its inquiry [into the impact of past actions] and the appropriate level of explanation.” See Ohio Valley Env’tl. Coalition, 604 F. Supp. 2d at 885 (quoting CEQ Guidance at 1); see also Habitat Educ. Ctr., Inc., 593 F. Supp. 2d at 1032 (“The amount of detail in which past actions must be discussed is a matter that is left to the agency’s discretion.”). While a meaningful cumulative impacts analysis must identify the present impacts of past actions, those impacts must be examined only to the extent that

such information is “relevant and useful” to the present analysis. See CEQ Guidance at 1, 3. And, “[t]he present effects of past actions are only relevant to the extent that they assist the agency in determining whether the ‘reasonably foreseeable effects of the agency proposal for action and its alternatives may have a continuing, additive and significant relationship to those effects.’” Id. (quoting CEQ Guidance at 1). As aptly stated in Habitat Education Center, “[w]hen considering the appropriate level of detail, it helps to remember the purpose of a cumulative impacts analysis, which is to raise awareness of the possibility that numerous small environmental impacts will accumulate and result in a more serious overall effect over time.” See Habitat Educ. Ctr., Inc., 593 F. Supp. 2d at 1032.

Here, the Corps described past actions, acknowledged the presence of recent salinity stress in the wetlands, and identified the factors, including prior deepening projects, which may have contributed to this stress. The Corps also quantified the baseline conditions of the wetlands through the work of the IAT and its determination of a UMAM score. The Corps then added the incremental impact of the Project to the environmental baseline and considered whether and to what extent the cumulative level of salinity in the River will impact the LSJR wetlands. As such, the Corps’ analysis captures “the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions” See 40 C.F.R. § 1508.7. The Corps found that the incremental increase in salinity anticipated from the Project will not raise the overall levels of salinity in the LSJR to such a degree that the surrounding wetlands will be significantly impacted. This analysis answers the question of whether the small impact anticipated from this Project, when added to other accumulated harms, will “result in a more serious overall effect over time.” See Habitat Educ. Ctr., 593

F. Supp. 2d at 1032. The Corps' analysis finds that it will not. Notably, Riverkeeper does not raise any challenge to the models used by the Corps to predict the salinity increase. Moreover, Riverkeeper does not challenge the conclusion that the increase in salinity will not significantly impact wetlands.

On this record, Riverkeeper has failed to establish that an additional analysis of the specific degree to which past projects have increased salinity levels or altered wetlands, assuming such a retrospective analysis is even possible, is "relevant and necessary to inform decisionmaking." See CEQ Guidance at 3; see also Nw. Env'tl. Advocates, 460 F.3d at 1140. In this case, as in Northwest Environmental Advocates, given the limited projected impact to salinity levels from the Project, "cataloguing past projects' effects on salinity would not have informed assessments about the project and its alternatives, and the [April 2014 Report's] analysis of this topic was sufficient." See Nw. Env'tl. Advocates, 460 F.3d at 1140 ("Because the FSEIS concludes that the channel deepening project will have virtually no effect on salinity, detailed cataloguing of past projects' impacts on salinity would not have 'informed analysis about alternatives presented for the current project,' and was unnecessary."). Moreover, this case is unlike the Ohio Valley Environmental Coalition case on which Riverkeeper relies. In that case, the Corps failed to consider the present effects of past projects at all, merely because those projects were completed, despite documented evidence that the past mining projects had led to the loss of thousands of miles of streams within the region. See Ohio Valley Env'tl. Coalition, 604 F. Supp. 2d at 885-86. Here, the Corps acknowledged that prior dredging may have impacted salinity and wetlands, considered the present condition of the wetlands, and extensively analyzed the extent to which any incremental increase in salinity, when added to the cumulative baseline levels,

would impact those wetlands. And critically, unlike Ohio Valley, Riverkeeper has not identified any evidence of significant impacts from prior projects that the Corps failed to consider. Even if it were possible for the Corps to gather more information by generating models to analyze and quantify the impact of the past deepening projects on salinity levels, Riverkeeper has failed to show that the Corps' decision not to do so was unreasonable or otherwise arbitrary and capricious. See Tinicum Tp., Pa. v. U.S. Dep't of Transp., 685 F.3d 288, 296 (3d Cir. 2012) ("While additional data might enable a more detailed environmental analysis, NEPA does not require maximum detail. Rather, it requires agencies to make a series of line-drawing decisions based on the significance and usefulness of additional information."); see also WildEarth Guardians v. Jewell, 738 F.3d 298, 312 (D.C. Cir. 2013) ("The NEPA process involves an almost endless series of judgment calls, and the line-drawing decisions necessitated by the NEPA process are vested in the agencies, not the courts." (internal quotation omitted)). Accordingly, to the extent Riverkeeper contends that the Corps' cumulative impact analysis was insufficient based on a failure to provide detailed data or analyses of the degree to which past dredging projects have increased salinity in the River and altered the condition of the wetlands, this argument fails.

Next, Riverkeeper argues that the Corps "failed to explain its rejection of a scientific methodology for identifying impacted wetlands developed by its own wetlands experts which was used to identify such wetlands in the draft SEIS." See Riverkeeper Motion at 6. Riverkeeper appears to be referring to Dr. Hackney's wetland classification system developed during his study of the lower Cape Fear river. See Riverkeeper Motion at 11 n.8. Specifically, in the May 2013 Draft of Appendix E, the Corps utilized Dr. Hackney's method of wetland classification to categorize and describe the LSJR wetlands. See May

2013 Draft App. E at 10-16 (A.R. at 216754-60). In contrast, in the September 2013 Draft of Appendix E, as well as in Appendix E of the April 2014 Report, the Corps utilizes the Venice System of estuarine classifications to describe the LSJR wetlands. Contrary to Riverkeeper's argument, this change in classification system does not constitute a "rejection" of Hackney's method for identifying impacted wetlands. Indeed, as the Court discussed above, the April 2014 Report contains an extensive discussion of Dr. Hackney's classification method and utilizes this method to analyze whether LSJR wetlands will be impacted by an increase in salinity frequencies >1ppt. See April 2014 Report, App. D at 50-76; App. E at 30 (A.R. at 327375, 327772). In Appendix D of the April 2014 Report, based on Hackney's method and the Corps' models, the Corps found that generally, under both 2018 and 2068 conditions, "none of the project alternatives will cause a substantial shift in the location of salinity-based wetland community distribution (i.e., conversion of tidal marsh to tidal swamp communities)." See April 2014 Report, App. D at 53. The Corps also found that although "small increases in salinity in the tidal marsh zone could cause some changes in wetland community composition," over time, changes to salinity and water level due to sea level rise "may obscure any wetland community differences caused by the relatively small project-induced salinity changes." Id. Thus, contrary to Riverkeeper's contention that the Corps "rejected" Dr. Hackney's method for identifying impacted wetlands, the record shows that the Corps employed Hackney's method and determined that the Project-related impacts to wetlands would be minimal.

Nor is the Court persuaded that the Corps' decision to use the Venice Classification System rather than Hackney's classification system to describe the LSJR wetlands in Appendix E of the April 2014 Report was arbitrary and capricious. Specifically, in the May

2013 Draft of Appendix E, the Corps classified the wetlands present in the LSJR using Hackney's classification system, whereas in the April 2014 Report, the Corps classified these same wetlands using the Venice System for estuarine classification. The Corps explained that the "Venice System is the most familiar description framework and provides a template for identifying zones within the LSJR based on average salinity concentrations." See April 2014 Report, App. E at 15 (A.R. at 327757); see also id., App. D at 79 (A.R. at 327404) ("The Venice System of salinity classification (Venice System, 1959) defines estuarine salinity zones based on a consensus of limnologists on the general characteristics of estuarine ecosystems based on different ranges of salinity. This system of classification has found very wide usage . . ."). In its Response, Riverkeeper does not specifically address the Venice System or suggest that use of this system of classification was insufficient or improper for any reason. Significantly, the Venice System appears entirely relevant to the matter being studied, and the Corps' decision to use the Venice classification system, identified as the "most familiar description framework," is rational. As such, the Court finds that the use of the Venice classification system as opposed to the Hackney system in order to describe and classify the current state of the LSJR wetlands in Appendix E does not render the Corps' analysis improper. See Hughes River Watershed Conservancy v. Johnson, 165 F.3d 283, 289 (4th Cir. 1999) ("Agencies are entitled to select their own methodology as long as that methodology is reasonable. The reviewing court must give deference to an agency's decision."); Hillsdale Env'tl. Loss Prevention, Inc. v. U.S. Army Corps of Eng'rs, 702 F.3d 1156, 1177-78 (10th Cir. 2012) ("Courts are not in a position to decide the propriety of competing methodologies . . . but instead, should determine simply whether the challenged method had a rational basis and took into

consideration the relevant factors.” (quoting Silverton Snowmobile Club v. U.S. Forest Serv., 433 F.3d 772, 782 (10th Cir. 2006)).

Riverkeeper also contends that the Corps’ examination of salinity impacts from past projects was insufficient because the Corps “failed to explain its omission of extensive areas of presently impacted tributary wetlands identified by its own wetlands experts which were previously included in the draft SEIS.” See Riverkeeper Motion at 6. This argument also pertains to the Corps’ Wetland Effect Assessment set forth in Appendix E. In the May 2013 Draft, this Assessment begins with a description of the “Zones of Effect,” utilizing Hackney’s classification system and noting the presence of signs of salinity stress in the wetlands. For example, the Corps described certain areas as “transitional wetlands” and identified the wetland system at Goodby’s Creek as an area in Jacksonville “that demonstrates the effects of increasing salinities and conversion to a transitional system.” See May 2013 Draft, App. E at 13-14 (A.R. at 216757).¹³ In comparison, the April 2014 Report classifies the LSJR’s wetlands zones using the Venice System for estuarine classification. In its description of the Oligohaline Zone, which appears analogous to Hackney’s “transitional” zone, the Corps omits the language quoted above, although the Corps does note the presence of “extremely stunted trees” due to “salinity stress.” See April 2014 Report, App. E at 16-24 (A.R. at 327758).

In addition, both the May 2013 Draft and the April 2014 Report provide a UMAM assessment of the various wetlands in the LSJR main stem and tributaries. The IAT studied the LSJR main stem and tributary wetlands and assigned them each a numerical

¹³ Notably, in this same paragraph of the Draft the Corps also writes that “observations of salinity stress to fresh water and/or brackish water wetlands and conversion to salt marsh in the without project condition are not unique to the LSJR. Numerous studies document such effects simply due to sea level rise (William, Chow, Song, 2012).” See May 2013 Draft, App. E at 14 (A.R. at 216758).

UMAM score under both the baseline and with-project conditions. Along with these scores, the IAT provided a qualitative description of the wetland area being assessed. In the May 2013 Draft, many of these descriptions noted that the wetlands were already exhibiting signs of stress from increased salinity, whereas in the September 2013 Draft and April 2014 Report these descriptions of salinity stress are largely absent. Compare May 2013 Draft, App. E at 22-27 (A.R. at 216766) with September 2013 Draft, App. E at 36-41 (A.R. at 256896) and April 2014 Report, App. E at 35-39 (A.R. at 327777-81). In addition, the Corps concludes the May 2013 Draft Appendix E with a finding that certain tributaries “are already experiencing the effects of salinity increases; however, these effects would be slightly increased as a result of the project.” See May 2013 Draft, App. E at 26 (A.R. at 216770). The Corps also wrote that tidal wetlands located in the transitional zone are “already being affected by rising salinities within the river,” and “would likely experience an acceleration of salinity effects as described in the sections above.” Id., App. E at 27. However, in the September 2013 Draft and April 2014 Report, the Corps removed this language and does not mention areas that are “already experiencing” or “already being affected by” increased salinity in the river. See September 2013 Draft, App. E at 36-41 (A.R. at 256870); April 2014 Report, App. E at 36-40 (A.R. at 327778).

Riverkeeper argues that these changes are the result of the Corps’ decision to rely solely on “a consultant’s cursory ‘assessment’ of salinity impacted riverine wetlands derived from a one-day ‘limited field observation’ in 2012” while omitting the analysis of the IAT conducted in 2013. See Riverkeeper Motion at 11-13. According to Riverkeeper, “[t]he Corps’ sole reliance on the consultant’s assessment, which results in the omission of extensive areas of presently impacted tributary wetlands, creates a highly misleading

impression as to the nature and the extent of the present effect of past dredging projects.” Id. at 13. This argument, however, does not accurately reflect the Corps’ actions or the differences between the May 2013 Draft and April 2014 Report. Contrary to Riverkeeper’s assertion, the Corps utilizes the findings and assessments of the IAT in Appendix E of the April 2014 Report. Indeed, the UMAM numerical scores for the baseline conditions of the wetlands in both versions of the Report are identical. While the descriptions of the wetlands in Appendix E are more limited than those set forth in the Draft, there is no indication that these changes were the result of a decision to use a “consultant’s cursory assessment” rather than the findings of the IAT. Riverkeeper cites to this consultant’s one-day assessment in Appendix D, but fails to explain how it extrapolates that the “limited field observation” referenced in Appendix D was substituted for the IAT’s assessments set forth in Appendix E.¹⁴

Thus, the purportedly arbitrary and capricious decision on which Riverkeeper’s argument relies is the Corps’ decision to reduce the descriptions of salinity stress which accompanied the UMAM scores for the tributary wetlands in the April 2014 Report. However, this is the type of drafting decision for which the Corps is entitled to substantial deference. See Van Antwerp, 526 F.3d at 1361 (explaining that the NEPA review standards require “substantial deference to the agency . . . when reviewing drafting decisions like how much discussion to include on each topic, and how much data is necessary to fully address each issue”). Here, considering the updates to the Corps’

¹⁴ To the extent Riverkeeper’s argument is premised on an isolated view of two sentences in the cumulative impacts section of the April 2014 Report, the Court declines to consider the Corps’ analysis in such a narrow manner. See Riverkeeper Response at 7. Indeed, “it would impermissibly elevate form over substance to hold that [the Corps] must replicate its entire analysis under the heading of cumulative effects.” See Ctr. for Env’tl. Law & Policy v. U.S. Bureau of Reclamation, 655 F.3d 1000, 1009 (9th Cir. 2011).

salinity models between May and September 2013, the Court cannot find that the Corps' decision to reduce the level of discussion regarding tributary wetlands was arbitrary and capricious. Specifically, at the time the May 2013 Draft was released, the Corps had not completed its salinity modeling, and early results suggested greater impact on salinity levels. Upon completion of its modeling and analyses, the Corps found that "the salinity impacts reported in the [May 2013 Draft] had overestimated potential impacts" See April 2014 Report, App. K at 1 (A.R. at 328215); Compare May 2013 Draft App. A, Attach K., Phase 2 at 108 (A.R. at 212451) (summarizing results for a 46-ft depth under 2018 conditions, "salinity will likely increase by 0.5 – 0.7 ppt from Dames Point to Buckman Bridge and will likely have very small change upstream of Shands Bridge.") with April 2014 Report, App. A., Attach K., Phase 2 at 127 (A.R. at 326556) (summarizing results for a 47-ft depth under 2018 conditions, "salinities would likely increase by 0.0—0.3 ppt from Dames Point to Buckman Bridge and would likely have very small changes upstream of Shands Bridge."); compare also May 2013 Draft at 223 (A.R. at 215579) (explaining that the Corps was developing tributary models to examine salinity distribution, the results of which were expected in "late spring 2013" and would be incorporated into the final draft) with April 2014 Report at 226 (A.R. at 323854) ("Tributary salinity models . . . showed that the [Project] would cause only very small changes in salinity relative to the 2018 Baseline," and "[t]he proposed project would likely have negligible effect on wetlands in these tributary systems."). Based on the updated model results showing lower impacts to salinity than previously anticipated, the predicted project effects on wetlands described in Appendix E were revised, see id., App. E at 14 (A.R. at 327756), and the updated UMAM analysis projected no functional losses to wetlands at all. See id., App. E at 14, 39. As such, the

Corps explains that it “elected to pare back the qualitative descriptions of existing conditions for wetlands to which no impacts were predicted.” See Corps Reply at 7. The IAT’s numerical assessment of the present condition of the LSJR wetlands, as reflected in the UMAM scores, remained unchanged.

Significantly, Riverkeeper does not challenge the accuracy of the Corps’ models or dispute the Corps’ findings that the Project will result in only “minor changes in salinity levels, and correspondingly minor changes in salinity stress on freshwater wetlands” See April 8, 2015 Record of Decision (A.R. at 323608). Instead, Riverkeeper maintains that the Corps should not have removed the descriptions of salinity stress in the tributary wetlands from the April 2014 Report. But Riverkeeper fails to suggest how the absence of these descriptions regarding the current state of the wetlands results in a failure to present a full and fair description of the significant environmental impacts of the Project.¹⁵ Under the highly deferential standard applicable to an agency’s NEPA decisions, the Court cannot find that the decision to limit these descriptions was an abuse of discretion. Given the Corps’ finding that the Project will have “negligible,” “extremely minor,” and “non-existent” impacts to the LSJR wetlands, Riverkeeper fails to explain how a more extensive description of the present condition of those wetlands was necessary to an informed analysis about the project and its alternatives. See Nw. Env’tl. Advocates, 460 F.3d at

¹⁵ Riverkeeper argues that the removal of these descriptions “creates a highly misleading impression as to the nature and the extent of the present effects of past dredging projects.” See Riverkeeper Motion at 13. However, even in the May 2013 Draft, these descriptions of salinity stress in the tributary wetlands were not framed as the “present effects of past dredging projects” specifically. Although the Corps noted signs of salinity stress, the Corps did not directly tie those impacts to past dredging projects. Indeed, the Draft expressly recognized that such conditions have been observed in other wetlands due to sea level rise. See May 2013 Draft, App. E at 14 (A.R. at 216758). The May 2013 Draft also explains that while salinity changes in the main stem of the River affect tributary wetland communities, “salinity distribution in tributaries is also affected by upstream freshwater runoff, groundwater seepage, soil surface elevations, and other factors.” See May 2013 Draft at 223 (A.R. at 215579).

1140; Coalition on Sensible Transp., Inc. v. Dole, 826 F.2d 60, 66 (D.C. Cir. 1987) (“It is of course always possible to explore a subject more deeply and to discuss it more thoroughly. The line-drawing decisions necessitated by this fact of life are vested in the agencies, not the courts.”). Moreover, contrary to Riverkeeper’s characterization of the April 2014 Report, the Corps did not delete all reference to present salinity impacts. The Corps expressly recognizes that the LSJR wetlands show signs of salinity stress, and identifies some of those signs in its description of the middle Oligohaline Zone. See April 2014 Report at 247, App. E at 19; see also id., App. D at 50 (“Some of the freshwater wetlands in these river segments appear in a state of transition from freshwater to brackish or saline conditions as evidenced by the appearance of salt tolerant vegetation in areas that were once freshwater swamp.”). In consideration of the record, the Court finds that Riverkeeper has failed to show that the Corps’ cumulative effects analysis of the impact of rising salinity levels on the LSJR wetlands is insufficient to meet the requirements of NEPA. Contrary to Riverkeeper’s arguments, the Corps did not arbitrarily “reject” Hackney’s scientific methodology, unreasonably omit the findings of the IAT team regarding the condition of potentially impacted tributary wetlands, or remove “all references” to present impacts on LSJR wetlands caused by rising salinity levels. See Riverkeeper Motion at 12. While the Corps could have done more to examine the present effects of past activities on the LSJR wetlands, Riverkeeper has identified no basis for a finding that the Corps failed to take the required “hard look” at the potential cumulative effects of salinity increases on the LSJR wetlands.

ii. Storm Surge & Flooding

In its Motion for Summary Judgment, Riverkeeper argues that the Corps violated NEPA by failing to adequately consider the impact the Project will have on flooding. Specifically, Riverkeeper contends that the Corps “did not consider the cumulative impacts of past river dredging with regard to flooding, storm surge, or tides.” See Riverkeeper Motion at 15, 20; Riverkeeper Response at 14 (“[T]he Corps failed to perform any cumulative impacts of past dredging-caused water level increases.”). Because the Corps’ storm surge models utilized the current river depth of 40-feet as the baseline, Riverkeeper argues that the Corps “ignored the potential flooding impacts resulting from as much as 27 feet of past dredging,” thereby ignoring the cumulative impact of past deepening projects. See Riverkeeper Motion at 16. However, this theory of relief is not properly before the Court because Riverkeeper neither pled the claim in its Amended Complaint, nor did it raise the issue to the Corps prior to this lawsuit. As such, Riverkeeper is barred from raising this claim now.

In Count III of the Amended Complaint, Riverkeeper brings a claim that the Corps failed to adequately consider the environmental consequences of the Project. See Amended Complaint at 28. Among other things, Riverkeeper incorporates into Count III a section of factual allegations with the subheading “Hurricane Irma Flooding and Expected Increased Dredging-Caused Flooding” as well as the factual allegations regarding the impacts of past dredging on river salinity. Id. ¶¶ 35-67, 117. The factual allegations regarding flooding fall under the heading “RECENT EVENTS” which Riverkeeper added when it amended its Initial Complaint to challenge the Corps’ failure to prepare a

supplemental environmental impact statement after Hurricane Irma. See id. at 9-10. In this section, Riverkeeper alleges:

36. The Corps is required to determine whether the proposed project will cause any flooding. When flooding damages will occur, mitigation must be investigated and recommended if appropriate. Mitigation is appropriate when economically justified or where there are overriding reasons of safety, economic or social concerns. Any costs of mitigation and any damage from dredge-caused flooding that is not mitigated must be accounted for in the economic analysis and the impacts should be displayed and discussed in the report.

37. In its analysis of the 13 mile, 47 foot dredge, the Corps determined that the proposed dredging would cause water levels to increase from storm surge up to 7/10 of a foot and from tides up to 3/10 of a foot. This aggregates to 1 full foot of increased water height to be caused by the dredging.

38. In making this calculation, the Corps necessarily used data from pre-Irma “worst case” storms. This data requires revision in light of the new “worst case” flooding of Irma.

39. The flood plain of the St. Johns River in Jacksonville is relatively flat and extensively built up. It is crucial to evaluate the extent to which additional homes and businesses will be flooded as a result of the dredging-induced increases in storm surge and tides.

Id. ¶¶ 36-39. Riverkeeper then asserts that Irma’s flooding shows that the models the Corps used to analyze storm surge contain “serious flaws,” and proceeds to identify the following flaws: 1) a failure to account for natural features through the use of impossible artificial model boundaries, 2) a failure to account for inflow from rainfall in addition to storm surge, and 3) a failure to consider the pollutants “inevitably carr[ied] back” into the River following flooding. Id. ¶¶ 40-45.¹⁶ In contrast, Riverkeeper’s allegations regarding the impacts of past dredging on salinity fall under the heading “THE ENVIRONMENTAL

¹⁶ Riverkeeper does not raise any of these alleged flaws in its summary judgment briefing. As confirmed at the hearing, Riverkeeper’s challenge to the Corps’ flooding analysis is limited to its contention that the Corps failed to consider the cumulative impacts of past river dredging on flooding, storm surge, and tides.

ANALYSIS OF THE 13 MILE PLAN” and specifically under the subheading “Failure to Address the Salinity Impacts of Past Dredging.” See id. at 13-14. Here, in discussing salinity, Riverkeeper specifically alleges, four separate times, that the Corps failed to consider impacts from past dredging:

54. . . . [T]he Corps ignored any impacts to the salinity regime caused by a century of past projects because it decided analyses were not available to assess how past deepening may have affected salinity levels within the study area.

55. . . . NEPA requires the Corps to analyze the past impacts of dredging on salinity. Records exist of salinity changes, of rainfall and drought, of sea level rise, and of the dates and depths of past dredging. The Corps is not free to ignore it just because the analysis of the impacts has not yet been done.

59. . . . By failing to quantify the impacts of past dredging the Corps has not calibrated its model with crucial data.

60. The failure to use available data on salinity impacts from past dredging also runs afoul of NEPA’s requirement to address the cumulative impacts of past activities.

See Amended Complaint ¶¶ 54, 55, 59, 60 (emphasis added). Unlike these allegations regarding salinity and wetlands impacts, when discussing flooding, Riverkeeper never makes any allegation that the Corps failed to adequately consider the impact of past dredging projects. Compare id. ¶¶ 35-46 (discussing failures of flooding analysis without any mention of impacts of past dredging on flooding) with id. ¶¶ 54-55, 59-60.¹⁷

Although Riverkeeper now seeks to set aside the Corps’ decision based on the argument that the Corps’ failure to analyze storm surge impacts from past dredging

¹⁷ Indeed, at the Hearing, Riverkeeper conceded that it did not specifically allege that the Corps failed to conduct an adequate cumulative impacts analysis of flooding in the Amended Complaint. Instead, Riverkeeper maintained that its allegations regarding the inadequacy of the Corps’ cumulative impacts analysis generally was sufficient. Upon consideration of the allegations in the Amended Complaint and the caselaw in the Eleventh Circuit, the Court finds this contention unavailing.

constitutes a violation of NEPA, Eleventh Circuit precedent precludes a plaintiff from amending its complaint through argument at the summary judgment phase of proceedings. See Flintlock Constr. Servs., LLC v. Well-Come Holdings, LLC, 710 F.3d 1221, 1228 (11th Cir. 2013); see also Miccosukee Tribe of Indians of Fla. v. United States, 716 F.3d 535, 559 (11th Cir. 2013) (explaining that the district court improperly disregarded the allegations of the complaint and, in effect, treated the complaint as though it had been amended to conform to statements in the plaintiff's response to the summary judgment motion). For example, in Flintlock, the Eleventh Circuit criticized a district court for addressing a plaintiff's argument for insurance coverage based on estoppel, even where the defendant did not object, because the claim was first raised at summary judgment and not included in the complaint. Id. at 1226-28 ("This Court's precedent foreclosed [plaintiff's] attempt to amend its complaint at the summary judgment stage without seeking leave of court pursuant to Rule 15(a)(2)."). Here, Riverkeeper's argument that the Corps violated NEPA by failing to consider the impact of prior deepening projects on flooding, storm surge and tides is an improper attempt to amend the Amended Complaint at summary judgment. Id. at 1228; see also Merle Wood & Assocs., Inc. v. Trinity Yachts, LLC, 714 F.3d 1234, 1238 (11th Cir. 2013); GeorgiaCarry.Org, Inc. v. Georgia, 687 F.3d 1244, 1258-59 (11th Cir. 2012); Gilmour v. Gates, McDonald & Co., 382 F.3d 1312, 1314-15 (11th Cir. 2004) ("A plaintiff may not amend [its] complaint through argument in a brief opposing summary judgment."); Hurlbert v. St. Mary's Health Care Sys., Inc., 439 F.3d 1286, 1296 (11th Cir. 2006). As such, the claim is not properly before the Court and Riverkeeper is precluded from seeking relief on this basis.

Moreover, even if the Amended Complaint could be construed to encompass this theory of relief, the Corps correctly asserts that Riverkeeper waived its ability to assert such a claim by failing to inform the Corps of this deficiency until long after completion of the April 2014 Report and the ROD. See Corps Motion at 15-16. “Challenges to agency action under NEPA are subject to a prudential waiver rule.” See Del. Riverkeeper Network v. U.S. Army Corps of Eng’rs, 869 F.3d 148, 155 (3d Cir. 2017). This rule requires that, before a party can bring a NEPA challenge in court, the party “must ‘structure [its] participation’ in the administrative process ‘so that it . . . alerts the agency to the [party’s] position and contentions, in order to allow the agency to give the issue meaningful consideration.’” Id. (quoting Pub. Citizen, 541 U.S. at 764); see also Erlbaum v. New Jersey Dep’t of Env’tl. Protection, Civil No. 16-8198 (RMB/JS), 2017 WL 465466, at *14 (D.N.J. Feb. 3, 2017). Thus, a party “challenging an agency’s compliance with NEPA must ordinarily raise relevant objections during the public comment period.” See Sierra Club, Inc. v. Bostick, 787 F.3d 1043, 1048 (10th Cir. 2015); see also Eastern Queens Alliance, Inc. v. F.A.A., 589 F. App’x 19, 20 (2d Cir. 2014) (finding plaintiff’s objection was forfeited “because it was not brought to the agency’s attention during the public comment period”). Nevertheless, courts have recognized two exceptions to this waiver rule: (1) “commenters need not point out an environmental assessment’s flaw if it is obvious,” and (2) “a commenter does not waive an issue if it is otherwise brought to the agency’s attention.” Del. Riverkeeper Network, 869 F.3d at 155 (quoting Bostick, 787 F.3d at 1048); see also ‘Ilio’ulaokalani Coalition v. Rumsfeld, 464 F.3d 1083, 1091-93 (9th Cir. 2006).

Here, Riverkeeper does not dispute the validity of the waiver rule, but maintains that the two exceptions to the rule apply in this case. See Riverkeeper Response at 12-13.

According to Riverkeeper, “the agency was alerted to the issue and was obligated to properly address it.” Id. at 13. In support, Riverkeeper argues that “the Corps and its modelers were well aware, early on, of their obligation to consider the issue of dredging’s effect on increased water levels and flooding.” Id. In addition, Riverkeeper argues that “the issue was directly brought to the Corps’ attention” and cites to the following comments from the EPA and Florida DEP:

EPA Comment:

A concern exists for impacts associated with large, slow moving storm events upon areas already susceptible to storm-surge flooding. It is unclear whether the proposed action may exacerbate the storm-surge impacts and associated flooding risk of smaller storms than under existing conditions. EPA recommends that the final SEIS discuss storm-surge impact in context of low and high tides, previous histories of major storm-surge impacts, and sea level rise.

(A.R. at 273366)

DEP Comment:

An analysis of the anticipated increase in storm surge and possible increase in flooding.

(A.R. at 273334)

While both comments notify the Corps of the need to consider how an increase in storm surge caused by the proposed Project could impact flooding, neither comment suggests that this analysis requires the Corps to analyze how and to what extent prior deepening projects have already increased storm surge, as Riverkeeper now contends. See Bostick, 787 F.3d at 1051 (stating that the challenging party’s objections during the comment period “must specifically raise the issue” now presented in the lawsuit); see also Ark Initiative v. U.S. Forest Serv., 660 F.3d 1256, 1261-62 (10th Cir. 2011) (“Because claims beyond water depletion were merely included in longlists without expounding on the

significance of the proposed impacts, or were only described vaguely as ‘other impacts,’ these claims were not exhausted.”). Riverkeeper fails to identify anything in the record that specifically raised the issue of whether and to what degree past dredging projects have already impacted storm surge levels and flooding in and around the River. Nor does Riverkeeper offer any reason why the need to conduct such an analysis would have been “obvious” to the Corps.¹⁸ Riverkeeper would be hard-pressed to make such an argument given that the storm surge models have been available for scientific review and critique since at least September 30, 2013, see April 2014 Report, App. K at 6 (A.R. at 328220), yet neither Riverkeeper nor any other commenter raised this purported flaw in the Corps’ analysis until Riverkeeper did so at the summary judgment stage of these proceedings. Indeed, even in its comment on the supplemental environmental assessment following Hurricane Irma, in which Riverkeeper noted the incremental impact of decades of dredging,

¹⁸ Riverkeeper cites to an email exchange between Bratos and Russell Weeks, Chief of the Modeling Section, to suggest that the Corps was aware of this purported flaw in its analysis and intentionally ignored it. See Riverkeeper Motion at 17-18. However, read in full context, these emails do not support Riverkeeper’s characterization. In an April 25, 2012 email, Bratos asked Weeks to “offer guidance on what we are required to do related to flooding?” (A.R. at 098107). Bratos noted that “[t]he ADCIRC model we will use will have some topo but I would like to avoid going very much into the flooding issue. From my review of Savannah Harbor it appears that they only looked at changes to storm surge heights.” Id. Weeks recommended “as a start” that Bratos “look at the comparative storm surge heights generated by the ADCIRC model under the [future without] and [future with project] conditions under the different [sea level rise] scenarios.” Id. Weeks advised that to the extent the models already contained topographic features, “we ought to continue to include those in the model (obviously),” and explained that “[i]f for some unanticipated reason the storm surge heights were significantly altered by the navigation project, we would likely then have to consider the resultant flood impacts. Hopefully that will not be the case.” Id. According to Riverkeeper, this email chain shows that the Corps intentionally chose the 40-foot baseline in order to avoid evaluating the impact of dredging-induced flooding. See Riverkeeper Motion at 17. But there is nothing in this email chain that reflects such a decision, Bratos and Weeks do not discuss an appropriate baseline depth at all. Indeed, these emails contain no indication that the Corps ever considered whether to model how prior dredging projects may have impacted water levels, much less does it suggest that the Corps deliberately chose not to conduct such an analysis to avoid addressing flooding impacts. Rather, this shows that the Corps believed the appropriate approach to the question of flooding was to first determine whether the project would have a significant impact on storm surge, and only if significant storm surge impacts were predicted, proceed to analyze how those increases would impact flooding. Because, as set forth above, the Corps’ models showed that the Project would not significantly increase storm surge or water levels, the Corps did not conduct any further analysis of the related impacts to flooding.

Riverkeeper did not contend that the Corps must analyze or calculate the degree to which prior dredging projects have impacted storm surge, water levels and flooding. See SEA at 31-35 (A.R. at 322891). Notably, Riverkeeper does not point to the environmental impact statement of any other dredging project that includes the type of analysis concerning the impact of past dredging on storm surge and flooding that Riverkeeper contends is missing here.¹⁹ As such, Riverkeeper's summary judgment argument that the Corps violated NEPA because it "failed to calculate, consider or disseminate the cumulative impacts of water level rise associated with past dredging," see Riverkeeper Response at 20, is waived. See Bostick, 787 F.3d at 1051. In light of the foregoing, summary judgment is due to be entered in favor of the Corps and JaxPort as to Count III of the Amended Complaint.

B. Count IV: Mitigation

In Count IV of the Amended Complaint, Riverkeeper challenges the Corps' mitigation plan for the salinity impacts on wetlands. In the April 2014 Report, the Corps summarizes its mitigation plan as follows:

To offset predicted impacts to wetlands, submerged aquatic vegetation, and fisheries in the project area, a suite of mitigation measures were developed including land preservation and conservation. Combined, these measures will improve habitat in and around the St. Johns River in the project area. A project Corrective Action Plan is included to collect field data on key ecological indicators, assess changes, and recommend additional actions to ensure that salinity effects caused by the project are appropriately mitigated.

¹⁹ Although Riverkeeper points to the storm surge analysis in the October 21, 2016 Charleston Study as an example of what is missing from the Corps' analysis in this case, that study does not include any discussion of the impact prior dredging projects have had on water levels either. See generally Charleston Study at iii. As such, rather than support Riverkeeper's argument, the Charleston Study further indicates that the need for such an analysis would not have been "obvious" to the Corps. Notably, the Water Level Study does advocate for the use of historical data to better understand how "long term changes have influenced storm surge risk" and thereby improve risk assessment and future planning. See Water Level Study at i. However, this Study was released in 2017, long after the April 2014 Report and ROD were finalized. As such, this Study cannot support a finding that the need to examine how past dredging has impacted storm surge was known or obvious to the Corps. In light of the foregoing, the Court need not address whether consideration of the extra-record evidence is warranted here, as consideration of these documents would not change the outcome.

See April 2014 Report at viii (A.R. at 323616). Specifically, the Corps' mitigation plan which provides for the "conservation land purchase of approximately 638 acres of freshwater wetlands, uplands, river shoreline, and salt marsh wetlands." Id. at 137 (A.R. at 323765). This decision was based on "[n]umerous meetings and site visits," during which the IAT discussed "potential effects related to the proposed project and proposed compensatory mitigation." Id. According to the April 2014 Report, "this plan would be sufficient to offset any minor effects that may occur as a result of the proposed project." Id.

Riverkeeper argues that the plan is inadequate because the Corps failed to adequately analyze the impacts from past projects, and thus has also failed to properly mitigate for those impacts. See Riverkeeper Motion at 14-15. According to Riverkeeper, because the Corps' assessment of environmental harms is inadequate, its mitigation plan is inadequate as well. See Riverkeeper Response at 11. Riverkeeper contends that once the Corps completes an adequate cumulative impacts analysis, as argued above, it must then update its mitigation plan to address the cumulative adverse impacts of the current Project in combination with past dredging projects. See Riverkeeper Motion at 15. Notably, Riverkeeper does not argue that the mitigation plan is inadequate to address the environmental impacts of the Project as identified in the April 2014 Report. Indeed, at the Hearing, Riverkeeper acknowledged that its claim regarding the inadequacy of its mitigation plan is dependent on its claim that the Corps failed to consider the cumulative impacts of the Project combined with prior actions. Thus, because the Court finds, as stated above, that Riverkeeper has failed to show that the Corps' cumulative effects analysis of the salinity and wetlands impacts is insufficient under NEPA, Riverkeeper's related mitigation claim must also fail. Accordingly, the Corps and JaxPort's requests for

summary judgment as to Count IV of the Amended Complaint are due to be granted as well.

C. Count II: Hurricane Irma

As discussed in the January 2018 Order, in Count II of the Amended Complaint, Riverkeeper challenges the Corps' decision not to prepare an SEIS addressing Hurricane Irma. See January 2018 Order at 44-45. Specifically, Riverkeeper maintains that the flooding which occurred following Hurricane Irma is significant new information requiring the preparation of an SEIS. Following Hurricane Irma, the Corps prepared an SEA and determined that Hurricane Irma did not constitute significant new information. Riverkeeper maintains that this decision is arbitrary and capricious. See Riverkeeper Motion at 20-23. Significantly, the decision of whether to prepare a supplement is "made in light of an already existing, in-depth review of the likely environmental consequences of the proposed action," in this case, the April 2014 Report. See Wisconsin v. Weinberger, 745 F.2d 412, 418 (7th Cir. 1984). Thus, under the circumstances presented here, the Corps must prepare an SEIS if there is new information from Hurricane Irma which shows that the dredging project "will 'affect[t] the quality of the human environment' in a significant manner or to a significant extent not already considered . . ." in the April 2014 Report. See Marsh, 490 U.S. at 374 (emphasis added). In reviewing the Corps' decision not to prepare an SEIS, the Court must determine whether the Corps has taken a "hard look" at the allegedly new information. See Suncoast Pkwy Case, 295 F.3d at 1216. The Corps will have satisfied its NEPA obligations if it has "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." Id. (internal quotation omitted). Whether Hurricane Irma provided significant new

information relevant to the dredging project is a “factual dispute the resolution of which implicates substantial agency expertise,” such that the Court must not set aside the Corps’ decision unless it is arbitrary and capricious. Marsh, 490 U.S. at 376.

In the SEA, the Corps explained that the “storm surge hydrodynamic modeling for the Jacksonville Harbor Navigation Project deepening was based on Federal Emergency Management Agency (FEMA) Georgia and Northeast Florida Coastal Storm Surge and Mapping Study.” See SEA at 10 (A.R. at 322870). The Corps elaborated on the physical domain of the model, and stated that:

the effective limit of the model’s capability to model water surface elevations without any boundary interference due to tide, storm surge, sea level rise, or local wind effects is 10 meters (m; 32.8 ft), which is significantly higher than any simulated water surface elevations conducted with this model application which shows that there are no artificial boundaries within the flood plain of the LSJR.

Id. The Corps acknowledged that it “did not include rainfall runoff input in the ADCIRC Storm Surge model.” However, the Corps explained that “[t]he channel deepening primarily effects water levels in the LSJR due to ocean tide and storm surge. Variations in storm events related to rainfall and local wind within the river do not significantly change the with- and with-out project effect on water levels in the LSJR.” Id. at 13. The Corps noted that the interaction between storm surge and rainfall can increase peak water levels, which can be estimated generally, but “[t]he location of this increase will depend on the timing between the rainfall runoff and the peak storm surge therefore the location of highest water levels will change location depending on the rainfall and surge characteristics of each storm event.” See id. Regardless, the Corps reasoned that although its models did not include rainfall runoff, “the storm surge modeling with 50- and 100- year storm events represent a worst case scenario, in that both of these synthetic storm events’ water levels

meet or exceed the maximum water levels observed in the LSJR for the historic major Hurricanes Dora, Matthew, and Irma.” Id.

Finally, the Corps stated that the water levels observed during Irma are within the parameters of the modeling used by the Corps. Specifically, in the April 2014 Report, the Corps calculated the effect the dredging project would have on water levels in the LSJR by comparing the maximum water surface elevation levels in the LSJR during hypothetical 50- and 100-year storm events at existing channel depths and at a 47-foot channel depth. See April 2014 Report, App. A, Attach. J (A.R. at 326093). To determine whether recent storm events constituted new information relevant to its modeling, the Corps compared the water level measurements and high-water marks for Hurricanes Dora, Matthew and Irma to the water level measurements used in the Corps’ modeling of the hypothetical 50- and 100-year storms. See SEA at 13. The Corps found that it had “modeled events comparable to or more severe than Hurricane Irma.” See id. In other words, according to the Corps, the maximum water surface elevations used in its modeling were equal to or higher than any water level measurement or high-water mark observed following Hurricane Irma. As such, the Corps concluded that “recent storm events and flooding in the vicinity of the Jacksonville Harbor Navigation Project do not constitute significant new circumstances or information relevant to environmental concerns bearing on the project or its impacts.” Id.

In the Riverkeeper Motion, Riverkeeper argues that the Corps’ decision to issue the FONSI regarding the events of Hurricane Irma is arbitrary and capricious. According to Riverkeeper, “[t]he flooding concerns highlighted by Irma constitute significant new information.” See Riverkeeper Motion at 20. Riverkeeper then reiterates the unpled and waived argument that the Corps must “calculate, analyze or consider the impact of past

dredging on increased water levels in the FSEIS.” Id. at 21. However, whether the Corps should have specifically analyzed the degree to which past dredging increased water levels is a criticism directed at the April 2014 Report, and as stated above, is not properly before the Court. This argument has no bearing on the claim raised in Count II which is whether Hurricane Irma presents new information requiring a supplemental EIS.

Next, Riverkeeper contends that Hurricane Irma constitutes new information requiring the preparation of an SEIS because “[i]t is exactly the type of storm that the Storm Surge model requires in order to correctly model extreme events.” Id. at 21. According to Riverkeeper, Hurricane Irma is a “combination event,” in that it combined with a nor’easter and higher than normal tides to produce record flooding in Jacksonville. Id. Riverkeeper appears to suggest that the Corps’ failure to analyze a combination event like Hurricane Irma resulted in a flawed model which may produce “unrealistic results.” Id. at 22.²⁰ Riverkeeper maintains that the Corps’ storm surge models “requires the use of the two

²⁰ In support of its proposition that “failure to use appropriate data may cause the model to miss combination events and produce unrealistic results,” Riverkeeper cites to a page in the Water Level Study. See Riverkeeper Motion at 22 (citing Water Level Study at 38). Riverkeeper appears to be extrapolating from these two sentences in the Water Level Study: “synthetic modeling may miss combination events, such as when a hurricane produces flooding from both storm surge and river flooding,” and “Moreover, without careful validation, ensemble modeling can potentially produce unrealistic results and become counterfactual.” See Water Level Study at 38. However, upon review of the statements in context, the Water Level Study does not appear to support Riverkeeper’s proposition. Contrary to Riverkeeper’s interpretation, the authors do not appear to be suggesting that combination events must be used to validate synthetic models. Rather, the authors’ point appears to be that synthetic models can be useful tools in predicting what storms are possible, but are limited in their ability to predict combination events. See id. As such, the authors appear to be addressing the use of synthetic models to perform a risk assessment, not as a means to compare how storm surge from the same hypothetical storm would change under different bathymetric conditions. Nor are the authors suggesting, as Riverkeeper implies, that combination events must be used to validate synthetic models to avoid unrealistic results. The sentence regarding unrealistic results begins a separate paragraph in which the authors are making a different point about the need for careful validation through “retrospective modeling of historical storms.” Id. It would appear that the Corps agrees with this point as it modeled historical storms as a means of calibrating and validating its models, and Riverkeeper provides no evidence that Corps’ calibration and validation of its models was flawed. Thus, even assuming the Court may appropriately consider the Water Level Study as extra-record evidence, the Study does not show that the Corps acted arbitrarily and capriciously in finding that the preparation of an SEIS in light of Hurricane Irma was unwarranted.

storms with the highest water levels to correctly model ‘extreme events,’” and “Irma is thus the storm that is required now to be used to properly calibrate the Corps Surge model.” Id.

However, contrary to Riverkeeper’s description, the Corps’ storm surge model does not state that “use of the two storms with the highest water levels” is “required” in order to properly model extreme events. Rather, the April 2014 Report states that “[b]ecause the study seeks to examine water levels during extreme events, ideal storms to calibrate and verify the model are those that caused the highest observed storm surges in the project area and had accurate measured data at multiple locations along the river.” See April 2014 Report, App. A, Attach. J, App. C (A.R. at 326147) (emphasis added). Ultimately, the Corps chose Hurricanes Dora and Frances to calibrate and verify its models—Hurricane Dora because it had produced the largest storm surge at that time, although only limited data was available, and Hurricane Frances because, although its surge levels were slightly lower than other top storms, it had the most available water level data. See id. (A.R. at 326150-51). Notably, the Corps rejected the use of Hurricane Jeanne to calibrate the model because, although it had higher storm surge levels than Frances, its water levels “were influenced by remnants of Hurricane Ivan” and “fully modeling the effect of Hurricane Jeanne would require additional modeling of Ivan’s wind field” Id. (A.R. at 326147).²¹ Thus, while use of the storms producing the “highest observed storm surges” is “ideal,” nothing in the record supports Riverkeeper’s contention that because Hurricane Irma

²¹ While Riverkeeper criticizes the Corps’ decision not to use Hurricane Jeanne as a calibration storm now, it does not appear that Riverkeeper or anyone else raised any concerns about this decision during the study period. Moreover, the selection of the appropriate storm to calibrate and validate the Corps’ storm surge models is a question of science and technical expertise to which the agency’s informed decision is accorded particular deference. See Florida Keys Citizens Coalition, Inc. v. U.S. Army Corps of Eng’rs, 374 F. Supp. 2d 1116, 1127 (S.D. Fla. 2005) (“Not surprisingly, particular deference is accorded to the informed discretion of the responsible federal agencies where issues of science, technical expertise or complex environmental statutes are involved.”) (citing Marsh, 490 U.S. at 377).

produced water levels in excess of Hurricanes Dora and Frances, recalibration of the storm surge models with this new data is “required.” Significantly, Riverkeeper does not point to anything about the water levels observed during Hurricane Irma that indicates the existence of a flaw in the ability of the Corps’ storm surge models to forecast storm surge as could indicate a need to recalibrate.

Moreover, Riverkeeper’s contention that the Corps “ignore[d] the type of event that actually produces extreme flood water levels” is unsupported by the record. See Riverkeeper Motion at 22. While the Corps used data from historical storms to calibrate the models, in order to analyze how the Project may impact storm surge, the Corps modeled hypothetical “50-year” and “100-year” storm conditions, both with and without the Project. Significantly, these “synthetic” storm events were “comparable to or more severe than Hurricane Irma.” See SEA at 13 (A.R. at 322873). As stated in this Court’s January 2018 Order,

preparation of an SEIS is required where there is new information relevant to environmental concerns that was not previously considered. See Van Antwerp, 526 F.3d at 1360. Here, the record reflects that the Corps has considered the impact of the proposed dredging using high water levels equal to, or in most cases, higher than experienced during or following Hurricane Irma. Thus, even if Hurricane Irma represents the most recent information, Riverkeeper fails to suggest how it presents new information that was not “previously considered.” See id.; see also Wisconsin, 745 F.2d at 418 (“[T]he principal factor an agency should consider in exercising its discretion whether to supplement an existing EIS because of new information is the extent to which the new information presents a picture of the likely environmental consequences associated with the proposed action not envisioned by the original EIS.” (emphasis added)).

See January 2018 Order at 42. While Hurricane Irma brought into stark view the real-life impacts of the inundation shown in the Corps' modeling of a synthetic 50-year storm, it did not present new circumstances that were not anticipated by the Corps' models.²²

Finally, Riverkeeper relies on Miccosukee Tribe of Indians of Fla. v. United States, No. 08-21747-CIV-UNGARO, 2008 WL 11332080 (S.D. Fla. Nov. 14, 2008) and Blanco v. Burton, No. CIV.A. 06-3813, 2006 WL 2366046, at *9 (E.D. La. Aug. 14, 2006) to support its contention that the historic flooding from Hurricane Irma requires the preparation of an SEIS. See Riverkeeper Motion at 22-23. However, this reliance is misplaced as these cases demonstrate what is missing from Riverkeeper's argument here. Riverkeeper cites Miccosukee Tribe of Indians for the proposition that the Corps is required to prepare an SEIS based on "new information relating to flooding that would be caused by the project." See Riverkeeper Motion at 22. In Miccosukee Tribe of Indians, the Corps decided to implement an alternative plan different from the one previously studied and recommended in the EIS. See Miccosukee Tribe of Indians, 2008 WL 11332080, at *3-5. The Corps determined that the selection of this new alternative would have no significant impact and declined to prepare an SEIS. See id. at *5. The plaintiff challenged this decision and presented expert testimony that the newly selected alternative plan would cause an increase in water flow, and potentially raise water levels where a critical habitat is located. Id. at *10. However, the Corps had not considered these potential impacts in its decision

²² Riverkeeper argues that the water levels from Hurricane Irma are not actually encompassed by the models because the water surface elevations generated by the simulated storms include 0.4 feet of sea level rise. See Riverkeeper Response at 19. However, Riverkeeper fails to recognize the parameters on which the Corps' synthetic 50-year storm is based. As described above, see note 8, the synthetic storms were designed to generate 50-year and 100-year water surface elevations, as determined by the 1991 Dean et al. study. See April 2014 Report, App. A, Attach J., App. E at 1-3 (A.R. at 326176). The water surface elevations that occurred during Hurricane Irma did not exceed those target elevations. See SEA at 9, Table 1 (A.R. at 322869). As such, Hurricane Irma does not undermine the validity of the parameters used in the Corps' modeling.

to issue a FONSI. As such, the court held that these potential impacts qualify as “factors that should have been, but were not, analyzed in determining whether new circumstances impacted the environment in connection with the implementation of” the new alternative.

Id.

Unlike the plaintiff in Miccosukee Tribe of Indians, Riverkeeper does not present any evidence of new information arising out of Hurricane Irma “should have been, but [was] not, analyzed” in the SEA. See id. Riverkeeper argues that the “flooding concerns highlighted by Irma constitute significant new information,” see Riverkeeper Motion at 20, but unlike Miccosukee Tribe of Indians, Riverkeeper has not shown that the Corps failed to consider this factor in the SEA. Indeed, the Corps considered Hurricane Irma’s flood elevations in the SEA and found that it previously had “modeled events comparable to or more severe than Hurricane Irma.” See SEA at 13. As such, the Corps determined that Hurricane Irma and other “recent storm events do not constitute significant new circumstances or information relevant to environmental concerns bearing on the project or its impacts.” See id. Stated another way, in the April 2014 Report, the Corps found that the Project will result in “only slightly elevated peak water levels as compared to the baseline channel configuration and negligible changes in pre-storm tides.” See April 2014 Report, App. A, Attach J. at 27 (A.R. at 326124). Riverkeeper fails to explain how anything that occurred during Hurricane Irma calls into question the reliability of that finding necessitating further study.

Likewise, Blanco v. Burton does not support the contention, as Riverkeeper appears to suggest, that a major hurricane itself warrants preparation of an SEIS. See Riverkeeper Motion at 22-23. Rather, in Blanco, the court held that preparation of an SEIS was

necessary following the 2005 gulf hurricanes because those hurricanes had drastically altered the baseline assumptions utilized in the EIS. See Blanco, 2006 WL 2366046, at *9 (“[T]he multi-sale EIS baseline demographic projections include assumptions based upon continuity of existing social, economic, and technical trends, however, those assumptions were, for the most part, blown away in the winds and waters of Hurricanes Katrina and Rita.”). As such, it was not the occurrence of major hurricanes themselves that required the preparation of an SEIS, but the fact that those hurricanes caused impacts which altered the socioeconomic landscape on which the EIS was premised. See id. at *10 (“Plaintiffs have demonstrated that there indeed is new information, perhaps in abundance, pertaining to the significant impacts Hurricanes Katrina and Rita had on the entire coastal area of Louisiana, with regard to damaged infrastructure, displacement of population, extensive damage to offshore facilities, and damage to wildlife and fisheries (particularly as a result of the intrusion of salt water into previously fresh water areas), among other altered factors.”). Here, Riverkeeper has failed to demonstrate that Hurricane Irma altered any assumptions on which the April 2014 Report is based, or otherwise generated new information or data which would alter the analyses contained in the Report.

The Court is very aware of the serious damage and devastation caused by Hurricane Irma. But the fact that Hurricane Irma was historic does not mean it was unforeseen or unforeseeable. Indeed, in the April 2014 Report, the Corps’ 50-year storm models show significant areas of inundation. See, e.g., April 2014 Report, App. A, Attach J. at 5-6, Figure 3.1 (A.R. at 326102). The relevant question for purposes of NEPA is whether and to what degree the Project will exacerbate such flooding. Because the channel deepening primarily effects water levels due to ocean tide and storm surge, see

SEA at 13 (A.R. at 322873), the Corps endeavored to answer this question by modeling differences in tide and storm surge between with and without project conditions. The Corps found that with-project conditions resulted in only slight increases in maximum water levels. See April 2014 Report, App. A, Attach J. at 27 (A.R. at 326124). This finding does not mean that a 50-year storm would not cause flooding, and Hurricane Irma showed that indeed it would, this finding means that the Project will not cause any significant increase in such flooding. Whether to proceed with dredging in the face of Jacksonville's existing flood risk is a decision to be made by the elected officials in the executive branch. The Court is not permitted to second guess that decision or substitute its own judgment on that issue. Rather, the question for this Court is only whether the Corps satisfied its obligation under NEPA to take a hard look at the environmental impacts of the Project and provide the decisionmakers with the relevant information. For the reasons stated above, the Court finds that it has and Riverkeeper fails to show what new information about the impacts of the Project could be gained from further study in light of Hurricane Irma.

V. Conclusion

Upon careful review of the Administrative Record, the parties' arguments in their briefs and at the Hearing, and the applicable authority, the Court concludes that Riverkeeper has failed to meet its burden of showing by a preponderance of the evidence that the Corps did not satisfy NEPA's procedural requirements. While Riverkeeper has identified parts of the April 2014 Report and SEA which may have benefited from additional data, "NEPA does not require maximum detail." See Tincum Tp., Pa., 685 F.3d at 296. The record establishes that the perceived deficiencies which Riverkeeper identifies fall within the realm of agency discretion and line-drawing. But, to overturn this agency

decision under NEPA, Riverkeeper was required to show arbitrary and capricious action such as a decision that does not rely on the relevant factors or a “failure entirely to consider an important aspect of the problem.” See Sierra Club, 295 F.3d at 1216. This, Riverkeeper has not done. Under the deferential standard this Court is required to apply, Riverkeeper has failed to meet its heavy burden, and thus the Corps and JaxPort are entitled to summary judgment. Accordingly, the Court will grant the Corps and JaxPort’s Motions in their entirety. In light of the foregoing, it is

ORDERED:

1. Plaintiff’s Combined Motion for Summary Judgment and to Supplement the Record and Incorporated Memorandum of Law (Doc. 69) is **DENIED**.
2. Federal Defendant’s Cross Motion for Summary Judgment and Opposition to Plaintiff’s Motion for Summary Judgment (Doc. 71) and JaxPort’s Combined Motion for Summary Judgment and Opposition to Riverkeeper’s Motion for Summary Judgment (Doc. 73) are **GRANTED**.
3. The Clerk of the Court is directed to enter **judgment** in favor of the United States Army Corp of Engineers and Jacksonville Port Authority and against St. Johns Riverkeeper, Inc. on Counts II – VIII of the Amended Complaint.
4. The Clerk of the Court is further directed to terminate any remaining pending motions and deadlines as moot and close the file.

DONE AND ORDERED in Jacksonville, Florida, this 26th day of May, 2020.


MARCIA MORALES HOWARD
United States District Judge

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Copies to:

Counsel of Record