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Majority Opinion >

UNITED STATES DISTRICT COURT FOR THE DISTRICT OF COLUMBIA

STATE OF ALABAMA, et al., Plaintiffs, and WATER WORKS AND SANITARY SEWER BOARD OF THE CITY OF MONTGOMERY, ALABAMA, et al., Plaintiff-Intervenors, v. UNITED STATES ARMY CORPS OF ENGINEERS, et al., Defendants, and STATE OF GEORGIA, et al., Defendant-Intervenors. ALABAMA POWER COMPANY, Plaintiff, v. UNITED STATES ARMY CORPS OF ENGINEERS, et al., Defendants.

Civil Action No. 15-696 (EGS) Civil Action No. 15-699 (EGS)

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November 9, 2023, Decided

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Emmet G. Sullivan, United States District Judge.

Emmet G. Sullivan

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I. Introduction

Following decades of litigation spanning numerous courts, on May 4, 2015, the United States Army Corps of Engineers (the "Corps") adopted its updated Master Water Control Manual (the "Master Manual") governing management of its various dams and reservoir projects in the Alabama-Coosa-Tallapoosa ("ACT") River Basin. See Administrative Record ("A.R."), ECF No. 61 at D-00053477-80.¹ The Master Manual, supplemented with separate manuals for individual basin projects, is the Corps' first revised version of the manual since 1951, and was promulgated pursuant to the public notice and comment process of the Administrative Procedure Act ("APA"), 5 U.S.C. § 551, *et seq.*, and the requirements of the National Environmental Policy Act of 1969 ("NEPA"), 42 U.S.C. §§ 4321-4347. *Id.* at D-00043862.[*4]

Plaintiffs the State of Alabama and Alabama Power Company ("APC") (collectively, the "Alabama Plaintiffs") have sued the Corps and various U.S. Army and Corps officers in their official capacities (collectively, "Defendants") to challenge the Master Manual, specifically its updates to operation of the Corps' federal dam and reservoir project at Allatoona Lake in Georgia, alleging that it violates the APA, NEPA, and the Clean Water Act ("CWA"), 33 U.S.C. § 1251, *et seq.* See Pls.' Joint Mot. for Summ. J. ("Pls.' Mot."), ECF No. 83 at 11-12. The Alabama Plaintiffs ask that the Court set aside the Master Manual as unlawful and direct the Corps to develop a revised manual consistent with its statutory authority and operational precedents under the APA, pursuant to a proper environmental analysis as required by NEPA, and in accordance with the CWA's requirements. *Id.*; Compl., ECF No. 1 at 27-28. The Water Works and Sanitary Sewer Board of the City of Montgomery, Alabama ("Montgomery Board"), the Board of Water and Sewer Commissioners of the City of Mobile ("Mobile Water"), Lake Martin Resource Association, Inc. ("LMRA"), and Russell Lands, Inc. ("Russell Lands") (collectively, "Intervenor-Plaintiffs") filed complaints as intervenors, *see* ECF Nos. 34-35, 75; and have also jointly moved for summary judgment, *see* Joint Mot. for Summ. J. of Intervenor-Pls. ("Intervenor-Pls.' Mot."), ECF No. 85 at 1.

Defendants have filed a Cross-Motion for Summary Judgment ("Defs.' Cross-Mot."), arguing that the Master Manual "is neither arbitrary nor in excess of Congressional authorizations" pursuant to the APA and complies with the Corps' statutory obligations under the CWA and NEPA. *See* Defs.' Cross-Mot., ECF No. 95 at 9-10. Intervening alongside the Corps as defendants are the State of Georgia, the Atlanta Regional Commission ("ARC"), and the Cobb County-Marietta Water Authority ("CC-MWA") (collectively, "Intervenor-Defendants" or the "Georgia Parties"), and they have also jointly filed a cross-motion for summary judgment. *See* Georgia Parties' Joint Cross-Mot. for Summ. J. & Opp'n to Pls.' & Intervenor-Pls.' Mots. for Summ. J. ("Intervenor-Defs.'

Cross-Mot."), ECF No. 97 at 1.

Pending before the Court are the Alabama Plaintiffs' Joint Motion for Summary Judgment, ECF No. 83; Intervenor-Plaintiffs' Joint Motion for Summary Judgment, ECF No. 85; Defendants' Cross-Motion for Summary Judgment, ECF No. 96;² and Intervenor-Defendants' Joint Cross-Motion for Summary Judgment, ECF No. 98.³ Also pending is Intervenor-Defendants' supplemental motion for summary judgment alleging issue preclusion based on an intervening judgment entered against Alabama by the District Court for the Northern District of Georgia ("Northern District of Georgia") in what they call "parallel litigation challenging a similar action by the same defendants in an adjacent river basin." See Suppl. Mot. for Summ. J. by Intervenor-Defs. ("Intervenor-Defs.' Suppl. Mot."), ECF No. 129 at 6.

Upon careful consideration of the Alabama Plaintiffs' and Intervenor-Plaintiffs' motions, Defendants' and Intervenor-Defendants' cross-motions, Intervenor-Defendants' supplemental motion, the oppositions and replies thereto, the arguments of *amicus* [*5] *curiae*, the applicable law and regulations, the full administrative record, and for the reasons set forth below, the Court upholds the Master Manual as lawful. Accordingly, the Court **DENIES** the Alabama Plaintiffs' and Intervenor-Plaintiffs' motions for summary judgment, **GRANTS** Defendants' and Intervenor-Defendants' cross-motions for summary judgment, and **DENIES** Intervenor-Defendants' supplemental motion for summary judgment.

II. Background

A. Statutory and Regulatory Background

1. Clean Water Act

The Federal Water Pollution Control Act, commonly referred to as the Clean Water Act, "is a comprehensive water quality statute designed to 'restore and maintain the chemical, physical, and biological integrity of the Nation's waters.'" *PUD No. 1 of Jefferson Cnty. v. Wash. Dep't of Ecology*, 511 U.S. 700, 704, 114 S. Ct. 1900, 128 L. Ed. 2d 716 (1994) (quoting 33 U.S.C. § 1251(a)). The CWA seeks to eliminate the discharge of pollutants into navigable waters and to attain "water quality which provides for the protection and propagation of fish, shellfish, and wildlife." 33 U.S.C. § 1251(a)(1)-(2). To achieve these goals, the CWA establishes a two-step approach that assigns some responsibilities to the U.S. Environmental Protection Agency ("EPA") and others to the States "in furtherance of the Act's stated purpose of promoting cooperation between federal and state governments." *Anacostia Riverkeeper, Inc. v. Jackson*, 798 F. Supp. 2d 210, 214 (D.D.C. 2011).

The first step, pursuant to section 301 of the CWA, requires the EPA to promulgate "effluent limitations," which are technology-based restrictions on the maximum allowable discharges into the country's navigable waters from individual point sources. *Id.*; *PUD No. 1*, 511 U.S. at 704 (citing 33 U.S.C. §§ 1311, 1314); *see also Arkansas v. Oklahoma*, 503 U.S. 91, 101, 112 S. Ct. 1046, 117 L. Ed. 2d 239 (1992) (defining effluent limitations as caps on "quantities, rates, and concentrations of specified substances which are discharged from point sources"). Point sources are "any discernable, confined and discrete conveyance[s] . . . from which pollutants are or may be discharged[.]" 33 U.S.C. § 1362(14); such as factory pipes or sewage drains, and thus "constitute ideal starting points for the monitoring and regulation of water contamination[.]" *Jackson*, 798 F. Supp. 2d at 214. Once developed, effluent limitations are incorporated into the National Pollutant Discharge

Elimination System ("NPDES"), which "is a permit program through which individual entities responsible for covered point sources receive permits setting the maximum discharges of particular contaminants via these sources." *Id.* at 214 (citing 33 U.S.C. § 1311(b)(2)). In other words, "discharges of pollutants into the waters of the United States from 'point source[s]' . . . are normally permissible only if made pursuant to the terms of a [NPDES] permit." *Am. Paper Inst., Inc. v. EPA*, 996 F.2d 346 , 348-49 (D.C. Cir. 1993).

NPDES permits must be obtained from the EPA, or, in the nearly 50 states "the EPA has authorized to administer their own NPDES program, from a designated state agency." *Id.* at 349 ; *see also NPDES State Program Authority*, U.S. Env'T Prot. Agency, <https://www.epa.gov/npdes/npdes-state-program-authority> (last visited July 29, 2023) (listing states with NPDES permitting authority); 33 U.S.C. § 1342(b) (authorizing each State "to administer its own permit program for discharges [*6] into navigable waters within its jurisdiction[,]" subject to EPA approval). Of note, nonpoint sources, which are not defined in the CWA but are viewed as "diffuse sources of pollution, like farms or roadways, from which runoff drains into a watershed[,]" *Am. Farm Bureau Fed'n v. EPA*, 792 F.3d 281 , 289 (3d Cir. 2015); are not subject to NPDES permits or effluent limitations, *In re ACF Basin Water Litig.*, 467 F. Supp. 3d 1323 , 1337-38 (N.D. Ga. 2020); *see also Or. Nat. Res. Council v. U.S. Forest Serv.*, 834 F.2d 842 , 849-50 (9th Cir. 1987) (explaining that "[n]onpoint sources, because of their very nature, are not regulated under the NPDES[,]" and effluent limitations, "by definition," apply only to point sources). Nonpoint sources are discussed in a separate portion of the CWA, "which encourages states to develop areawide waste treatment management plans." *Or. Nat. Res. Council*, 834 F.2d at 849 (citing 33 U.S.C. § 1288).

Next, "the CWA's second step in its approach to water cleanup requires each State to develop water quality standards for interstate waters within its borders." *Jackson*, 798 F. Supp. 2d at 215 . Water quality standards are "promulgated by the States and establish the desired condition of a waterway." *Arkansas*, 503 U.S. at 101 (citing 33 U.S.C. § 1313); *see also Am. Paper Inst.*, 996 F.2d at 349 ("[W]ater quality standards referred to in section 301 are primarily the states' handiwork."). These standards "supplement effluent limitations so that numerous point sources, despite individual compliance with effluent limitations, may be further regulated to prevent water quality from falling below acceptable levels." *Arkansas*, 503 U.S. at 101 (citation and internal quotation marks omitted); *see also Am. Paper Inst.*, 996 F.2d at 349 (explaining that section 301 of the CWA requires every NPDES permit to contain both "(1) effluent limitations that reflect the pollution reduction achievable by using technologically practicable controls, . . . and (2) any more stringent pollutant release limitations necessary for the waterway receiving the pollutant to meet 'water quality standards'").

The EPA provides the States "with substantial guidance in the drafting of water quality standards[,]" *Arkansas*, 503 U.S. at 101 ; but "[i]n keeping with the interactive process envisioned in the CWA, a State must submit these standards to the EPA for review and approval[,]" *Jackson*, 798 F. Supp. 2d at 215 ; *see also* 33 U.S.C. § 1313(c)(2) . States must review their water quality standards at least once every three years, *see* 33 U.S.C. § 1313(c)(1) ; and "secure the EPA's approval of any revisions[,]" *Arkansas*, 503 U.S. at 101 . Whenever the States adopt new or revised water quality standards, the CWA requires them to consider such standards' "use and value for public water supplies, propagation of fish and wildlife, recreational purposes, and agricultural, industrial, and other purposes," as well as "their use and value for navigation." 33 U.S.C. § 1313(c)(2)(A) . Although the States primarily promulgate water quality standards, the EPA can "step in and promulgate water quality standards itself . . . where (1) it determines that a state's proposed new or revised standard does not

measure up to CWA requirements *and* the state refuses to accept EPA-proposed revisions to the standard[,] or (2) a state does not act to promulgate or update a standard but, in the EPA's view, a new or revised standard is necessary to meet CWA muster." *Am. Paper Inst.*, 996 F.2d at 349 (citing 33 U.S.C. § 1313(c)(3)-(4)).[*7]

The resulting state water quality standards must contain: (1) designated uses for the water body; (2) information about the methodology for choosing those uses; (3) water quality criteria sufficient to protect the designated uses; (4) an antidegradation policy to prevent clean waters from falling below applicable standards; (5) a certification by state authorities that the standards were properly adopted pursuant to state law; and (6) general information to aid the EPA's review. *See* 40 C.F.R. § 131.6(a)-(f). Of these six elements, "[t]he 'designated uses of the navigable waters involved and the water quality criteria for such waters' are the heart of water quality standards." *Jackson*, 798 F. Supp. 2d at 215 (quoting 33 U.S.C. § 1313(c)(2)(A)); *see also* 40 C.F.R. § 130.2(d) (defining water quality standards as "[p]rovisions of State or Federal law which consist of a designated use or uses for the waters of the United States and water quality criteria for such waters based upon such uses"). A designated use is the way the State classifies a water body for use by "governments, persons, animals, and plants" and may include "drinking or reservoir purposes, primary (*e.g.*, swimming) or secondary (*e.g.*, boating) recreation, and the preservation and support of plant and animal life." *Jackson*, 798 F. Supp. 2d at 215 (citing 40 C.F.R. § 131.3(f)). And, water quality criteria "specify[] the maximum concentration of pollutants that may be present in the water without impairing its suitability for designated uses." *Am. Paper Inst.*, 996 F.2d at 349. These criteria "come in two varieties: specific numeric limitations on the concentration of a specific pollutant in the water . . . or more general narrative statements applicable to a wide set of pollutants . . ." *Id.* The EPA has promulgated recommended numeric criteria for certain pollutants, which the States often rely on in establishing water quality standards. *Id.* "Whether numeric or narrative, the key aspect of water quality criteria is that they are dependent upon designated uses associated with them." *Jackson*, 798 F. Supp. 2d at 215. Overall, States must monitor their waters and, when necessary, identify those "for which current pollution controls 'are not stringent enough to implement any water quality standard applicable to such waters.'" *Id.* (citing 33 U.S.C. § 1313(d)(1)(A)).

Pursuant to the CWA, the State of Alabama has adopted water quality standards intended "to conserve the waters of the State and to protect, maintain and improve the quality thereof." *Ala. Admin. Code r. 335-6-10.01* (1991). Alabama's water quality criteria "covering all legitimate water uses" for waters in the State are set out in Alabama's Administrative Code. *See id.* at r. 335-6-10.01—12. The following designated "water use classifications" are listed in the Code: (1) outstanding Alabama water; (2) public water supply; (3) swimming and other whole body water-contact sports; (4) shellfish harvesting; (5) fish and wildlife; (6) limited warmwater fishery; and (7) agricultural and industrial water supply. *Id.* at r. 335-6-10.03. The Code sets forth the "general conditions applicable to all water quality criteria," *see id.* at r. 335-6-10.05; the "minimum conditions applicable to all state waters," *see id.* at r. 335-6-10.06; the specific numerical "toxic pollutant criteria applicable to state waters," which mirror that recommended [*8] by the EPA, *see id.* at r. 335-6-10.07; and the "specific water quality criteria" for each of the seven designated uses, *see id.* at r. 335-6-10.09. Alabama also has an antidegradation policy requiring that "[e]xisting instream water uses and the level of water quality necessary to protect the existing uses [] be maintained and protected." *See id.* at r. 335-6-10.04, 335-6-10.12. Ultimately, Alabama applies its water quality criteria and water use classification system to every interstate and intrastate water body in the various river basins that flows through the State. *See id.* at r. 335-6-11.01 to 335-6-11.02.

2. National Environmental Policy Act

Congress enacted NEPA "to use all practicable means, consistent with other essential considerations of national policy, to improve and coordinate Federal plans, functions, programs, and resources to the end that the Nation may . . . fulfill the responsibilities of each generation as trustee of the environment for succeeding generations[.]" 42 U.S.C. § 4331(b) ; see also Pub. L. No. 91-190 , § 2, 83 Stat. 852 , 852 (1970) (establishing NEPA "to promote efforts which will prevent or eliminate damage to the environment"). NEPA "requires that federal agencies consider fully the environmental effects of their proposed actions." *Theodore Roosevelt Conservation P'ship v. Salazar*, 616 F.3d 497 , 503 (D.C. Cir. 2010). The statute "is an 'essentially procedural' statute, meant to ensure 'a fully informed and well-considered decision, not necessarily' the best decision." *Id.* (quoting *Vt. Yankee Nuclear Power Corp. v. Nat. Res. Def. Council, Inc.*, 435 U.S. 519 , 558 , 98 S. Ct. 1197 , 55 L. Ed. 2d 460 (1978)). NEPA "does not mandate particular results in order to accomplish [its] ends[;]" instead, it only procedurally requires agencies "to undertake analyses of the environmental impact of their proposals and actions." *Del. Riverkeeper Network v. FERC*, 753 F.3d 1304 , 1310 (D.C. Cir. 2014) (quoting *Dep't of Transp. v. Pub. Citizen*, 541 U.S. 752 , 756-57 , 124 S. Ct. 2204 , 159 L. Ed. 2d 60 (2004) (some internal quotation marks omitted)). This analysis does not, however, "require agencies to elevate environmental concerns over other appropriate considerations [I]t require[s] only that the L. agency take a 'hard look' at the environmental consequences before taking a major action." *WildEarth Guardians v. Jewell*, 738 F.3d 298 , 303 (D.C. Cir. 2013) (quoting *Balt. Gas & Elec. Co. v. Nat. Res. Def. Council, Inc.*, 462 U.S. 87 , 97 , 103 S. Ct. 2246 , 76 L. Ed. 2d 437 (1983) (some internal quotation marks omitted)); see also *Robertson v. Methow Valley Citizens Council*, 490 U.S. 332 , 350 , 109 S. Ct. 1835 , 104 L. Ed. 2d 351 (1989) (noting that agencies are "not constrained by NEPA from deciding that other values outweigh the environmental costs" of a proposed action).

"To ensure a well-considered decision, NEPA requires that when an agency proposes a 'major Federal action[] significantly affecting the quality of the human environment,' the agency must prepare and circulate for public review and comment an environmental impact statement ["EIS"] that examines the environmental impact of the proposed action and compares the action to other alternatives." *Theodore Roosevelt*, 616 F.3d at 503 (quoting 42 U.S.C. § 4332(2)(C)). An EIS is a detailed statement "prepared in consultation with other federal agencies with special expertise relevant to the proposed action's environmental impact." *Id.* "It must [] assess the impact the proposed project will have in conjunction with other projects [*9] in the same and surrounding areas—'cumulative impact analysis'—and must include past, present, and reasonably foreseeable future actions of any agency or person." *Id.* (citing 40 C.F.R. §§ 1508.25 , 1508.7). The EIS must also "explain in detail 'any adverse environmental effects which cannot be avoided, should the proposal be implemented[,]'" see *id.* (quoting 42 U.S.C. § 4332(2)(C)(ii)) (noting that implicit in this requirement "is an understanding that the EIS will discuss the extent to which adverse effects can be avoided" (citation omitted)); and "any 'alternatives to the proposed action,'" *WildEarth*, 738 F.3d at 303 (quoting 42 U.S.C. § 4332(2)(C)(iii)). NEPA's regulations also require agencies "to discuss possible mitigation measures" in the EIS. *Theodore Roosevelt*, 616 F.3d at 503 (citing 40 C.F.R. §§ 1508.25(b)(3) , 1502.14(f), 1502.16(h), 1505.2(c)); see also *Robertson*, 490 U.S. at 351 ("[O]ne important ingredient of an EIS is the discussion of steps that can be taken to mitigate adverse environmental consequences."). In sum, the EIS "must include 'sufficient detail to ensure that the environmental consequences have been fairly evaluated.'" *Theodore Roosevelt*, 616 F.3d at 503 (quoting *Robertson*, 490 U.S. at 352).

"The statutory requirement that a federal agency contemplating a major action prepare such an [EIS] serves NEPA's 'action-forcing' purpose in two important respects." *Robertson*, 490 U.S. at 349 . First, it "places upon an agency the obligation to consider every significant aspect of the environmental impact of a proposed action," *Vt. Yankee*, 435 U.S. at 553 ; and second, "it ensures that the agency will inform the public that it has indeed considered environmental concerns in its decisionmaking process[.]" *Balt. Gas*, 462 U.S. at 97 ; *see also* 40 C.F.R. § 1502.1 (requiring an EIS to (1) "provide full and fair discussion of significant environmental impacts[.]" and (2) "inform decision makers and the public of reasonable alternatives that would avoid or minimize adverse impacts or enhance the quality of the human environment").

However, not all decisions require an EIS. *Theodore Roosevelt*, 616 F.3d at 503 . "If it is unclear whether an action will 'significantly affect[] the quality of the human environment,' 42 U.S.C. § 4332(2)(C) , agencies may [first] prepare an environmental assessment [("EA"),] *id.* (citing 40 C.F.R. § 1501.4(a)-(b)); which is "a more limited document," *Pub. Citizen*, 541 U.S. at 757 . An EA "[b]riefly provide[s] sufficient evidence and analysis for determining whether to prepare an [EIS.]" 40 C.F.R. § 1508.9(a)(1) . Even if the agency determines that it need only perform an EA, it must still briefly discuss the need for the proposed action, the alternatives, and the environmental impacts of the proposed action and alternatives. *Id.* § 1501.5(c) . If the agency determines that a full EIS is not required, it must issue a finding of no significant impact, "which briefly presents the reasons why the proposed agency action will not have a significant impact on the human environment." *Pub. Citizen*, 541 U.S. at 757-58 ; *see also* 40 C.F.R. § 1501.6 .

"[I]nherent in NEPA and its implementing regulations is a 'rule of reason,' which ensures that agencies determine whether and to what extent to prepare an EIS based on the usefulness of any new potential information to the decisionmaking process." *Pub. Citizen*, 541 U.S. at 767 . If the agency determines that the "the preparation of an EIS would serve 'no purpose' in light of NEPA's regulatory scheme as a whole," then the rule of reason dictates that the agency [*10] does not need to prepare one. *Id.* Thus, in preparing an EA or EIS, the "agency need not foresee the unforeseeable, but by the same token neither can it avoid drafting an impact statement simply because describing the environmental effects of and alternatives to particular agency action involves some degree of forecasting." *Scientists' Inst. for Pub. Info., Inc. v. Atomic Energy Comm'n*, 481 F.2d 1079 , 1092 (D.C. Cir. 1973). "Reasonable forecasting and speculation [are] thus implicit in NEPA, and [courts] must reject any attempt by agencies to shirk their responsibilities under NEPA by labeling any and all discussion of future environmental effects as 'crystal ball inquiry.'" *Id.* While NEPA does not demand forecasting that is "not meaningfully possible[.]" the agency must, pursuant to the rule of reason, fulfill its "statutory duty of compliance with impact statement procedures to 'the fullest extent possible.'" *Id.* (citation omitted).

B. Factual Background

This action arises from the Corps' operation of several dams and federal reservoirs in the ACT River Basin, which is formed by the Alabama, Coosa, Tallapoosa Rivers, and their tributaries and drainage areas. A.R., ECF No. 61 at D-00044720. The ACT Basin comprises 22,739 square miles in Alabama and Georgia, *see id.*; with the various rivers flowing from northern Georgia towards southern Alabama and into the Gulf of Mexico, *see id.* at D-00043909. There are seventeen large dams located on the mainstem rivers of the ACT Basin. *Id.* at D-00044178. The Corps owns and operates six of these dams, and the remaining eleven are privately-

owned and operated by APC. *Id.* Two of the Corps' dams, Carters Dam and Allatoona Dam, are located in Georgia upstream from the other dams, which are located in Alabama. *See id.* at D-00043909.

1. Authorized Project Purposes of the Corps' Reservoir Projects in the ACT Basin and the Development of Governing Water Control Manuals

All Corps' projects in the ACT Basin operate pursuant to federal legislation authorizing certain enumerated project purposes. *Id.* at D-00043779. In the River and Harbor Act of 1945, Congress authorized the development of the Alabama-Coosa River and tributaries for three expressly authorized project purposes—(1) navigation, (2) flood risk management,⁴ and (3) power development—as well as for generalized "other purposes." *Id.*; Pub. L. No. 79-14, § 2, 59 Stat. 10, 17 (1945). "Other operational objectives" that derive from authorities generally applicable to all Corps reservoirs have been added over time and include: (4) fish and wildlife conservation (Fish and Wildlife Coordination Act of 1958, Pub. L. No. 85-624, and Endangered Species Act of 1973, Pub. L. No. 93-205); (5) recreation (Flood Control Act of 1944, Pub. L. No. 78-534); (6) water quality (Water Pollution Control Act Amendments of 1972, Pub. L. No. 92-500); and (7) water supply (Water Supply Act of 1958, Pub. L. No. 85-500). A.R., ECF No. 61 at D-00043779. While Corps' projects in the ACT Basin operate in "a system-wide context" to serve these authorized purposes, "each individual project might not operate for all seven purposes."⁵ *Id.*

In practice, authorized project purposes often conflict with one another, requiring the Corps to develop the Master Manual and separate water control manuals [*11] ("WCMs") for individual reservoir projects describing how the Corps will operate the ACT system to balance conflicting purposes, consistent with congressional direction. *Id.* at D-00043772; *In re ACF Basin*, 467 F. Supp. 3d at 1328; *see also* 33 U.S.C. § 709 ("[I]t shall be the duty of the Secretary of the Army to prescribe regulations for the use of storage allocated for flood control or navigation at all reservoirs . . . , and the operation of any such project shall be in accordance with such regulations[.]"); 33 C.F.R. § 222.5(a) (prescribing the policies and procedures to be followed by the Corps "in carrying out water control management activities, including establishment of water control plans for Corps and non-Corps projects"). These WCMs provide technical information "that guides the proper management of reservoirs during times of high water, low water, and normal conditions" and "specify how the various reservoir projects will be operated as a balanced system." A.R., ECF No. 61 at D-00043780. Specifically, the Master Manual contains "drought plans and storage zones to assist federal water managers to know when to reduce or increase reservoir releases and conserve storage in the [Corps'] reservoirs" and guidance on how to provide for proper "water control regulation and coordination for the safety of dams during extreme conditions such as floods." *Id.* The previous official Master Manual for the ACT system was adopted in 1951, with individual reservoir manuals being "completed as the projects came on line." *Id.* at D-00043862.

2. The Allatoona Reservoir Project, Its History, and Its Authorized Project Purposes

The Allatoona Project, at the center of this litigation, is located on the Etowah River in Georgia. *Id.* at D-00013496.0024. The Etowah River flows from Georgia towards the Coosa River, which joins with the Tallapoosa River downstream near Montgomery, Alabama to form the Alabama River, which combines with the Tombigbee River to become the Mobile River, which ultimately drains through Mobile Bay to the Gulf of Mexico. *Id.* The Allatoona Project consists of the reservoir at Allatoona Lake formed by Allatoona Dam. *Id.* at

D-00044896-98. The drainage area for Allatoona Lake is 1,122 square miles, which equates to less than five percent of the ACT Basin. *See id.* at D-00043778. Allatoona is the site of one of the Corps' storage projects, "meaning that the Corps varies the reservoir level depending on whether the season typically is 'wet' or 'dry.'" Pls.' Mot., ECF No. 83 at 14. "[T]he need for water in the summer and fall often is greater than the supply of water in the river basin[.]" so an important function of many of the Corps' ACT Basin reservoirs "is to store water when there is an abundance of rain and to release water when there is less rain, ensuring that all water needs can be met throughout the year." A.R., ECF No. 61 at D-00043910. At the Allatoona Reservoir, the Corps generally stores water during the spring wet period that is released in the late summer and fall dry periods to generate hydropower, provide downstream flows, and support water quality, and it keeps lake levels low during the winter to provide for additional flood [*12] storage. *See id.* at D-00043910-11, D-00044948-49. At "full flood-control pool" level, the reservoir has a total storage capacity of 670,047 acre-feet. *Id.* at D-00044898.

The idea for the Allatoona Project began circulating in the early 1900s, *see id.* at D-00044902; and in 1934, the Corps submitted a report to Congress, published in House Document No. 66, recommending construction of a dam and reservoir at the top of the basin at Allatoona "for the purposes of navigation and efficient development of water power, the control of floods, and the needs of irrigation[.]" *id.* at D-00053515 (H.R. Doc. No. 66, 74th Cong. (1935)). At the time of the report, the economic aspect of the Allatoona Project appeared unfavorable. *Id.* at D-00044902. Several years later, however, Congress requested that the Board of Engineers for Rivers and Harbors review the Corps' 1934 report "with a view to determining the advisability of constructing" the Allatoona Project "for the development of hydroelectric power and the improvement of the river below the dams for navigation as well as for other beneficial effects." *Id.* at D-00013497.0002 (H.R. Doc. No. 674, 76th Cong. (1940)). "After full consideration of the [Corps'] reports," in a 1940 report, published in House Document No. 674, the Board of Engineers recommended construction of the Allatoona Reservoir on the Etowah River "for the control of floods, regulation of stream flow for navigation, and the development of hydroelectric power[.]" *Id.* ; *see also id.* at D-00013497.0004 (assessing the Corps' plan "for the construction of a storage reservoir at the Allatoona site . . . to be operated in the combined interests of flood control and power development" and noting that the power storage provided in the reservoir would increase the minimum stream flow, which would in turn increase capacity at downstream hydropower developments). Congress then passed the Flood Control Act of 1941 authorizing the Corps to build and operate the Allatoona Project. *See* Pub. L. No. 77-228 , 55 Stat. 638 , 638-41 (1941). In that Act, Congress "approved" "the recommendation of the Chief of Engineers in House Document Numbered 674" and "authorized \$3,000,000 for initiation and partial accomplishment of the [Allatoona P]roject" in accordance with that document. *Id.* at 641; *see also* A.R., ECF No. 61 at D-00053808.

Due to rapid economic expansion in the basin in the late 1930s, and "in response to outstanding Congressional directives calling for review of earlier comprehensive reports to determine whether any change in previous recommendations was desirable[.]" A.R., ECF No. 61 at D-00044756-57; in October 1941, the Secretary of War submitted to Congress an interim report of the Corps, printed as House Document No. 414, that "developed a comprehensive plan for navigation, power generation, and flood control in th[e] basin" as a whole, *see* A.R., ECF No. 61 at D-00053819, D-00053821 ¶ 5 (H.R. Doc. No. 414, 77th Cong. (1941)); to be accomplished step-by-step over a period of years in accordance with plans prepared by the U.S. Army's Chief of Engineers, *id.* at D-00044757. A few months later, in December 1941, the Corps issued to the Chief of

Engineers a "Definite Project Report," which [*13] presented a "project plan" for the construction of the Allatoona Dam and Reservoir on the Etowah River. *Id.* at SUPPAR027125, SUPPAR027127, D-00013496.0020. This report made recommendations in substantial agreement with the original plan, "with the exception that a larger amount of storage [be] allotted to the production of hydroelectric power[,] with a corresponding decrease in storage reserved for flood control."⁶ *Id.* at SUPPAR027125. The plan called flood risk management and power "the dual purpose[s]" of the reservoir and anticipated that its hydropower plant "would be used primarily as a peaking plant⁷ or for intermittent operation." *Id.* at SUPPAR027127, SUPPAR027131, SUPPAR027186. The plan also predicted that the "regulated flow from Allatoona Dam would increase the minimum flow at the downstream plants . . . and would increase their firm [electric generating] capacity[.]" *Id.* at SUPPAR027187. Ultimately, Congress passed the River and Harbor Act of 1945, incorporating the Allatoona Project into the overall plan for the ACT Basin's "[i]nitial and ultimate development" for "navigation, flood control, power development, and other purposes, as outlined in House Document Numbered 414, . . . with such modifications thereof from time to time as . . . may be advisable for the purpose of increasing the development of hydroelectric power[.]" Pub. L. No. 79-14 , § 2, 59 Stat. 10 , 17 (1945). In 1949, the Corps completed construction at Allatoona, and the reservoir was filled until normal operations began in June 1950, with the project reaching full conservation pool on April 3, 1951. A.R., ECF No. 61 at D-00044759.

Today, the Allatoona Project operates pursuant to its seven authorized project purposes: "hydropower, flood risk management, navigation, recreation, water quality, fish and wildlife conservation, and water supply." *Id.* at D-00044902. To fulfill the hydropower purpose, the Corps releases water through turbines at Allatoona Dam to generate daily peak hydropower during periods of high use, with the number of hours of peaking operations per day varying based on other system needs.⁸ *Id.* at D-00043784, D-00043931, D-00013496.0016. These water releases also "indirectly" benefit navigation, a project purpose for which Allatoona was authorized but "is not regulated . . . because it is located distant from the navigation channel[,] and any releases for that purpose would be captured and reregulated by the [APC] reservoirs located downstream." *Id.* at D-00013496.0022, D-00044802. Nonetheless, water releases from Allatoona assist in the creation of downstream flows towards the Alabama River, which provides an important navigation route for commercial barge traffic from Montgomery to the Mobile area. *Id.* at D-00044801. Additionally, water releases during dry seasons provide for an increased water supply and improved water quality for municipal and industrial uses in downstream metropolitan areas. *Id.* at D-00013496.0016. Meanwhile, the Corps also retains some water in storage, approximately seven percent of Allatoona's storage capacity, for local municipal water supply pursuant to decades-old contracts [*14] with the CC-MWA and the City of Cartersville, Georgia. *Id.* at 5813, SUPPAR012820. To fulfill Allatoona's flood risk management purpose, the Corps maintains empty space at the top of the reservoir, which is reserved to store water during flood conditions. *Id.* at D-00043931. These operations are intended to provide flood protection at Rome, Georgia and at APC's Weiss Dam on the Coosa River. *Id.* at D-00013496.0016, D-00044796. Finally, to satisfy Allatoona's recreation purpose and allow for activities such as boating, fishing, and water skiing, lake levels are kept at higher levels during peak recreation season, generally Memorial Day through Labor Day, during which time the Corps considers recreational needs in making water management decisions. *Id.* at D-00044797.

In sum, as a "multiple purpose project," the Corps must operate the Allatoona Project with all seven of its

authorized purposes in mind. *Id.* at D-00013496.0016.

3. Prior Versions of the Allatoona Project's Water Control Manual: 1951, 1962, 1968, and a 1993 Draft Version

Following the Corps' promulgation of the 1951 ACT Master Manual, it also adopted finalized versions of a separate WCM for the Allatoona Project in 1951, 1962, and 1968. Pls.' Mot., ECF No. 83 at 20. Of note, the 1951 Allatoona Manual stated that the project was to be "operated as a peaking plant for the production of hydroelectric power and during off-peak periods [would] maintain a flow of about 200" cubic feet per second ("cfs") through the Allatoona Dam's smaller "service unit." A.R., ECF No. 61 at D-00011308.0018. That manual also stated that "[d]uring low-water periods such regulation [would] provide increased flow downstream for navigation, water supply, pollution abatement, and other purposes[.]" but that "the primary purpose of the project [was] flood control[.]" *Id.* To accomplish these aims, this manual (and subsequent ones) split Allatoona's reservoir storage capacity into two "operating pools": (1) the "conservation" or "power" pool that operates for several purposes, including hydropower generation; and (2) above that, the "flood pool" that extends the reservoir's operating capacity to accommodate high flow and prevent downstream floods. Defs.' Cross-Mot., ECF No. 95 at 21-22 (citing A.R., ECF No. 61 at D-00044948); A.R., ECF No. 61 at D-00011308.0010 (explaining the varying elevations for the "power pool" and the "flood-control pool" and the accompanying storage allocations for flood control and power). The area that splits the top of the conservation pool and flood pool is the "rule" or "guide" curve for power operations, which the 1951 Allatoona Manual created for the first time, *see* A.R., ECF No. 61 at D-00011308.0043 (graphically depicting the "rule curve"); thereby giving engineers "targets for reservoir elevations throughout the year[.]" including when to fill the reservoir, when to maintain it at a particular level, and when to release, or "draw down," the water, Pls.' Mot., ECF No. 83 at 22. The 1951 Allatoona rule curve required filling the reservoir in the spring, maintaining it at a steady elevation during the summer, and drawing it down by about twenty feet in elevation from September [*15] to December to facilitate the release of water. *Id.* (citing A.R., ECF No. 61 at D-00011308.0019, D-00011308.0021, D-00011308.0043).

Studies conducted in 1952 indicated that the Allatoona Project's overall benefits could be increased "by varying the storage allocations in the reservoir on a seasonal basis." A.R., ECF No. 61 at D-00013501.0014. As result, the revised 1962 Allatoona Manual required raising the top of the power pool during the summer with a compulsory drawdown prior to the flood season so as to create "increase[s] in power revenue with no reduction in flood-control benefits." *Id.* Under this operating plan, the top of the power pool was to be kept at elevation 840 feet from May through August, drawn down from 840 to 820 feet from September through December, and elevated from 820 to 840 feet from January through April. *Id.* As the 1962 manual explained, the "storage delineation curve," developed from a study of past stream-flow records and then-existing power contract requirements, showed "the seasonal variation" in the top of the power pool and represented "a firm division" between the power and flood pools, normally requiring that the reservoir level "be maintained at or below the curve except when storing flood waters." *Id.* at D-00013501.0028. The manual further stated that the principal purpose of the guide curve was "to indicate when excess energy [was] available and when power declarations [were to] be limited to minimum contract commitments." *Id.* Like the 1951 version, the 1962 manual also stated that Allatoona was to be operated as a "peaking power plant," *id.* at D-00013501.0016; and it upped the minimum monthly flow from 200 to 240 cfs, *id.* at D-00013501.0010.

The Corps again revised the Allatoona Manual in 1968, modifying the top of the power pool to extend the time that the maximum elevation level could be held at 840 feet for one month, or through September, so long as adequate flows were available, *id.* at D-00011371.0003; a change which was expected to benefit recreation, power, low-flow control, and navigation, *id.* at D-00013501.0015, D-00044904; and provide "more flexibility in the operation of the plant in the system[.]" *id.* at D-00011371.0003. Under this plan, the revised top-of-power-pool curve had a top level at elevation 840 feet during May through September (assuming favorable flow conditions); varied uniformly from 840 to 823 feet during October through December 15 (*i.e.*, commenced the drawdown on October 1); remained at elevation 823 feet from December 15 through January 15; and then varied uniformly from 823 feet on January 15 to 840 feet at the end of April. *id.* at D-00044904, D-00013501.0015, D-00011371.0003; *see also id.* at D-00013501.0067 (depicting the 1968 "guide curve for power operation," which included the "top of power pool" curve and the lower "power guide curve"), D-00013501.0064 (depicting the 1968 operating rules for the power and flood control pools and the "seasonal curve"). The Corps later prepared a report, based on then-available data, concluding that there would be "little, if any, benefit to recreation and no adverse effects due to the modification of [*16] the top of power pool[.]" instead finding that the higher pool levels during such periods would "provide additional head for power generation and also benefit downstream low flow control and navigation by retaining additional water in storage for release during the normally dry months of October and November." *id.* at D-00011371.0004. While the Corps was conducting its ACT operations under the 1951 Master Manual and this 1968 Allatoona Manual, NEPA was enacted into law in 1969, thereby requiring the Corps to issue an EIS about any "major Federal actions significantly affecting the quality of the human environment" as a result of its ACT operations. 42 U.S.C. § 4332(2)(C). In 1974, in accordance with that obligation, the Corps issued a final environmental impact statement ("FEIS") related to its then-existing Allatoona operations. *See generally* A.R., ECF No. 61 at D-00004143.

In 1993, the Corps drafted another revised version of the Allatoona Manual (the "1993 Draft Manual") but did not finalize that version or subject it to NEPA's environmental review. *See generally id.* at D-00013496; *see also id.* at D-00010026.0005; Pls.' Opp'n, ECF No. 83 at 23. According to the Alabama Plaintiffs, the Corps purported to operate the Allatoona Project under the 1993 Draft Manual, rather than earlier finalized versions, from 1993 until its adoption of the 2015 Master Manual, even though the 1993 Draft Manual made five "significant changes to Allatoona's operations" that were never properly reviewed under NEPA. Pls.' Opp'n, ECF No. 83 at 23-24; Compl., ECF No. 1 at 7 ¶¶ 24-25. First, the 1993 Draft Manual divided the conservation pool into two "action zones" to be "used as a guide to the generation to be provided from the Allatoona [P]roject towards meeting the system hydropower contract." A.R., ECF No. 61 at D-00013496.0041; *see also id.* at D-00013496.0072 (graphically depicting the two 1993 action zones), D-00044761 (explaining that "a system of action zones" was initially developed in 1989 before being "implemented to guide operations at Allatoona Lake"); Defs.' Cross-Mot., ECF No. 95 at 22 n.5 (defining action zones as "essentially lake levels at which the Corps makes various operational changes"). When the pool was in Zone 1—the highest lake level—project conditions were "normal to wetter than normal," allowing "full consideration" to be given to meeting hydropower contract amounts, while balancing other project purposes and Allatoona's drawdown with other lakes in the basin. A.R., ECF No. 61 at D-00013496.0041. When the lake was in Zone 1, the Draft Manual required "between two and six hours of full powerhouse generation." *id.* at D-00013496.0072. As pool levels declined into Zone 2, indicating "dry or impending drought conditions[.]" "[m]ore conservative operations"

were required, and "the minimum generation to support dependable hydropower capacity would generally be run." *Id.* at D-00013496.0041-42. If drought conditions became severe, resulting in reductions in reservoir releases, Zone 2 was to be "reserved for emergency needs, either hydropower or downstream water supply, water quality or other extreme needs." *Id.* at D-00013496.0042. [*17] When projected conditions indicated a strong possibility of exhausting conservation storage, the manual allowed for routine hydropower generation to be scaled back or suspended, among other conservative measures, depending on the drought severity. *Id.* Nonetheless, minimum continuous releases of 240 cfs, via the small hydropower unit, "plus two hours peak power generation each weekday" continued to be the operational objectives when the pool was in Zone 2. *Id.* at D-00013496.0072. In addition, the 1993 Draft Manual continued the "compulsory drawdown to elevation 823 feet in advance of flood season[.]" providing "467,280 acre-feet of flood control (elevation 823 to 860) as compared to 302,580 acre-feet of storage (elevation 840 to 860) during the summer season[.]" and it required the conservation pool to be regulated at a minimum elevation of 800 feet. *Id.* at D-00013496.0041.

In addition to these changes associated with the two action zones, the Alabama Plaintiffs argue that the 1993 Draft Manual: (1) reduced the storage available for Allatoona's authorized hydropower purpose; (2) decreased navigation support by not treating navigation as an "operating purpose" despite it being an "authorized purpose" of Allatoona; (3) reduced the amount of storage available for flood risk management to achieve higher lake levels when it designated a portion of the flood control storage pool where water could be stored "indefinitely" as a precaution against possible impending drought; and (4) adopted new "recreation impact levels" for the Corps to consider when making water management decisions at Allatoona, to be applied during peak recreation season. Pls.' Mot., ECF No. 83 at 25 (citing A.R., ECF No. 61 at D-00013496.0050, D-00013496.0064, D-00013496.0022, D-00013496.0073, D-00013496.0045-46). The 1993 Draft Manual was embroiled in years of litigation between the Corps, the State of Alabama, and APC, among other parties, but in 2012, the District Court for the Northern District of Alabama ("Northern District of Alabama") dismissed the action's NEPA claims for lack of subject matter jurisdiction because the draft was never finalized and therefore did not represent "final agency action," as required by the APA. *See Order, Alabama v. U.S. Army Corps of Eng'rs*, No. 90-1331 (N.D. Ala. July 3, 2012), ECF No. 771 at 1-3.

4. The Process for Revising and Adopting the Updated 2015 Master Manual, the Allatoona Project Water Control Manual, and the FEIS

In 2007, after the 2004 expiration of a congressionally-approved interstate compact for the ACT Basin and a period of court-ordered mediation, and in the "midst of a severe and extraordinary drought," the Corps reinitiated the process of updating the ACT Master Manual by publishing notice in the Federal Register that it intended to prepare an EIS for the ACT WCM update pursuant to NEPA's requirements. A.R., ECF No. 61 at D-00043781, D-00043862; Defs.' Cross-Mot., ECF No. 95 at 11, 17. Thereafter, the Corps began a public "scoping process" to "identify all the relevant issues and alternatives that should be addressed in the EIS[.]" A.R., ECF No. 61 at D-00043865. After identifying [*18] key challenges, the Corps adopted "objectives" for the Master Manual update, which included to: (1) define flow requirements for APC projects to support navigation; (2) develop a basin-wide drought management plan, as required by Corps regulations; (3) improve downstream conditions for fish and wildlife conservation; (4) "[i]mprove system performance to achieve congressionally authorized project purposes," specifically by modifying hydropower operations at Allatoona Lake, operations which historically had adverse effects on the Corps' ability to balance project purposes during

drought; and (5) incorporate changes in APC project operations due to APC's relicensing of its Coosa River project. *Id.* at D-00044194-96. Overall, the FEIS notes that conditions in the ACT Basin "have changed substantially since the federal reservoirs were authorized and constructed," and it identified as the "purpose and need" of the update "determin[ing] how the federal projects in the ACT Basin should be operated for their authorized purposes, in light of current conditions and applicable law," and implementing those operations. *Id.* at D-00043862-63; *see also* 33 C.F.R. § 222.5(f)(3) (allowing water control plans developed for specific projects and reservoir systems to be "revised as necessary to conform with changing requirements resulting from developments in the project area and downstream, improvements in technology, new legislation and other relevant factors, provided such revisions comply with existing Federal regulations and established Corps of Engineers policy").

In light of the update's enumerated objectives and purpose, the Corps identified various "management measures," defined as "a feature or activity that can be implemented at a specific geographical site to address one or more of the objectives." *Id.* at D-00044196. The measures considered were: "variations for revising reservoir guide curves and conservation storage action zones; revising hydropower generation plans for water control regulation; revising drought procedures and environmental flows; and developing navigation-specific operations." *Id.* The Corps then developed nine screening criteria, *see id.* at D-00043868; against which to consider each management measure, eliminating those which failed and carrying forward the ones that passed and combining them "to form basin-wide alternative plans[.]" *id.* at D-00044197, D-00044227. On March 1, 2013, the Corps released a draft EIS, *id.* at D-00043776; evaluating twelve management alternatives, *see id.* at D-00044228 (summarizing, in chart form, the "alternative management measures"); starting with the "No-Action Alternative," reflecting the "continuation of the current water control operations at each of the federal projects in the ACT Basin[.]" and adding one measure at a time, such that the alternatives built upon each other, *id.* at D-00044227.

There was a public notice and comment period on the draft EIS, *see* 33 U.S.C. § 2319 (requiring the Corps to "provide significant opportunities for public participation" when revising WCMs); and on November 7, 2014, the Corps [*19] released the revised ACT Master Manual and a more than 900-page FEIS, which "included all comments on the Draft EIS and the detailed [Corps] responses to those comments[.]" A.R., ECF No. 61 at D-00053483. The Corps also accepted and responded to public comments on the FEIS. *See, e.g., id.* at D-00043396, D-00043408, D-00046601, D-00049511, D-00066475, D-00053483-84. In the FEIS, the Corps used data models to simulate the effects of the alternative plans across the entire hydrologic period of record (1939-2011), "which were then evaluated in terms of project and watershed criteria (channel availability, generation and capacity, reservoir recreation impact levels, and other authorized purposes, intended benefits, and existing uses in the system)." *Id.* at D-00053479. The data results led the Corps to briefly discuss and eliminate eight alternatives, while carrying forward four for further analysis—the No-Action Alternative and Plans D, F, and G. *See id.* at D-00044226-58. The Corps selected Plan G as its "Proposed Action Alternative" or "Preferred Alternative," *id.* at D-00044246; for consisting "of the combination of water management measures that are expected to meet the objectives and best balance system operations[.]" and concluded, based on its analysis, that "[i]mpacts on the human and natural environment associated with the recommended water management plan compared to current operations (No-Action Alternative) were found to be negligible to minor[.]" *id.* at D-00053479.

On May 4, 2015, the Corps issued its Record of Decision ("ROD"), thereby formally adopting the revised ACT Master Manual and individual WCMs and commencing operations under them. *See id.* at D-00053477-87. The ROD, representing "final agency action," stated that the Corps "took a balanced approach" in updating the Master Manual and recognized that "there may be occasions where conflicts exist between the individualized authorized purposes" for the basin and its various reservoir projects. *Id.* at D-00053478-79. Defendants contend that given "[c]ongressional intent to delegate complex reservoir system management to the Corps, the agency is entitled to significant deference" in its revisions to its WCMs. *See* Defs.' Cross-Mot., ECF No. 95 at 15-16.

5. Key Features of the Updated Master Manual and the Allatoona Project Water Control Manual, and the Specific Changes to Which the Alabama Plaintiffs and Intervenor-Plaintiffs Object

Defendants state that "[i]t is impossible to summarize the many changes in the expansive Master Manual," but they note several "beneficial changes," including the development of a drought management plan in coordination with stakeholders (including the Alabama Plaintiffs); seasonal navigation releases to support commercial navigation; and "adjustments to hydropower to better match seasonal demands and balance all project purposes during drought." Defs.' Cross-Mot., ECF No. 95 at 17. The ROD also lists features of the revised water management plan specific to the Allatoona Project, including: (1) continued operation of Allatoona Dam to provide for a 240 cfs minimum flow immediately [***20**] downstream of the dam; (2) a revised guide curve at Allatoona Lake to implement a phased fall drawdown period from early September through December; (3) revised action zones at Allatoona Lake shaped to mimic the seasonal demands for hydropower; (4) modifications to the hydropower schedule at Allatoona Dam to provide greater operational flexibility to meet power demands while conserving storage; and (5) continued withdrawal of water from Allatoona Lake by the CC-MWA and the City of Cartersville, Georgia under existing water supply storage agreements. A.R., ECF No. 61 at D-00053478.

The FEIS fills in the details regarding Allatoona's updated features, stating that "[a] seasonal conservation pool regulation guide curve and conservation storage action zones have been developed to guide" the Corps in making balanced water control management decisions. *Id.* at D-00044949. The FEIS explains that Allatoona's conservation pool is now regulated between a minimum elevation of 800 feet and a seasonal variable top-of-conservation pool ranging between elevations 823 and 840 feet. *Id.* at D-00044948. Specifically, the top of conservation elevation is 840 feet from May 1 to September 5; drawn down to 835 feet by October 1; held steady at 835 feet through November 15; drawn down to 823 feet by December 31 for additional flood storage; and held steady at 823 feet until the refill period—back up to 840 feet—begins on January 16. *Id.* at D-00044949, D-00044904. This revised guide curve is supplemented by four new action zones within the conservation storage pool, which are to be "used as a general guide to the hydropower peaking generation available from the Allatoona Project to help meet system hydropower commitments." *Id.* at D-00044949. The FEIS describes the operations for each zone and its accompanying peaking generation schedule—up to four hours in Zone 1, up to 3 hours in Zone 2, up to 2 hours in Zone 3, and 0 hours in Zone 4—and explains that the zones are "used to manage the lake at the highest level possible within the conservation storage pool while balancing the needs of all authorized purposes" at Allatoona. *Id.* at D-00044949-51. In addition, above the top of the conservation pool is the flood control pool, divided into Zones A through E. *Id.* at D-00045086. "During the fall step down period the pool may be held at the top of Zone A indefinitely if all project purposes are met[,]"

as Zone A "has the least urgency for being evacuated." *Id.*

The Alabama Plaintiffs take issue with three changes at the Allatoona Project: "(1) the revised action zones, (2) the fall phased drawdown (or phased) guide curve, and (3) reduced fall hydropower generation"—all of which they claim raises lake levels to benefit recreation, while reducing power generation, navigation support, and flood risk management. Pls.' Mot., ECF No. 83 at 27. They argue that: (1) the new action zones reduce the storage the Corps can use to generate power; (2) the new phased guide curve reduces downstream flows during a critical period in the fall; (3) the operational changes give the Corps unfounded discretion to eliminate hydropower [*21] generation at any time in all of the action zones; (4) the new Master Manual eliminates navigation support by disclaiming any obligation to the "distant" navigation channel; and (5) the Master Manual reduces flood storage by allowing the Corps to store water in Zone A of the flood pool "indefinitely," further reducing downstream flows. *Id.* at 28-30. As a result of these changes, the Alabama Plaintiffs argue that there will be "substantially decrease[d] flows into Alabama during low-flow and drought periods[,] " which will result in "reduced hydropower generation, reduced lake levels at [APC]'s Coosa and Tallapoosa River projects, [] impaired water quality, especially in the Coosa River and at [APC]'s Weiss Lake[,] " and increased frequency in drought conditions at the Alabama-Georgia state line. *Id.* at 33.

Intervenor-Plaintiffs—the Montgomery Board, Mobile Water, Russell Lands, and LMRA—also argue that they are harmed by the Master Manual. The Montgomery Board is a public water utility in Montgomery, Alabama that provides water and wastewater services. Intervenor-Pls.' Mot., ECF No. 85 at 9. Its service area is located within the watershed of the ACT Basin, as it obtains over sixty percent of its water supply from the Tallapoosa River and has wastewater facilities on the Alabama and Tallapoosa Rivers. *Id.* The Montgomery Board argues that the Master Manual reduces water flows, thereby causing "the overall degradation of water quality, impairment of [its] ability to treat wastewater adequately, [] impairment of [its] ability to conduct and rely upon long range planning and analysis[,] " and forced modifications to its facilities so as to maintain compliance with NPDES permits. *Id.* at 9-10. Mobile Water provides fresh water unencumbered with salt or brine from tidal influences of the Mobile Bay for use in industrial processes and as a source of drinking water for residential and commercial customers. *Id.* at 10. Mobile Water argues that reduced flows will result in salt water intrusions up the Mobile River that will render the water unacceptable for some industrial uses. *Id.* at 10-11. Lake Martin is an APC reservoir on the Tallapoosa River located near major population centers in Alabama and Georgia. *Id.* at 12. Lake Martin offers "outstanding water quality" to Alabama and various economic benefits resulting from major recreational seasons on the lake in late spring, summer, and fall. *Id.* Lake Martin is also important to the members of LMRA, the business of Russell Lands, and Alabama's economy generally, for example in terms of jobs supported by recreation and real estate activity. *Id.* Both Russell Lands and LMRA argue that lower flows from Allatoona, as required by the updated Master Manual, will cause lower water levels in Lake Martin in the summer and fall that will hurt APC projects on the Coosa and Tallapoosa Rivers and damage recreation at the lake. *Id.* at 12-13.

C. Procedural Background

The State of Alabama filed suit against Defendants on May 7, 2015, alleging that the Corps: (1) unlawfully abandoned and reordered the Allatoona Project's authorized project [*22] purposes (Count One); (2) violated the CWA and Corps' implementing regulations requiring it to implement a water-quality management program

that complies with federal and state water quality standards (Count Two); (3) violated NEPA by conducting a flawed environmental impacts analysis, along with other modeling and data errors (Count Three); and (4) violated the APA because the updated Master Manual is contrary to the requirements of the Flood Control Act of 1941, the CWA, NEPA, Corps' regulations, and prior operational precedents, is in excess of the limits Congress placed on the Corps' statutory authority without a reasoned basis, does not meaningfully respond to objections raised by commenters, and is therefore "arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law" (Count Four). See Compl., ECF No. 1 at 22-27 ¶¶ 95-114. On that same day, APC filed suit against the same defendants, alleging similar claims under the APA, CWA, and NEPA. See Compl., *Ala. Power Co. v. U.S. Army Corps of Eng'rs*, No. 15-699 (EGS) (D.D.C. May 7, 2015), ECF No. 1 at 36-42 ¶¶ 103-132. On July 25, 2016, the Court found that these two cases "involve[d] common issues of fact and gr[e]w out of the same event or transaction," and therefore consolidated the cases pursuant to Federal Rule of Civil Procedure 42(a). See Min. Order, *Ala. Power Co. v. U.S. Army Corps of Eng'rs*, No. 15-699 (EGS) (D.D.C. July 25, 2016).

The Alabama Plaintiffs seek relief pursuant to the APA and the Declaratory Judgment Act. Compl., ECF No. 1 at 27. First, they ask the Court to set aside as unlawful: (1) the Master Manual, "including but not limited to the individual [WCM] for the Allatoona Project[.]" and (2) the FEIS. *Id.* at 27 ¶¶ 1-2. Second, they ask the Court to direct Defendants to either revise the Master Manual or prepare new manuals "consistent with the congressionally authorized purposes of the ACT River Basin, including but not limited to the Allatoona Project, and to ensure that downstream flow conditions in Alabama are consistent with historic flows[.]" *Id.* ¶ 3. Third, they ask the Court to direct Defendants to modify, as necessary, the Master Manual to protect and maintain Alabama state water quality standards. *Id.* at 27-28 ¶ 4. Fourth, they ask the Court to direct Defendants to either revise the FEIS or prepare a new FEIS for any revised or new manuals for the ACT Basin consistent with federal law. *Id.* at 28 ¶ 5. Finally, they seek attorneys' fees and costs and any other relief the Court deems just and proper. *Id.* ¶¶ 6-7.

The Court granted Intervenor-Plaintiffs' motions to intervene in this case on April 4, 2016, see Min. Orders (Apr. 4, 2016) (granting the Montgomery Board and Mobile Water leave to intervene); and on March 31, 2017 (granting LMRA and Russell Lands leave to intervene), see Min. Order (Mar. 31, 2017). The Court also granted Intervenor-Defendants' motions to intervene on March 31, 2017. See Min. Orders (Mar. 31, 2017) (granting the State of Georgia, ARC, and the CC-MWA leave to intervene). On July 22, 2016, the Court denied Defendants' motion to change venue, although it recognized that "this case could have been brought in the Northern District of Georgia." See Min. Order (July 22, 2016). Thereafter, on November 18, 2016, Defendants [*23] served a copy of the administrative record and its accompanying index on all parties. See Defs.' Notice of Filing of Certified List of Contents of, and Production of, Administrative R., ECF No. 61 at 1, 3 (noting that Attachment B, Parts 1-6, is the indices, or, "the certified list of contents of the Administrative Record").

The Alabama Plaintiffs filed their joint motion for summary judgment on May 30, 2017, see Pls.' Mot., ECF No. 83; and Intervenor-Plaintiffs filed their joint motion for summary judgment on June 13, 2017, see Intervenor-Pls.' Mot., ECF No. 85. Defendants filed their cross-motion for summary judgment on August 14, 2017, see Defs.' Cross-Mot., ECF 96; and Intervenor-Defendants filed their joint cross-motion for summary judgment on August 28, 2017, see Intervenor-Defs.' Cross-Mot., ECF No. 98. The Alabama Plaintiffs and Intervenor-Plaintiffs filed their replies in support of their motions and in opposition to Defendants' and Intervenor-

Defendants' cross-motions on October 12, 2017 and October 26, 2017, respectively. See Pls.' Reply, ECF No. 99; Intervenor-Pls.' Reply, ECF No. 101. Defendants filed their reply on November 27, 2017, see Defs.' Reply, ECF No. 102; and Intervenor-Defendants filed their reply on December 11, 2017, see Intervenor-Defs.' Reply, ECF No. 103. The Alabama Municipal Electric Authority ("AMEA") filed an *amicus curiae* brief in support of the Alabama Plaintiffs' joint motion for summary judgment on August 2, 2017.⁹ See *Amicus Br.*, ECF No. 94.

On August 4, 2020, Intervenor-Defendants filed a notice informing the Court of a decision by the Northern District of Georgia that they called "relevant to matters pending before this Court." See Intervenor-Defs.' Notice, ECF No. 119 at 1. They attached as an exhibit a copy of that court's 2020 opinion and order (*In re ACF Basin Water Litig.*, 467 F. Supp. 3d 1323 (N.D. Ga. 2020)), noting that the case presented "a similar challenge to the Master Manual for a neighboring river basin, the Apalachicola-Chattahoochee-Flint ("ACF") River Basin[.]" *Id.* at 2. The Alabama Plaintiffs responded to this notice on August 13, 2020, arguing that "[t]he Georgia Court's reasoning is erroneous and does not control this challenge to the [WCM] for the [ACT] River Basin." See Pls.' Resp. to Suppl. Authority Notice, ECF No. 120 at 1. Following another decision in the ACF case on August 11, 2021, see *In re ACF Basin Water Litig.*, 554 F. Supp. 3d 1282 (N.D. Ga. 2021); Intervenor-Defendants filed a supplemental motion for summary judgment arguing that these combined decisions, specifically involving "two legal issues resolved in the ACF case" relating to the CWA and NEPA, should be given "preclusive effect" in the instant case. See Intervenor-Defs.' Suppl. Mot., ECF No. 129 at 6-8. On April 11, 2022, the State of Alabama, Intervenor-Plaintiffs, and APC filed their separate oppositions to the supplemental motion. See Ala.'s Opp'n to Suppl. Mot., ECF No. 134; Intervenor-Pls.' Opp'n to Suppl. Mot., ECF No. 135; APC's Opp'n to Suppl. Mot., ECF No. 137. Intervenor-Defendants replied to these oppositions on April 25, 2022. See Intervenor-Defs.' Suppl. Mot. Reply, ECF No. 139.¹⁰

On November 18, 2022, the Court granted the State of Alabama leave to file a supplemental complaint arising [*24] out of subsequent revisions Defendants made to the ACT Master Manual in 2021. See Min. Order (Nov. 18, 2022). The Court stated that while the 2015 and 2021 revisions "relate to each other," the "legal claims in the original and proposed supplemental complaint are distinct[.]" and that granting Alabama "leave to supplement [would] merely result in a second round of cross motions for summary judgment." *Id.* The Court stated its intent to address the pending motions before addressing any forthcoming motions arising out of the 2021 revisions. *Id.* Therefore, the parties' motions and cross-motions for summary judgment, and Intervenor-Defendants' supplemental motion for summary judgment, are now ripe and ready for the Court's adjudication.

III. Legal Standard

Federal Rule of Civil Procedure 56 governs motions for summary judgment, which are granted "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." Fed. R. Civ. P. 56(a). However, where litigants seek review of final agency action under the APA, see 5 U.S.C. § 706; Rule 56's standard becomes inapplicable "because of the limited role of a court in reviewing the administrative record[.]" *Wilhelmus v. Geren*, 796 F. Supp. 2d 157, 160 (D.D.C. 2011). "Under the APA, it is the role of the agency to resolve factual issues to arrive at a decision that is supported by the administrative record, whereas the function of the district court is to determine whether or not as a matter of law the evidence in the administrative record permitted the agency to make the decision it did." *Sierra Club v. Mainella*, 459 F. Supp. 2d 76, 90 (D.D.C. 2006) (citation and internal quotation marks omitted). "Summary

judgment thus serves as the mechanism for deciding, as a matter of law, whether the agency action is supported by the administrative record and otherwise consistent with the APA standard of review." *Id.*

The APA provides that "[a] person suffering legal wrong because of agency action, or adversely affected or aggrieved by agency action within the meaning of a relevant statute, is entitled to judicial review thereof." 5 U.S.C. § 702 . The Act requires courts to "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 "in excess of [the agency's] statutory jurisdiction, authority, or limitations, or short of statutory right[.]" *Id.* § 706(2)(A), (C) . Under the APA's "narrow" standard of review, "a court is not to substitute its judgment for that of the agency[.]" *Motor Vehicle Mfrs. Ass'n of the U.S., Inc. v. State Farm Mut. Auto. Ins. Co.*, 463 U.S. 29 , 43 , 103 S. Ct. 2856 , 77 L. Ed. 2d 443 (1983); and "will defer to the [agency's] interpretation of what [a statute] requires so long as it is rational and supported by the record," *Oceana, Inc. v. Locke*, 670 F.3d 1238 , 1240 (D.C. Cir. 2011) (citation and internal quotation marks omitted). Thus, review of agency action is generally deferential, *Blanton v. Off. of the Comptroller of the Currency*, 909 F.3d 1162 , 1170 (D.C. Cir. 2018); so long as the agency examines the relevant data and articulates a satisfactory explanation for its decision, including a "rational connection between the facts found and the choice made[.]" *State Farm*, 463 U.S. at 43 (citation omitted).

However, an agency's decision is considered [*25] arbitrary and capricious if the agency: (1) "has relied on factors which Congress has not intended it to consider," (2) "entirely failed to consider an important aspect of the problem," (3) "offered an explanation for its decision that runs counter to the evidence before the agency," or (4) "is so implausible that it could not be ascribed to [a] difference in view or the product of agency expertise." *Advocs. for Highway & Auto Safety v. Fed. Motor Carrier Safety Admin.*, 429 F.3d 1136 , 1144-45 (D.C. Cir. 2005) (quoting *State Farm*, 463 U.S. at 43). The plaintiff bears the burden of showing that the agency violated the APA. *Banner Health v. Sebelius*, 715 F. Supp. 2d 142 , 153 (D.D.C. 2010).

The APA's deferential standard cannot, however, "permit courts merely to rubber stamp agency actions, nor be used to shield the agency's decision from undergoing a thorough, probing, in-depth review." *Flaherty v. Bryson*, 850 F. Supp. 2d 38 , 47 (D.D.C. 2012) (internal citations and quotation marks omitted). Instead, courts must evaluate "whether the decision was based on a consideration of the relevant factors and whether there has been a clear error of judgment[.]" *State Farm*, 463 U.S. at 43 (citations omitted); and may "not defer to the agency's conclusory or unsupported suppositions[.]" *Flaherty*, 850 F. Supp. 2d at 47 (citation omitted). Reviewing courts also "may not supply a reasoned basis for the agency's action that the agency itself has not given[.]" but may "uphold a decision of less than ideal clarity if the agency's path may reasonably be discerned." *State Farm*, 463 U.S. at 43 (quoting *Bowman Transp., Inc. v. Ark.-Best Freight Sys.*, 419 U.S. 281 , 286 , 95 S. Ct. 438 , 42 L. Ed. 2d 447 (1974)). However, judicial review is confined to "the administrative record already in existence, not some new record made initially in the reviewing court." *Camp v. Pitts*, 411 U.S. 138 , 142 , 93 S. Ct. 1241 , 36 L. Ed. 2d 106 (1973); *see also Jackson*, 798 F. Supp. 2d at 222 (highlighting "the APA's command" that courts "review the whole record or those parts of it cited by a party," and "evaluate that record as it was when [the agency] published its Decision Rationale").

Courts review agency decisions under NEPA and the CWA pursuant to section 706(2) of the APA , *i.e.*, the APA's judicial review provisions. *See, e.g., Flaherty*, 850 F. Supp. 2d at 47 ; *Loper Bright Enters., Inc. v.*

Raimondo, 544 F. Supp. 3d 82 , 98 (D.D.C. 2021); *see also Karst Env't Educ. & Prot., Inc. v. EPA*, 475 F.3d 1291 , 1295 (D.C. Cir. 2007) (noting that when statutes, like NEPA, "create[] no private right of action, challenges to agency compliance with the statute must be brought pursuant to the [APA]"); *WildEarth*, 738 F.3d at 308 ("We apply the arbitrary and capricious standard of the [APA] . . . to the merits of the Appellants' NEPA . . . challenge[.]"); *Sackett v. EPA*, 556 U.S. 120 , 131 , 132 S. Ct. 1367 , 182 L. Ed. 2d 367 (2012) (finding that the CWA does not preclude APA judicial review). Agency decisions under both statutes involve "complex judgments about sampling methodology and data analysis that are within the agency's technical expertise," and are therefore accorded "an extreme degree of deference." *Alaska Airlines, Inc. v. TSA*, 588 F.3d 1116 , 1120 (D.C. Cir. 2009). In other words, deference to the agency's judgment is particularly appropriate where, as here, the decision at issue "requires a high level of technical expertise[.]" *Marsh v. Or. Nat. Res. Council*, 490 U.S. 360 , 377 , 109 S. Ct. 1851 , 104 L. Ed. 2d 377 (1989) (citation omitted).

IV. Analysis

The Alabama Plaintiffs assert three independent legal grounds for why the Master Manual should be deemed unlawful. First, they argue that the Corps violates the CWA in [*26] the Master Manual by cutting back on releases that will impair downstream water quality while disclaiming any duty to comply with Alabama's state water quality standards, instead improperly passing mitigation responsibility to state permitting authorities and other downstream entities. Pls.' Mot., ECFNo. 83 at 11-12. Second, they argue, in conjunction with Intervenor-Plaintiffs, that the Corps conducted an inadequate environmental review under NEPA that used an improper baseline for comparison and did not disclose all significant environmental impacts of the Master Manual. *Id.* at 12. Third, they argue that the Master Manual violates the APA by: (1) exceeding the Corps' statutory authority by deemphasizing and reordering the congressionally authorized project purposes of the Allatoona Project—hydropower, navigation, and flood risk management—for the sake of lake recreation; and (2) departing, arbitrarily and capriciously, from Allatoona's prior operational precedents that served those three originally identified purposes. *Id.* at 11, 36, 60. The Court addresses each of these arguments in turn below.¹¹

A. Defendants Did Not Violate the CWA or the Corps' Implementing Engineer Regulations, and the Alabama Plaintiffs' Water Quality Claims Must Fail

The Alabama Plaintiffs first argue that the Master Manual is unlawful because it "violates the Corps' obligations to maintain water quality and to avoid environmental degradation throughout the ACT Basin." *Id.* at 48. Specifically, they argue that the Corps is in violation of section 313(a) of the CWA, codified at 33 U.S.C. § 1323(a) , and the Corps' implementing Engineer Regulation ("ER") 1110-2-8154, *see* ER 1110-2-8154, Water Quality and Environmental Management (May 31, 1995) [hereinafter "ER 1110-2-8154"]; because the decision to reduce flows from the Allatoona Project will cause violations of Alabama's state water quality standards, Pls.' Mot., ECF No. 83 at 50. They contend that, despite acknowledging "'that its operational decisions will have [downstream] water quality impacts' during low-flow conditions[.]" the Corps has failed to select the action alternative "'that complies with water quality standards to the maximum extent feasible[.]" instead shifting responsibility to the States and other downstream entities to "'address the consequences of [its] operational decisions[.]" *id.* at 48 (quoting A.R., ECF No. 61 at D-00049709, D-00049711); by expecting state permitting authorities to reevaluate their NPDES permits and set more stringent standards on the effluent concentrations that downstream permit holders can discharge, *id.* at 50-51. According to the Alabama Plaintiffs, and the EPA

in its comments on the FEIS, *see* A.R., ECF No. 61 at D-00049703-14; this expectation is an unlawful shift in mitigation responsibility to the States and a violation of the Corps' duties under the CWA and ER 1110-2-8154, *see* Pls.' Mot., ECF No. 83 at 50-51.¹²

Defendants argue in response that the Alabama Plaintiffs have "overstated the Corps' obligation with respect to the consideration of state water quality standards under the [CWA]." Defs.' Cross-Mot., [*27] ECF No. 95 at 10, 53. They argue that the Corps is only required to give "appropriate consideration" to these standards, in conjunction with the "many other factors" from other statutes that apply in updating the Master Manual. *Id.* Defendants claim that "[t]he FEIS shows that the Corps did give consideration to the water quality standards in analyzing the alternatives[.]" and that "[t]he alternative chosen represents the Corps['] decision regarding the balancing of the factors at issue[.]" which suffices to meet its CWA obligations. *Id.* at 53 (citing A.R., ECF No. 61 at D-00044030, D-00058007). The Georgia Parties also argue that the Alabama Plaintiffs do not have a valid claim under section 313(a) of the CWA because Alabama's "water quality standards are not 'requirements' within the meaning of this provision[.]" Intervenor-Defendants' Cross-Mot., ECF No. 97 at 22; and neither are the non-binding ERs, including ER 1110-2-8154, Intervenor-Defendants' Reply, ECF No. 103 at 15-16. Because they contend Alabama has not pointed to any "enforceable requirements" that the Corps has violated, Intervenor-Defendants ask the Court to deny the Alabama Plaintiffs' CWA and water quality claims. *Id.* at 24-25.

The Alabama Plaintiffs seek to rebut the Georgia Parties' argument, arguing that "[n]othing in [section] 1323(a)'s text excludes water-quality standards from the 'requirements' to which the Corps must adhere . . . in the same manner, and to the same extent as any nongovernmental entity." Pls.' Reply, ECF No. 99 at 22-23 (quoting 33 U.S.C. § 1323(a)). Further, they contend that the Corps is "doubl[ing] down," without any legal support, "on the position . . . that the 'risk of non-attainment of downstream water quality standards' is not its problem[.]" and has failed to point to any evidence in the record that it engaged in a "'balancing' process that [determined that] water quality needed to be sacrificed for the sake of other legitimate project purposes." *Id.* at 25-26.

On May 22, 2020, the Northern District of Georgia issued a decision in which it ruled against Alabama as to its water quality (and other) claims in an action against the same federal defendants involving the ACT's neighboring ACF River Basin, specifically, dismissing the portions of Alabama's complaint relating to the CWA and ER 1110-2-8154 pursuant to a motion for judgment on the pleadings under Federal Rule of Civil Procedure 12(c) . *See In re ACF Basin*, 467 F. Supp. 3d at 1336-41 . The ACT Basin covers portions of Alabama and Georgia, while the ACF Basin covers portions of Alabama, Georgia, and Florida. Intervenor-Defendants' Suppl. Mot., ECF No. 129 at 6. Both the ACT and ACF cases are challenges by Alabama (among other parties) to the Corps' updated Master Manuals governing operations in the respective river basins. *Id.* While the Corps first issued the ACT Master Manual and the Allatoona Project WCM in 1951, it issued the ACF Master Manual in 1958 and a separate WCM for the Buford Project, located in that basin, in 1959. Ala.'s Opp'n to Suppl. Mot., ECF No. 134 at 9.

By way of background, the Corps initially proposed draft updates to the ACT and ACF Master Manuals in 1989 and began operating pursuant to them without finalizing them or conducting a formal EIS, thereby leading [*28] Alabama to challenge both drafts in a single case before the Northern District of Alabama in 1990, alleging,

among other claims, that the Corps did not comply with NEPA. *See* Compl., *Alabama v. U.S. Army Corps of Eng'rs*, No. 90-1331 (N.D. Ala. June 28, 1990), ECF No. 1 at 1, 14-21. Specific to the ACF Basin, Alabama argued it was unlawful for the Corps to permit the Georgia Parties to make water withdrawals from the Buford Project pursuant to interim water supply contracts because, per the Water Supply Act of 1958, Congress had to preapprove such withdrawals. *Id.* at 9-10 ¶ 17. APC later intervened as a plaintiff, *see Alabama v. U.S. Army Corps of Eng'rs*, 229 F.R.D. 669 , 676 (N.D. Ala. 2005) (granting APC intervention as of right); and in 2007, this case was bifurcated along basin lines, with the ACF claims consolidated as multidistrict litigation in the District Court for the Middle District of Florida, while the ACT claims remained with the Northern District of Alabama, *see In re Tri-State Water Rts. Litig.*, 481 F. Supp. 2d 1351 , 1353 (J.P.M.L. 2007) (concluding that the ACT and ACF cases did "not share sufficient questions of fact").

In 2011, the Court of Appeals for the Eleventh Circuit dismissed the Alabama Parties' challenges to the ACF Master Manual, holding that most of their claims were not final agency action under the APA and not subject to judicial review. *See In re MDL-1824 Tri-State Water Rts. Litig.*, 644 F.3d 1160 , 1185 (11th Cir. 2011). In 2012, the Northern District of Alabama also dismissed the majority of the Alabama Parties' ACT claims, concluding, as well, that the 1993 Draft Manual could not be construed as "final agency action" under the APA. *See* Order, *Alabama v. U.S. Army Corps of Eng'rs*, No. 90-1331 (N.D. Ala. July 3, 2012), ECF No. 771 at 2-3; *see also* Final Order of Dismissal, *Alabama v. U.S. Army Corps of Eng'rs*, No. 90-1331 (N.D. Ala. Oct. 23, 2012), ECF No. 786 at 1-2 (dismissing with prejudice "all remaining claims," thereby drawing "the saga of the Water Wars that began [on] June 28, 1990 to a close").

Following these dismissals, "the way was clear for the Corps to update both Master Manuals[,] which it completed, pursuant to NEPA's requirements, for the ACT Basin in 2015 and the ACF Basin in 2017. Intervenor-Def's. Suppl. Mot., ECFNo. 129 at 9. Alabama challenged both updates, first filing the instant ACT case in May 2015, *see* Compl., ECF No. 1; and filing a second case in this district challenging the ACF Master Manual in April 2017, *see* Compl., *Alabama v. U.S. Army Corps of Eng'rs*, No. 17-607 (JDB) (D.D.C. Apr. 5, 2017), ECF No. 1; which was later transferred to the Northern District of Georgia pursuant to a joint motion by the Corps and the Georgia Parties, *see Alabama v. U.S. Army Corps of Eng'rs*, 304 F. Supp. 3d 56 , 62 , 70 (D.D.C. 2018). Following its earlier 2020 decision denying Alabama's CWA and ER 1110-2-8154 water-quality claims, on August 11, 2021, that court entered summary judgment in favor of the Corps, and as relevant here, denied Alabama's remaining water quality claim under the APA and all plaintiffs' NEPA claims.¹³ *In re ACF Basin*, 554 F. Supp. 3d at 1302-08 . Of note, neither APC nor any of Intervenor-Plaintiffs are parties to the ACF case, while Intervenor-Defendants all intervened in the ACF case, along with several Atlanta-based municipalities. *Id.* at 1287-88 ; Ala.'s Opp'n to [*29] Suppl. Mot., ECF No. 134 at 15.

In their supplemental motion for summary judgment, the Georgia Parties use the Northern District of Georgia's 2020 and 2021 decisions to argue that their resolution of legal issues as to the ACF Basin "is correct, preclusive, and dispositive of claims currently pending before this Court." Intervenor-Def's. Suppl. Mot., ECF No. 129 at 7. They contend that "the Court can either hold that the ACF Court decided the issues common to these two cases correctly, or it can apply the doctrine of issue preclusion to conclude that issues dispositive to the Alabama Parties' claims are *res judicata*." *Id.* at 7-8. The Court addresses these supplemental issue preclusion arguments, first as to the parties' water quality claims in this section of the Memorandum Opinion, and later turns to the remaining preclusion arguments under the NEPA section of the Memorandum Opinion.¹⁴

See *infra* section IV.B.1.a. For the reasons discussed below, the Court declines to apply issue preclusion to both sets of claims and will proceed to analyzing their merits.

1. Issue Preclusion Does Not Apply to Bar the Alabama Plaintiffs' Water Quality Claims

Issue preclusion, also known as collateral estoppel, "refers to the effect of a prior judgment in foreclosing successive litigation of an issue of fact or law actually litigated and resolved in a valid court determination essential to the prior judgment, whether or not the issue arises on the same or a different claim." *New Hampshire v. Maine*, 532 U.S. 742 , 748-49 , 121 S. Ct. 1808 , 149 L. Ed. 2d 968 (2001). The doctrine serves "to conserve judicial resources, avoid inconsistent results, engender respect for judgments of predictable and certain effect, and to prevent serial forum-shopping and piecemeal litigation." *Hardison v. Alexander*, 655 F.2d 1281 , 1288 (D.C. Cir. 1981). Pursuant to the doctrine's rules, "the parties to a suit and their privies¹⁵ are bound by a final judgment and may not relitigate any ground for relief which they already have had an opportunity to litigate even if they chose not to exploit that opportunity[, regardless of] whether the initial judgment was erroneous or not." *Id.* This is because the objective of issue preclusion is "judicial finality" and "the conclusive resolution of disputes" *Yamaha Corp. of Am. v. United States*, 961 F.2d 245 , 254 (D.C. Cir. 1992) (citation omitted). Issue preclusion is properly raised on a motion for summary judgment. See, e.g., *Canonsburg Gen. Hosp. v. Burwell*, 807 F.3d 295 , 307 (D.C. Cir. 2015).

Three elements must be present for a judgment to preclude litigation of an issue in a subsequent case: "[1], the same issue now being raised must have been contested by the parties and submitted for judicial determination in the prior case[; 2], the issue must have been actually and necessarily determined by a court of competent jurisdiction in that prior case[; and] [3], preclusion in the second case must not work a basic unfairness to the party bound by the first determination." *Martin v. DOJ*, 488 F.3d 446 , 454 (D.C. Cir. 2007) (quoting *Yamaha*, 961 F.2d at 254). The party invoking issue preclusion "bears the burden of establishing that the conditions for its application have been satisfied[.]" *Lardner v. DOJ*, 638 F. Supp. 2d 14 , 22 (D.D.C. 2009) (citation and internal quotation [*30] marks omitted); and once an issue is determined to have preclusive effect, the court "does not review the merits of the determinations in the earlier litigation[.]" *Consol. Edison Co. of N.Y. v. Bodman*, 449 F.3d 1254 , 1257 (D.C. Cir. 2006). Indeed, "even a 'patently erroneous' first judgment is insufficient to bar issue preclusion." *Canonsburg*, 807 F.3d at 306 (quoting *Otherson v. DOJ*, 711 F.2d 267 , 277 (D.C. Cir. 1983)); see also *Montana v. United States*, 440 U.S. 147 , 162 , 99 S. Ct. 970 , 59 L. Ed. 2d 210 (1979) ("[A] *fact, question or right* distinctly adjudged in the original action cannot be disputed in a subsequent action, even though the determination was reached upon an erroneous view or by an erroneous application of the law." (emphasis in original)). Furthermore, "it is the prior *judgment* that matters, not the court's opinion explicating the judgment[.]" such that "once an *issue* is raised and determined, it is the entire *issue* that is precluded, not just the particular arguments raised in support of it in the first case." *Yamaha*, 961 F.2d at 254 (emphasis in original).

Even when collateral estoppel would otherwise apply, courts have recognized exceptions to the doctrine's applicability. *Pharm. Care Mgmt. Ass'n v. Dist. of Columbia*, 522 F.3d 443 , 446 (D.C. Cir. 2008). "Of particular importance in this case[.]" discussed below, "is the exception for cases presenting 'unmixed questions of law.'" *Id.* Under this exception, "[c]ollateral estoppel does not apply with the same force to unmixed questions of law as it does to mixed questions of law and fact or to pure questions of fact." *Id.* (citing *United States v. Stauffer*

Chem. Co., 464 U.S. 165 , 170-71 , 104 S. Ct. 575 , 78 L. Ed. 2d 388 (1984)). "Although the Supreme Court has acknowledged that the purpose and application of this exception are not entirely clear, the exception continues to have force." *Id.* (citing *Stauffer*, 464 U.S. at 171-72).

In addition, while "[t]here is no general public policy exception to the operation of *res judicata*[" courts have recognized equitable exceptions to issue preclusion in "limited circumstances[.]" *Apotex, Inc. v. FDA*, 393 F.3d 210 , 219 (D.C. Cir. 2004). First, "issue preclusion is inappropriate if there has been an intervening 'change in controlling legal principles.'" *Canonsburg*, 807 F.3d at 306 (quoting *Apotex*, 393 F.3d at 219). Second, courts "have recognized that issue preclusion would be unfair 'if the party to be bound lacked an incentive to litigate in the first trial, especially in comparison to the stakes of the second trial.'" *Id.* (quoting *Otherson*, 711 F.2d at 273). Third, issue preclusion is inappropriate if the "prior proceedings were seriously defective." *Martin*, 488 F.3d at 455 (quoting *Blonder-Tongue Lab'ys, Inc. v. Univ. of Ill. Found.*, 402 U.S. 313 , 333 , 91 S. Ct. 1434 , 28 L. Ed. 2d 788 (1971)). The Court of Appeals for the District of Columbia Circuit ("D.C. Circuit") is "reluctant to expand these equitable exceptions." *Canonsburg*, 807 F.3d at 306 .

This case involves the defensive use of issue preclusion, meaning that a defendant is seeking to "preclude[] a plaintiff from contesting an issue it has previously litigated and lost in another case[.]" *Pharm. Care*, 522 F.3d at 446 . Here, the Georgia Parties, intervening as defendants in both the ACF and ACT cases, argue that Alabama, a plaintiff in both cases, should be precluded from relitigating issues in the instant case that the Northern District of Georgia already decided against it. See Intervenor-Defs.' Suppl. Mot., ECF No. 129 at 6-7. This amounts to defensive, mutual [*31] issue preclusion, meaning the defendant seeking to invoke preclusion and the plaintiff against whom preclusion is being invoked have both appeared in the first and second suits. Cf. *Menkes v. DHS*, 637 F.3d 319 , 334 (D.C. Cir. 2011). While the Supreme Court has "emphasize[d] the fundamental nature of the general rule that a litigant is not bound by a judgment to which [it] was not [previously] a party[.]" it has also "endeavored to delineate discrete exceptions that apply in 'limited circumstances[.]'" *Taylor v. Sturgell*, 553 U.S. 880 , 898 , 128 S. Ct. 2161 , 171 L. Ed. 2d 155 (2008); *i.e.*, where "issue preclusion does not require mutuality of parties[.]" *Gov't of Rwanda v. Johnson*, 409 F.3d 368 , 374 (D.C. Cir. 2005); see also *Blonder-Tongue*, 402 U.S. at 328-29 (abandoning the mutuality requirement in certain situations).

One exception of when "a nonparty may be bound by a judgment" is when it "was adequately represented by someone with the same interests who [wa]s a party to the [first] suit." *Sturgell*, 553 U.S. at 894 (citation and internal quotation marks omitted). Using this exception to "the rule against nonparty preclusion," *id.* at 893 ; Intervenor-Defendants argue that "[t]he preclusive effect of the ACF Court's prior judgments is clear [not only] as to Alabama," but "extends to" APC and Intervenor-Plaintiffs, who, although not parties to the ACF case, are Alabama municipalities (the Cities of Mobile and Montgomery) or Alabama-incorporated corporations (APC, Russell Lands, and LMRA), and are thus "Alabama citizen[s] whose interests were adequately represented by the State of Alabama in the ACF Case[.]" Intervenor-Defs.' Suppl. Mot., ECF No. 129 at 29-30.

To determine whether issue preclusion applies to bar the Alabama Plaintiffs' water quality claims in this case, the Court first summarizes Alabama's three ACF water quality claims and the Northern District of Georgia's rulings on those claims. For its first two claims, Alabama argued that the ACF Master Manual should be set aside because it would cause violations of Georgia's water quality standards contrary to: (1) section 313(a) of

the CWA; and (2) the Corps' internal ER 1110-2-8154. See Compl., *Alabama v. U.S. Army Corps of Engr's*, No. 17-607 (JDB) (D.D.C. Apr. 5, 2017), ECF No. 1 at 16-18 ¶¶ 60-67, 23 ¶¶ 95-99 ; *In re ACF Basin*, 467 F. Supp. 3d at 1336 . Third, Alabama advanced "an independent water-quality claim under the APA[.]" Ala.'s Opp'n to Suppl. Mot., ECF No. 134 at 16; based on the Corps' "failure to acknowledge and offer a reasoned explanation for its departure from its own water-quality policy[.]" *In re ACF Basin*, 554 F. Supp. 3d at 1303 ; even if ER 1110-2-8154 "cannot be directly enforced[.]" Intervenor-Defs.' Suppl. Mot., ECF No. 129 at 7;¹⁶ see also Compl., *Alabama v. U.S. Army Corps of Engr's*, No. 17-607 (JDB) (D.D.C. Apr. 5, 2017), ECF No. 1 at 18 ¶¶ 67-68, 24-25 ¶¶ 104-05. In its 2020 decision granting partial judgment on the pleadings, the Northern District of Georgia ruled against Alabama on its first two water quality claims. See *In re ACF Basin*, 467 F. Supp. 3d at 1336-41 . First, that court concluded that under section 313(a) of the CWA, state water quality standards are not "requirements" with which federal agencies must comply, but are instead "limited to objective state standards of control, such as effluent limitations in permits," or State-created programs imposing enforceable conditions. *Id.* at 1336-38. Second, the Northern **[*32]** District of Georgia determined that ER 1110-2-8154 is a non-binding internal guidance document that is unenforceable by third parties like the State of Alabama. *Id.* at 1340-41 . Lastly, in its 2021 decision granting summary judgment to the defendants, that court concluded that "even if the Corps did not follow its [ER] guidance as Alabama allege[d]," it acknowledged that guidance and adequately explained its choice "to select the preferred alternative despite potential impacts to water quality." *In re ACF Basin*, 554 F. Supp. 3d at 1303 .

Intervenor-Defendants now argue that the Northern District of Georgia's rulings against Alabama are "preclusive" as to whether: (1) state water quality standards are "requirements" within the meaning of section 313(a) of the CWA; and (2) ER 1110-2-8154 is legally binding in Corps reservoir operations, and therefore "dispositive" in answering both questions in the negative for the purposes of Alabama's instant ACT water quality claims. See Intervenor-Defs.' Suppl. Mot., ECF No. 129 at 6-7, 15-16. The Georgia Parties argue that pursuant to the rules of issue preclusion, these two "issue[] of law" conclusions from the ACF case lead to the "law application" that "[a] Corps' Master Manual is not contrary to law" under the CWA or ER 1110-2-8154 "because it does not ensure that Water Quality Standards will be achieved[.]" and therefore Alabama has failed to state a claim for relief under those legal theories. *Id.* at 15-16. Next, they argue that the Northern District of Georgia's ruling on whether the Corps engaged in an "unexplained departure" from ER 1110-2-8154 in violation of the APA when adopting a Master Manual with acknowledged downstream water quality impacts is "persuasive," even if not "preclusive," "[b]ecause the Corps provided essentially the same explanations for the ACT [Master M]annual" as the ACF Master Manual. *Id.* at 7, 20-23.

In its opposition, Alabama argues that "[t]he differences between the ACT and ACF cases are more than just 'place names' and 'specific operational details[.]" as Intervenor-Defendants argue, but instead involve entirely separate river basins, different operations manuals, and "vastly different procedural issues[.]" Ala.'s Opp'n to Suppl. Mot., ECF No. 134 at 19—quoting language from the Georgia Parties' 2017 reply brief in support of their motion to transfer venue of the ACF case from this district to the Northern District of Georgia, see Def.-Intervenor the State of Georgia's Reply in Support of its Mot. to Transfer Venue, *Alabama v. U.S. Army Corps of Eng'rs*, No. 17-607 (JDB) (D.D.C. Aug. 11, 2017), ECF No. 35 at 18-19 (arguing that there is "no overlap between the ACT-manual litigation and [the ACF] case that would make it convenient or efficient to litigate them in th[e] same jurisdiction" because the cases are "so dissimilar"). Alabama further argues that "the

specific 'issues' that the Georgia Parties seek to preclude Alabama from litigating in this case constitute either pure questions of law, or mixed questions of law and fact involving dissimilar facts to which the issue preclusion doctrine does not apply." Ala.'s Opp'n to Suppl. Mot., ECF No. 134 at 19.

Next, Alabama argues [*33] that policy considerations weigh against applying issue preclusion because of the broad public interests at stake in such a case "involving the federal and two State governments" and because applying the doctrine will not conserve judicial resources, discourage forum shopping, or prevent inconsistent results. *See id.* at 8, 32-36. Instead, Alabama argues that the Northern District of Georgia's ACF rulings are "neither binding nor persuasive" in this ACT case and that "the Court should bring its own judgment to bear" on the merits of the issues. *Id.* at 8-9. Alabama also argues that APC and Intervenor-Plaintiffs are not barred from litigating the allegedly precluded issues because they were not parties to the ACF case, nor were they adequately represented by Alabama in that suit. *See id.* at 36-38. Intervenor-Plaintiffs and APC have adopted Alabama's opposition to the Georgia Parties' supplemental motion for summary judgment, each adding a few arguments of their own, discussed below. *See* Intervenor-Pls.' Opp'n to Suppl. Mot., ECF No. 135 at 1-2; APC's Opp'n to Suppl. Mot., ECF No. 137 at 1-3.

a. The Issue Preclusion Criteria Are Satisfied as Against the State of Alabama for Its Water Quality Claims Involving the CWA and ER 1110-2-8154

As an initial matter, the Court agrees with the State of Alabama that issue preclusion need only be analyzed regarding the first two issues raised in the Georgia Parties' supplemental motion for summary judgment. *See* Ala.'s Opp'n to Suppl. Mot., ECF No. 134 at 27-28. On the third issue, whether the Corps engaged in an "unexplained departure" from ER 1110-2-8154 in violation of the APA by adopting the ACF and ACT Master Manuals, *see* Intervenor-Defs.' Suppl. Mot., ECF No. 129 at 7, 20-23; Intervenor-Defendants have acknowledged that the Northern District of Georgia's ruling that the Corps adequately explained the reasons for its substantive actions in the ACF Basin impacting water quality "is not necessarily preclusive here," *id.* at 20-21. Given this admission, the Court declines to engage in the preclusion analysis as to this issue.

For the remaining two water quality issues involving the CWA and ER 1110-2-8154, the Court first determines that the preclusion criteria appear to be satisfied as against the State of Alabama, a party to both the ACF and ACT cases. In reaching this conclusion, the Court "does not review the merits of" the Northern District of Georgia's earlier rulings. *Consol. Edison*, 449 F.3d at 1257. Instead, it assesses whether: (1) the same issues now being raised in the ACT case were "contested by the parties and submitted for judicial determination" in the ACF case; (2) those issues were "actually and necessarily determined by a court of competent jurisdiction[.]" and (3) preclusion would "work a basic unfairness to" Alabama, "the party bound by the first determination." *See Yamaha*, 961 F.2d at 254.

In both the ACF and ACT cases, the parties have contested and submitted for judicial determination the identical issue of whether state water quality standards are directly enforceable "requirements" under section 313(a) of the CWA. *Compare In re ACF Basin*, 467 F. Supp. 3d at 1336-39, *with* Intervenor-Defs.' [*34] Cross-Mot., ECF No. 97 at 21-25, *and* Pls.' Reply, ECF No. 99 at 22-25; *see also* Intervenor-Defs.' Suppl. Mot., ECF No. 129 at 17 (comparing Alabama's ACT and ACF pleadings, both contending that the CWA "require[s]" the Corps "to implement a water-quality management program that" complies with state water quality standards,

and that the Master Manuals are "contrary to" this statutory requirement). The Northern District of Georgia, "a court of competent jurisdiction," "actually and necessarily" decided this issue against Alabama, *Yamaha*, 961 F.2d at 254 ; concluding, after surveying caselaw from the Supreme Court and other federal district courts, that water quality standards are not self-enforcing, substantive legal "requirements" with which federal agencies must comply under section 313(a) of the CWA,¹⁷ see *In re ACF Basin*, 467 F. Supp. 3d at 1336-39 . This conclusion led the Northern District of Georgia to determine that Alabama failed to state a claim under 33 U.S.C. § 1323(a) , which was essential to its judgment dismissing that count of Alabama's ACF complaint. *Id.* at 1339, 1341. Finally, because Alabama's incentives to litigate this issue "were no less present in the prior case, nor are the stakes of the present case of 'vastly greater magnitude[.]'" *Martin*, 488 F.3d at 455 (quoting *Yamaha*, 961 F.2d at 254); and "there is no change in the controlling law" or "concern about procedural defects in the [ACF] litigation, the application of issue preclusion is unlikely to result in a 'compelling' showing of unfairness to" the State of Alabama, *Canonsburg*, 807 F.3d at 306 .

The Court reaches the same conclusion as to the State of Alabama regarding the identical issue of whether ER 1110-2-8154 creates legally binding duties on the Corps in its reservoir operations. Compare *In re ACF Basin*, 467 F. Supp. 3d at 1339-41 , with Pls.' Mot., ECF No. 83 at 49-50; see also Intervenor-Def's. Suppl. Mot., ECF No. 129 at 17 (comparing Alabama's ACT and ACF pleadings, both contending that "the Corps' implementing regulations and guidance require it to implement a water-quality management program" in line with that guidance and that the Master Manuals are "contrary to th[o]se regulations and guidance"). The Northern District of Georgia "actually and necessarily" decided this issue against Alabama, concluding, after reviewing the history and purpose of the ERs and caselaw from "[n]umerous courts," that those regulations are "not binding on the agency" and "not enforceable" by third parties. *In re ACF Basin*, 467 F. Supp. 3d at 1340 . This conclusion was essential to that court's judgment dismissing the related counts of Alabama's ACF complaint. *Id.* at 1341 . Lastly, as noted, the State of Alabama "had every incentive to forcefully litigate" this issue, such that requiring it to adhere to this conclusion "does not create any basic unfairness." *Robinson v. U.S. Dep't of Educ.*, 502 F. Supp. 3d 127 , 135 (D.D.C. 2020).

b. Although the Issue Preclusion Criteria Are Satisfied as Against the State of Alabama's CWA and ER 1110-2-8154 Water Quality Claims, the Doctrine Is Inapplicable Here

However, even if the three elements of issue preclusion are met, Alabama argues that the Northern District of Georgia's 2020 water quality rulings do not bar Alabama's ACT water quality claims for two reasons. First, Alabama argues that [*35] "an exception" to the doctrine applies, namely the "unmixed questions of law" exception, Ala.'s Opp'n to Suppl. Mot., ECF No. 134 at 20-21; which dictates that "[c]ollateral estoppel does not apply with the same force to unmixed questions of law as it does to mixed questions of law and fact or to pure questions of fact[.]" *Pharm. Care*, 522 F.3d at 446 . This exception thus requires "a determination as to whether an 'issue of fact' or an 'issue of law' is sought to be relitigated and then a determination as to whether the 'issue of law' arises in a successive case that is so unrelated to the prior case that relitigation of the issue is warranted." *Stauffer*, 464 U.S. at 171 . Second, Alabama argues that policy considerations, along with the presence of APC and Intervenor-Plaintiffs as non-mutual parties, weigh against preclusion. See Ala.'s Opp'n to Suppl. Mot., ECF No. 134 at 8-9, 32-38. For the reasons discussed below, the Court agrees with Alabama on both arguments and declines to apply issue preclusion to bar the Alabama Plaintiffs' water quality claims.

i. The "Unmixed Questions of Law" Exception to Issue Preclusion Applies Here

"In cases involving mutual collateral estoppel," as this is for the State of Alabama, the "unmixed questions of law" exception "applies only if the issue is one of law and the facts of the cases are substantially unrelated." *Pharm. Care*, 522 F.3d at 446 (citing Restatement (Second) of Judgments § 28(2) (Am. L. Inst. 1982) [hereinafter "Restatement (Second) of Judgments"]); see also *Montana*, 440 U.S. at 162 ("[W]hen issues of law arise in successive actions involving unrelated subject matter, preclusion may be inappropriate."); 18 Charles Alan Wright & Arthur R. Miller, *Federal Practice And Procedure* § 4425 (3d ed. 2023) [hereinafter "Federal Practice And Procedure § 4425"] ("[I]ssue preclusion does not attach to abstract rulings of law, unmixed with any particular set of facts[.]"). This contrasts with situations in which "the claims in two separate actions between the same parties are the same or are closely related [such that] it is not ordinarily necessary to characterize an issue as one of fact or of law for purposes of issue preclusion" *Stauffer*, 464 U.S. at 171 (quoting Restatement (Second) of Judgments § 28 (2), cmt. b). In such a case, it would be unfair to the winning party and burdensome on the courts "to allow repeated litigation of the same issue in what is essentially the same controversy, even if the issue is regarded as one of law." See *id.* at 171-72 (declining to apply the exception and "allow the government to litigate twice with the same party an issue arising in both cases from virtually identical facts" (quoting Restatement (Second) of Judgments § 28 (2), cmt. b)). Thus, "where the legal issue[s] are] identical and the factual settings so closely related, the exception simply does not apply." *Beverly Health & Rehab. Servs., Inc. v. NLRB*, 317 F.3d 316 , 323 n.2 (D.C. Cir. 2003).

Since the parameters of the "unmixed questions of law" exception are "far from clear[.]" *Stauffer*, 464 U.S. at 172 ; and "the journey from a pure question of fact to a pure question of law is one of subtle gradations[.]" Restatement (Second) of Judgments § 28 (2), cmt. b; the Supreme Court "regularly turns to the Restatement (Second) of Judgments" when deciding whether [*36] to apply this "challenging" exception to issue preclusion, see *B & B Hardware, Inc. v. Hardis Indus., Inc.*, 575 U.S. 138 , 148 , 135 S. Ct. 1293 , 191 L. Ed. 2d 222 (2015). The Restatement states that when: (1) "the issue is one of the formulation or scope of [an] applicable legal rule[.]" and (2) "if the claims in the two actions are substantially unrelated," then the rule of law declared in the first action between the two parties "should not be binding on them for all time" because "the more flexible principle of *stare decisis* is sufficient to protect [them] and the court from unnecessary burdens." Restatement (Second) of Judgments § 28 (2), cmt. b; accord *Gruver v. La. Bd. of Supervisors for La. State Univ. Agric. & Mech. Coll.*, 959 F.3d 178 , 182 n.3 (5th Cir. 2020).

The first element of this test applies here, as the Northern District of Georgia addressed two pure questions of law, *i.e.*, not based on any underlying ACF case facts, to enunciate legal rules regarding the statutory meaning of the word "requirements" under section 313(a) of the CWA and the enforceability of the agency's ERs under the APA. The "unmixed questions of law" exception applies in such situations "with particular force[.]" since the issues to be re-litigated involve "the formulation or scope' of a statute [and an] applicable legal rule[.]" *Nat'l Org. of Veterans' Advocs., Inc. v. Sec'y of Veterans Affs.*, 260 F.3d 1365 , 1373 (Fed. Cir. 2001) (quoting Restatement (Second) of Judgments § 28 (2), cmt. b); see also *U.S. ex rel. Stinson, Lyons, Gerlin & Bustamante, P.A. v. Blue Cross Blue Shield of Ga., Inc.*, 755 F. Supp. 1040 , 1046 (S.D. Ga. 1990) ("Issue preclusion is least favored where the pure question of law is one of statutory construction."); *Holland v. Nat'l Mining Ass'n*, 309 F.3d 808 , 815 (D.C. Cir. 2002) ("Allowing one circuit's statutory interpretation to foreclose APA review of the question in another circuit would squelch the circuit disagreements that can lead to Supreme

Court review."); Federal Practice And Procedure § 4425 ("It is reasonably clear that preclusion does not extend to principles of law formulated in abstract terms that could apply to completely separate fact settings."). As Alabama argues, the Northern District of Georgia's rulings "did not involve any fact findings" but instead "turned strictly on [its] interpretation of the CWA's statutory scheme and the case law[.]" its understanding of the history and purpose of the Corps' ERs, and APA caselaw on determining whether agency statements have the force of law. Ala.'s Opp'n to Suppl. Mot., ECF No. 134 at 22, 26. In fact, it appears that "[b]oth parties agree that the issues presented here are legal[.]" *Pharm. Care*, 522 F.3d at 447 ; since the Georgia Parties' own brief draws a line between "issues of law" and "law application," seemingly relegating the Northern District of Georgia's two 2020 water quality rulings to the former camp, while labeling it "law application" to conclude that Alabama's complaints in the ACT and ACF cases "fail to state a claim for relief under [those] legal theories[.]" Intervenor-Def's. Suppl. Mot., ECF No. 129 at 15-16. Overall, "[t]o foreclose [the Court's] reconsideration of [such pure] legal issues would not aid judicial economy[.]" and would instead "freeze" the Court's ability to develop the law "in an area of substantial public interest." *Pharm. Care*, 522 F.3d at 447 (citing Restatement (Second) [*37] of Judgments § 29, cmt. i).

For the second part of the Restatement's test, the Court concludes that the facts of the ACF and ACT cases are "substantially unrelated," such that the Northern District of Georgia's conclusions should not be binding on the parties "for all time." Restatement (Second) of Judgments § 28 (2), cmt. b. Although the Supreme Court and the D.C. Circuit have not articulated a standard for determining when two cases are "substantially unrelated," the Court is persuaded by the history of the Water Wars litigation and by Intervenor-Defendants' own statements that the two cases not only involve different river basins and geographical locations but "different contexts."¹⁸ Intervenor-Def's. Suppl. Mot., ECF No. 129 at 21. In 2007, when the original ACT and ACF cases were bifurcated, the Judicial Panel on Multidistrict Litigation ("JPML") concluded that "claims in the Northern District of Alabama relating to the conduct of the Corps *vis-à-vis* the flow of water in the [ACT] River basin do not share sufficient questions of fact with claims relating to the flow of water in the ACF River basin." *In re Tri-State Water Rts. Litig.*, 481 F. Supp. 2d at 1353 . And in 2017, when the State of Georgia argued for transferring the ACF case from this district to the Northern District of Georgia, it cited this portion of the JPML's decision when arguing that there is "no overlap between" the ACT and ACF cases "that would make it convenient or efficient to litigate them in th[e] same jurisdiction." See Def.-Intervenor the State of Georgia's Reply in Support of its Mot. to Transfer Venue, *Alabama v. U.S. Army Corps of Eng'rs*, No. 17-607 (JDB) (D.D.C. Aug. 11, 2017), ECF No. 35 at 18-19.

Intervenor-Defendants now argue that Georgia's earlier statements in support of its motion to transfer venue are not inconsistent with its arguments in favor of applying issue preclusion here because there is still "some overlap [between the ACF and ACT cases], even if the overlap is not enough to warrant keeping the cases together." Intervenor-Def's. Suppl. Mot. Reply, ECF No. 139 at 17. Although they claim that "the law and facts relating to the[water quality] issues are exactly the same," *id.* at 18; the Court agrees with Alabama that "[a]s it relates to the CWA issues in both cases, the affected lakes and rivers are different, the State water-quality standards that will be violated are different, and the Corps' stated justifications for adopting operations that will violate these standards are different[.]" see Ala.'s Opp'n to Suppl. Mot., ECF No. 134 at 23, 24-25, 27-28 (enumerating other factual differences between the ACF and ACF cases¹⁹); see also Def.-Intervenor the State of Georgia's Reply in Support of its Mot. to Transfer Venue, *Alabama v. U.S. Army Corps of Eng'rs*, No. 17-607

(JDB) (D.D.C. Aug. 11, 2017), ECF No. 35 at 18 (arguing that the ACT case "involves an entirely separate river basin, challenges a different operations manual, and has vastly different procedural issues"). Such differences establish that these actions do not involve "essentially the same controversy" or "virtually identical facts" and instead involve "factual differences . . . of . . . legal significance," *Stauffer*, 464 U.S. at 172 ; making [*38] them sufficiently unrelated so as to warrant applying "the unmixed question of law exception to the collateral estoppel doctrine[.]" *Ctr. for Biological Diversity v. Hamilton*, 385 F. Supp. 2d 1330 , 1338 (N.D. Ga. 2005).

Furthermore, "[l]ess is required for the exception to apply in a case of non-mutual estoppel—such as this case." *Pharm. Care*, 522 F.3d at 446 . In such a non-mutual case, *i.e.*, where APC and Intervenor-Plaintiffs were not also parties to the ACF case, "an issue is *not* precluded if it is one of law and treating it as conclusively determined would inappropriately foreclose opportunities for obtaining reconsideration of the legal rule upon which it was based." *Id.* at 446-47 (citation and internal quotation marks omitted). As the D.C. Circuit has concluded, "[t]o apply collateral estoppel under these circumstances would prevent the [C]ourt from performing its function of developing the law." *Id.* at 447 . Thus, contrary to Intervenor-Defendants' claim that the instant case "stands in sharp contrast to" the D.C. Circuit's decision in *Pharmaceutical Care Management Ass'n v. District of Columbia*, 522 F.3d 443 (D.C. Cir. 2008), *see* Intervenor-Defs.' Suppl. Mot. Reply, ECF No. 139 at 19; that case supports applying the "unmixed questions of law" exception when other players, like APC or Intervenor-Plaintiffs, "could readily avoid the estoppel consequence of a loss by" instead bringing the lawsuit, *Pharm. Care*, 522 F.3d at 447 .

ii. Policy Considerations and the Presence of Non-Mutual Parties Also Weigh Against the Application of Issue Preclusion Here

Even if the Court had declined to apply the "unmixed questions of law" exception, practical and equitable policy considerations, including the presence of several non-mutual parties, "counsel against application of collateral estoppel in this case." *Id.*

Issue preclusion "must be evaluated in light of the policy concerns underlying the doctrine[.]" *Stauffer*, 464 U.S. at 176 (White, J., concurring); *see also PJ United, Inc. v. Camron*, No. 7:15-cv-00955, [2016 BL 500675], 2016 WL 10100762 , at *4 (N.D. Ala. Mar. 23, 2016) ("Defensive collateral estoppel is largely grounded in several different policy concerns."); which include conserving judicial resources, avoiding inconsistent results across jurisdictions, preventing forum shopping and piecemeal litigation, and encouraging reliance on adjudication, *see Hardison*, 655 F.2d at 1288 ; *Allen v. McCurry*, 449 U.S. 90 , 94 , 101 S. Ct. 411 , 66 L. Ed. 2d 308 (1980). "[T]here is no justification for applying collateral estoppel, which is a flexible, judge-made doctrine, in situations where the policy concerns underlying it are absent." *Stauffer*, 464 U.S. at 176 (White, J., concurring).

Here, the Court concludes that none of these policy concerns are implicated so as to warrant applying issue preclusion to bar the Alabama Plaintiffs' ACT water quality claims. First, as Alabama argues, applying the doctrine against it "will not conserve the parties' or the Court's resources" because the Court is presently ruling on the merits of the parties' cross-motions for summary judgment. Ala.'s Opp'n to Suppl. Mot., ECF No. 134 at 33. Additionally, as discussed below, APC is a non-mutual party to which preclusion does not apply, such that the Court "would not save any resources because it still has to adjudicate [APC's] same claims." *Id.* [*39] ; *see also PJ United*, [2016 BL 500675], 2016 WL 10100762 , at *4 ("Defendants [still] have to litigate against the

Operating Companies here, meaning they are already allocating resources to litigating these issues."); *In re Light Cigarettes Mktg. Sales Prac. Litig.*, 691 F. Supp. 2d 239 , 251 (D. Me. 2010) ("[E]ven if issue preclusion were appropriate against PM, there is a significant question as to whether it may be used against Altria. Applying issue preclusion to PM and not to Altria would yield few efficiency benefits[.]").

Second, the doctrine's goals of discouraging forum shopping and preventing piecemeal litigation are not implicated here, as Alabama filed the ACT case two years prior to filing the ACF case, and therefore could not possibly have "adopt[ed] a 'wait and see' attitude, in the hope that the [ACF] action . . . [would] result in a favorable judgment." *Parklane Hosiery Co. v. Shore*, 439 U.S. 322 , 330 , 99 S. Ct. 645 , 58 L. Ed. 2d 552 (1979). Moreover, forum shopping entails filing suit in different jurisdictions, but Alabama filed both the ACT and ACF cases in this district, and the ACF case was only later transferred to the Northern District of Georgia upon motion by the State of Georgia, thereby diminishing any concern Intervenor-Defendants might now have over piecemeal litigation. *See Ala.'s Opp'n to Suppl. Mot.*, ECF No. 134 at 35-36.

Third, because the Court has already determined that the facts underlying the ACT and ACF cases are sufficiently unrelated, the Court agrees with Alabama's contention that "[a]ny ruling on the fact issues will not result in inconsistent results because the facts are different[.]" *Id.* at 33. And because the Court has also determined that the Northern District of Georgia's water quality holdings involved pure questions of law, any collateral estoppel policies are not advanced by precluding reconsideration of "a legal issue involving different facts." *Hamilton*, 385 F. Supp. 2d at 1335 .

In addition, to the extent there is a risk of inconsistent rulings on pure legal issues affecting the Corps' management of its two multi-state river basins, *see Intervenor-Defs.' Suppl. Mot. Reply*, ECF No. 139 at 20 (expressing this concern); other substantive policy considerations, such as the development of the law on important questions of national public interest, can outweigh the "interests of finality and judicial economy." *United States v. Alcan Aluminum Corp.*, 990 F.2d 711 , 719 (2d Cir. 1993) (citation omitted); *see also Am. Med. Int'l, Inc. v. Sec'y of Health, Educ. & Welfare*, 677 F.2d 118 , 122 (D.C. Cir. 1981) ("It can hardly be gainsaid that complex questions of national import can wholesomely and profitably be explored by more than a single court."). "Were this a case involving only private litigants or only simple issues of fact," the Court might hesitate less in the application of issue preclusion. *Am. Med. Int'l*, 677 F.2d at 121 . However, this is a lawsuit by a State government (and the State's largest utility company) against a federal agency, in which another State government and numerous municipalities have intervened, about the legality of operations "in a multi-state river basin that affects tens of millions of people." *Ala.'s Opp'n to Suppl. Mot.*, ECF No. 134 at 34. In this context of "agency relitigation of legal issues with substantial public policy [*40] implications, inquiry by other [courts] should not be foreclosed; indeed a conflict among the [courts in different] circuits could be a healthy matter." *Am. Med. Int'l*, 677 F.2d at 122 (citation and internal quotation marks omitted); *see also United States v. Mendoza*, 464 U.S. 154 , 160 , 104 S. Ct. 568 , 78 L. Ed. 2d 379 (1984) (stating that a rule allowing nonmutual collateral estoppel in cases involving the government "would substantially thwart the development of important questions of law by freezing the first final decision rendered on a particular legal issue"); *PJ United* , [2016 BL 500675], 2016 WL 10100762 , at *4 (noting that any potential inconsistencies on legal issues can be resolved via appeals). Therefore, "with the aim of producing a sound and well-reasoned decision[.]" the Court declines, based on these underlying policy considerations, to preclude consideration of the Alabama Plaintiffs' water quality claims. *Am. Med. Int'l*, 677 F.2d at 123 .

A final equitable consideration that also weighs against the application of issue preclusion in this instance is the presence of several non-mutual plaintiffs—APC and Intervenor-Plaintiffs—who were not parties to the ACF case. *See Nat'l R.R. Passenger Corp. v. Pa. Pub. Util. Comm'n*, 288 F.3d 519, 525 (3d Cir. 2002) (recognizing the lack of "mutuality of estoppel" as an "equitable exception" to issue preclusion (citing *Blonder-Tongue*, 402 U.S. at 328-29)). Intervenor-Defendants nonetheless argue that like the State of Alabama, "[t]he remaining Alabama Parties should also be barred from relitigating the issues decided in the ACF case" because as Alabama citizens, they cannot "complain that Alabama's representation of their interests in the ACF Case was 'inadequate.'" Intervenor-Defs.' Suppl. Mot., ECF No. 129 at 29-30. The Georgia Parties claim that since APC co-signed Alabama's brief and Intervenor-Plaintiffs "adopt[ed] and incorporate[d] by reference *in toto*" Alabama's arguments, Intervenor-Pls.' Mot., ECF No. 85 at 7; the Alabama Parties have "endorsed" Alabama as an adequate representative of their interests, Intervenor-Defs.' Suppl. Mot., ECF No. 129 at 30.

In response, Alabama argues that APC and Intervenor-Plaintiffs are not barred from litigating the disputed water quality issues because there are no indications that Alabama served as their "legal representative in the ACF case [or] . . . understood itself to be representing any of them, or that any of them understood itself to be represented by Alabama." Ala.'s Opp'n to Suppl. Mot., ECF No. 134 at 37-38. Intervenor-Plaintiffs "adopt and incorporate" Alabama's opposing arguments to the Georgia Parties' supplemental motion and add that they have each "raised distinct issues in this case that were not present in the ACF litigation." Intervenor-Pls.' Opp'n to Suppl. Mot., ECF No. 135 at 1-2. Likewise, APC adopts Alabama's arguments but limits its own response "to the non-party preclusion issue[.]" arguing that: (1) due process bars the application of collateral estoppel to APC because it was not a party to the ACF case and had no opportunity to be heard on the issues; and (2) APC "seeks to vindicate rights in this case that are separate and apart from those represented by the State of Alabama, and as such, the State of Alabama does not 'adequately represent' [*41] [APC]." APC's Opp'n to Suppl. Mot., ECF No. 137 at 2, 5. The Court is persuaded by the Alabama Parties' opposition arguments and concludes that these circumstances do not warrant carving out an exception to issue preclusion's general rule requiring mutuality of parties. *See Proctor v. Dist. of Columbia*, 74 F. Supp. 3d 436, 452 (D.D.C. 2014) (stating the rule that "[i]ssue preclusion may not be asserted against one who was not a party in the first case").

Generally, pursuant to due process principles, a nonparty to a suit is not deemed to have had "a full and fair opportunity to litigate the claims and issues settled in that suit" because of "the deep rooted historic tradition that everyone should have [their] own day in court." *Sturgell*, 553 U.S. at 892-93 (citation and internal quotation marks omitted); *see also Parklane*, 439 U.S. at 327 n.7 ("It is a violation of due process for a judgment to be binding on a litigant who was not a party or a privy and therefore has never had an opportunity to be heard."). However, the Supreme Court has noted that "in certain limited circumstances," nonparties may be precluded from litigating issues previously decided where they were "adequately represented" by a party to the first suit "with the same interests." *Sturgell*, 553 U.S. at 894 (citation and internal quotation marks omitted). For a party's representation of a nonparty to be considered "adequate," "at a minimum:" (1) the interests of the nonparty and its representative must be aligned; and (2) either the party must have understood itself to be acting in a representative capacity "or the original court took care to protect the interests of the nonparty." *Id.* at 900. Examples of such "[r]epresentative suits with preclusive effect on nonparties" include "properly conducted class actions, and suits brought by trustees, guardians, and other fiduciaries[.]" *Id.* at 894 (internal citations omitted).

Here, none of these "limited circumstances" are present, nor can it be said that the State of Alabama "adequately represented" APC and Intervenor-Plaintiffs' water quality claims in the ACF case. First, legal representatives for preclusion purposes are "restricted to five specific categories: trustees, persons authorized by the nonparty, executors, authorized public officials, and class representatives designated by a court[.]" *In re Salas*, No. 18-00260, [2018 BL 347138], 2018 WL 4621930, at *12 (Bankr. D.D.C. Sept. 24, 2018); and nothing in the record indicates that the State of Alabama embodied any of these categories to APC or Intervenor-Plaintiffs, even though they are Alabama corporations and municipalities, see Ala.'s Opp'n to Suppl. Mot., ECF No. 134 at 37.

Second, while Intervenor-Defendants claim that the Alabama Parties' interests, in relation to both water quality and NEPA claims, are "perfectly aligned" with the State of Alabama, and that "the Alabama Intervenor-Plaintiffs do not identify a single point where their interests actually diverge from those of their State[.]" see Intervenor-Defendants' Suppl. Mot. Reply, 139 at 7, 23-24; each of the four Intervenor-Plaintiffs has identified "distinct issues" of particular interest to them that "were not present in the ACF litigation[.]" see Intervenor-Plaintiffs' Opp'n to Suppl. Mot., ECF No. 135 at [*42] 2 (noting the Montgomery Board's concern that reduced flows caused by the ACT Master Manual "could adversely affect wastewater discharge assimilation and its ability to comply with its NPDES permits," Mobile Water's concern that the reduced flows will impact salinity levels in the Alabama River, and Russell Lands' and LMRA's concerns that the reduced flows will hurt reservoir levels at Lake Martin in late summer and early fall and hinder economic and recreational development); as has APC, see APC's Opp'n to Suppl. Mot., ECF No. 137 at 14 (noting its "'unique and substantial' interests in the broader ACF and ACT litigation as a result of its federal [Federal Energy Regulatory Commission ("FERC")] licenses in the ACT and [its] Nuclear Regulatory Commission license in the ACF—an interest that especially does not concern the State of Alabama"). These unique concerns negate the "perfect" alignment of interests between Alabama, APC, and Intervenor-Plaintiffs on both water quality and NEPA issues.²⁰

Third, the Georgia Parties fail to point to anything other than Alabama's status as a State to argue that it understood itself to be "acting in a representative capacity" for APC and Intervenor-Plaintiffs. *Sturgell*, 553 U.S. at 900. Although they argue that courts have found nonparty citizens and "creatures of the State" to be adequately represented by their States in prior judgments, see Intervenor-Defendants' Suppl. Mot. Reply, ECF No. 139 at 24-25; especially "in cases involving sovereign resources such as water[.]" see Intervenor-Defendants' Suppl. Mot., ECF No. 129 at 30-31; they cite no recent, apposite cases from this circuit to support this argument, see APC's Opp'n to Suppl. Mot., ECF No. 137 at 12-13 (demonstrating why each of the cases cited by the Georgia Parties are "inapplicable here").²¹ Furthermore, although Alabama stated in its ACF complaint that injury would befall "its citizens," Compl., *Alabama v. U.S. Army Corps of Eng'rs*, No. 17-607 (JDB) (D.D.C. Apr. 5, 2017), ECF No. 1 at 8 ¶ 32; the Court is unpersuaded that this statement alone indicates that Alabama understood itself to be specifically representing the interests of the Montgomery Board, Mobile Water, LMRA, and Russell Lands. See *Sturgell*, 553 U.S. at 901 (rejecting the "expansive" idea of "virtual representation" that "would authorize preclusion based on identity of interests and some kind of relationship between parties and nonparties"). Finally, neither did the Northern District of Georgia take "care to protect the interests of" APC or Intervenor-Plaintiffs in the ACF case such that it would now be fair to bind them, as non-parties, to its 2020 and 2021 decisions. See *id.* at 898, 900 (requiring "special procedures to safeguard the interests of absentees").

In its opposition briefing, APC also argues that the Northern District of Alabama's decision in 2005 to allow

APC to intervene as a plaintiff in the original Water Wars litigation based on a finding that APC's interests were not "adequately represented" by the State of Alabama, *see Alabama*, 229 F.R.D. at 672 ; supports concluding that APC "seeks to vindicate rights" in this case that "differ" from those represented by Alabama, *see* APC's Opp'n [*43] to Suppl. Mot., ECF No. 137 at 7. The Northern District of Alabama made this finding in the context of various motions to intervene, where it noted that because Alabama had explicitly filed suit as *parens patriae*, *see supra* note 21 (defining this doctrine); APC, as a citizen of the State of Alabama, could only intervene as a matter of right if it showed that Alabama would not adequately protect an interest APC shared with other citizens of the State, or that APC sought to pursue an interest apart from a shared interest with the class of all other Alabama citizens, *see Alabama*, 229 F.R.D. at 673 . The Northern District of Alabama concluded that APC had demonstrated that its interest "differ[ed] from that of Alabama[.]" as Alabama was concerned with "the management of *all* water resources in the ACF and ACT river basins" and "*all* its citizens," while APC "specifically desire[d] to protect the supply of water needed for *its* power generation operations" and "*its* interest in obtaining the Corps' approval for *its* development plan." *Id.* at 674 (emphasis in original). In addition to finding that APC's specific interests "diverge[d] from Alabama's general interest[.]" that court also found that the State would "not adequately represent" APC's specific interests, thereby concluding that APC overcame the *parens patriae* presumption that Alabama would represent its interests in the case. *Id.* at 674-75. APC now argues that "[t]he same is true here[.]" especially since Intervenor-Defendants were parties to the Northern District of Alabama's 2005 ruling. APC's Opp'n to Suppl. Mot., ECF No. 137 at 11.

The Court agrees with APC that this 2005 decision provides persuasive evidence in favor of concluding that the State of Alabama does not now adequately represent the interests of APC and Intervenor-Plaintiffs so as to permit defensive non-mutual issue preclusion. *See South Carolina v. North Carolina*, 558 U.S. 256 , 271-73 , 130 S. Ct. 854 , 175 L. Ed. 2d 713 (2010) (finding that Duke Energy, an entity operating dams and reservoirs in both the plaintiff and defendant States, had "demonstrated powerful interests" likely to "shape the outcome of [the] litigation" that were separate from the interests represented by the States). Although the Georgia Parties argue that the standard for "adequate representation" under a Rule 24(a) motion to intervene differs from the standard used in the issue preclusion analysis, *see* Intervenor-Defs.' Suppl. Mot. Reply, ECF No. 139 at 26-27; two of the key authorities relied on in their briefings, *see id.* at 24; Intervenor-Defs.' Suppl. Mot., ECF No. 129 at 31; in fact note that "the underlying principle" of "adequate representation" involved in a motion to intervene in regard to the doctrine of *parens patriae* is "applicable" to preclusion cases, *see Menzel v. Cnty. Utils. Corp.*, 501 F. Supp. 354 , 357 (E.D. Va. 1979); *United States v. Olin Corp.*, 606 F. Supp. 1301 , 1304 , 1307 (N.D. Ala. 1985) (noting that "the rule regarding intervention in a *parens patriae* action [] is equally appropriate" in a *res judicata* preclusion case). Therefore, the Court concludes that Intervenor-Defendants have failed to establish the two requisite criteria for the "carefully circumscribed 'adequate representation' exception to [*44] the bar against nonparty preclusion[.]" *Nationwide Mut. Fire Ins. Co. v. George V. Hamilton, Inc.*, 571 F.3d 299 , 313 (3d Cir. 2009); *Sturgell*, 553 U.S. at 893-94 , 900 .

Accordingly, because the water quality issues raised by Intervenor-Defendants' supplemental motion for summary judgment are "unmixed questions of law" excluded from the application of the issue preclusion doctrine, and because policy and equity considerations, including the presence of non-mutual parties, further weigh against its application, the Court declines to preclude the Alabama Plaintiffs' water quality claims in the instant action based on the Northern District of Georgia's ACF water quality rulings regarding the CWA and ER

1110-2-8154.

2. The Alabama Plaintiffs' Water Quality Claims Fail on the Merits

Because the Court has declined to apply issue preclusion to the Alabama Plaintiffs' water quality claims, it will proceed to analyze the merits. As discussed, the Alabama Plaintiffs argue that the ACT Master Manual should be set aside because it violates: (1) section 313(a) of the CWA, 33 U.S.C. § 1323(a) ; and (2) ER 1110-2-8154 of the Corps' water quality guidance. *See supra* section IV.A. They also advance a third argument—that by adopting the Master Manual despite acknowledging its adverse water quality impacts, the Corps engaged in an "unexplained departure" from precedent in violation of the APA's duty to make reasoned decision-making. *See Ala.'s Opp'n to Suppl. Mot.*, ECF No. 134 at 13, 28-30; *Compl.*, ECF No. 1 at 25-26 ¶ 114. The Court addresses each argument in turn.

a. Section 313(a) of the CWA (33 U.S.C. § 1323(a))

The Alabama Plaintiffs argue that operations under the Master Manual, resulting in reduced flows from the Allatoona Project, will degrade downstream waters and lead to violations of Alabama's state water quality standards, *see Ala. Admin. Code r. 335-6-10.01* (1991); including the standards for nutrient concentrations in Weiss Lake, an APC reservoir located in Alabama, *see Pls.' Mot.*, ECF No. 83 at 48-50; *Intervenor-Defs.' Cross-Mot.*, ECF No. 97 at 21-22. As Defendants note, this "argument boils down to the assertion that the Corps has an obligation under 33 U.S.C. §§ 1313 and 1323 [of the CWA] to avoid operational decisions that could contribute to non-attainment of the state water quality standards applicable downstream from the dams[.]" *Defs.' Cross-Mot.*, ECF No. 95 at 51. Defendants respond that they have fulfilled their duties under the CWA because they gave the requisite consideration to water quality standards, in addition to their obligations under other relevant governing statutes. *Id.* at 53. The Georgia Parties add that the Corps could not have violated Alabama's water quality standards because these standards are not, within the meaning of section 313(a), "requirements" with which the Corps must comply, and thus, the Alabama Plaintiffs' CWA claim must fail. *Intervenor-Defs.' Cross-Mot.*, ECF No. 97 at 22. For the reasons discussed below, the Court agrees that Alabama's water quality standards are not enforceable "requirements" under the statute and that the Alabama Plaintiffs have failed to state a claim pursuant to the CWA.

The Alabama Plaintiffs' argument that the Corps must comply with state water quality [*45] standards is premised on the following language in the CWA:

Each . . . agency . . . of the Federal Government (1) having jurisdiction over any property or facility, or (2) engaged in any activity resulting, or which may result, in the discharge or runoff of pollutants, . . . shall be subject to, and comply with, *all Federal, State, interstate, and local requirements*, administrative authority, and process and sanctions respecting the control and abatement of water pollution in the same manner, and to the same extent as any nongovernmental entity

33 U.S.C. § 1323(a) (emphasis added). Using this language, they argue that because the Corps, a federal agency, has jurisdiction over the Allatoona Project, it is subject to and required to comply with State requirements, specifically state water quality standards. *See Pls.' Mot.*, ECF No. 83 at 48-50. Section 301 of the CWA requires the States to establish these standards for all of their waters. *See* 33 U.S.C. § 1313 .

The Court first concludes that section 313(a) "does not qualify as a requirement in and of itself." *In re ACF Basin*, 467 F. Supp. 3d at 1336 ; see also *New York v. United States*, 620 F. Supp. 374 , 381-82 (E.D.N.Y. 1985) (explaining that section 313(a) does "not expand the category of applicable *substantive* requirements with which federal facilities must comply" (citation and internal quotation marks omitted)); Intervenor-Def.' Cross-Mot., ECF No. 97 at 22 (agreeing that section 1323(a) does not "impose[] a general duty on the Corps"). Instead, to state a claim under section 313(a), the Alabama Plaintiffs must allege that, in updating the Master Manual, the Corps has violated some applicable "requirement" within the meaning of that section, which thus requires that the Court determine whether state water quality standards, as the Alabama Plaintiffs contend, are themselves such "requirements." See Ala.'s Opp'n to Suppl. Mot., ECF No. 134 at 25 n.5.

The Supreme Court has concluded that "the requirements that can be enforced against federal agencies under Section 313(a) are limited to objective state standards of control, such as effluent limitations in permits, compliance schedules[,] and other controls on pollution applicable to dischargers." *In re ACF Basin*, 467 F. Supp. 3d at 1337 ; see *EPA v. Cal. ex rel. State Water Res. Control Bd.*, 426 U.S. 200 , 215 , 96 S. Ct. 2022 , 48 L. Ed. 2d 578 (1976) (noting that "certain parts of the legislative history would seem to indicate that the 'requirements' language of Section 313 refers simply and solely to substantive standards, to effluent limitations and standards and schedules of compliance" (some internal quotation marks omitted));²² *New York*, 620 F. Supp. at 381 ("[T]he Supreme Court seems to equate 'requirements' in § 313 with effluent limitations and standards."); see also *Hancock v. Train*, 426 U.S. 167 , 187-89 , 96 S. Ct. 2006 , 48 L. Ed. 2d 555 (1976) (concluding that nearly identical "requirements" language from the Clean Air Act contemplates only "emission standards and compliance schedules"). As the Northern District of Georgia noted in its 2020 ACF decision, "most [CWA] requirements ultimately arise from the foundational requirement to obtain a permit before discharging any pollutant into waters of the United States[.]" with each permit including "effluent limitations and other requirements sufficient to protect water quality [***46**] standards." *In re ACF Basin*, 467 F. Supp. 3d at 1337 (citing 33 U.S.C. § 1311(a) , (b)(1)(C)).

While water quality standards and effluent limitations "are related, . . . the two are entirely different concepts and the difference is at the heart of the [Federal Water Pollution Control Act Amendments of 1972]." *Bethlehem Steel Corp. v. EPA*, 538 F.2d 513 , 515 (2d Cir. 1976). Before the 1972 Amendments, water quality standards "were the keystone of the federal pollution control program[.]" under which "if wastes discharged into receiving waters reduced the quality below permissible standards, legal action could be commenced against the discharger." *Id.* (citation and internal quotation marks omitted). However, "[t]his program based on water quality standards . . . proved ineffective[.]" problems which "stemmed from the character of the standards themselves," *Cal. ex rel.*, 426 U.S. at 202 ; and "[i]t was this dissatisfaction with water quality standards as a method of pollution control that led to the proposal that they be replaced or supplemented with 'effluent limitations[.]'" *Bethlehem*, 538 F.2d at 515 .

Thereafter, the concept of strict technology-based effluent limitations was "offered as a logical alternative to" water quality standards, so that "[i]nstead of indirectly measuring discharges by their effect on water quality, monitoring equipment would directly measure discharges at their source." *Id.* (citation omitted); *Cal. ex rel.*, 426 U.S. at 204-05 . Today, effluent limitations, established pursuant to sections 301,304, and 306 of the CWA, see 33 U.S.C. §§ 1311 , 1314 , 1316 ; and defined as restrictions established by the States "on quantities, rates, and concentrations" of constituent substances "discharged from point sources into navigable

waters," *id.* § 1362(11); are readily distinguishable from water quality standards, which "encompass[] all designated uses of a water body and all water quality criteria that define pollutant levels necessary to protect those uses[.]" *Jackson*, 798 F. Supp. 2d at 227-28 ; 33 U.S.C. § 1313(c)(2)(A) . So while the CWA "provides for two primary sets of water quality measures: (1) effluent limitations; and (2) water quality standards[.]" *Nat'l Wildlife Fed'n v. U.S. Army Corps of Eng'rs*, 92 F. Supp. 2d 1072 , 1074 (D. Or. 2000); the Court concludes that history and precedent regarding the CWA and its amendments indicate that enforceable "requirements" within the meaning of section 313(a) include only the former and not the latter, *see Or. Nat. Res. Council*, 834 F.2d at 850 (stating that while "effluent limitations may be derived from state water quality standards[.]" only these limitations "may be enforced when included in a discharger's permit[.]" as opposed to "water quality standards themselves"). Therefore, the Court rejects the Alabama Plaintiffs' textual approach to arguing that "[n]othing in § 1323(a)'s text excludes water-quality standards from the 'requirements' to which the Corps must adhere." *See Pls.' Reply*, ECF No. 99 at 22-23.

The Court notes that under the CWA, dams in the ACT Basin, including Allatoona Dam at issue here, are considered "nonpoint sources," to which effluent limitations do not apply, and thus are not subject to NPDES permit requirements, *see Or. Nat. Res. Council*, 834 F.2d at 849-50 ; *Nat'l Wildlife Fed'n*, 92 F. Supp. 2d at 1075 ; regardless of whether the dams are operated by private citizens or by the Corps as a federal agency, [*47] *see, e.g., In re ACF Basin*, 467 F. Supp. 3d at 1337-38 (concluding that nonpoint sources, like dams in the ACF Basin "are not subject to NPDES permits . . . or effluent limitations"); *Nat'l Wildlife Fed'n v. Gorsuch*, 693 F.2d 156 , 167 , 182-83 (D.C. Cir. 1982) (same); *U.S. ex rel. Tenn. Valley Auth. v. Tenn. Water Quality Control Bd.*, 717 F.2d 992 , 998 (6th Cir. 1983) (same); *L.A. Cnty. Flood Control Dist. v. Nat. Res. Def. Council*, 568 U.S. 78 , 82 , 133 S. Ct. 710 , 184 L. Ed. 2d 547 (2013) (explaining that "discharge of pollutants" does not occur when water "flows from one portion of a river that is a navigable water of the United States, through a concrete channel or other engineered improvement in the river," and then "into a lower portion of the same river"). Certification obligations from section 401 of the CWA, *see* 33 U.S.C. § 1341 (providing that whenever a federal agency issues a license or permit for any activity that may result in a discharge of pollutants into navigable waters, the State in which the activity occurs may issue a section 401 certification imposing any conditions to ensure compliance with applicable water quality standards, and the certification is then incorporated into the license or permit); "often a source of enforceable 'requirements' applicable to federal agencies[.]" also do not apply to nonpoint sources such as dams, *In re ACF Basin*, 467 F. Supp. 3d at 1337-38 . In sum, the Alabama Plaintiffs cannot point to: (1) effluent limitations; (2) NPDES permits; (3) section 401 certification requirements; or (4) water quality standards as sources of enforceable "requirements" under the CWA for the Corps' ACT projects, all of which involve dams and are governed by the Master Manual's operational updates.

The Court's conclusion is buttressed by the Northern District of Georgia's identical conclusion that state "water quality standards are not directly enforceable under the [CWA,]" but "rather they provide the basis for specific, enforceable requirements designed to achieve them." *In re ACF Basin*, 467 F. Supp. 3d at 1337-38 ; *see also Or. Nat. Res. Council*, 834 F.2d at 850 (similarly concluding that "it is not the water quality standards themselves that are enforceable . . . but it is the 'limitations necessary to meet' those standards, or 'required to implement' the standards" that are enforceable); Intervenor-Defs.' Suppl. Mot., ECF No. 129 at 13 (correctly contending that although water quality standards "'establish the desired condition of a waterway,'" and are

foundational to the CWA, "they do not create 'requirements' that can be 'violated' within the meaning of Section 1323(a)" (quoting *Arkansas*, 503 U.S. at 101). Despite state water quality standards not being "self-enforcing," the Northern District of Georgia concluded that to ensure the attainment of those standards, the States can "create specific, enforceable 'requirements' of nonpoint sources through programs such as: 'Best Management Practices' or 'BMPs' to control runoff and 'total maximum daily load[s]' or 'TMDLs' that impose conditions on nonpoint source users." *In re ACF Basin*, 467 F. Supp. 3d at 1337-38 ; see also *Tenn. Water Quality Control Bd.*, 717 F.2d at 999 ("Water pollution arising from nonpoint sources is to be dealt with differently, specifically through the device of areawide waste treatment management by the states."); *Ctr. for Native Ecosystems v. Cables*, 509 F.3d 1310 , 1332 (10th Cir. 2007) (concluding that [*48] by implementing BMPs to address water pollution, the agency complied with Wyoming's state water quality "requirements" under section 1323(a) of the CWA); *Ctr. for Biological Diversity v. Wagner*, No. 08-302, [2009 BL 386357], 2009 WL 2176049 , at *16, *18 (D. Or. June 29, 2009) (finding that the agency's implementation of BMPs "constitutes compliance with" Oregon's state water quality "requirements" and thus section 1323(a)), *R. & R. adopted by Ctr. for Biological Diversity v. Wagner*, No. 08-302, [2009 BL 386380], 2009 WL 2208023 (D. Or. July 22, 2009). Therefore, once the States create such "requirements" to serve as the enforcement mechanisms for achieving the underlying water quality standards, federal facilities must comply with them "to the same extent as any nongovernmental entity." 33 U.S.C. § 1323(a) ; see also *Cables*, 509 F.3d at 1332 (holding federal agencies to the same water pollution control requirements "as if they were private citizens").

In concluding that state water quality standards are not "requirements" under section 313(a) of the CWA and that the State of Alabama failed to identify any other "requirement" that the Corps had violated, the Northern District of Georgia relied heavily on the Supreme Court's decision in *EPA v. California ex rel. State Water Resource Control Board*, 426 U.S. 200 , 96 S. Ct. 2022 , 48 L. Ed. 2d 578 (1976), and the District Court for the Eastern District of New York's ("Eastern District of New York") decision in *New York v. United States*, 620 F. Supp. 374 (E.D.N.Y. 1985). See *In re ACF Basin*, 467 F. Supp. 3d at 1337-38 . The *New York* plaintiffs, like the Alabama Plaintiffs here, argued that "requirements" under section 313(a) include water quality standards such that an alleged violation of those standards is actionable under the CWA. 620 F. Supp. at 381-82 . Using the Supreme Court's discussion of the meaning of section 313(a)'s "requirements" language in *EPA v. California ex rel.*, the Eastern District of New York concluded that state water quality standards fail to equate to substantively enforceable "requirements" under that provision because they are not "an objective, administratively predetermined effluent standard or limitation or administrative order upon which to measure the prohibitive levels of water pollution." See *id.* at 381-84. While the Georgia Parties label *New York* "instructive," Intervenor-Def.' Cross-Mot., ECF No. 97 at 24; the Alabama Plaintiffs call it "an inapposite non-APA case" because they claim it made conclusions under the CWA's citizen-suit provision, section 505 codified at 33 U.S.C. § 1365 , that do not apply "to an APA suit challenging the Corps' compliance with § 1323(a)[,]" see Pls.' Reply, ECF No. 99 at 24-25. So too have the Alabama Plaintiffs claimed that this Court should reject the Northern District of Georgia's reasoning in the ACF case because they allege it erroneously analyzed "Alabama's water-quality claims as if they were under the citizen-suit provision of the [CWA,]" as opposed to being under the APA. See Pls.' Resp. to Suppl. Authority Notice, ECF No. 120 at 1. The Court rejects both of these arguments for the same reason the Northern District of Georgia did: "The *New York* court examined both Section 313(a) and Section 505[,] explicitly holding that the two should be 'construed as coextensive[.]' . . . [and] held that water quality standards do not constitute 'requirements' [*49] under either

code section." *In re ACF Basin*, 467 F. Supp. 3d at 1338 (citing *New York*, 620 F. Supp. at 381-84).

The Court is therefore unpersuaded by the contrary cases the Alabama Plaintiffs cite in their reply, many of which were also considered by the Northern District of Georgia and duly rejected because they arose from "violations of Section 401 Certification or NPDES requirements, [or] . . . from specific state regulations adopted by the states to implement these regulatory programs and not directly from the water quality standards themselves." *In re ACF Basin*, 467 F. Supp. 3d at 1338-39 ; see, e.g., *S.D. Warren Co. v. Me. Bd. of Env't Prot.*, 547 U.S. 370 , 374-75 , 126 S. Ct. 1843 , 164 L. Ed. 2d 625 (2006) (addressing section 401 certification requirements); *Ohio v. U.S. Army Corps of Eng'rs*, 259 F. Supp. 3d 732 , 749-52 (N.D. Ohio 2017) (same); *Fla. Wildlife Fed'n, Inc. v. U.S. Army Corps of Eng'rs*, No. 4:12-cv-355, [2013 BL 272866], 2013 WL 5436707 , at *3 (N.D. Fla. Sept. 27, 2013) (analyzing a Florida statute creating a private right of action against individuals who violate the State's water quality standards). In addition, although the Court of Appeals for the Ninth Circuit ("Ninth Circuit") has stated that section 313(a) of the CWA requires the Corps to comply with state water quality standards, *Nat'l Wildlife Fed'n v. U.S. Army Corps of Eng'rs*, 384 F.3d 1163 , 1167 (9th Cir. 2004); see also *Nat'l Wildlife Fed'n v. U.S. Army Corps of Eng'rs*, 132 F. Supp. 2d 876 , 889 (D. Or. 2001); it not only did not actually analyze whether such standards constitute enforceable "requirements" within the meaning of the CWA, see Intervenor-Def's. Cross-Mot., ECF No. 97 at 24; Def's. Reply, ECF No. 102 at 34; but it also noted that the CWA's directive to agencies to comply with such standards "must be construed *in pari materia* with" other congressional statutes governing federal dams, *Nat'l Wildlife Fed'n*, 384 F.3d at 1178 ; as the Corps now argues in defense to the Alabama Plaintiffs' CWA claims, see Def's. Cross-Mot., ECF No. 95 at 52-53; see also 33 C.F.R. § 222.5(f)(1) (listing some of the "applicable Congressional Acts").²³

The Court is instead persuaded by an earlier Ninth Circuit case that explicitly analyzed the enforceability of "state water quality standard violations from nonpoint sources pursuant to the APA," as is the case here, in which that court specified that while the CWA "requires each state to develop and implement 'water quality' standards to protect and enhance the quality of water within the state[.]" federal agencies need only comply with "state requirements," and that it is "not the water quality standards themselves that are enforceable" "requirements" but rather "the 'limitations necessary to meet' those standards[.]" *Or. Nat. Res. Council*, 834 F.2d at 848 , 850 .

The Alabama Plaintiffs cite two more cases which the Court finds similarly unpersuasive. They point to *North Dakota v. U.S. Army Corps of Engineers*, 270 F. Supp. 2d 1115 (D.N.D. 2003), see Pls. Reply, ECF No. 99 at 24; which they note cites the D.C. Circuit's decision in *National Wildlife Federation v. Gorsuch*, 693 F.2d 156 (D.C. Cir. 1982), to argue for "[t]he concept that state water quality standards should apply to the activities of the Corps" 270 F. Supp. 2d at 1125 n.6 (citing *Gorsuch*, 693 F.2d at 182-83 n.78). However, in *Gorsuch*, the D.C. Circuit merely stated that "it may well be that state areawide water quality plans are the better regulatory tool" than the NPDES permit program for nonpoint sources and that "new dams cannot be built unless [*50] they comply with state water quality requirements." 693 F.2d at 182-83 . Nothing in these statements differs from the Court's conclusions, as it has already concluded that NPDES permit requirements do not apply to the Allatoona Dam at issue and that section 313(a) mandates compliance with applicable "requirements." Because the D.C. Circuit did not distinguish between state water quality standards and the enforceable "requirements" that lead to attainment of those standards, any dicta in a footnote referencing such standards is not binding here, see *id.* at 183 n.78; and in any event, the D.C. Circuit later stated that "water

quality standards by themselves have no effect on pollution; the rubber hits the road when the state-created standards are used as the basis for specific effluent limitations in NPDES permits[.]" *Am. Paper Inst.*, 996 F.2d at 350 . Furthermore, the *North Dakota* court wrote that "[t]here is no mechanism in the [CWA] for the enforcement of water quality standards adopted by the states; rather the enforcement is left to the states[.]" a conclusion shared by this Court and the Northern District of Georgia. *North Dakota*, 270 F. Supp. 2d at 1124 ; see *In re ACF Basin*, 467 F. Supp. 3d at 1338 . And in that case, North Dakota's governor signed an emergency bill into law amending North Dakota's water quality statute to "enable[]" the action to be brought by the State against the Corps for "reduc[ing] the quality of [State] waters below the water quality standards established," *i.e.*, creating an enforceable "requirement." *North Dakota*, 270 F. Supp. 2d at 1124 . As the Northern District of Georgia concluded in the ACF case, "Alabama has not alleged violations of a similar provision in Georgia or Alabama[.]" and the same is true here in the ACT case. *In re ACF Basin*, 467 F. Supp. 3d at 1139 .

Since the Court has concluded that Alabama's water quality standards are not "requirements," it next assesses whether the Alabama Plaintiffs have identified any enforceable "requirement" to state a claim under section 313(a) of the CWA. As the Corps notes, "the only water body where [the Alabama] Plaintiffs specifically contend that the Alabama water quality standards will be exceeded" is Weiss Lake, Alabama. Defs.' Reply, ECF No. 102 at 36. The Alabama Plaintiffs argue that, as confirmed by the FEIS, reduced flows under the Master Manual "will exacerbate nutrient concentrations in Weiss Lake, thus contributing to a violation of the limits [the Alabama Department of Environmental Management ("ADEM")] has placed there[.]" and will also adversely impact the lake's water temperature and concentrations of dissolved oxygen, nitrogen, phosphorous, and chlorophyll *a*, which "all affect marine habitat." Pls.' Mot., ECF No. 83 at 31, 50 (citing A.R., ECF No. 61 at D-00043827, D-00044389, D-0004390-44393). They contend that downstream releases "are important because the EPA has determined that the Coosa River, including Weiss Lake, has impaired water quality because of discharges originating mostly in Georgia[.]" and that "[t]o that end," there is "a specific Total Maximum Daily Load for the lake, providing limits on pollutants causing a nutrient problem in the lake." *Id.* at 17-18 (citing A.R., ECF No. 61 at D-00027171-73, D-00027183); see also A.R. ECF No. 61 [*51] at D-00027171 (explaining that this TMDL "addresses impairment due to nutrients in Weiss Lake by providing an estimate of the total phosphorus concentrations allowable in the lake from the point sources and non-point sources in the watershed" and functions in conjunction with Alabama's established numeric chlorophyll *a* criterion for Weiss Lake). The Alabama Plaintiffs argue that "the ACT Manual will contribute to violations of water-quality standards that were incorporated in a" TMDL at Weiss Lake, Ala.'s Opp'n to Suppl. Mot., ECF No. 134 at 24; and thus appear to contend that even if Alabama's water quality standards are not themselves enforceable "requirements" under section 313(a) of the CWA, the Weiss Lake TMDL is, see *id.* at 25 n.5; Pls.' Mot., ECF No. 83 at 50. The Georgia Parties argue in response that the "water quality standards for nutrients at Weiss Lake . . . are not 'requirements' within [the CWA's] framework" with which the Corps must comply. Intervenor-Def's. Cross-Mot., ECF No. 97 at 22. The Court agrees.

A TMDL specifies "the absolute amount of particular pollutants the entire water body can take on while still satisfying all water quality standards." *Jackson*, 798 F. Supp. 2d at 216 (citing 33 U.S.C. § 1313(d)(1)(C)). Thus, when a state identifies an impaired waterbody, it must establish a TMDL for the pollutants causing the impairment. *Nat. Res. Def. Council, Inc. v. EPA*, 301 F. Supp. 3d 133 , 137 (D.D.C. 2018). Although the CWA

does not define the phrase "total maximum daily load," *see generally* 33 U.S.C. § 1362 ; it states that "[s]uch load shall be established at a level necessary to implement the applicable water quality standards with seasonal variations and a margin of safety which takes into account any lack of knowledge concerning the relationship between effluent limitations and water quality[.]" *id.* § 1313(d)(1)(C). The States submit proposed TMDLs to the EPA, which either approves or rejects them. *Id.* § 1313(d)(2). Rejection of the proposal "triggers [the] EPA's duty to develop a substitute TMDL for the water body in question[.]" *Jackson*, 798 F. Supp. 2d at 216 (citing 33 U.S.C. § 1313(d)(2)); but if the EPA approves the proposal, "the implementation of the TMDL rests largely with the state[.] . . . [as t]he CWA requires states to engage in a 'continuing planning process' to implement their TMDLs," *Nat. Res. Def. Council*, 301 F. Supp. 3d at 137-38 (citing 33 U.S.C. § 1313(e)(3)(C)). TMDLs are thus "not self-implementing instruments, but instead serve as informational tools utilized by [the] EPA and the States to coordinate necessary responses to excessive pollution in order to meet applicable water quality standards." *Jackson*, 798 F. Supp. 2d at 216 ; *see also Anacostia Riverkeeper, Inc. v. Wheeler*, 404 F. Supp. 3d 160 , 165 (D.D.C. 2019) ("TMDLs themselves have no self-executing regulatory force."); *Pronsolino v. Nastri*, 291 F.3d 1123 , 1129 (9th Cir. 2002) ("TMDLs are primarily informational tools that allow the states to proceed from the identification of waters requiring additional planning to the required plans."). Even though they are not themselves requirements, TMDLs are "central" to the CWA because "they tie together point-source and nonpoint-source pollution issues in a manner that addresses the whole health of the water." *Sierra Club v. Meiburg*, 296 F.3d 1021 , 1025 (11th Cir. 2002) (citation and internal quotation marks omitted). "On the federal side," they "are incorporated [***52**] into the NPDES system through permit regulation of point sources[.]" and "[o]n the state side, the maximum levels and allocations of pollutants in a TMDL are incorporated into the State's water quality management plan." *Jackson*, 798 F. Supp. 2d at 216-17 . In sum, although not self-executing, TMDLs "serve as the cornerstones for pollution-reduction plans that do create enforceable rights and obligations[.]" *Am. Farm Bureau Fed'n*, 792 F.3d at 291 ; and provide "information for federal, state and local actors in furtherance of the cooperative efforts to improve water quality envisioned in the CWA[.]" *Jackson*, 798 F. Supp. 2d at 217 .

Based on this caselaw, although the Northern District of Georgia suggested that States can create specific "requirements" of nonpoint sources through TMDLs, *see In re ACF Basin*, 467 F. Supp. 3d at 1338 ; the Court concludes that the Weiss Lake TMDL raised by the Alabama Plaintiffs is not a directly enforceable requirement within the meaning of the CWA.²⁴ Neither are the chlorophyll *a* standards for Weiss Lake "requirements," but are instead examples of specific numeric water quality criteria, which are merely a piece of what makes up the unenforceable water quality standards. *See Jackson*, 798 F. Supp. 2d at 215 ; A.R., ECF No. 61 at D-00027171 ("Alabama has established a numeric chlorophyll *a* criterion of 20 ?g/L for Weiss Lake."); *see also Ala. Admin. Code r. 335-6-10.11* (1991) ("Water Quality Criteria Applicable to Specific Lakes"); Intervenor-Def.' Cross-Mot., ECF No. 97 at 23. Because the Alabama Plaintiffs have failed to identify an enforceable legal "requirement" under section 313(a) of the CWA that the Master Manual violates, the Court concludes, as did the Northern District of Georgia in the ACF case, that they have failed to state a claim pursuant to 33 U.S.C. § 1323(a) . *See In re ACF Basin*, 467 F. Supp. 3d at 1339 .

And, even if operations under the Master Manual end up causing or contributing to future violations of Alabama's water quality standards, the Alabama Plaintiffs will continue to lack an actionable CWA claim.²⁵ Intervenor-Def.' Cross-Mot., ECF No. 97 at 24; *see Wagner*, [2009 BL 386357], 2009 WL 2176049 , at *16-18

(viewing the agency's implementation of BMPs as compliance with Oregon's applicable state "requirements," even if the agency's actions contributed to an existing violation of water quality standards); *Cables*, 509 F.3d at 1332-33 (same conclusion for BMPs under Wyoming's state "requirements" even though the agency's action did not "necessarily stop nonpoint-source pollution from exceeding water quality standards"). Finally, to the extent the Alabama Plaintiffs argue that they did not have to identify any "requirement" at all under section 313(a) because their cause of action is under the APA, see Ala.'s Opp'n to Suppl. Mot., ECF No. 134 at 25 n.5; Pls.' Resp. to Suppl. Authority Notice, ECF No. 120 at 1; the Court rejects the argument, as APA review "requires reference to the legal duty set forth in the governing substantive statute[.]" here being the CWA, *Nat'l Wildlife Fed'n*, 132 F. Supp. 2d at 889 .

b. ER 1110-2-8154

The Alabama Plaintiffs next argue that the Corps' own guidance in ER 1110-2-8154 provides a source of independent "requirements" beyond those in the CWA and mandates that the Corps "avoid creating water-quality conditions that impair 'existing instream water uses' 'throughout the area' its dam [*53] operations will affect." Pls.' Mot., ECF No. 83 at 49 (quoting ER 1110-2-8154 at 2 ¶ 6a-b). They argue that ER 1110-2-8154 requires the Corps to "[e]nsure that water quality, as affected by the project and its operation is suitable' not only 'for project purposes,' but also for 'existing water uses, and public health and safety and [is] in compliance with applicable Federal and state water quality standards.'" *Id.* (citing ER 1110-2-8154 at 3 ¶ 8a). The Georgia Parties argue—and the Court agrees—that the ERs, including ER 1110-2-8154, are not binding on the Corps. See Intervenor-Defs.' Reply, ECF No. 103 at 15-16.

While "[i]t is axiomatic that an agency is legally bound to respect its own regulations and commits procedural error if it fails to abide them[.]" *Algonquin Gas Transmission Co. v. FERC*, 948 F.2d 1305 , 1315 (D.C. Cir. 1991) (citation and internal quotation marks omitted); it is likewise "axiomatic" that courts "will not review allegations of noncompliance with an agency statement that is not binding on the agency[.]" *United States v. Alameda Gateway Ltd.*, 213 F.3d 1161 , 1167 (9th Cir. 2000) (citation and internal quotation marks omitted); specifically, what amounts to "a general statement of policy" as opposed to a binding "substantive rule," *Pac. Gas & Elec. Co. v. Fed. Power Comm'n*, 506 F.2d 33 , 37 (D.C. Cir. 1974). Whereas substantive rules are adopted pursuant to the APA's formal notice and comment process, see 5 U.S.C. § 553 ; and have the force of law, a general statement of policy does not result from a rulemaking or an adjudication; "it is neither a rule nor a precedent but is merely an announcement to the public of the policy which the agency hopes to implement in future rulemakings or adjudications[.]" *Pac. Gas*, 506 F.2d at 38 . Rather than establish binding norms that determine issues or rights, a general statement of policy is "an informational device" by which an agency expresses its views "prior to their actual application in particular situations." *Id.* Accordingly, the agency, as well as third parties, cannot rely upon a general statement of policy as law because it merely announces "the agency's tentative intentions for the future[.]" and when applied in a particular situation, the agency "must be prepared to support the policy just as if the policy statement had never been issued." *Id.* When determining whether an agency standard carries the force and effect of law or is instead a non-binding statement of policy, courts will look to the agency's expressed intent, including the "agency's own characterization of a particular order," *id.*; whether the standard "was meant to create substantive rights in third parties," *Armstrong v. Accrediting Council for Continuing Educ. & Training, Inc.*, 980 F. Supp. 53 , 66 (D.D.C. 1997); and whether it was promulgated only after public notice and comment, see *Nat'l Mining Ass'n v. McCarthy*, 758 F.2d 243 , 250

(D.C. Cir. 2014).

The Court concludes, as did the Northern District of Georgia in the ACF case, that ER 1110-2-8154 "is an internal guidance document that cannot be enforced by third parties." *In re ACF Basin*, 467 F. Supp. 3d at 1340 . First, the "Purpose" section of ER 1110-2-8154 states that it "establishes a policy for the water quality management program at Corps civil works projects." ER 1110-2-8154 at 1 ¶ 1. This text indicates that the purpose [*54] of ER 1110-2-8154 is to memorialize the general policy behind the Corps' water quality management program and to guide Corps personnel in working on related civil works projects. *See Alameda Gateway*, 213 F.3d at 1168 (reaching the same conclusion based on similar "Purpose" text in a different ER). The Alabama Plaintiffs point to excerpts of ER 1110-2-8154 from the "Policy" section, which states that "[t]he Corps' policy is to take a leadership role in carrying out the goals and objectives of the national policy by managing the nation's water resources," ER 1110-2-8154 at 2 ¶ 6(b); and from the "Management" section, which states that "[d]ivisions should adopt and implement [certain] general water quality management objectives for all Corps water resources projects[,]" *id.* at 3 ¶ 8. However, this text does not establish a specific plan for any particular Corps project. *See Pac. Gas*, 506 F.2d at 40 . Instead, as the Northern District of Georgia concluded regarding this language, "[a]n agency statement regarding factors that *should* be considered and 'leaves the agency free to exercise its discretion to follow or not to follow that general policy in an individual case' is merely a general statement of policy without force of law." *In re ACF Basin*, 467 F. Supp. 3d at 1340 (quoting *Nat'l Mining Ass'n v. Sec'y of Lab.*, 589 F.3d 1368 , 1371 (11th Cir. 2009) (emphasis added)). Second, ER 1110-2-8154 "was not published in either the Code of Federal Regulations or the Federal Register, providing further evidence that [it] was not intended to be binding." *Alameda Gateway*, 213 F.3d at 1168 . Finally, ER 1110-2-8154 "does not appear to affect any individual rights or obligations[,]" *In re ACF Basin*, 467 F. Supp. 3d at 1340 ; and therefore cannot create substantive rights in third parties like the Alabama Plaintiffs, *Alameda Gateway*, 213 F.3d at 1168 .

While the D.C. Circuit has not considered the issue, numerous courts have concluded that the ERs are non-binding general policy statements. *See, e.g., Alameda Gateway*, 213 F.3d at 1168 (concluding that ER 1165-2-131 was a policy statement intended "to guide the practice of district engineers" rather than a substantive rule); *Pearce v. United States*, 261 F.3d 643 , 648-49 (6th Cir. 2001) (holding that ER 1130-2-341 was "not a substantive agency regulation" but part of the Corps' "internal operating manual" and therefore created no enforceable duties); *Slappey v. United States*, No. 1:11-cv-93, [2013 BL 258675], 2013 WL 5406431 , at *5 (M.D. Ga. Sept. 25, 2013) (agreeing that the ERs "provide[] general objectives and guidelines" and do "not mandate any particular" features at Corps projects), *aff'd*, *Slappey v. U.S. Army Corps of Eng'rs*, 571 F. App'x 855 (11th Cir. 2014); *Jones v. Rose*, No. 00-cv-1795, [2008 BL 40393], 2008 WL 552666 , at *39 (D. Or. Feb. 28, 2008) ("[T]he [ERs] are not legislative in nature; do not have the force and effect of law; and, therefore, are not reviewable by the Court."). Accordingly, because ER 1110-2-8154 is not binding, the Corps "retains the discretion and authority to change its position . . . in any specific case[,]" and the Alabama Plaintiffs have no right to enforce it as against the Master Manual's updates. *Ass'n of Flight Attendants v. Huerta*, 785 F.3d 710 , 716 (D.C. Cir. 2015) (citation omitted).

Instead of pointing to any enforceable "requirements" under the CWA or the ERs, the Alabama Plaintiffs direct the Court to public comments the EPA made on the FEIS. *See* Pls.' Mot., ECF No. 83 at 48, 51; [*55] A.R. ECF No. 61 at D-00049703-14 (EPA's complete letter in the record). However, the EPA's comment letter does

not identify a legal requirement that the Court can enforce and instead makes many of the same arguments the Court has rejected, including claiming that enforceable "requirements are found in the CWA, Executive Orders, promulgated regulations, and the [Corps] own guidance." A.R. ECF No. 61 at D-00049710. In addition, the language which the Alabama Plaintiffs cite comes from the "Recommendations" section of the letter, in which the EPA only "recommend[ed]" that the Corps consider and maximally comply with water quality standards. *Id.* at D-00049711. Further, while the Alabama Plaintiffs highlight EPA statements that the Corps "cannot, through its operational decisions, create conditions (*e.g.*, decreased flow) that cause permittees to fall out of compliance[.]" *id.* at D-00049704; and force "States and other [downstream] stakeholders [to] address the consequences of" these decisions, *id.* at D-00049709; these are again comments not grounded in a specific source of legal obligations, *see id.* at D-00049705 (contending, without authority, that the Master Manual "should provide for operations that comply with state water quality standards").

And, even if operations under the Master Manual end up affecting downstream water quality under low flow conditions, as the FEIS admits could happen, *id.* at D-00043827; which then could cause state agencies to adjust their NPDES permits to impose more stringent effluent limitations on permit holders, *see id.* at D-00044390 (explaining that "permit conditions may be temporarily changed [by the States] during extreme low-flow conditions"); such a result is not an illicit shift in mitigation responsibility or an unlawful expectation by the Corps, but rather its valid reliance on the actual legal requirements imposed by the CWA's statutory permitting scheme. Specifically, section 301 of the CWA requires effluent limitations in NPDES permits to be as stringent as necessary to meet water quality standards, *see* 33 U.S.C. § 1311(b)(1)(C) ; and mandates that States continually monitor their waters covered by the CWA to identify those for which current pollution controls "are not stringent enough," so as to force them to update those limitations, *Jackson*, 798 F. Supp. 2d at 215 (quoting 33 U.S.C. § 1313(d)(1)(A)). Section 301 is thus a source of an enforceable obligation applicable to the States, but nothing in it or any other CWA section makes the Corps responsible for ensuring States' compliance. As the Corps states in the FEIS, it has no duty "to ensure that other entities meet their federal clean water compliance requirements in the future[.]" nor is it "authorized to operate projects to ensure compliance by others[.]" A.R., ECF No. 61 at D-00043784; *see also* Intervenor-Defs.' Suppl Mot., ECF No. 129 at 12 n.6 ("[T]he [CWA] prohibits the Corps from planning to use reservoir releases to off-set the impacts of pollution caused by others."). Instead, it is allowable for agencies to "recognize that other entities are in the best position to take appropriate action." *See In re ACF Basin*, 554 F. Supp. 3d at 1307 (rejecting the plaintiffs' ACF claim [*56] that the Corps erred by "punting mitigation to [the State of] Georgia"). Thus, contrary to the Alabama Plaintiffs' contention, the Corps cannot "den[y]" obligations that do not exist, nor does it have "its own obligations" under section 313(a) of the CWA or ER 1110-2-8154 that the Master Manual violates. Pls.' Mot., ECF No. 83 at 51.²⁶

Emerging from all the failed "requirements" the Alabama Plaintiffs have pointed to are the Corps' binding regulations published in the Federal Register, one of which states:

The water control plans will be prepared *giving appropriate consideration to all applicable Congressional Acts* relating to operation of Federal facilities, *i.e.*, Fish and Wildlife Coordination Act (Pub. L. 85-624), Federal Water Project Recreation Act-Uniform Policies (Pub. L. 89-72), National Environmental Policy Act of 1969 (Pub. L. 91-190), and Clean Water Act of 1977 (Pub. L. 95-217).

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33 C.F.R. § 222.5(f)(1) (emphasis added). According to Defendants, this regulation "explains the Corps' approach to balancing CWA 'obligations' with the several other statutes that also establish obligations [it] must address in developing the Manual." Defs.' Cross-Mot., ECF No. 95 at 52. The Court agrees that this regulation embodies the Corps' "significant discretion to balance the often competing interests at its multi-purpose reservoirs[,]" *In re ACF Basin*, 554 F. Supp. 3d at 1302 ; and indicates that no one congressional act "takes priority over" other applicable statutes, Defs.' Cross-Mot., ECF No. 95 at 51.

Courts of Appeal in two circuits that have considered how the CWA fits into the Corps' overall water control scheme have concluded that: (1) the CWA must be construed together with other governing statutes; and (2) a relevant federal statute can preempt the enforcement of state water quality standards when the two conflict. First, the Ninth Circuit has determined that "[t]he CWA's directive to federal agencies requiring compliance with state water standards must be construed *in pari materia* with" the River and Harbor Act of 1945, authorizing construction of reservoir projects in the ACT Basin in the first instance, and noted that "'when two statutes are capable of coexistence, it is the duty of the courts . . . to regard each as effective.'" *Nat'l Wildlife Fed'n*, 384 F.3d at 1178 (quoting *Radzanower v. Touche Ross & Co.*, 426 U.S. 148 , 155 , 96 S. Ct. 1989 , 48 L. Ed. 2d 540 (1976)).

Second, the Court of Appeals for the Eighth Circuit ("Eighth Circuit") has found that the Flood Control Act of 1944 "vests the Corps with the duty to balance" various water-use interests, "including the interests of the reservoir states[,]" and that allowing the States "to use their water-quality standards to control how the Corps balances [these] interests would frustrate the design of" that Act. *In re Operation of Mo. River Sys. Litig.*, 418 F.3d 915 , 919-20 (8th Cir. 2005). Accordingly, the Eighth Circuit concluded that the Flood Control Act of 1944 preempted the enforcement of North Dakota's state water quality standards against the Corps. *Id.* at 920; see also *CSX Transp., Inc. v. Easterwood*, 507 U.S. 658 , 663 , 113 S. Ct. 1732 , 123 L. Ed. 2d 387 (1993) ("Where a state statute conflicts with, or frustrates federal law, the former must give way."). In another decision, the Eighth Circuit wrote that "[c]ourts are simply not empowered to review every [*57] decision of the Corps to ensure that it maximizes the benefits of the [river basin] for all interests[,]" as "such a standard would be impossible to meet[,]" *South Dakota v. Ubbelohde*, 330 F.3d 1014 , 1031 (8th Cir. 2003). As such, "certain operations that might be optimal from a water quality standpoint might not be consistent with operations for [all] authorized purposes" at the Corps' various basin projects. A.R., ECF No. 61 at D-00058008.

The Court therefore agrees with Defendants that the Alabama Plaintiffs have "overstated" the Corps' duty to follow water quality standards. Defs.' Cross-Mot., ECF No. 95 at 10. And in any event, since water quality standards are not "requirements" under the CWA,²⁷ the Corps' decision to give them "appropriate consideration" in analyzing the action alternatives, see Defs.' Cross-Mot., ECF No. 95 at 53 (citing A.R., ECF No. 61 at D-00044030, D-00058007); before determining that the Manual's overall effect on water quality would be "negligible," A.R., ECF No. 61 at D-00043827; further supports the Court's conclusion that the Corps has met any obligations it has under the CWA and ER 1110-2-8154 in updating the Master Manual.

c. The Duty Under the APA to Engage in Reasoned Decision-Making and Not Arbitrarily Depart from Precedent

Finally, the Alabama Plaintiffs argue that by adopting the Master Manual despite acknowledging the potential for adverse water quality impacts downstream, the Corps engaged in an "unexplained departure" from

precedent, specifically from its own water quality guidance in ER 1110-2-8154, and thereby failed to engage in reasoned decision-making in violation of an "independent" duty under the APA. See Ala.'s Opp'n to Suppl. Mot., ECF No. 134 at 13, 28-30; Compl., ECF No. 1 at 25-26 ¶ 114; Pls.' Reply, ECF No. 99 at 26-27; see also Pls.' Resp. to Suppl. Authority Notice, ECF No. 120 at 2 ("The Corps' obligation to engage in reasoned decisionmaking is an 'independent' APA obligation and applies whether or not the Corps has also transgressed a binding legal 'requirement' imposed by the CWA or Corps regulations.").

The Court declines to reach the merits of this "unexplained departure" argument as it relates to ER 1110-2-8154 because the Alabama Plaintiffs did not raise it in their opening summary judgment brief. See *Carter v. Geo. Wash. Univ.*, 387 F.3d 872, 883 (D.C. Cir. 2004) (rejecting arguments raised for the first time in the movant's reply brief as opposed to its opening brief). As the Georgia Parties note, this argument was raised for the first time in the Alabama Plaintiffs' reply brief, see Intervenor-Defs.' Suppl. Mot., ECF No. 129 at 21 n.12 (citing this gap as the reason why this argument has "received so little attention in this case"); Pls.' Reply, ECF No. 99 at 26 ("[E]ven if the [CWA] and the Corps' own regulations did not require the Corps to comply with water-quality standards, the agency still would have an overarching obligation under the APA to engage in reasoned decision-making[.]"); and in the Alabama Plaintiffs' response to the Georgia Parties' notice of supplemental authority, see Pls.' Resp. to Suppl. Authority Notice, ECF No. 120 at 3 (citing ER 1110-2-8154 to argue that the ERs "establish the Corps' precedent" to comply with [*58] state water quality standards and that failure to do so without a reasoned justification is an "unexplained departure" from this precedent). This argument was not made in the section of the Alabama Plaintiffs' opening brief where they specifically argued that the Manual "is an unexplained and arbitrary departure from established operations." See Pls.' Mot., ECF No. 83 at 43-47 (providing other reasons why the Manual constitutes an "arbitrary departure" from precedent). While the Georgia Parties have responded to the Alabama Plaintiffs' "unexplained departure" from ER 1110-2-8154 claim as it relates to water quality standards in their supplemental motion for summary judgment briefings, see Intervenor-Defs.' Suppl. Mot., ECF No. 129 at 20-23; Intervenor-Defs.' Suppl. Mot. Reply, ECF No. 139 at 20-21; the Court need not consider the merits of those arguments since they were raised in the context of the issue preclusion analysis. Accordingly, the Court will only proceed to analyze the Alabama Plaintiffs' remaining "unexplained and arbitrary departure" claims under the APA section of this Memorandum Opinion and the adequacy of the Corps' explanations regarding water quality impacts in choosing the action alternative in this Memorandum Opinion's NEPA section.

Having determined that the Corps has not violated any enforceable "requirements" within the meaning of section 313(a) of the CWA and that ER 1110-2-8154 is a non-binding statement of policy rather than a "limitation[] on the Corps' discretion[.]" *Ubbelohde*, 330 F.3d at 1030; there is no independent basis for the Court to conclude that the Corps acted arbitrarily and capriciously in adopting the Master Manual as it relates to the Alabama Plaintiffs' water quality claims, see Intervenor-Defs.' Suppl. Mot. Reply, ECF No. 139 at 7 (arguing that "there is no 'departure' to be explained" since neither the CWA nor the Corps' internal guidance document require the Corps "to release water to ensure water quality standards are maintained"); see also *Nat'l Wildlife Fed'n*, 132 F. Supp. 2d at 889, 895 (concluding that final agency action is "arbitrary and capricious" under the APA when it violates "the legal duty set forth in the governing substantive statute"); *Seeger v. U.S. Dep't of Def.*, 306 F. Supp. 3d 265, 276 (D.D.C. 2018) (explaining that a court has subject-matter jurisdiction over an APA claim if the claim alleges a violation of an underlying statute or if the claim

alleges agency action that is "arbitrary and capricious"). For all these reasons, with regard to the Alabama Plaintiffs' water quality claims under the CWA and the Corps' internal ERs, the Court **GRANTS** summary judgment to Defendants and Intervenor-Defendants on these issues.

B. Defendants Did Not Violate NEPA

The Alabama Plaintiffs and Intervenor-Plaintiffs next argue that the Master Manual and FEIS violate NEPA and are therefore unlawful. See Pls.' Mot., ECF No. 83 at 52-60 (arguing that "the Corps has deprived the public of its right to review the environmental impacts of the Corps' operations under NEPA," as "the FEIS does not adequately communicate, and in some respects affirmatively conceals, important environmental [*59] impacts associated with the Manual"); Intervenor-Pls.' Mot., ECF No. 85 at 7 (arguing that the Master Manual's "significant cascading effects downstream [] have not been analyzed properly or disclosed fully pursuant to [NEPA]").

NEPA challenges are reviewed under the APA's arbitrary and capricious standard, which is applied to review both the agency's procedural compliance with NEPA and the adequacy of the FEIS. *City of Olmsted Falls v. FAA*, 292 F.3d 261 , 269 (D.C. Cir. 2002). The Court is mindful that its role is not to "flyspeck" the Corps' "environmental analysis, looking for any deficiency no matter how minor." *Nevada v. Dep't of Energy*, 457 F.3d 78 , 93 (D.C. Cir. 2006). Neither may the Court "substitute its own policy judgments for those of the [Corps]." *Tongass Conservation Soc'y v. Cheney*, 924 F.2d 1137 , 1140 (D.C. Cir. 1991). Rather, the Court must ensure that the Corps "has adequately considered and disclosed the environmental impact of its actions and that its decision is not arbitrary or capricious." *Balt. Gas*, 462 U.S. at 97-98 . This requires reviewing the FEIS to confirm that the Corps took a "hard look" at the environmental consequences before deciding to proceed with finalizing the Master Manual update. See *id.* at 97. In evaluating those consequences, the Corps was required to consider and discuss in the FEIS:

- (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.

42 U.S.C. § 4332(2)(C) . Despite these requirements, "NEPA is a purely procedural statute, and [the Corps] therefore enjoys latitude" in its preparation of the FEIS. *Ctr. for Biological Diversity v. FERC*, 67 F.4th 1176 , 1181 (D.C. Cir. 2023); see also *Robertson*, 490 U.S. at 350 ("NEPA itself does not mandate particular results, but simply prescribes the necessary process."). The Court will thus not set aside the Master Manual under NEPA if the FEIS "contains sufficient discussion of the relevant issues and opposing viewpoints" to enable the Court to conclude that "the agency's decision [was] fully-informed and well-considered[.]" *Gulf Restoration Network v. Haaland*, 47 F.4th 795 , 799-800 (D.C. Cir. 2022) (quoting *Nevada*, 457 F.3d at 93); see also *Indian River Cnty. v. U.S. Dep't of Transp.*, 945 F.3d 515 , 533 (D.C. Cir. 2019) (requiring "deference to agency judgments as to how best to prepare an EIS").

The Alabama Plaintiffs contend that Defendants have violated NEPA because: (1) the "proffered 'No Action' baseline wrongly incorporates operations from the 1993 draft manual and other 'incremental changes in project

operations' that were never legally implemented or subjected to NEPA review[;]" (2) the FEIS did not accurately analyze and disclose the impacts associated with operations under the Proposed Action Alternative; and (3) the FEIS did not consider any proposed alternatives requiring the Corps to generate hydropower. See Pls.' Mot., ECF No. 83 at 52-60. Intervenor-Plaintiffs also argue that the Corps [*60] violated NEPA because the FEIS fails to adequately analyze the Master Manual's impacts downstream at Montgomery, Mobile Bay, and Lake Martin—all of which negates the Corps' fulfillment of NEPA's "hard look." See Intervenor-Pls.' Mot., ECF No. 85 at 7, 15-31. The Corps responds to each of the Plaintiffs' arguments and contends that "it took a 'hard look' at the environmental impacts of the [Master Manual] in a lengthy, well-reasoned, and thorough FEIS." Defs.' Cross-Mot., ECF No. 95 at 27. For the reasons explained below, the Court rejects the Alabama Plaintiffs' and Intervenor-Plaintiffs' various arguments under NEPA.

1. The Corps Reasonably Defined the No-Action Alternative in the FEIS Using the 1993 Draft Allatoona Manual

An EIS must describe in detail "alternatives to the proposed action," 42 U.S.C. § 4332(2)(C)(iii) ; one of which is the "No-Action Alternative," which "establishes a baseline for comparing the environmental consequences of the action alternative[,]" *Mainella*, 459 F. Supp. 2d at 83-84 ; see also 40 C.F.R. § 1502.14 (requiring an EIS to evaluate "reasonable alternatives" to the proposed action, including the "no action alternative"). The Corps was thus required to evaluate the impacts of the proposed Master Manual "on various environmental conditions 'as compared to' a set of conditions it deemed to be the 'No-Action Alternative.'" Pls.' Mot., ECF No. 83 at 52.

The Alabama Plaintiffs first argue that the 1993 Draft Manual "and other 'incremental changes in project operations'" cannot be used to define the No-Action Alternative because they "were never legally implemented or subjected to NEPA review" since the Corps began implementing the Draft Manual in the early 1990s but never conducted "the required NEPA analysis either then or in the years since[,]" despite seeking to "grandfather" that draft "into an extrapolated NEPA baseline now." Pls.' Mot., ECF No. 83 at 53. The Alabama Plaintiffs contend that the correct baseline comparison would instead incorporate the Corps' "last major evaluations of the environmental consequences of the individual [Corps] reservoirs in the ACT Basin," which the Corps acknowledged occurred 'in the 1970s.'" Pls.' Mot., ECF No. 83 at 30 (citing A.R., ECF No. 61 at D-00044248). As Intervenor-Defendants note, the Alabama Plaintiffs appear to argue that "instead of comparing alternatives to the status quo operations prior to adoption of the ACT Manual, the no action alternative must instead be the 1968 [Allatoona] Manual, because that is the last manual to undergo NEPA review."²⁸ Intervenor-Defs.' Cross-Mot., ECF No. 97 at 25. The Court disagrees with the Alabama Plaintiffs, instead concluding, as explained below, that the 1993 Draft Manual, under which the Corps was operating the Allatoona Project at the time it prepared the FEIS, was the correct no-action baseline.

a. Issue Preclusion Does Not Apply to Bar the Alabama Plaintiffs' NEPA No-Action Alternative Claim

As an initial matter, in their supplemental motion for summary judgment, the Georgia Parties argue that the Northern District of Georgia's 2021 decision should preclude the Alabama Plaintiffs' argument that the Corps violated NEPA by using current operations [*61] under the 1993 Draft Manual to represent the No-Action Alternative, "rather than its last 'NEPA reviewed' manual[.]" See Intervenor-Defs.' Suppl. Mot., ECF No. 129 at 7, 11. In the ACF case, the Northern District of Georgia rejected Alabama's similar assertion that NEPA

requires the Corps to use the last NEPA-approved manual as the No-Action Alternative, as opposed to then-current operations under a draft manual never subjected to NEPA review. *In re ACF Basin*, 554 F. Supp. 3d at 1305. At the time the ACF Master Manual was updated in 2017, the Corps chose its existing operations under a 1989 draft ACF Master Manual and a 1991 draft Buford Project Manual to serve as the no-action baseline "instead of the environment as it existed when the 1958 and 1959 [NEPA-reviewed] manuals were adopted." *Id.* at 1302. The Northern District of Georgia concluded that the Corps "correctly defined the 'no action' alternative as the current operations of the ACF Basin, rather than a hypothetical set of conditions that may have existed 63 years ago, and that do not reflect the current status quo or management practices." *Id.* at 1305. Pointing to this conclusion, the Georgia Parties argue that because "the factual context giving rise to the [Alabama Plaintiffs' NEPA] claim is the same in both basins" and "the law and facts are the same," Intervenor-Defs.' Suppl. Mot. Reply, ECF No. 139 at 15-16; the Court should conclude that "[a]ll three criteria for issue preclusion are met[.]" see Intervenor-Defs.' Suppl. Mot., ECF No. 129 at 26-29. Alabama responds that issue preclusion cannot apply because its claims "in the ACF case and the ACT case require the application of NEPA to different sets of facts[.]" thereby negating the elements of preclusion. Ala.'s Opp'n to Suppl. Mot., ECF No. 134 at 30. The Court agrees with the State of Alabama.

Although this supplemental claim presents a "mixed question[] of law and fact" rather than an "unmixed question of law," see *Pharm. Care*, 522 F.3d at 446 ; Ala.'s Opp'n to Suppl. Mot., ECF No. 134 at 30; as the Court found to be the case for the Alabama Plaintiffs' water quality claims, see *supra* section IV.A.1.b.i.; "changes in facts essential to a judgment will render collateral estoppel inapplicable in a subsequent action raising the same issues[.]" *Montana*, 440 U.S. at 159 ; see also *Env't Def. v. EPA*, 369 F.3d 193 , 202 (2d Cir. 2004) ("Collateral estoppel does not apply [] when the essential facts of the earlier case differ from the instant one, even if they involve the same legal issues."). Here, the Court agrees with Alabama that there are "significant factual distinctions" between the ACT and ACF cases as they relate to the parallel NEPA No-Action Alternative claims. *Env't Def.*, 369 F.3d at 202. First, in the ACF case, Alabama argued that operations under the 1989 and 1991 draft manuals should not serve as the no-action baseline because they abandoned, without disclosure to the public, a guide curve in the NEPA-reviewed 1958 and 1959 manuals which required the Corps to draw down Buford's elevation by six feet in the fall months and release water through the dam. Ala.'s Opp'n to Suppl. Mot., ECF No. 134 at 30-31 (citing Pl. State of Ala.'s Corrected Consolidated Mot. for Summ. J., *In re ACF Basin Water Litig.*, No. 1:18-MI-43 (N.D. Ga. Apr. [*62] 6, 2021), ECF No. 220 at 38, 64-65). Here in the ACT case, Alabama makes a similar but factually distinct argument regarding the 1993 Draft Manual's addition of action zones, "the very concept of" which they allege was not present in the 1968 NEPA-reviewed manual and the main reason they argue that the 1993 Draft Manual should not serve as the no-action baseline. See Pls.' Mot., ECF No. 83 at 53-54.

Another factual difference is that in the ACF case, Alabama argued that the No-Action Alternative could not be defined as "current operations" because at the time of the ACF Manual update, the Corps had been allowing Georgia to make unauthorized direct withdrawals from Buford (*i.e.*, without water supply contracts). Ala.'s Opp'n to Suppl. Mot., ECF No. 134 at 31 (citing Pl. State of Ala.'s Corrected Consolidated Mot. for Summ. J., *In re ACF Basin Water Litig.*, No. 1:18-MI-43 (N.D. Ga. Apr. 6, 2021), ECF No. 220 at 65-66). In the ACF case, the Corps had decided that both "current reservoir operations" and the "current level of direct withdrawals," regardless of their legality, should formulate the no-action baseline for comparison. Pl. State of Ala.'s

Corrected Consolidated Mot. for Summ. J., *In re ACF Basin Water Litig.*, No. 1:18-MI-43 (N.D. Ga. Apr. 6, 2021), ECF No. 220 at 65. In affirming the ACF No-Action Alternative as neither arbitrary nor capricious, the Northern District of Georgia specifically noted that the Corps had "considered current reservoir operations and the current level of direct withdrawals." *In re ACF Basin*, 554 F. Supp. 3d at 1302-03, 1305. In contrast, here, the Alabama Plaintiffs make a similar but factually distinct argument that the FEIS fails to disclose the impact of the CC-MWA's water supply withdrawals in excess of its contractual limits, and that the Proposed Action Alternative, rather than the No-Action Alternative, was improperly modeled on an assumption that the CC-MWA would abide by its contractual limits in the future. See Pls.' Mot., ECF No. 83 at 58-59. Finally, as Alabama notes, its argument in this case in favor of applying principles of judicial estoppel based on the Corps' prior success convincing the Northern District of Alabama that the 1993 Draft Manual was not final agency action (detailed below) was not an issue in the ACF case since "the Corps had not obtained similarly inconsistent court rulings concerning NEPA claims against the prior draft ACF manuals." Ala.'s Opp'n to Suppl. Mot., ECF No. 134 at 32. The Northern District of Georgia could thus not have considered this claim.

The Court therefore rejects the Georgia Parties' argument that "[t]he decision to use current operations as the NEPA No Action Alternative was made by the same Corps personnel, for the same reasons, based on the same facts, in both basins." Intervenor-Defendants' Suppl. Mot. Reply, ECF No. 139 at 15. Because "the facts essential to a judgment are distinct in the two cases, the [NEPA] issues in the [ACT] case cannot properly be said to be identical to those in the [ACF case], and collateral estoppel is inapplicable." *Env't Def.*, 369 F.3d at 202 (citing *Montana*, 440 U.S. at 159). And regardless, just as the Court concluded regarding the Alabama Plaintiffs' water quality claims—practical and equitable [*63] policy considerations, including the presence of additional non-mutual parties who were not adequately represented by Alabama in the ACF litigation—weigh against precluding the Alabama Plaintiffs' NEPA No-Action Alternative claim in this case. See *supra* section IV.A.1.b.ii.

Accordingly, for the reasons explained here and in the CWA/water quality claims section of this Memorandum Opinion, the Court declines to preclude any of the Alabama Plaintiffs' or Intervenor-Plaintiffs' claims based on the results of the ACF litigation in the Northern District of Georgia. The Court therefore **DENIES** Intervenor-Defendants' Supplemental Motion for Summary Judgment Based on the Preclusive Effect of an Intervening Judgment, ECF No. 129; and turns to the merits of the Alabama Plaintiffs' NEPA No-Action Alternative claim.

b. The Alabama Plaintiffs' NEPA No-Action Alternative Claim Fails on the Merits

NEPA requires an agency to present "the environmental impacts of the proposal and the alternatives in comparative form, thus sharply defining the issues and providing a clear basis for choice among options by the decisionmaker and the public." *City of Grapevine v. Dep't of Transp.*, 17 F.3d 1502, 1506 (D.C. Cir. 1994) (citing 40 C.F.R. § 1502.14). As part of this analysis, agencies are required to "[i]nclude the no action alternative." 40 C.F.R. § 1502.14(c). The purpose of the no-action alternative is to "compare the potential impacts of the proposed major federal action to the known impacts of maintaining the status quo." *Custer Cnty. Action Ass'n v. Garvey*, 256 F.3d 1024, 1040 (10th Cir. 2001); see also *Nat. Res. Def. Council, Inc. v. Hodel*, 624 F. Supp. 1045, 1054 (D. Nev. 1985), *aff'd*, 819 F.2d 927 (9th Cir. 1987) (defining "no action" as the "continuation of the status quo ante, in the absence of any of the proposed actions"). Although the phrase "No-Action Alternative" is not defined by statute or regulation, the Council on Environmental Quality ("CEQ")—the

federal agency created to oversee NEPA—has explained that for "an action such as updating a land management plan where ongoing [federal] programs initiated under existing legislation and regulations will continue, . . . 'no action' is 'no change' from current management direction or level of management intensity." Forty Most Asked Questions Concerning CEQ's National Environmental Policy Act Regulations, 46 Fed. Reg. 18,026, 18,027 (Mar. 23, 1981). The No-Action Alternative may thus "be thought of in terms of continuing with the present course of action until that action is changed[,]" *id.*; "because the existing federal program will continue even if the new plan is not adopted[,]" Intervenor-Defs.' Cross-Mot., ECF No. 97 at 26; *see also Custer Cnty.*, 256 F.3d at 1040 ("In other words, the current level of activity is used as [the no-action] benchmark.").

Here, the Corps reasonably developed the No-Action Alternative baseline for comparison using the status quo—that is, the "continuation of the current water control operations at each of the federal projects in the ACT Basin[,]" A.R., ECF No. 61 at D-00043793; including operations consistent with the 1951 ACT Master Manual, as well as project-specific manuals like Allatoona's 1993 Draft Manual, Defs.' Cross-Mot., ECF No. 95 at 48-49 (citing A.R., ECF No. 61 at D-00043793-95); **[*64]** *see also* A.R., ECF No. 61 at D-00046584 ("[F]or purposes of the ACT WCM update process, 'no action' reflects current reservoir operations as they have evolved over time in response to laws, regulations, policy, and new technical information."). As the FEIS states, the No-Action Alternative "represents no change from the current management direction or level of management intensity[,]" A.R., ECF No. 61 at D-00043793; because "[b]asing the description of 'no action' on a pre-NEPA WCM as a basis for comparison to alternative WCM update plans would not accurately reflect current baseline operations or be consistent with 'no action' as defined in the CEQ memorandum[,]" *id.* at D-00046584.

As the Georgia Parties note, the Allatoona Project WCM has not been formally updated since 1968, and subsequent attempts to update it were embroiled in years of litigation and interstate negotiations, which forced the Corps "to make practical management decisions at Allatoona Lake" in the interim. Intervenor-Defs.' Cross-Mot., ECF No. 97 at 30. In addition, since the 1970s, "incremental changes in project operations have occurred because of changes in hydropower contracts and operating schedules, changes in navigation flow requirements, and other changes related to water quality, environment, or other uses of the [ACT] system." A.R., ECF No. 61 at D-00043794. These changes have rendered the 1968 Manual "obsolete" and inadequate for comparison to today's operations for many of the reasons cited by the Georgia Parties, including that it was written before: (1) many of the major projects in the ACT Basin were constructed, including the reservoir at Carter's Lake which operates in conjunction with Allatoona Lake; (2) there was any requirement to have a drought management plan, as implemented in the 1993 Draft Manual; and (3) any of the major environmental laws had been enacted, including NEPA. Intervenor-Defs.' Cross-Mot., ECF No. 97 at 26-27. As a result of the many changes between 1968 (or even 1974 when the 1968 Manual underwent NEPA review) and 2015, "the 1968 Manual cannot provide a meaningful baseline for comparing the effects of the alternatives under consideration." *Id.* at 27. Thus, the Court agrees that "using the 1993 [Draft] Manual—the Corps' historical operations over the past 25 years—as the status quo and the point of comparison was a reasonable choice[,]" *id.* at 30; Defs.' Cross-Mot., ECF No. 95 at 50; especially since "judgments regarding the development of the baseline against which alternatives would be assessed are the sorts of expert analytical judgments to which courts typically defer[,]" *Vill. of Bensenville v. FAA*, 457 F.3d 52, 72 (D.C. Cir. 2006); *see also Am. Rivers v. FERC*, 201 F.3d 1186, 1195-99 (9th Cir. 1999) (deferring to the agency's choice "to use an existing project

environmental baseline" as the No-Action Alternative rather than "a theoretical reconstruction of what" the basin "would be like today had [certain] projects not been in place for the greater part of this century").

Nonetheless, the Alabama Plaintiffs argue that the 1993 Draft Manual cannot serve as the no-action baseline because it was not NEPA-reviewed, and its implementation [*65] was therefore "not lawful." Pls.' Mot., ECF No. 83 at 53. Even if the Court agreed that the 1993 Draft Manual was not lawfully implemented "under 'existing legislation and regulations[.]'" *id.* at 56; the result would be the same because "NEPA does not impose an independent requirement of setting a 'legal' environmental baseline[.]" *Ctr. for Biological Diversity v. U.S. Bureau of Land Mgmt.*, 746 F. Supp. 2d 1055, 1090 (N.D. Cal. 2009). Rather than "an independent legal requirement," a baseline is "a practical requirement in environmental analysis often employed to identify the environmental consequences of a proposed agency action." *Am. Rivers*, 201 F.3d at 1195 n.15. As such, numerous courts have interpreted the No-Action Alternative as the status quo of "current management" or existing operations—whether NEPA reviewed or not—because this "fulfill[s] NEPA's goal of providing the public with information to assess the impact of a proposed action[.]" *See U.S. Bureau of Land Mgmt.*, 746 F. Supp. 2d at 1090-91 (rejecting a no-action baseline "as it existed in 1980" because "the 1980 network has not been the status quo since 1980, decades before the proposed action" and finding that the status quo "accurately reflect[ed] the baseline as it currently existed," which is "all that is required under the law"); *see also, e.g., Custer Cnty.*, 256 F.3d at 1039-40 (rejecting the argument that "a 'true' no-action alternative" only reflects "the impacts of lawful activity" that was "properly subject[ed] to environmental review" and concluding that the CEQ "intended that agencies compare the potential impacts of the proposed major federal action to the known impacts of maintaining the status quo"); *San Juan Citizens' All. v. Salazar*, No. 00-cv-00379, [2009 BL 68940], 2009 WL 824410, at *17-18 (D. Colo. Mar. 30, 2009) (upholding status quo activities as the no-action baseline regardless of whether they were "subject to a sufficient NEPA review").²⁹ Thus, the Corps' use of the status quo and its evolved practices under the 1993 Draft Manual as the No-Action Alternative comports with NEPA, regardless of the "lawfulness" of those operations. Such was the Northern District of Georgia's conclusion in the ACF case, where it held that the Corps properly evaluated the proposed ACF Master Manual against a No-Action Alternative defined "as the environment as it existed at the time that the Corps updated the [draft] manual in 1989[.]" as opposed to "an environment that ha[d] not existed for decades" under the outdated NEPA-approved manuals which Alabama had instead advocated for as the appropriate baseline. *See In re ACF Basin*, 554 F. Supp. 3d at 1302-03. That court ultimately upheld the Corps' No-Action Alternative, which as here, "considered current reservoir operations." *Id.* at 1303.

The cases cited by the Alabama Plaintiffs in support of their position are distinguishable and do not alter the Court's decision. For example, in *Friends of Yosemite Valley v. Kempthorne*, 520 F.3d 1024 (9th Cir. 2008), the Ninth Circuit held that the agency "did not set forth a true 'no-action' alternative" where the baseline incorporated a plan that the Ninth Circuit had explicitly held invalid in prior litigation. *Id.* at 1037-38. "These extreme circumstances," *i.e.*, the need to enforce a court's prior decision, "are not present [*66] here, as no court has ever held that the 1993 Manual is substantively unlawful, much less enjoined its use." Intervenor-Def.' Cross-Mot., ECF No. 97 at 28-29. Next, in *North Carolina Wildlife Federation v. North Carolina Department of Transportation*, 677 F.3d 596 (4th Cir. 2012), the court did not address whether the No-Action Alternative was properly defined, but rather concluded that the agencies violated NEPA by mischaracterizing the data underlying the baseline, and "the NEPA process itself relied on those mischaracterizations." *See id.* at

603-05. Likewise, *National Wildlife Federation v. Andrus*, 440 F. Supp. 1245 (D.D.C. 1997) does not address how an agency should define the No-Action Alternative, instead addressing "a different context," as the Alabama Plaintiffs admit, Pls.' Mot., ECF No. 83 at 54; namely an agency's failure to properly consider alternatives, see *Andrus*, 440 F. Supp. at 1253-54. Finally, the Alabama Plaintiffs' reference to the EPA's guidance, see Pls.' Mot., ECF No. 83 at 56 (citing ENV'T PROT. AGENCY OFF. OF FED. ACTIVITIES, CONSIDERATION OF CUMULATIVE IMPACTS IN EPA REVIEW OF NEPA DOCUMENTS ¶ 4.4 (1999), <https://www.epa.gov/sites/default/files/2014-08/documents/cumulative.pdf> [hereinafter "EPA Cumulative Impacts Guidance"]); is inapposite here, as this guidance is not about the No-Action Alternative but an EIS's cumulative impacts analysis, which the EPA states can be incorporated into the no-action alternative's baseline, see EPA Cumulative Impacts Guidance ¶ 4.4. And in any event, this guidance defines the No-Action Alternative "as reflecting existing conditions" under the status quo, in line with the Court's conclusion. *Id.*

The Alabama Plaintiffs argue that ruling in favor of Defendants on this issue "would create incentives for federal agencies to evade their NEPA obligations." Pls.' Mot., ECF No. 83 at 54. They contend that "if agencies are allowed to undertake major federal actions without complying with NEPA and then to compound their error by basing later decisions on their previous illegal actions, then NEPA's protections will be rendered worthless." *Id.* at 54 (quoting *Andrus*, 440 F. Supp. at 1255). The Court disagrees. Instead, the Court is persuaded that using the last NEPA reviewed manual as the baseline—here, the 1968 Allatoona Manual—"would mask effects of the management choices under consideration, as the relative differences between the alternatives would be dwarfed by changes necessitated" by the significant evolution of the ACT Basin since the 1970s. See Intervenor-Def's. Cross-Mot., ECF No. 97 at 27; Intervenor-Def's. Reply, ECF No. 103 at 5 (calling the 1968 Manual "long-abandoned" as compared to the Corps' "then-current Draft 1993 Manual"). In addition, the FEIS "is replete with discussion of pre-1993 (historical) operations[.]" such that the Court can conclude that the public has been adequately informed of how the Corps' ACT Basin operations "have changed over the past half-century." See Intervenor-Def's. Reply, ECF No. 103 at 19 (summarizing the portions of the administrative record that discuss historical changes and impacts). NEPA "serves the twin purposes of ensuring that" agencies: (1) carefully consider environmental [*67] impacts before taking major actions; and (2) fully inform the public of these impacts, *Sierra Club v. U.S. Army Corps of Eng'rs*, 803 F.3d 31, 36-37 (D.C. Cir. 2015); and a no-action baseline that embodies historical operations of the ACT Basin over the past several decades achieves NEPA's goal of informed decision-making,³⁰ see *Nw. Env't Def. Ctr. v. U.S. Army Corps of Eng'rs*, 817 F. Supp. 2d 1290, 1313 (D. Or. 2011) ("The Corps was not required to develop a no-action alternative, in which it completely reverses or abandons a[] historical pattern[.]"); *Pac. Coast Fed'n of Fishermen's Ass'ns v. U.S. Dep't of the Interior*, 929 F. Supp. 2d 1039, 1053 (E.D. Cal. 2013) (confirming "it is appropriate for a no action alternative to reflect 'historical uses' of a resource"); *Hodel*, 624 F. Supp. at 1054 (considering "a historical pattern of use over 100 years old" as the no-action baseline). Ultimately, "resetting to pre-1993 operations is not a proper baseline[.]" Defs.' Reply, ECF No. 102 at 20; as it would be resetting to "a hypothetical status quo that would have existed had the Corps not made changes pursuant to the 1993 Allatoona manual[.]" Defs.' Cross-Mot., ECF No. 95 at 49; see also *In re ACF Basin*, 554 F. Supp. 3d at 1303 ("[A]n agency cannot know if its proposal will significantly affect the quality of the human environment if it considers hypotheticals as opposed to realities.").

Finally, the Alabama Plaintiffs argue that principles of judicial estoppel should apply in light of the Corps'

successful position during prior litigation before the Northern District of Alabama that "no 'legal consequences . . . flow[ed]' from" the 1993 Draft Manual "because the draft was not 'final agency action.'" Pls.' Mot., ECF No. 83 at 54-55 (quoting *Bennett v. Spear*, 520 U.S. 154 , 177-78 , 117 S. Ct. 1154 , 137 L. Ed. 2d 281 (1997)); see Order, *Alabama v. U.S. Army Corps of Eng'rs*, No. 90-1331 (N.D. Ala. July 3, 2012), ECF No. 771 at 2-3. The Alabama Plaintiffs argue that, having previously taken that position, the Corps "cannot now prevent NEPA review of the draft manual's change in operations by claiming that [its] provisional implementation had the 'legal consequence' of making those operations a part of the established 'No Action' baseline." Pls.' Mot., ECF No. 83 at 55. However, the Alabama Plaintiffs have not provided any caselaw suggesting that judicial estoppel would be appropriate in this case. Both *Kern v. U.S. Bureau of Land Management*, 284 F.3d 1062 (9th Cir. 2002), and *Northcoast Environmental Center v. Glickman*, 136 F.3d 660 (9th Cir. 1998), concern whether an agency can "tier"—or "avoid[] detailed discussion by referring to another document containing the required discussion"—to documents that were never subject to NEPA review, which is not an issue here because the Corps did not attempt to tier its analysis. See *Kern*, 284 F.3d at 1073-74 ; *Glickman*, 136 F.3d at 670 ; Intervenor-Defs.' Reply, ECF No. 103 at 17 ("[T]he Final EIS does not 'tier' to any other document; its analysis stands on its own."). And, regardless of the Corps' positions from prior litigation, all NEPA requires is a comparison of "the impacts of the original proposal and preferred alternative to the impacts of" the "current level of activity." *Custer Cnty.*, 256 F.3d at 1040 . The requirement to consider a No-Action Alternative thus does not provide "a vehicle in which to pursue allegations that past [agency] actions received insufficient environmental analysis." See *id.* ("The time [*68] has passed to challenge [such] actions."); *Metro. Edison Co. v. People Against Nuclear Energy*, 460 U.S. 766 , 779 , 103 S. Ct. 1556 , 75 L. Ed. 2d 534 (1983) (concluding that NEPA "does not create a remedial scheme for past federal actions"). The Corps are therefore correct that the Alabama Plaintiffs cannot "revive" their claims against the 1993 Draft Manual in the present action. Defs.' Cross-Mot., ECF No. 95 at 50.

In view of the analysis above, the Court concludes that using the 1993 Draft Manual as the baseline for the No-Action Alternative was a reasonable choice and an accurate representation of current operations of the ACT Basin to which the Corps could and did compare the impacts of the updated Master Manual in the FEIS, and it thus satisfies NEPA standards. See *Friends of Congaree Swamp v. Fed. Highway Admin.*, 786 F. Supp. 2d 1054 , 1067 (D.S.C. 2011) ("The Court is unaware of any authority for finding an [EIS] inadequate because an agency chose, as the baseline from which to measure the potential impacts of a proposed project, the environment in its current condition.").

2. The Corps Took a "Hard Look" at Environmental Impacts of the Master Manual and Adequately Analyzed and Disclosed Those Impacts in the FEIS

The Alabama Plaintiffs and Intervenor-Plaintiffs next argue that the Corps failed to take NEPA's required "hard look" at the environmental consequences of the Proposed Action Alternative, and that as a result, the FEIS does not adequately analyze and disclose to the public the Master Manual's various "cascading" impacts. See Pls.' Mot., ECF No. 83 at 52-53, 56-59; Intervenor-Pls.' Mot., ECF No. 85 at 7, 15-31. The Alabama Plaintiffs offer "two critical respects" in which they claim that the FEIS fails, namely its failure to disclose the impact of: (1) "the Corps' [newfound] discretion not to generate hydropower" at Allatoona Lake; and (2) the CC-MWA's water supply withdrawals from Allatoona Lake that have historically been above its contractual limits. See Pls.' Mot., ECF No. 83 at 53, 57-59; Pls.' Reply, ECF No. 99 at 32-34. Intervenor-Plaintiffs add three additional

arguments that the FEIS fails to adequately analyze the Master Manual's impacts on: (1) water quality at Montgomery, Alabama; (2) salt water intrusion from Mobile Bay; and (3) recreation and economic development at Lake Martin. Intervenor-Pls.' Mot., ECF No. 85 at 15-31. The Court first addresses the parameters of NEPA's requisite "hard look," including as applied to the Corps' choice of modeling software in the FEIS, before addressing each of these five arguments in turn.

a. Parameters of NEPA's "Hard Look" Doctrine

Courts review the EIS "to ensure that the agency took a 'hard look' at the environmental consequences of its decision to go forward with the project." *City of Grapevine*, 17 F.3d at 1503-04 ; see 42 U.S.C. § 4332(2)(C)(i) ; 40 C.F.R. § 1502.16 (defining "environmental consequences"). "Although the contours of the 'hard look' doctrine may be imprecise," a court's task is "simply to ensure that the agency has adequately considered and disclosed the environmental impact of its actions and that its decision is not arbitrary or capricious." *Nevada*, 457 F.3d at 93 (quoting *Balt. Gas*, 462 U.S. at 97-98). This "hard look" "includes considering all foreseeable direct and indirect impacts[,]" *Loper*, 544 F. Supp. 3d at 117 (citation and internal [*69] quotation marks omitted); as well as cumulative environmental impacts, meaning the impacts the proposed action "will have in conjunction with other projects in the same and surrounding areas[,]" and the past, present, and reasonably foreseeable future actions of other individuals and entities, *Theodore Roosevelt*, 616 F.3d at 503 . Further, a "hard look" must consider all relevant aspects of the problem, see *State Farm*, 463 U.S. at 43 ; and discuss adverse impacts in a way that "does not improperly minimize negative side effects[,]" *Loper*, 544 F. Supp. 3d at 117 (citation and internal quotation marks omitted).

While NEPA sets forth procedural safeguards, it does not "require particular substantive results." *Young v. Gen. Servs. Admin.*, 99 F. Supp. 2d 59 , 67 (D.D.C. 2000), *aff'd*, 11 F. App'x 3 (D.C. Cir. 2000). Instead, an agency's "hard look" is guided by the "rule of reason," which dictates that an agency's EIS analysis is deferred to despite "inconsequential or technical deficiencies[,]" *id.* at 75; unless those deficiencies "are significant enough to undermine informed public comment and informed decisionmaking[,]" *Sierra Club v. FERC*, 867 F.3d 1357 , 1368 (D.C. Cir. 2017). A reasoned "hard look" thus requires articulating a satisfactory explanation for the action, including a "rational connection between the facts found and the choice made." *State Farm*, 463 U.S. at 43 . This means the agency must go "beyond mere assertions" and "explicate[] its course of inquiry, its analysis[,] and its reasoning." *Young*, 99 F. Supp. 2d at 75 (citation and internal quotation marks omitted). "[S]imple, conclusory statements of 'no impact' are not enough to fulfill an agency's duty under NEPA." *Del. Riverkeeper Network*, 753 F.3d at 1313 (citation omitted); see also *Mainella*, 459 F. Supp. 2d at 100 (noting that "[m]erely describing an impact and stating a conclusion of nonimpairment is insufficient"). However, agencies are not required to consider environmental effects which lack "a reasonably close causal relationship" to the proposed action. *Pub. Citizen*, 541 U.S. at 767 ; see also *Metro. Edison Co.*, 460 U.S. at 773-74 (explaining that NEPA requires analyzing effects "proximately related" to the major action but not ones that are too "remote" or "attenuated" in the causal chain). Finally, "an extreme degree of deference" to the agency is warranted where, as here, the agency is evaluating scientific data "within [its] technical expertise[.]" *Alaska Airlines*, 588 F.3d at 1120 ; see also *Ocean Conservancy v. Gutierrez*, 394 F. Supp. 2d 147 , 157 (D.D.C. 2005) (advocating deference on "technical issues that implicate substantial agency expertise").

Because courts must be "at [their] most deferential" in reviewing scientific determinations "as opposed to

simple findings of fact," *Balt. Gas*, 462 U.S. at 103 ; the Court rejects Intervenor-Plaintiffs' argument that the Corps should have used "a more precise modeling framework" to model operations under the Master Manual, see Intervenor-Pls.' Mot., ECF No. 85 at 16-17. As its model for conducting water quality, flow, and lake level modeling, the Corps used the Hydrologic Engineering Center — Reservoir Simulation Model ("HEC-ResSim"), Defs.' Cross-Mot., ECF No. 95 at 29; "a state-of-the-art tool for simulating flow operations in managed systems" that was developed by the Corps' to "perform water resources studies in predicting the behavior of reservoirs and to help [*70] reservoir operators plan releases in real-time during day-to-day and emergency operations[.]" A.R., ECF No. 61 at D-00044062. This software has become "the standard" for Corps reservoir operations modeling, *id.* at D-00044196; and its use is described in the FEIS itself and in a separate modeling report comprising two appendices, see *id.* at D-00047850, D-00047852-48275 (Appendix C, "HEC-ResSim Modeling Report"), D-00048276-469 (Appendix D, "HEC-ResSim and HEC-5Q Simulation of Water Quality in the [ACT] River Basin"). In these reports, the Corps explains that it selected HEC-ResSim following completion of a three-year model development and verification process, which included presentation of the model to stakeholders for input. *Id.* at D-00044196-97, D-00047860. The resulting software incorporates characteristics of the ACT Basin and individual reservoirs, "including physical constraints (spillway capacities, area-discharge curves, flows associated with hydropower, and such) and operational procedures (action zones, balancing, and the like)[.]" leading the model to become "generally accepted as a promising improvement to ACT reservoir system modeling." *Id.* at D-00044196. Using HEC-ResSim, the Corps was able to model the effects of changing "individual and multiple operational measures," like "revising hydropower generation per action zone or reshaping action zones," both at individual reservoirs and across the ACT Basin, which resulted in data outputs (hydropower generation, reservoir levels, river flows and stages, etc.), across the entire hydrologic period of record (1939 to 2011) that were evaluated according to specific criteria and authorized project purposes. See *id.* at D-00044197 (depicting the "iterative process refining current operations").

Based on this detailed information from the record and because of the extreme deference accorded to an agency's "complex judgments about sampling methodology and data analysis that are within [its] technical expertise," *Alaska Airlines*, 588 F.3d at 1120 ; the Court concludes that the Corps' decision to use HEC-ResSim to model the "complex hydrology of the ACT Basin," Defs.' Cross-Mot., ECF No. 95 at 29; furthered its ability to take the requisite "hard look" at environmental impacts and reflects reasoned decision-making, see *Citizens Against Burlington, Inc. v. Busey*, 938 F.2d 190 , 201 (D.C. Cir. 1991) (stating that the deferential rule of reason guides the agency's "choice of scientific method"). As the D.C. Circuit has explained, an agency's modeling must be deferred to unless it is "so flawed" that the resulting findings "bore no rational relationship to the characteristics of the data to which it is applied[.]" *Alaska Airlines*, 588 F.3d at 1120 (citation and internal quotation marks omitted); see also *Ethyl Corp. v. EPA*, 541 F.2d 1 , 36 (D.C. Cir. 1976) ("[The Court] must look at the decision not as the chemist, biologist or statistician that [it is] qualified neither by training nor experience to be, but as a reviewing court exercising [its] narrowly defined duty of holding agencies to certain minimal standards of rationality."). The same degree of deference applies to the HEC-5Q Model, which the Corps [*71] selected as the "logical choice for the water quality model" to evaluate water management alternatives due to its compatibility with HEC-ResSim. A.R., ECF No. 61 at D-00036295; see also *id.* at D-00044353-54 (explaining that the HEC-5Q model can "simulate the entire riverine and reservoir system in a single model" and create modeled outputs that provide a "longitudinal presentation of conditions for comparison between various operations scenarios").³¹

The Court agrees with Defendants that although the Corps' modeling was criticized by the EPA, that "does not demonstrate that its decision [was] arbitrary." Defs.' Cross-Mot., ECF No. 95 at 30; *see* A.R., ECF No. 61 at D-00049704, D-00049707 (the EPA arguing that the Corps should "use a more precise modeling framework in determining impacts to water quality" because its model "lacks the temporal, spatial, and mechanistic precision" to quantify such impacts). "Although an agency should consider the comments of other agencies, it does not necessarily have to defer to them when it disagrees." *Theodore Roosevelt Conservation P'ship v. Salazar*, 605 F. Supp. 2d 263, 276 (D.D.C. 2009) (citation omitted), *aff'd*, 616 F.3d 497 (D.C. Cir. 2010); *see also* *Busey*, 938 F.2d at 201 ("[U]nder the rule of reason, a lead agency does not have to follow the EPA's comments slavishly—it just has to take them seriously."); *Fuel Safe Wash. v. FERC*, 389 F.3d 1313, 1332 (10th Cir. 2004) (requiring an agency "to consider the views of other agencies," like the EPA, but not obligating it to defer to those views). Therefore, even if the Court had otherwise concluded that Intervenor-Plaintiffs raised "plausible criticisms of the methodology chosen by the" Corps, they have failed to show that this choice was arbitrary or capricious. *See Colo. River Cutthroat Trout v. Salazar*, 898 F. Supp. 2d 191, 205 (D.D.C. 2012) ("[A]n agency's choice of methodology need only be reasonable to be upheld.").

b. The FEIS Adequately Analyzes and Discloses Impacts of the Proposed Action Alternative on Hydropower Generation

Having established both the parameters of the "hard look" doctrine and the reasonableness of the Corps' decision to use HEC-ResSim to conduct that "hard look," the Court turns to the Alabama Plaintiffs' first argument regarding "flaws" in the FEIS, namely involving the Master Manual's division of the conservation pool into four action zones, as opposed to the two previously existing action zones, and its "reduced power generation in all action zones, as compared with the 1993 draft manual." Pls.' Mot., ECF No. 83 at 28-29, 56-57. They argue that "the Corps' modeling of the Proposed Action Alternative failed to disclose the impact of one of the new Manual's most fundamental changes—the Corps' discretion not to make *any* hydropower releases in any of the action zones at Lake Allatoona." *Id.* at 57. In support of this argument, they direct the Court to Figure 5.4-1 in the record, titled "Operations under the Proposed Action Alternative at Allatoona Lake," which depicts the four action zones and their corresponding hydropower generation schedule. A.R., ECF No. 61 at D-00044258. In Zone 1, the minimum hydropower generation schedule ranges from 0 to 4 hours, in Zone 2 from 0 to 3 hours, in Zone 3 from 0 to [*72] 2 hours, and in Zone 4, 0 hours. *See id.* Based on this figure, the Alabama Plaintiffs contend that the Corps can now "eliminate hydropower generation *completely* at any time in any of the proposed action zones[.]" in contrast to the 1993 Draft Manual, under which Zone 1 required between two and six hours of hydropower generation. Pls.' Mot., ECF No. 83 at 29.

The Alabama Plaintiffs further argue that although the Master Manual gives the Corps discretion to generate zero hydropower, the modeling for the Proposed Action Alternative assumes that the Corps will make sufficient releases to generate the maximum amount of hydropower each day when Allatoona is in Zone 1 or 2 during nine months of the year, and fifty percent of the maximum for those zones during the remaining three months of the year. *Id.* at 31, 57. They argue that such assumptions are "not realistic in light of the Corps' operational history[.]" and that the Corps should have modeled "realistic circumstances" under which it generated less or even no hydropower to reveal the resulting decrease in flows and accompanying environmental effects. *Id.* at 57; Compl., ECF No. 1 at 20-21 ¶ 89. Intervenor-Plaintiffs likewise argue that the Corps should have modeled its authority "under the Manual to reduce hydropower releases at Lake Allatoona to zero[.]" which they claim

will occur during the driest periods in the ACT Basin "when assimilative capacity is most affected by low-flow conditions." Intervenor-Pls.' Mot., ECF No. 85 at 18. Defendants respond that "[i]n fact it is Plaintiffs' focus on the possibility of at times lowering releases to zero that is unrealistic[.]" Defs.' Cross-Mot., ECF No. 95 at 31; as the Corps has not claimed discretion "not to generate hydropower at all from its hydropower dams in the ACT Basin[.]" Defs.' Reply, ECF No. 102 at 21.

The Court agrees with the Corps that its modeling of hydropower releases was reasonable and complied with NEPA because "[n]othing in the FEIS suggests that the Corps has 'newfound discretion not to generate hydropower[.]'" *Id.* at 20 (quoting Pls.' Reply, ECF No. 99 at 32). To the contrary, the FEIS recognizes that "[h]ydropower is one of the congressionally authorized purposes in the ACT Basin." A.R., ECF No. 61 at D-00043784. The FEIS explains that hydropower facilities at Corps projects in the basin are operated as peaking plants "to meet daily peak electric power demands during periods of high use" and that "[t]he number of hours of peaking operations on any given day at any specific project may vary as necessary to balance with meeting other authorized project purposes." *Id.* Regardless of this daily variation, however, at Allatoona Dam, the service unit is operated to continuously release minimum flows of 240 cfs, which generate hydropower while providing constant flows downstream. *Id.* at D-00043939. Under the Master Manual's "[r]efined operations at Allatoona Lake," the action zones were intentionally "shaped to mimic the seasonal demands for hydropower," and modifications to the hydropower schedule were "put in place to provide greater operational flexibility to meet power demands while [*73] conserving storage." *Id.* at D-00043797. The FEIS explains that under the Proposed Action Alternative, the typical daily hydropower generation range for Allatoona Lake is actually *retained*, while generation is only reduced during September through November "to facilitate implementation of the fall phased down guide curve[.]" which the Corps expects to provide additional benefits to "overall hydropower production." *Id.* at D-00044244-45. The record therefore negates the Alabama Plaintiffs' claim that the Corps has sought to eliminate hydropower generation completely. *See id.* at D-00044949 (explaining that the action zones serve as a guide to meeting, not negating, "system hydropower commitments").

Furthermore, while the Master Manual has changed the peak generation hours available for the four action zones based on seasonal demand, it has merely implemented a range of hours—from 0 to 2, 3, or 4 hours—*see id.* at D-00044258; except for 0 hours at Zone 4, which is reserved for when reservoir elevations reflect "severe drought conditions" and peaking operations "will typically be suspended," *id.* at D-00044950. Thus, the FEIS frames peaking generation as a "*range*," Defs.' Reply, ECF No. 102 at 21; under which the hours identified in the action zones are to represent "the most likely hydropower demand during normal conditions[.]" *see* A.R., ECF No. 61 at D-00046589 ("Modeling is not intended to capture the exact operation of every day."). Here, the FEIS' modeling may have assumed the maximum amount identified in each action zone, but the Corps has explained that while it agrees that actual operations may not be this amount, using the maximum value per zone "capture[s] typical reductions[.]" allows for meaningful comparisons, and has been used in prior modeling approaches in earlier ACT/ACF studies. *Id.*; *see* Defs.' Reply, ECF No. 102 at 21 n.9 (explaining that because the Manual "frames peaking generation as 'up to' certain hours[.]" Plaintiffs cannot show that the Corps "overestimated" hydropower generation in the FEIS (citing A.R., ECF No. 61 at D-00044949-51)). The FEIS even notes that peak generation "could exceed" the maximum ranges in zones 1 to 3 in unique situations. *See* A.R., ECF No. 61 at D-00044792-93. On the other end of the range involving "zero hours on certain days in certain circumstances[.]" the FEIS "explains the limited and infrequent circumstances in which

such generation might not occur[,]" Defs.' Reply, ECF No. 102 at 21; such as "maintenance and repair of turbines; emergency situations such as a drowning or chemical spill; draw-downs because of shoreline maintenance; drought operations; increased or decreased hydropower demand; and other circumstances[,]" A.R., ECF No. 61 at D-00044949-50. And even in those rare situations of zero peaking generation, hydropower production continues from the Allatoona service unit at minimum flows of 240 cfs, *id.* at D-00043939, D-00044950; thereby negating the Alabama Plaintiffs' contention that the Corps ignored their comments about Allatoona's authorizing legislation requiring the Corps to provide minimum levels of hydropower releases, see [*74] Pls.' Reply, ECF No. 99 at 32-33.

Because the FEIS does not indicate that the Corps now has "absolute discretion to wholly withhold hydropower releases" wherever and whenever it wants, Pls.' Mot., ECF No. 83 at 57; the Court agrees with Defendants that the Corps did not need to separately model a less or no-hydropower scenario since the range of hydropower hours per action zone adequately captures scenarios resulting from the Corps balancing various factors or activities impacting peaking operations, and as the FEIS demonstrates, it is "not realistic" that the range of peak generation for each zone will near zero on typical days, Defs.' Cross-Mot., ECF No. 95 at 31; see *Izaak Walton League of Am. v. Marsh*, 655 F.2d 346, 377 (D.C. Cir. 1981) ("Detailed analysis is required only where impacts are likely. . . . So long as the [EIS] identifies areas of uncertainty, the agency has fulfilled its mission under NEPA."). Accordingly, the Court agrees with Defendants that while Plaintiffs "may have more pessimistic assumptions about what might happen" to hydropower impacts under the Master Manual, this is not a reason to set aside the FEIS. Defs.' Reply, ECF No. 102 at 21.

c. The FEIS Adequately Analyzes and Discloses Impacts of the Proposed Action Alternative Associated with the CC-MWA's Water Supply Withdrawals

The Court now turns to the Alabama Plaintiffs' second argument—that the Proposed Action Alternative conceals environmental impacts related to the CC-MWA's water supply withdrawals from Allatoona Lake. Pls.' Mot., ECF No. 83 at 58. The authority upon which the Corps relies to use Allatoona for local water supply derives from the Water Supply Act of 1958. *Id.* at 19. Pursuant to that Act, the Corps has authority, without the need for prior congressional approval, to modify its reservoir projects "to provide storage for municipal and industrial water supply, so long as adding the modifications would not cause a 'major structural or operational change' from the structures and operations authorized by Congress or 'seriously affect' the congressionally authorized project purposes." *In re ACF Basin*, 554 F. Supp. 3d at 1296 (quoting 43 U.S.C. § 390b(e)). Using this authority, the Corps has reallocated about seven percent of Allatoona's storage capacity from normal power operations to municipal water supply based on a 1963 storage contract with the CC-MWA. See Pls.' Mot., ECF No. 83 at 19; A.R., ECF No. 61 at SUPPAR012820 (explaining that the storage contract conveyed to the CC-MWA "the right to utilize storage space at Lake Allatoona to store water granted to [the] CC-MWA by the State of Georgia"). According to the FEIS, water supply usage has increased over time, with 2006 amounting to a drought year with the highest water demand on record, A.R., ECF No. 61 at D-00043790; leading the Corps to recognize that "the available storage under existing water supply agreements at [Corps] reservoirs may not be sufficient to accommodate the 2006 level of water supply withdrawals under all conditions[,]" *id.* at D-00043824.

The Alabama Plaintiffs argue that historically the CC-MWA has withdrawn more water from Allatoona Lake

than its contract allows, which they [*75] claim the Corps has acknowledged despite not seeking to enforce the contract's limits. Pls.' Mot., ECF No. 83 at 58; see A.R., ECF No. 61 at SUPPAR012820 (calculating that in 2007, the CC-MWA "substantially exceeded the storage allocation provided in the water supply storage contract"). Due to "this reality," they claim that the Corps properly modeled the No-Action Alternative using the CC-MWA's actual withdrawals from 2006, "rather than the substantially lower contractual limits" that the CC-MWA "routinely has violated," yet improperly modeled the Proposed Action Alternative "on the inconsistent assumption that [the] CC-MWA would abide by its contractual limits in the future." Pls.' Mot., ECF No. 83 at 31, 58; Pls.' Reply, ECF No. 99 at 33. By modeling the Proposed Action Alternative this way, the Alabama Plaintiffs claim that "the FEIS is representing that far more water will be available to improve downstream conditions than is realistic[,]" and therefore, the Corps did not fulfill the parameters of NEPA's "hard look" doctrine and instead deprived the public of relevant information.³² See Pls.' Mot., ECF No. 83 at 58-59. Defendants respond that it was reasonable to model the No-Action Alternative to reflect "actual withdrawals from Allatoona Lake" in 2006, while modeling withdrawals under the proposed action alternatives "consistent with the amount of storage available in existing water supply storage agreements." Defs.' Cross-Mot., ECF No. 95 at 32. They explain that the FEIS "took the highly conservative approach of utilizing water demand data from 2006—a year of historic drought and the highest net withdrawals in system history—when estimating future withdrawals basin-wide for each alternative," Defs.' Reply, ECF No. 102 at 22; which enabled the Corps "to analyze the circumstances in which there were the highest possibility of adverse impacts[,]" Defs.' Cross-Mot., ECF No. 95 at 32. Thus, Defendants claim that the Alabama Plaintiffs have failed to show "any meaningful understatement of impacts." Defs.' Reply, ECF No. 102 at 22.

The Court agrees that it was reasonable for the FEIS to model water supply withdrawals from Allatoona Lake for the action alternatives consistent with the CC-MWA's 1963 contract. As the Northern District of Georgia has concluded in separate litigation involving the ACT Master Manual and FEIS over this identical issue, "there is no evidence that suggests use of current contract values is an unacceptable standard in assessing the environmental impacts of operational changes in a reservoir." See Order, *Georgia v. U.S. Army Corps of Eng'rs*, No. 1:14-cv-03593 (N.D. Ga. Sept. 29, 2017), ECF No. 61 at 43-45 (rejecting an identical argument from the Georgia Parties that the FEIS violates NEPA because the Corps used the CC-MWA's "existing contract allocation amounts in evaluating alternatives, and assumed that water use would not be permitted to exceed those quantities" when "in reality" the CC-MWA's "current withdrawals exceed the contractual amounts"). The Court is persuaded by the Northern District of Georgia's conclusion that concerns regarding the renegotiation [*76] of water supply contracts are beyond the scope of this action, *id.* at 44; see A.R., ECF No. 61 at D-00046599 ("A reallocation of storage at Lake Allatoona for water supply is outside the scope of the [WCM] update process."); and that "while the Corps' methodology may be inaccurate in some respects, the Court is not authorized to substitute its judgment 'concerning the wisdom or prudence of the proposed action[,]'" Order, *Georgia v. U.S. Army Corps of Eng'rs*, No. 1:14-cv-03593 (N.D. Ga. Sept. 29, 2017), ECF No. 61 at 44 (citation omitted). Instead, the Court must be particularly deferential given that the agency is evaluating complex "scientific matters in its area of technical expertise." *Nat'l Wildlife Fed'n v. EPA*, 286 F.3d 554, 560 (D.C. Cir. 2002). Therefore, the Court defers to the Corps' decision in the FEIS to model withdrawals in the proposed action alternatives consistent with the CC-MWA's current water supply contract amounts, and concludes, as did the Northern District of Georgia, that this choice was not arbitrary or capricious.³³ See Order, *Georgia v. U.S. Army Corps of Eng'rs*, No. 1:14-cv-03593 (N.D. Ga. Sept. 29, 2017), ECF No. 61 at 44-45

(concluding that NEPA's procedural requirements "were adhered to" and denying summary judgment on the Georgia Parties' NEPA claims).

In any event, the Court agrees with Defendants that it was "conservative" of the Corps to use water demand data from 2006 in estimating future basin-wide withdrawals for each of the alternatives. Defs.' Cross-Mot., ECF No. 95 at 32. The record indicates that net water withdrawals in 2006 were not only the highest in ACT Basin history, A.R., ECF No. 61 at D-00043790; but also much higher than the estimated daily requirements in the CC-MWA's water supply storage agreement with the Corps, *see id.* at D-00053482; Defs.' Cross-Mot., ECF No. 95 at 32. In 2006, the CC-MWA withdrew an average of 47.19 million gallons per day ("mgd") from Allatoona Lake, compared to the estimated daily requirement of 34.5 mgd allotted in its 1963 water supply contract. A.R., ECF No. 61 at D-00053482. Since 2006, the CC-MWA's withdrawals have averaged 37.10 mgd annually. *Id.* Despite this lower average number, the Corps used 2006's "actual, record water supply withdrawals" number of 47.19 mgd for the No-Action Alternative, Proposed Action Alternative, "and all other alternatives," but then used modeling parameters to limit the withdrawals for the action alternatives "to those that would be available, under the modeled circumstances, from existing water supply storage allocations. . . ." *Id.* at D-00053483; *see id.* at D-00043790 (stating that the Corps "took into account the current (2006) demand, as well as the availability of storage under existing water supply storage agreements at [Corps] reservoirs, in evaluating the alternatives"), D-00046589 (explaining that "[u]sing the same water supply numbers for each reservoir alternative operation allow[ed] for proper comparative impact analysis"). The modeling results for the Proposed Action Alternative indicated that withdrawals from the existing water supply storage would average 43.34 mgd annually, more than the 34.5 mgd requirement in the 1963 contract but less [*77] than the 47.19 mgd average that was withdrawn in 2006. *Id.* at D-00053483. Therefore, by using 2006's unprecedented demand level to model withdrawals, the Corps conservatively analyzed the alternatives in comparison to scenarios with "the highest possibility of adverse impacts." Defs.' Cross-Mot., ECF No. 95 at 32.

Furthermore, the administrative record indicates that the Corps conducted a sensitivity analysis to measure the effects of greater water supply withdrawals than anticipated, *i.e.*, the sensitivity of the Proposed Action Alternative to increased future water demands. *See* A.R., ECF No. 61 at D-00044478, D-00047882-84 (Figures 6, 7, and 8). This analysis demonstrated that a thirty percent increase in overall water supply demand, above the 2006 level already used in the impacts analysis, would not impact the overall results of the modeling. *See id.*; Defs.' Cross-Mot., ECF No. 95 at 32. This analysis confirmed that "even an unprecedented level of water supply withdrawals from Allatoona Lake would not have significantly different impacts than those analyzed[.]" thereby negating the Alabama Plaintiffs' contention that the FEIS understates impacts of the CC-MWA's water supply withdrawals. Defs.' Reply, ECF No. 102 at 22-23.

d. The FEIS Adequately Analyzes and Discloses Impacts of the Master Manual on Water Quality at Montgomery, Alabama

The Court next turns to Intervenor-Plaintiffs' three additional arguments as to why the FEIS should be set aside, beginning with the Montgomery Board's claim that the FEIS fails to adequately analyze the Master Manual's impacts on water quality issues at Montgomery, Alabama. *See* Intervenor-Pls.' Mot., ECF No. 85 at 15-19. The Montgomery Board, a public water utility providing water and wastewater services, states that it relies on reliable water flows in the ACT Basin, particularly from the Tallapoosa and Alabama Rivers, "for

critical water supply and wastewater assimilation purposes[,]" and that it "has long objected to the Corps' actions at Allatoona that impair water flows within Alabama." *Id.* at 9, 15. It argues that the Master Manual will lead to further flow reductions that harm the Montgomery Board and its customers, including by degrading water quality, impairing its ability to treat wastewater, and reducing flows below minimum amounts mandated by its NPDES permits, such that changes to its permits will be required and subsequent modifications to its water and wastewater treatment facilities will be necessary to maintain permit compliance. *Id.* at 9-10.

To support its claims, the Montgomery Board points to ADEM's prediction that the Master Manual will cause water quality violations in Alabama, and the Corps' acknowledgement that reduced flows may necessitate changes in and reevaluation of NPDES permits throughout the ACT Basin. *Id.* at 15 (citing A.R., ECF No. 61 at D-00043396-405, D-00043827, D-00043860). Instead of addressing these issues, the Montgomery Board claims that the FEIS uses "vague, conclusory terms" to minimize the Manual's downstream effects on water quality and used improper modeling, incorrect [*78] forecasting of future water supply demands, and incorrect Allatoona discharge data to further mask these adverse effects. *See id.* at 16-19. The Montgomery Board also argues, as do the Alabama Plaintiffs, that "the Corps has impermissibly attempted to shift all responsibility for water quality to other parties" to avoid NEPA's requirements. *Id.* at 19. Defendants respond that the Corps fully and reasonably analyzed water quality impacts, including at Montgomery, in "hundreds of pages in the FEIS and two full appendices." Defs.' Reply, ECF No. 102 at 23. They argue that the Corps' reliance on its choice of water quality modeling and accompanying analyses, despite contrary comments from the EPA, and on its own data sets, was legal, rational, and entitled to deference. *Id.* at 23-24; Defs.' Cross-Mot., ECF No. 95 at 33-34. For the reasons explained below, the Court agrees with Defendants and rejects each of the Montgomery Board's water quality claims under NEPA.

First, the Court reiterates its earlier conclusion that deference is due to the Corps' modeling choices—HEC-ResSim as the overall "flow model" and HEC-5Q as the water quality model. *See supra* section IV.B.2.a. Intervenor-Plaintiffs argue that these models are "improper" because comments from the EPA and ADEM indicate that "more appropriate" and "site-specific sophisticated modeling frameworks" developed by federal and state agencies should have been used instead, and that the Corps' "failed to take a 'hard look' at water quality impacts by using a model that the nation's primary regulator for water quality cautioned against." Intervenor-Pls.' Reply, ECF No. 101 at 6-7 (quoting A.R., ECF No. 61 at D-00049707). However, the record indicates that the Corps considered these comments but concluded that those site-specific models, designed for use in assessing TMDLS, "are of limited value in making water release decisions and selecting alternative operations at reservoirs." *See* A.R., ECF No. 61 at D-00053484 ("The [Corps] technical team of subject matter experts has reviewed the comments from the EPA and determined that the evaluation of water quality impacts contained in the [FEIS] complies with NEPA requirements."). Having taken these explanatory steps, "the Corps was entitled to rely on its own modeling[,]" Defs.' Reply, ECF No. 102 at 24; a reasonable decision to which the Court must defer, *see Nat. Res. Def. Council, Inc. v. Herrington*, 768 F.2d 1355, 1385 (D.C. Cir. 1985) (deferring "to an agency's judgment to use a particular model if the agency examines the relevant data and articulates a reasoned basis for its decision"). The same conclusion applies to the Corps' use of its own historical Allatoona discharge data, as opposed to Intervenor-Plaintiffs' preferred data reported by the U.S. Geological Survey. *See* Defs.' Cross-Mot., ECF No. 95 at 30; Defs.' Reply, ECF No. 102 at 25 n.12; *see also Sierra Club v. Watkins*, 808 F. Supp. 852, 862 (D.D.C. 1991) (stating that "NEPA does not require a federal

agency to consider and discuss every viewpoint in the scientific community on a given matter[.]" and noting that when specialists disagree, agencies "have discretion to rely on the reasonable opinions of its [*79] own qualified experts").

Second, the Court rejects the Montgomery Board's claim that the Corps incorrectly forecasted future water demands by Georgia entities, just as it rejected the Alabama Plaintiffs' similar argument that the Corps incorrectly assessed the impacts of the CC-MWA's water supply withdrawals under the Proposed Action Alternative. *See supra* section IV.B.2.c. Here, the Montgomery Board argues that by using "outdated" data from 2006 addressing projected water demands through 2030, as opposed to accessible data projecting demands through 2040, the Corps understated foreseeable water supply demands and the resulting "cumulative environmental impacts of the Manual." Intervenor-Pls.' Mot., ECF No. 85 at 17-18. The Court disagrees, concluding that the Corps reasonably used data from 2006 and its accompanying 2030 projections, as this data provided sufficient information to evaluate the action alternatives and reasonably choose among them. *See A.R.*, ECF No. 61 at D-00043998-4026. That the Montgomery Board would prefer a different dataset making projections through 2040 is unpersuasive, as the D.C. Circuit has concluded that "while it is 'desirable . . . for agencies to use the most current and comprehensive data available when making decisions,' an agency's reliance on outdated data is not arbitrary or capricious[.]" *Theodore Roosevelt*, 605 F. Supp. 2d at 273 (quoting *Vill. of Bensenville*, 457 F.3d at 71); *see also Selkirk Conservation All. v. Forsgren*, 336 F.3d 944 , 962 (9th Cir. 2003) ("NEPA does not impose a requirement that the [agency] analyze impacts for any particular length of time.").

Third, the Court concludes that the FEIS goes beyond "conclusory terms" to explain how and why the Corps determined that water quality effects of the Master Manual would be "minor." Intervenor-Pls.' Mot., ECF No. 85 at 16; *see A.R.*, ECF No. 61 at D-00043827 ("The overall effect of the Proposed Action Alternative on water quality would be expected to be negligible."), D-00043853 ("The Proposed Action Alternative (Plan G) with reduced basin inflow . . . would have minor impacts on water quality in the ACT Basin."). As discussed, the Corps developed its "highly technical HEC-ResSim model to analyze the ACT Basin's hydrology[.]" Defs.' Cross-Mot., ECF No. 95 at 33; and modified this model via the HEC-5Q Model to thoroughly analyze water quality impacts, specifically "each water quality parameter . . . over multiple periods, as outlined in the water quality modeling report (Appendix D)[.]" *see A.R.*, ECF No. 61 at D-00046824 (explaining that a "wide range of flows was modeled and analyzed" and "[m]odel results were summarized for three hydrologic periods, including high flows, low flows, and 'normal' flows"). The performance of this modeling enabled the Corps to discuss water quality impacts on the environment in detail in the FEIS, *see, e.g., id.* at D-00044353-95 (assessing various sub-topics under section 6.1 "Water Resources" for each of the action alternatives, such as "Water Withdrawals," "Water Quality Environmental Consequences," and "Water Temperatures," among other pertinent water quality subjects), D-00044031-49 (analyzing "surface water quality," including [*80] "water quality standards" at point and nonpoint sources); and the Corps even performed additional analysis following ADEM's comments on the FEIS, which confirmed its original conclusion that there would be "little impact under the [Proposed Action Alternative] to the water quality in the ACT Basin[.]" *id.* at D-00053485. As the Corps has explained, water quality impacts "as a whole [were] thoroughly discussed" when updating the WCMs, Defs.' Cross-Mot., ECF No. 95 at 33; and were also explicitly addressed in a comparison of the impacts of the various alternatives on the Alabama River at Montgomery, *A.R.*, ECF No. 61 at D-00043820-42. The FEIS also

discusses direct and indirect effects³⁴ of each alternative on water quality indicators such as water temperature, oxygen demand, and levels of phosphorous, nitrogen, and chlorophyll *a*, *see id.* at D-00043825-27, D-00044353-95, D-00046824; "including in areas far downstream of Corps projects and at projects operated by others—as influenced over time by hydrological conditions and pollution sources in the basin[.]" Defs.' Reply, ECF No. 102 at 26. Accordingly, the Court concludes that the Montgomery Board has not shown "that the Corps failed to sufficiently analyze any discrete environmental impact that is subject to the Corps' control nor has [it] shown that the agency's discussion of impacts was arbitrary or capricious." *In re ACF Basin*, 554 F. Supp. 3d at 1306. To the extent Intervenor-Plaintiffs "would prefer a more extensive discussion of [the water quality] issues, that is not a reason to overturn the [FEIS,]" *id.* at 1307; or to find that "the requisite 'hard look' was not taken[.]" Intervenor-Pls.' Reply, ECF No. 101 at 8.

Despite this record evidence, the Montgomery Board argues that the Corps failed to address certain indirect environmental effects, notably the Master Manual's "increased potential for triggering drought operations and the corresponding impact to water quality" at Montgomery, as modeled by APC under a "no power scenario." Intervenor-Pls.' Reply, ECF No. 101 at 9. According to APC's "no power" analysis, in which the Corps exercises its "discretion to not make releases for hydropower," Alabama would only receive minimum flows during the critical late summer months about half the time, A.R., ECF No. 61 at D-00049609; and state-line flows would trigger drought operations in Alabama 17% of the time, an 82% increase compared to the No-Action Alternative, *id.* at D-00043422, D-00045989. Given APC's modeling, the Montgomery Board is concerned that the Corps can "artificially" trigger the Master Manual's new drought plan "by curtailing releases from Allatoona (which comprise much of the flow at the state line), further reducing flow in the basin, particularly on the Alabama River[.]" thereby degrading Montgomery's water quality. Intervenor-Pls.' Reply, ECF No. 101 at 9; Intervenor-Pls.' Mot., ECF No. 85 at 19-20 n.4.

The Court rejects the Montgomery Board's "indirect effects" argument. First, the Corps addressed and explicitly negated comments that the Proposed Action Alternative "will make drought operations in Alabama more frequent and drought effects more severe[.]" and **[*81]** explains its reasons for concluding that the drought management plan will not increase drought severity. *See, e.g.*, A.R., ECF No. 61 at D-00046596. Second, given that the Corps' choice of modeling is entitled to deference, the Court concludes that the Corps was reasonably "entitled to rely on its own modeling and expertise," even though its modeling differs from that performed by APC or another third party. Defs.' Cross-Mot., ECF No. 102 at 26. This conclusion is further supported by the Court's earlier conclusion that the Corps need not separately model a no-hydropower scenario, *see supra* section IV.B.2.b.; as the FEIS, contrary to the Montgomery Board's claim, does not indicate that the Corps has newfound discretion to generate zero hydropower,³⁵ nor is it likely that peak generation for each action zone will near zero on a given day, *see, e.g.*, A.R., ECF No. 61 at D-00044949-51. Thus, APC's "no power" scenario, which "assumes that the Corps generates no hydropower at Allatoona[.]" *id.* at D-00043422, D-00049609; is premised on an unrealistic assumption, and the Montgomery Board's concerns based on this model are not reasonable.

Regardless, the FEIS explains, using data from the simulated period of hydrologic record, that the new drought management plan (only activated under specific triggers) is expected to "result in improved storage conditions and higher lake levels . . . than would be expected without the . . . drought plan, while continuing to meet downstream flow requirements and targets as well as essential water needs (quantity and quality) for municipal

and industrial users to the extent possible." See A.R., ECF No. 61 at D-00044340-52 (Section 6.1.1.4 "Drought Management" and Section 6.1.1.5 "Navigation Flow Targets—Alabama River"). In assessing the impacts of the drought plan, the FEIS specifically modeled water quality impacts under dry flow conditions, *id.* at D-00044354; before determining that there is only a "minor increase in susceptibility to drought operations over the modeled period of record" under the Proposed Action Alternative, *id.* at D-00044342. In sum, the Court agrees with Defendants that "since there is no merit to Intervenor's claims of deficiency in the Corps' choices of data and models, . . . their claim that the water quality analysis was compromised by those data and model choice deficiencies . . . also fails." Defs.' Reply, ECF No. 102 at 27.

Finally, the Court rejects the Montgomery Board's argument that the Corps has improperly shifted the burden to the States to address the Master Manual's water quality impacts. See Intervenor-Pls.' Mot., ECF No. 85 at 15, 19; Intervenor-Pls.' Reply, ECF No. 101 at 8-9. While the FEIS concedes that "[w]ater management activities may affect water quality under low flow conditions such that the state regulatory agencies may consider reevaluation of NPDES permits to confirm the system's assimilative capacity[.]" it identifies this adaptive management technique[.]" A.R., ECF No. 61 at D-00043827; as one mitigation measure the States could "elect . . . to limit discharges during certain in-stream flow conditions" and "ensure that NPDES permitted facilities [*82] do not violate water quality standards under extreme low flow conditions" in the future, see *id.* at D-00043860, D-00044364 (explaining that some dischargers could be required, by their NPDES permit, "to change the way they operate during low-flow conditions"). While the Montgomery Board "may not like the fact that some permittees may have to treat their pollution better, rather than relying on the Corps to dilute it," Intervenor-Def's. Suppl. Mot. Reply, ECF No. 139 at 21; it is permissible for agencies to "recognize that other entities are in the best position to take appropriate action[.]" *In re ACF Basin*, 554 F. Supp. 3d at 1307 . Although the Montgomery Board argues that the potential permit changes make future planning difficult, Intervenor-Pls.' Mot., ECF No. 85 at 16; under NEPA, the Corps "need not delay adopting its preferred alternatives while those other entities choose 'what mitigating measures they consider necessary[.]'" *In re ACF Basin*, 554 F. Supp. 3d at 1307 (quoting *Robertson*, 490 U.S. at 353).

This conclusion applies equally to APC, which is in the "best position" to make mitigating discharge decisions at its seven reservoir projects on the Coosa River—between the City of Montgomery and the two upstream Corps projects in Georgia (Carters Dam and Allatoona Dam)—and its four projects upstream of Montgomery on the Tallapoosa River. A.R., ECF No. 61 at D-00046675. As the FEIS notes, flow conditions in the Alabama River at Montgomery "are mainly controlled by water management activities at APC projects upstream on the Coosa and Tallapoosa rivers and are minimally affected by projects in the upper portion of the basin" controlled by the Corps, *id.* at D-00044421; such that APC's "operational decisions are the primary factors determining flows" at Montgomery, *id.* at D-00046675. While APC projects are generally affected by the overall flow of water through the ACT Basin, see Intervenor-Pls.' Mot., ECF No. 85 at 19; they are directly governed by their own minimum release targets pursuant to FERC licenses that were "established to meet downstream navigation objectives as well as provide waste assimilation, hydropower generation, and other downstream benefits[.]" A.R., ECF No. 61 at D-00044421, D-00043960-61. Therefore, as the Corps has asserted in response to comments, it "is not responsible to 'ensure suitable water quality' at Montgomery as asserted" by the Montgomery Board, *id.* at D-00046675; and it reasonably analyzed water quality impacts downstream near Montgomery in lesser detail because these impacts in this area "depend on a series of third party

actions—including by [APC] in making decisions regarding the quantity of releases from its reservoirs—rather than the Corps' operations far upstream," Defs.' Cross-Mot., ECF No. 95 at 33.

For these reasons, the Court concludes that the FEIS adequately and reasonably considers and discloses impacts of the Master Manual on water quality, including at Montgomery, Alabama.

e. The FEIS Adequately Analyzes and Discloses Impacts of the Master Manual on Salt Water Intrusion from Mobile Bay

Next, the Court considers Intervenor-Plaintiff Mobile Water's claim that the FEIS fails [*83] to adequately evaluate salt water intrusion from Mobile Bay that it argues results from reduced flows under the Master Manual. See Intervenor-Pls.' Mot., ECF No. 85 at 20-23. Mobile Water is "a downstream user of the water resources at issue," Min. Order (Apr. 4, 2016); as it operates an industrial water supply that provides fresh water unencumbered with salt or brine from tidal influences of the Mobile Bay to customers in the Mobile Area, A.R., ECF No. 61 at D-00046635-36. According to Mobile Water, it operates freshwater intakes in the lower portion of the ACT Basin "that are susceptible to salt water intrusion from Mobile Bay[.]" and that without adequate flows from the Basin into the Mobile River, "there is a substantial risk of increased salinity[.]" Intervenor-Pls.' Mot., ECF No. 85 at 10, 20. Mobile Water explains that to operate its water and wastewater service, it depends on reliable waters from the Alabama River, which terminates into the Mobile River. A.R., ECF No. 61 at D-00046636. The Alabama River is the source of ninety percent of Mobile Water's industrial water supply, and it argues that reduced flows in that river have allowed the intrusion of "salty, brackish water from Mobile Bay," which is "caused by the tidal action of salty Mobile Bay when the flow of fresh water in Mobile River is too low to keep the denser Bay water from extending upriver." *Id.* In comments submitted on the draft EIS, Mobile Water contended that the "encroachment of salt water upstream is directly related to the reducing volume of Mobile River flow[.]" which is only worsening with reduced flows from the Alabama River and resulting in water intake that "contains salt levels in excess of limits acceptable for some industrial uses[.]" harm to Mobile Water's industrial customers, and the diminishment of a standby source of drinking water for its residential and commercial customers. *Id.* at D-00046635-37.

Mobile Water claims that the Corps' conclusion that the Master Manual will only cause a negligible impact to Mobile Water and its customers is "arbitrary and capricious" for two reasons: (1) "the 2014 FEIS is *directly inconsistent* with [the Corps'] findings on the same issue in 2007[.]" and (2) "*no detailed information or scientific studies* relating to salt water intrusion in the Mobile River appear in the Administrative Record, except for a stale 70-year-old study." Intervenor-Pls.' Mot., ECF No. 85 at 20 (emphasis in original). Defendants respond that the Corps did not make inconsistent factual findings and properly limited the scope of its review, "while still analyzing the impacts of changing salinity levels on downstream resources." Defs.' Cross-Mot., ECF No. 95 at 35. The Court addresses each of Mobile Water's two arguments in turn.

First, Mobile Water argues that the Corps has based its salt water intrusion conclusions on "inconsistent findings." Intervenor-Pls.' Mot., ECF No. 85 at 20. It references the Corps' statement in a "Public Notice," dated May 31, 2007, in which the Corps solicited public comments on a proposal from APC to reduce minimum flows on the Alabama River to conserve reservoir storage as a [*84] result of record drought conditions. *Id.* at 10-11 (citing A.R., ECF No. 61 at D-00049910). In this notice, the Corps wrote that "approximately two-third of the

flow into the Mobile River comes from the Alabama River system during low flow conditions[,] compared to approximately one-third from the Tombigbee River system[,]”³⁶ and it expressed concern that the flow reduction in APC's proposal could “potentially affect flows, water quality, *salt water intrusion*, and environmental resources in the Mobile Delta and Bay area.” A.R., ECF No. 61 at D-00049910-11 (emphasis added). Mobile Water contrasts this 2007 Public Notice with the 2014 FEIS, which states that “flows from the ACT Basin are roughly half of the total flow in the Mobile River downstream of the juncture of the Alabama and Tombigbee rivers.” *Id.* at D-00043910. Using the change from the 66/33 flow percentages in the 2007 Public Notice to the 50/50 percentages in the 2014 FEIS, Mobile Water argues that the Corps “completely reversed course” without explanation in violation of NEPA. *See* Intervenor-Pls.’ Mot., ECF No. 85 at 11, 20-21.

The Court rejects Mobile Water's argument and agrees with Defendants that “the percentages in those documents are used for two different purposes in discussion of two different facts[.]” Defs.’ Reply, ECF No. 102 at 27. The 2007 Public Notice approximates the percentages of water coming from the Alabama and Tombigbee Rivers “during [the] low flow conditions” proposed in APC's specific drought operations request, A.R., ECF No. 61 at D-00049910; while the calculations in the 2014 FEIS were not restricted to low flows but covered simulations for high flows, low flows, and “normal” flows over three hydrologic periods, *id.* at D-00046824; Defs.’ Cross-Mot., ECF No. 95 at 37; Defs.’ Reply, ECF No. 102 at 28. Further, not only does the 2007 statement merely “approximate[.]” the relative percentage of flow contributions from each river, *see* A.R., ECF No. 61 at D-00049910; but also the context was a public notice soliciting comments about APC's drought proposal, rather than a fully studied environmental analysis containing factual findings, as was the 2014 FEIS. Because the Public Notice was not final agency action, the Court agrees with Defendants that the FEIS is not arbitrary for being “inconsistent” with the notice's approximations for (solely) low flow conditions. Defs.’ Cross-Mot., ECF No. 95 at 37. Further, the caselaw Mobile Water cites regarding “the importance of consistency,” *see* Intervenor-Pls.’ Mot., ECF No. 85 at 20-21; only supports the Court's conclusion, as it indicates that an agency acts unlawfully when it disregards prior factual determinations or pronouncements made in studies “about the environmental impacts of a proposed agency action.” *Organized Vill. of Kake v. U.S. Dep't of Agric.*, 795 F.3d 956 , 969 (9th Cir. 2015); *Sierra Club v. Salazar*, 177 F. Supp. 3d 512 , 534 (D.D.C. 2016). The 2007 Public Notice clearly falls outside this umbrella. *See Cottonwood Env't L. Ctr. v. U.S. Sheep Experiment Station*, 827 F. App'x 768 , 769 (9th Cir. 2020) (explaining that *Kake* involved “a change of decision” by the agency “on the same factual record within a two-year period,” which is not the case here).

Second, Mobile Water [***85**] argues that the FEIS lacks scientific studies on salt water intrusion in the Mobile River apart from a “70-year-old study” in the record dated January 15, 1947, which is “stale” and not “of any use today,” Intervenor-Pls.’ Mot., ECF No. 85 at 12, 21-23 (citing A.R., ECF No. 61 at D-00011212-D-00011212.0043); and it claims that the conclusion that the Manual will have “negligible” impacts on salt water intrusion “is solely predicated on the relative percentage of water flowing into the Mobile River from the ACT and the Tombigbee[,]” which cannot constitute a “hard look.” *Id.* at 20-21. To support its argument, Mobile Water points to a Corps drought management planning document from 1988, which stated that “there has been little attempt to quantify” benefits of preventing salt water intrusion and advocated for establishing “guidelines and methodologies . . . for estimating these types of benefits.” *Id.* at 12 (quoting A.R., ECF No. 61 at D-00050045). Mobile Water also points to the Corps' acknowledgement in the FEIS “that it did not address ‘resources downstream’ (at the juncture of the Alabama and Tombigbee rivers) ‘to the level of detail of other

resources in the ACT Basin" *Id.* at 21 (quoting A.R., ECF No. 61 at D-00043910). While the Corps states in the FEIS that it did not discuss resources downstream at that juncture in detail "because of the limited overall effect of operation of the ACT projects on Mobile River and Mobile Bay resources[.]" A.R., ECF No. 61 at D-00043910; Mobile Water argues that the Corps had no valid basis to conclude this "because it did not study the issue[.]" Intervenor-Pls.' Mot., ECF No. 85 at 21.

As an initial matter, Defendants argue that Mobile Water waived its argument regarding the Corps' reliance on "stale data" because it did not raise this issue prior to the start of the instant action. Defs.' Reply, ECF No. 102 at 27. They argue that since Mobile Water did not alert the Corps to the "stale data" issue in its comments on the draft EIS, "much less propose the use of more recent studies[.]" it thereby deprived the Corps of an opportunity to respond during the comment process. *Id.*; Defs.' Cross-Mot., ECF No. 95 at 36. The Court agrees that Mobile Water's EIS comments do not reference the 1947 study, nor do they point the Corps to a more recent, existing study to use in lieu of that study, or ask the Corps to conduct a new and updated salt water intrusion study. *See* A.R., ECF No. 61 at D-00046634-37. Despite this clear failure, Mobile Water replies that "[t]he facts of this case are unique" because the Corps should not have needed reminding that the 1947 study was seventy years old, especially given its 1988 recognition of the benefits of preventing salt water intrusion, and it claims that in light of the "obvious" data flaws, the Corps was under "an affirmative mandate" to ensure the scientific integrity of the FEIS. Intervenor-Pls.' Reply, ECF No. 101 at 10 (quoting *Env't Def. v. U.S. Army Corps of Eng'rs*, 515 F. Supp. 2d 69, 78 (D.D.C. 2007)). The Court is unpersuaded by these arguments, concluding that if Mobile Water sought different modeling and measuring of potential salt water intrusion, it should have alerted the Corps to its concerns about the 1947 [*86] study during the comment process and pointed to the specific flaws that led it to believe that study was stale. As the Supreme Court has stated, entities "challenging an agency's compliance with NEPA must 'structure their participation so that it . . . alerts the agency to the [parties'] positions and contentions,' in order to allow the agency to give the issue meaningful consideration." *Pub. Citizen*, 541 U.S. at 764 (quoting *Vt. Yankee*, 435 U.S. at 553). Because none of Mobile Water's comments identified alternative salt water intrusion studies or raised "particular objections" to the 1947 study, the Corps did not have the chance to consider the issue, determine whether it should conduct a new study based on any potential flaws, or actually engage in the lengthy process of undertaking a new study. *Id.*; *see also Nw. Env't Advocs. v. Nat'l Marine Fisheries Serv.*, 460 F.3d 1125, 1142 (9th Cir. 2006) (rejecting the plaintiff's claim that the agency's choice of modeling for salinity was "outdated," since it "offer[ed] no evidence that the passage of time ha[d] decreased its effectiveness"); *Theodore Roosevelt*, 605 F. Supp. 2d at 273 ("[W]hile it is 'desirable . . . for agencies to use the most current and comprehensive data available when making decisions,' an agency's reliance on outdated data is not arbitrary or capricious, 'particularly given the many months required to conduct full [analysis] with [] new data.'" (quoting *Vill. of Bensenville*, 457 F.3d at 71)). Although the Court acknowledges that with the passage of seventy years comes change, and that reliance on data that is "too stale" can amount to unlawful agency action, *see N. Plains Res. Council, Inc. v. Surface Transp. Bd.*, 668 F.3d 1067, 1086 (9th Cir. 2011); it concludes that Mobile Water "forfeited any objection" on this ground, *Pub. Citizen*, 541 U.S. at 764-65; as NEPA's "affirmative mandate" requires both "[a]ccurate scientific analysis" and "expert agency comments," *Env't Def.*, 515 F. Supp. 2d at 78. Neither is the Court persuaded that the Corps' 1988 drought management planning document put the agency on notice of the need for updating the 1947 study, as the 1988 document does not mention that study, instead only briefly recognizing that the benefits of preventing salt water intrusion should be quantified. *See* A.R., ECF No. 61 at

D-00050045.

Even if Mobile Water wanted the Corps to give salt water intrusion "more consideration, courts afford 'considerable deference to the agency's expertise and policy-making role' in defining its objectives and grant agencies discretion to determine," *In re ACF Basin*, 554 F. Supp. 3d at 1305 (quoting *Theodore Roosevelt Conservation P'ship v. Salazar*, 661 F.3d 66, 73 (D.C. Cir. 2011)); "the appropriate scope of the analysis required[,]" *Sierra Club v. U.S. Army Corps of Eng'rs*, 295 F.3d 1209, 1215 (11th Cir. 2002). Here, the Corps defined the overall scope of the FEIS based on the "affected environment," which serves as a baseline for identifying the potential environmental and socioeconomic effects that will likely result from proposed changes and affect the functioning of the ACT Basin as a whole. A.R., ECF No. 61 at D-00043908. The level of detail provided in the FEIS "is commensurate with the intensity, context, and duration of the potential effects" of the action on a particular resource or topic in the affected environment. [*87] *Id.* As such, the Corps defined the "affected environment" as follows:

This ACT Basin EIS includes the Alabama, Coosa, and Tallapoosa rivers and all areas in the basin boundaries from the headwaters downstream to the mouth of the Alabama River, where it joins the Tombigbee River to form the Mobile River.

The overall scope of the EIS also addresses the area downstream of the confluence of the Alabama and Tombigbee rivers, including Mobile River and Mobile Bay. The ACT Basin (22,739 sq mi) has approximately the same drainage area size as the Tombigbee River basin (20,200 sq mi). Thus, flows from the ACT Basin are roughly half of the total flow in the Mobile River downstream of the juncture of the Alabama and Tombigbee rivers.

This EIS addresses resources downstream from that point but not to the level of detail of other resources in the ACT Basin because of the limited overall effect of operation of the ACT projects on Mobile River and Mobile Bay resources.

Id. at D-00043910 (emphasis added). The "rule of reason" dictates deference to the Corps' delineation of the FEIS' scope and its decision to allocate less discussion to Mobile River and Mobile Bay. *See Busey*, 938 F.2d at 195-96. In addition, the Corps need only analyze impacts with "a reasonably close causal relationship" to the proposed action, *Pub. Citizen*, 541 U.S. at 767; and here, there are lengthy distances between the Corps' most downstream project—Claiborne Lock and Dam—and Mobile River and Mobile Bay, which make impacts of the Master Manual on salt water intrusion there "not reasonably foreseeable," *see Sierra Club v. FERC*, 867 F.3d at 1371 (defining "indirect environmental effects" as those which are "reasonably foreseeable," *i.e.*, "sufficiently likely to occur that a person of ordinary prudence would take [them] into account in reaching a decision"); A.R. ECF No. 61 at D-00043967, D-00043971 (stating that the Claiborne Project is 72 miles upstream of Mobile River and 118 miles upstream of Mobile Bay).

Furthermore, the Corps analyzed stream flow conditions and minimum flow targets (which impact salinity) for the Alabama River downstream of Claiborne Lock and Dam, and modeling results indicate that minimum flow targets south of the Claiborne Project are met a high percentage of time under all the alternatives. *See* A.R. ECF No. 61 at D-00044336-39. Under the No-Action Alternative, the minimum flow target downstream of the Claiborne Project would be met 97% of the time, *id.* at D-00044337; and 95% of the time under the other

alternatives, *id.* at D-00044339. So, while the Corps acknowledged in 2007 that flow reduction can "potentially affect" salt water intrusion in the Mobile Bay area, *id.* at D-00049911; and the 1947 study may have "put the Corps on notice that the phenomenon of salt water intrusion (caused by low freshwater flows) exists in the Mobile River and Mobile Bay[.]" Intervenor-Pls.' Reply, ECF No. 101 at 13; the FEIS' stream flow modeling supports the Corps rationally concluding that impacts of the Master Manual on salt water intrusion at Mobile River and Mobile Bay would be "limited," A.R., ECF No. 61 at D-00043910; *see also id.* at D-00044428 ("For all alternatives evaluated [*88] in detail, the hydrodynamic changes within Mobile Bay and contiguous estuarine areas are expected to be minimal or non-detectable, . . . [and] differences in the flow regime at the most downstream points in the ACT Basin (*e.g.*, Claiborne Lock and Dam) compared to current conditions would be negligible."), D-00046639 ("[T]he Mobile-Tensaw Delta and the Mobile Bay further downstream are not likely to be affected any differently by the Proposed Action Alternative than current water management operations in the ACT Basin.").

Accordingly, the Court concludes that the FEIS' chosen amount of analysis on the topic of salt water intrusion from Mobile Bay does not violate NEPA. *See Nevada*, 457 F.3d at 93 ("[W]e do not think that the inadequacies to which Nevada points make the FEIS inadequate."). That the Corps may continue to assess potential impacts to salinity levels in this area "as more information becomes available does not indicate that [it] failed to take a 'hard look' at the environmental consequences of its proposed action" in the FEIS. *Wilderness Soc'y v. Salazar*, 603 F. Supp. 2d 52, 62 (D.D.C. 2009).

f. The FEIS Adequately Analyzes and Discloses Impacts of the Master Manual on Recreation and Economic Development at Lake Martin

Finally, the Court assesses four more claims by Intervenor-Plaintiffs Russell Lands and LMRA that the FEIS failed to analyze impacts of the Master Manual at Lake Martin. *See* Intervenor-Pls.' Mot., ECF No. 85 at 23-31. Lake Martin is an APC reservoir on the Tallapoosa River that covers 40,000 acres, has 880 miles of shoreline in three Alabama counties, and is located near major population centers in Alabama and Georgia, including Birmingham, Montgomery, Auburn, and Atlanta. *Id.* at 12. Recognized as a "Treasured Alabama Lake," Lake Martin offers "outstanding water quality" to Alabama, and recreation at the lake provides various economic benefits, including recreation-based jobs, millions of dollars of recreation-based visitor spending, and a billion-dollar real estate market. *Id.* at 12-13. According to Intervenor-Plaintiffs, these benefits, including increased recreational spending and demand for real property around the lake, "are directly correlated with [higher] water levels during the major recreational seasons in the late spring, summer, and fall." *Id.* However, they claim that when flows from Allatoona are curtailed under the Master Manual, less water flows down the Coosa River into Alabama, and this reduction, combined with downstream flow requirements mandating that APC make releases from its projects on the Coosa and Tallapoosa Rivers, will cause lower water levels at APC projects, including Lake Martin, in the summer and fall. *Id.* at 13.

Russell Lands and LMRA first argue that the Corps "improperly limited its analysis of the Manual's recreational and economic impacts to" only Corps projects in the ACT Basin, despite modeling indicating that the Master Manual will cause a decline in reservoir levels at Lake Martin and an accompanying impairment of recreation there. *Id.* at 24. They claim that the Corps' "myopic focus on recreation at Allatoona while ignoring [*89] recreation" and other economic interests at Lake Martin violates NEPA, as "impacts must be considered

throughout the area impacted." *Id.* at 24-25. To support their claim, Russell Lands and LMRA cite statistics about the dollar amounts spent by visitors to Lake Martin, compared to visitors to Allatoona Lake, and the total appraised value of real estate on Lake Martin. *Id.* at 12-13, 24. In their related second argument, Russell Lands and LMRA argue that the FEIS improperly concludes that the Manual "will have 'minor beneficial' impacts at Lake Martin[,] which they claim has "no discernable meaning." *Id.* at 25-26. They argue that without studying the Manual's impacts on the recreation-based economy at Lake Martin, or at other non-Corps reservoirs, the Corps' assertion that lower lake levels will have "minor beneficial" effects is "entirely unsupported" and cannot satisfy NEPA's "hard look" doctrine. *Id.* at 26.

In addressing their first two arguments, the Court notes at the outset that Russell Lands and LMRA have alleged socioeconomic impacts of the Master Manual, not purely economic ones. While economic and monetary interests alone do not fall within NEPA's zone of interests, since "[t]he zone of interest protected by NEPA is, as its name implies, environmental[,]" *Gunpowder Riverkeeper v. FERC*, 807 F.3d 267 , 274 (D.C. Cir. 2015); socioeconomic interests do, *see Hammond v. Norton*, 370 F. Supp. 2d 226 , 242-43 (D.D.C. 2005). CEQ regulations state that when an EIS "is prepared and economic or social and natural or physical environmental effects are interrelated, then the [EIS] will discuss all of these effects on the human environment." 40 C.F.R. § 1508.14 . The key word is "interrelated," as "economic or social effects are not intended by themselves to require preparation of an [EIS]." *Id.*; *see also Hammond*, 370 F. Supp. 2d at 243 ("Only when socioeconomic effects somehow result from a project's environmental impact must they be considered."). Whether an impact on the "human environment" is determined to be sufficiently "interrelated" to qualify as socioeconomic depends on the "closeness of the relationship between the change in the environment and the 'effect' at issue." *Metro. Edison Co.*, 460 U.S. at 772 . Here, the alleged environmental impact of the Manual is decreased lake levels at Lake Martin, which Russell Lands and LMRA claim directly causes damaging socioeconomic impacts on recreational opportunities and spending, the job market, and real property values in the area around the lake. Intervenor-Pls.' Mot., ECF No. 85 at 12-13, 24; Intervenor-Pls.' Reply, ECF No. 101 at 17-18. Therefore, as the Corps concedes, it was required to analyze both the "interrelated" environmental and socioeconomic impacts of the Master Manual at Lake Martin in the FEIS. Defs.' Reply, ECF No. 102 at 28.

Contrary to Intervenor-Plaintiffs' claims, however, the Court concludes that the FEIS sufficiently analyzes the Manual's (1) environmental, and (2) socioeconomic impacts at Lake Martin. The Court begins its analysis by isolating the FEIS' discussion of the environmental impacts of the alternatives at Lake Martin, specifically on lake levels. As Defendants note, the FEIS, based on modeling for the period of record, [*90] discusses the potential environmental consequences of the various alternatives on flow, water quantity, and lake levels (*i.e.*, water surface elevations) at both Corps and APC lakes, including Lake Martin. Defs.' Cross-Mot., ECF No. 95 at 37-38 (citing A.R., ECF No. 61 at D-00043808-17, D-00044296-307). This modeling shows that for each action alternative, "median daily water surface elevations" in Lake Martin would be expected to "generally match" the guide curve elevations used by APC₃₇ for January through June and from mid-October through December, and from July through mid-October, those water surface elevations would fall only "slightly below those for the No Action Alternative in the range of zero to 0.5 [feet]." *See* A.R., ECF No. 61 at D-00043815-16, D-00044304-07, D-00044296 (Figure 6.1-28). The FEIS also indicates that daily water surface elevations for the action alternatives at Lake Martin at the ninety percent exceedance level "would be nearly equivalent to

elevations for the No Action Alternative[,]" with the only difference being that between late April and mid-September, lake levels would be "slightly lower than the No Action Alternative by amounts varying from zero up to 0.8 [feet]." *Id.* at D-00043816, D-00044304, D-00044297 (Figure 6.1-29). The FEIS explains that the "slight differences in water surface elevations (median and 90 percent exceeded)" between the action alternatives and the No-Action Alternative are "attributable to inclusion of a specific strategy for flows to support downstream navigation" and drought management strategies expected to benefit the basin as a whole. *Id.* at D-00043816, D-00044304. Thus, contrary to Russell Lands' and LMRA's claims that the Corps' modeling "shows that significantly less water will be available in Lake Martin during the peak recreation season from late spring to early fall[,]" and that the Corps "simply 'eyeball[ed]' these modeling results," Intervenor-Pls.' Reply, ECF No. 101 at 13-15; the resulting data, including the two FEIS graphs reproduced in Intervenor-Plaintiffs' reply brief, *see id.* at 14 (reproducing Figures 6.1-28 and 6.1-29, A.R., ECF No. 61 at D-00044296-97); indicates that there is minimal difference in daily lake levels between the action alternatives and the no-action baseline for most of the year, and only a slight difference between July and mid-October—"a 0.6-1.2 foot difference at lake elevations of 480-488 feet[,]" Defs.' Reply, ECF No. 102 at 29; A.R., ECF No. 61 at D-00043815-16, D-00044304-07. Further, the FEIS indicates that the action alternatives "offer a significant benefit" over the No-Action Alternative "in terms of the lower [lake] levels expected in winter and under drought conditions," Defs.' Cross-Mot., ECF No. 95 at 39; as "[t]he lowest pool elevation" that is expected under the action alternatives would "reflect[] an improvement of about 17.5 [feet] above the lowest lake level expected at Lake Martin for the No Action Alternative[,]" A.R., ECF No. 61 at D-00043816. As a result, the Court rejects Intervenor-Plaintiffs' claim that the Corps never explained "how *any* reduction in lake levels can be 'beneficial' at Lake Martin[.]" Intervenor-Pls.' Mot., [*91] ECF No. 85 at 25.

Based on this modeling data, the Court has no reason to doubt the Corps' conclusion that "[w]ith respect to the entire ACT Basin area," including Lake Martin, the action alternatives "would have inconsequential effects on lake levels compared to the No Action Alternative under normal conditions and would generally provide for improved lake levels under extreme drought conditions compared [to] the No Action Alternative." A.R., ECF No. 61 at D-00044471. Instead, the Corps accurately summarized the impacts of the action alternatives, compared to the no-action baseline, on "lake level conditions" at Lake Martin using the term "minor beneficial" in a summary table in the executive summary of the FEIS. *Id.* at D-00043804 (Table ES-5, "Summary of Impacts"). The Court therefore disagrees with Intervenor-Plaintiffs' labeling of this term as "conclusory" and "not defined," Intervenor-Pls.' Mot., ECF No. 85 at 25-26; as the data for the period of record, in addition to descriptive information provided in the pages following the summary table and other parts of the FEIS, amounts to quantitative and qualitative "discernable meaning," *see Young*, 99 F. Supp. 2d at 75 (finding the requisite "hard look" when the agency goes "beyond mere assertions" and "fully explicate[s]" its reasoning and analysis). The Court also rejects Russell Lands' and LMRA's reliance on a 1998 draft appendix, which included a table analyzing the relationship between seasonal water levels at Lake Martin and recreational visitor spending, as evidence to discredit the FEIS' use of the term "minor beneficial." *See* Intervenor-Pls.' Mot., ECF No. 85 at 25 (citing A.R., ECF No. 61 at D-00021990). As Defendants note, this decades-old study was part of an appendix to a never-completed draft EIS that was prepared "for a different agency decision" analyzing different alternatives in the 1990s ACT Basin litigation. *See* Defs.' Cross-Mot., ECF No. 95 at 39-40 (citing A.R., ECF No. 61 at D-00021820, D-00021338-725). It thus has no relevance here.

Having accepted the Corps' "hard look" at environmental impacts of the action alternatives at Lake Martin, the Court next turns to the "interrelated" socioeconomic impacts resulting from slightly decreased lake levels for a few months of the year. Russell Lands and LMRA argue that given the "adverse" impacts to lake levels from late spring to early fall—what they label "peak recreation season"—the FEIS should have studied the Master Manual's impacts on "recreation or recreation-based spending at Lake Martin" but instead "simply declare[d] them insignificant." Intervenor-Pls.' Reply, ECF No. 101 at 13-15; Intervenor-Pls.' Mot., ECF No. 85 at 24-25. The Court disagrees, concluding instead that since the modeling results indicate that the action alternatives would only cause "inconsequential effects on lake levels," A.R., ECF No. 61 at D-00044471; the FEIS made the logical conclusion to analyze any accompanying socioeconomic impacts in lesser detail, see Defs.' Cross-Mot., ECF No. 95 at 40. As the FEIS explains under section "6.6 Socioeconomics," the Corps "decided to complete a preliminary economic analysis using a qualitative [*92] level of detail to determine if greater detailed analysis was required[,] but concluded, "[b]ased on the preliminary analysis results," that "more detailed analysis was not warranted" A.R., ECF No. 61 at D-00044438.

Applied to the topic of recreation at Lake Martin, the Court concludes that, since water levels from July to mid-October would only be impacted by "slight" reductions and that Lake Martin would overall experience minor beneficial impacts under the Master Manual, Intervenor-Plaintiffs' claim that significant harm to recreation would causally ensue, see Intervenor-Pls.' Reply, ECF No. 101 at 13; is disproved by the data. As such, the Corps did not need to allocate more space in the FEIS to analyzing those impacts.³⁸ See *Izaak Walton*, 655 F.2d at 377 ("NEPA does not require federal agencies to examine every possible environmental [or socioeconomic] consequence. Detailed analysis is required only where impacts are likely."). That Russell Lands and LMRA considered the Corps' methodology "flawed" and would have preferred APC's modeling or the inclusion of an economic study of recreation impacts at all reservoirs, see Intervenor-Pls.' Mot., ECF No. 85 at 24 n.5; Intervenor-Pls.' Reply, ECF No. 101 at 14 (citing A.R., ECF No. 61 at D-00044296-97 (Corps' modeling) and D-00049519-20 (APC's modeling)); is irrelevant, as the Corps' choice of methodology and data need only be reasonable to be deferred to, *Colo. River Cutthroat Trout*, 898 F. Supp. 2d at 205. Neither have they shown that the absence of an in-depth socioeconomic impact study at Lake Martin renders the Corps' analysis arbitrary or capricious. See *Nw. Env't Advocs.*, 460 F.3d at 1143.

In fact, the FEIS addresses some socioeconomic effects of the Master Manual, such as the potential impact of lake level variations on property values and taxes, environmental justice, and aesthetic resources "with respect to the entire ACT Basin," A.R., ECF No. 61 at D-00044471-73; contrary to Intervenor-Plaintiffs' claim that only pieces of "the whole" (*i.e.*, Corps vs. non-Corps projects) were analyzed, Intervenor-Plaintiffs' Mot., ECF No. 85 at 24-25. The FEIS concludes that the action alternatives would have "a negligible overall impact on lake levels, an important aesthetic consideration, under normal operating conditions[,] and that there would be "a neutral to minor positive impact with respect to property values and tax revenues in the immediate vicinity of the reservoirs[,] including at Lake Martin and other non-Corps projects. A.R., ECF No. 61 at D-00044471-73. As Defendants note, property values and local tax revenues are "spending of types associated with recreation[,] Defs.' Cross-Mot., ECF No. 95 at 40-41; a concept further explained in the FEIS, which notes that the lands bordering reservoirs "have relatively high values and often represent a significant local economic base and an important source of property tax revenue for local and state governments[,] A.R., ECF No. 61 at D-00044471. That the Corps did not analyze the Manual's recreational impacts to Lake Martin or other non-Corps reservoirs

in the level of detail desired by Russell Lands and LMRA is not a reason to set aside the FEIS, especially since [*93] non-Corps reservoirs are operated by APC, meaning that the Corps does not even have authority to maintain lake levels there. *See, e.g., id.* at D-00043784-85 ("Such measures [regarding operational changes to APC projects] are beyond the authority of the [Corps] to address."), D-00043955-59 (discussing APC's operation and management of Lake Martin).

The Court is likewise not convinced by Russell Lands' and LMRA's third argument that the Corps violated NEPA by failing "to quantify or estimate" the Master Manual's "net impacts to recreation throughout the ACT Basin,"—"net benefits or net detriments"—particularly "at *other* reservoirs" that are not Allatoona. Intervenor-Pls.' Mot., ECF No. 85 at 27 (emphasis in original). They claim that this failure violates ER 1105-2-100, Planning Guidance Notebook (Apr. 22, 2000) [hereinafter "ER 1105-2-100"], which they argue "require[s] assessment of the *net* recreational benefits associated with any project or plan[,] determined "based on the gross value of recreation use of the resource for the project condition less the gross loss in recreation use caused by the project or plan." *Id.* at 27-28 (quoting ER 1105-2-100 at E-188). By failing to quantify beneficial recreational impacts at Allatoona, Intervenor-Plaintiffs argue that the FEIS makes it impossible to compare those benefits to alleged recreational losses elsewhere in the basin. *Id.* at 28. Defendants respond—and the Court agrees—that "neither NEPA nor the cited Corps regulation imposes any such duty." Defs.' Cross-Mot., ECF No. 95 at 42.

First, the Court rejects Intervenor-Plaintiffs' contention that ER 1105-2-100 *requires* the Corps to assess net recreational benefits of the Master Manual because it has already concluded that the ERs are a non-binding general statement of policy. *See supra* section IV.A.2.b. ER 1105-2-100 is no exception, as on its face, it is merely part of the "Principles and Guidelines" used by the Corps in carrying out its water resources projects. ER 1105-2-100 at 1-1. Thus, the portion cited by Intervenor-Plaintiffs, to the extent it is applicable at all, provides guidance, rather than binding requirements, to the Corps in evaluating whether to participate in projects designed for recreational purposes. *See* Intervenor-Pls.' Mot., ECF No. 85 at 28 (citing ER 1105-2-100 at E-179-199).

Second, NEPA's required cost-benefit analysis "is concerned primarily with environmental costs affecting the public, not with private economic" or socioeconomic costs, such as those borne through reductions in recreational spending or property values around reservoirs. *See Nat'l Wildlife Fed'n v. Marsh*, 568 F. Supp. 985 , 1000 (D.D.C. 1983). An EIS does not require "a formal and mathematically expressed cost-benefit analysis" in economic or monetary terms, *Trout Unlimited v. Morton*, 509 F.2d 1276 , 1286 (9th Cir. 1974); *see also Sierra Club v. Stamm*, 507 F.2d 788 , 794 (10th Cir. 1974) (rejecting the view that an EIS requires "the fixing of a dollar figure to either environmental losses or benefits"); and is considered adequate so long as it conducts a cost-benefit analysis "as it bears upon the function of insuring that the agency has examined the environmental consequences [*94] of a proposed project[.]" *Nat'l Wildlife Fed'n v. Marsh*, 568 F. Supp. at 1000 . For reviewing courts to determine that NEPA's "hard look" at environmental impacts is satisfied, they must consider "whether the economic [or socioeconomic] considerations, against which the environmental considerations are weighed, were so distorted as to impair fair consideration of those environmental consequences. Without such a showing there is no review of economic [or socioeconomic] benefits." *Id.* (quoting *S. La. Env't Council, Inc. v. Sand*, 629 F.2d 1005 , 1011-12 (5th Cir. 1980)). Here, given the Master Manual's "inconsequential effects" on lake levels throughout the ACT Basin, A.R., ECF No. 61 at D-00044471; and only "slight" impacts on Lake

Martin's water levels specifically, *id.* at D-00043816; the Court concludes that the lack of a study quantifying the potentially resulting "indirect" or "net" recreational impacts at Allatoona Lake or elsewhere, *see* Intervenor-Pls.' Reply, ECF No. 101 at 15-17; "does not change the cost-benefit ratio to such a degree that it actually distorts the context in which the environmental analysis occur[red.]" *Nat'l Wildlife Fed'n v. Marsh*, 568 F. Supp. at 1000 (quoting *Sand*, 629 F.2d at 1013).

The Court's conclusion is not altered by the cases cited by Russell Lands and LRMA, "which merely sustain agencies' assessments of a particular type of environmental impact[.]" Defs.' Cross-Mot., ECF No. 95 at 42-43; rather than support the proposition that socioeconomic or monetary costs and benefits must be quantified in an EIS, Defs.' Reply, ECF No. 102 at 30. This is true for *Sierra Club v. FERC*, 867 F.3d 1357 (D.C. Cir. 2017), on which Intervenor-Plaintiffs heavily rely. *See* Intervenor-Pls.' Reply, ECF No. 101 at 15-16. In that case, the D.C. Circuit required the FERC to quantitatively evaluate the indirect climate change impacts of its approval of a natural gas pipeline, specifically the indirect impact of increased greenhouse gas emissions from natural gas transported by the new pipeline. *Sierra Club v. FERC*, 867 F.3d at 1374-75 . The D.C. Circuit found that the FERC had not provided a satisfactory explanation for why it did not quantify the "total emissions, on net," but again, the ask of the agency was, in the EIS, to quantify direct and indirect *environmental* impacts, rather than economic, monetary, or socioeconomic impacts. *Id.* Accordingly, the Court concludes that the FEIS' analysis of environmental impacts, including the resulting minor decreases in water levels at Lake Martin, was thorough, and not arbitrary or capricious for not evaluating net recreational impacts.

In their final argument, Russell Lands and LMRA argue that the Corps failed, pursuant to the duty to evaluate cumulative impacts under NEPA, to assess "reasonably foreseeable" operational changes at Lake Martin under a new FERC operating license for the lake that was finalized on December 17, 2015. Intervenor-Pls.' Mot., ECF No. 85 at 29. That license "sets new operating parameters for Lake Martin by adopting a 'Conditional Fall Extension' ('CFE') and higher winter pool levels," *id.*; thereby modifying the lake's operating curve "to extend the recreation season under certain hydrologic conditions[.]" Intervenor-Pls.' Reply, ECF No. 101 at 18. According [***95**] to the FEIS, the Lake Martin FERC relicensing process, which APC initiated in June 2008 in anticipation of the existing license expiring on June 8, 2013, was aimed at evaluating "the possibility of raising the winter guide curve elevation of Lake Martin or extending the time that Lake Martin is at summer pool." A.R., ECF No. 61 at D-00043959.³⁹ APC's proposal suggested raising the winter pool at Lake Martin by three feet and extending the summer pool elevation from September 1 until October 15. *Id.* The FERC issued a draft EIS analyzing the proposal in June 2013, and Intervenor-Plaintiffs argue that these changes were adopted in December 2015 "with minor modifications" and with the intent of benefitting recreation and the recreation-based economy at and around Lake Martin. Intervenor-Pls.' Mot., ECF No. 85 at 13, 29. While they acknowledge that the ACT FEIS—published on November 7, 2014 following the FERC's 2013 draft EIS but before the license's 2015 final approval—discusses the FERC re-licensing process, they argue that the Corps failed to adequately consider "the pending actions of a sister agency," specifically, the effects of the Manual on the proposed operational changes at Lake Martin, in violation of NEPA. *Id.* at 29. Russell Lands and LMRA claim these effects were "foreseeable" since the Corps "participated in the relicensing process at Lake Martin," submitted formal comments on the FERC's draft EIS in 2013, and received comments during the ACT EIS process requesting consideration of the potential changes at Lake Martin. *Id.* at 30 (citing A.R., ECF No. 61 at D-00043959, D-00049767).

In response, Defendants argue that the Corps "disclosed what was reasonably foreseeable at the time of its analyses—" that the FERC relicensing changes, as described in the FEIS, were a "possibility," but that NEPA did not require it "to speculate on the license's eventual parameters and redo its modeling," as no final decision was made on the license until more than six months after the ACT ROD was issued on May 4, 2015 and more than a year after the issuance of the FEIS. Defs.' Cross-Mot., ECF No. 95 at 43-44. As such, Defendants note that the FEIS did not consider "specific future changes in Lake Martin's operations" that had not yet been approved by the FERC, and it instead conducted modeling in accordance with the existing FERC license, which "was all that was required under NEPA." *Id.*; see also A.R., ECF No. 61 at D-00043959 ("A change in the winter guide curve for Lake Martin was not considered as part of the ACT WCM update process.").

NEPA requires agencies proposing a major federal action to consider the "cumulative impacts," which the CEQ regulations define 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*" of any agency or person. *Young*, 99 F. Supp. 2d at 78 (quoting 40 C.F.R. § 1508.7 (emphasis added)). "The identification of cumulative effects is a task committed to the special competency of the agency preparing an EIS." *Hammond*, 370 F. Supp. 2d at 245 (citation and internal quotation marks omitted). Here, Russell Lands and LMRA take issue [*96] with the FEIS' failure to analyze the Master Manual's impacts on only one specific element of the new FERC license at Lake Martin—the CFE. See Intervenor-Pls.' Mot., ECF No. 85 at 29; Intervenor-Pls.' Reply, ECF No. 101 at 18-19 ("The [CFE] was definite enough for NEPA analysis.).

The Court concludes that the FEIS' discussion of the pending FERC relicensing proposal at Lake Martin complies with NEPA. Although the Court acknowledges that Intervenor-Plaintiffs' correctly note that the Corps "was actually aware of [the] FERC's contemporaneous actions at Lake Martin while it was preparing the FEIS" and that the "re-licensing efforts were 'reasonably definite and contemporaneous' and had 'advanced beyond the point of conjecture and speculation' when the Corps released the FEIS[.]" Intervenor-Pls.' Mot., ECF No. 85 at 30-31 (quoting *Prince George's Cnty., Md. v. Holloway*, 404 F. Supp. 1181, 1186 (D.D.C. 1975)); it concludes that impacts associated with the CLE were not reasonably foreseeable, such that the Corps was not required to analyze those effects in the FEIS. The Court is particularly persuaded by Defendants' claim that the FERC was originally opposed to including the CLE in the new license, and only changed its approach in the FEIS it released in April 2015, many months after the issuance of the ACT FEIS in November 2014. See Defs.' Cross-Mot., ECF No. 85 at 44. As Defendants argue, at the time the ACT FEIS "was prepared and finalized, the hypothetical 'conditional fall extension' proposal appeared likely to be rejected, let alone not accepted in its precise proposed form[.]" thereby making it "far from reasonably foreseeable that" the CLE as proposed would eventually be approved. Defs.' Reply, ECF No. 102 at 31. Russell Lands and LMRA ignore this argument in their reply, instead claiming, without support, that the CFE was "well defined and known to the Corps" and that the proposed modifications had "broad support." Intervenor-Pls.' Reply, ECF No. 101 at 18-19. As they themselves note, "effects are reasonably foreseeable if they are sufficiently likely to occur that a person of ordinary prudence would take [them] into account in reaching a decision[.]" *id.* at 18 (citation and internal quotation marks omitted); and the FERC's initial opposition to the CFE during the EIS process negated the likeliness of the CFE's approval and the need for the Corps to assess its impacts in the FEIS, see Defs.' Cross-Mot., ECF No. 95 at 44 (arguing that the "mere fact" that relicensing was "pending" did "not mean that the final contents of that license were reasonably foreseeable and should have been assessed"); *Nat'l Parks*

Conservation Ass'n v. United States, 177 F. Supp. 3d 1, 27 (D.D.C. 2016) ("[W]here a future action is too inchoate to permit an agency to analyze its impacts, it is not arbitrary and capricious for the agency to exclude it from, or lessen its relative import in, its cumulative impacts analysis, even if the agency has labeled the action 'reasonably foreseeable.'). While there "is no litmus test to determine what should or should not be covered in an impact statement[.] . . . the totality of all the facts and circumstances" indicate that Intervenor-Plaintiffs' cumulative [*97] impacts claim must fail. *Holloway*, 404 F. Supp. at 1186 .

The Court therefore concludes that the Corps reasonably conducted modeling at Lake Martin using the existing FERC license, A.R., ECF No. 61 at D-00047052; and adequately informed the public of the "combination of the changes" that could result from the adoption of the FERC re-license and the updated ACT Master Manual, Defs.' Cross-Mot., ECF No. 95 at 45; so as "to facilitate meaningful comment on the issue[.]" *Young*, 99 F. Supp. 2d at 79 ; see, e.g., A.R., ECF No. 61 at D-00043959 (disclosing the ongoing process of the FERC re-licensing at Lake Martin and the relevant proposed operational changes), D-00046831-34 (responding to comments about changes resulting from the FERC's relicensing efforts and stating that "[r]evisions based upon renewed licenses will be updated when necessary"). "The 'rule of reason' requires that consideration be given to practical limitations on the agency's analysis, such as the information available at the time[.]" and that the Corps "may continue to assess impacts as more information becomes available [about the new FERC license] does not indicate that [it] failed to take a 'hard look' at the environmental consequences of" the Master Manual before issuing the FEIS in 2014. *Wilderness Soc'y*, 603 F. Supp. 2d at 61-62 . Further, given that the FERC's FEIS was issued after the Corps signed the ACT ROD, it was the FERC's responsibility in that EIS to analyze the cumulative impacts arising from the relationship between the new license and the updated ACT Master Manual. Since Intervenor-Plaintiffs have raised no other challenges to the FEIS' treatment of the Master Manual's cumulative impacts analysis, see A.R., ECF No. 61 at D-00044551-55 (Section 6.10, "Cumulative Effects"); the Court concludes that the Corps' assessment of such impacts was reasonable and not arbitrary or capricious.

For all the foregoing reasons disposing of the NEPA claims advanced by the Montgomery Board, Mobile Water, Russell Lands, and LMRA, the Court **DENIES** Intervenor-Plaintiffs' Joint Motion for Summary Judgment, ECF No. 85. Because it has also rejected each of the Alabama Plaintiffs' "hard look" arguments, the Court concludes that the Corps adequately took a "hard look" at the environmental impacts of the Master Manual as mandated by NEPA. See, e.g., A.R. ECF No. 61 at D-00043804-08 (Table ES-5 "Summary of Impacts," summarizing the list of "environmental consequences" of implementing each alternative that the Corps considered, "as compared to the No-Action Alternative").

3. The Corps Adequately Considered All Reasonable Alternatives in the FEIS

For their final NEPA argument, the Alabama Plaintiffs contend that Defendants failed to consider an adequate range of alternatives. See Pls.' Mot., ECF No. 83 at 59. Specifically, they argue that the Corps unreasonably excluded consideration of an alternative, other than the No-Action Alternative, that would require the Corps to generate minimum amounts of hydropower. *Id.*

An EIS must "[e]valuate reasonable alternatives to the proposed action, and for alternatives that the agency eliminated from detailed study, briefly discuss the reasons for their [*98] elimination." 40 C.F.R. § 1502.14(a) ;

see also 42 U.S.C. § 4332(2)(C)(iii) . An alternative is deemed reasonable if it is "technically and economically practical or feasible and meet[s] the purpose and need of the proposed action." 43 C.F.R. § 46.420(b) . Consideration of such alternatives is at the "heart" of the EIS, *Nevada*, 457 F.3d at 87 ; and the "existence of a viable but unexamined alternative renders an [EIS] inadequate[.]" *Morongo Band of Mission Indians v. FAA*, 161 F.3d 569 , 575 (9th Cir. 1998) (citation omitted). However, "an alternative is properly excluded from consideration . . . if it would be reasonable for the agency to conclude that the alternative does not 'bring about the ends of the federal action[.]'" *City of Alexandria v. Slater*, 198 F.3d 862 , 867 (D.C. Cir. 1999) (quoting *Busey*, 938 F.2d at 195); when the effects of the alternative "cannot be readily ascertained[.] and [when] the alternatives are deemed only remote and speculative possibilities," *Vt. Yankee*, 435 U.S. at 551 ; see also *Ctr. for Biological Diversity v. FERC*, 67 F.4th at 1182 ("Because some alternatives will be impractical or fail to further the proposed action's purpose, agencies may reject [such] unreasonable alternatives after only brief discussion."). "Nor is an agency required to undertake a separate analysis of alternatives which are not significantly distinguishable from alternatives actually considered, or which have substantially similar consequences." *Westlands Water Dist. v. U.S. Dep't of Interior*, 376 F.3d 853 , 868 (9th Cir. 2004) (citation and internal quotation marks omitted). Thus, the range of alternatives to be considered is "not infinite," *City of Grapevine*, 17 F.3d at 1506 ; but is rather "bounded by some notion of feasibility[.]" see *Vt. Yankee*, 435 U.S. at 551 ("Common sense also teaches us that the 'detailed statement of alternatives' cannot be found wanting simply because the agency failed to include every alternative device and thought conceivable by the mind of man.").

Courts "must evaluate the adequacy of an EIS discussion of alternatives according to [the] 'rule of reason,' which governs both 'which alternatives the agency must discuss' and 'the extent to which it must discuss them.'" *Tongass*, 924 F.2d at 1140 (quoting *Nat. Res. Def. Council, Inc. v. Hodel*, 865 F.2d 288 , 294 (D.C. Cir. 1988) (emphasis in original)). "As the phrase 'rule of reason' suggests, [courts] review an agency's compliance with NEPA's requirements deferentially[.]" and will "uphold its discussion of alternatives so long as the alternatives are reasonable and the agency discusses them in reasonable detail." *Busey*, 938 F.2d at 196 . Thus, the Corps' "detailed discussion of alternatives as it relates to this highly technical series of decisions, so long as it is not arbitrary and capricious, should be upheld." *In re ACF Basin*, 554 F. Supp. 2d at 1306 .

The Corps "bears the responsibility for defining at the outset the objectives" in updating the Master Manual, *Busey*, 938 F.2d at 195-96 ; and its choice of alternatives are then "evaluated in light of these stated objectives[.]" *Slater*, 198 F.3d at 867 ; see also 40 C.F.R. § 1502.13 (requiring the agency to provide a statement that "briefly specif[ies] the underlying purpose and need to which the agency is responding in proposing the alternatives including the proposed action"). Based on this obligation, the Corps defined the objectives of the update, see A.R. ECF No. 61 at D-00044226, D-00044196 (listing five defined objectives for the WCM update); [*99] see also *supra* section II.B.4. at 35; and pursuant to these objectives, the Corps "formulated and considered eleven different alternatives [] based on different formulations of management measures, as well as the no-action alternative that was [] based[.] on current operations and conditions[.]" Defs.' Cross-Mot., ECF No. 95 at 46 (citing A.R., ECF No. 61 at D-00044227-28). According to the FEIS, the formulation strategy used to develop alternatives "involved starting with the No Action Alternative and adding one measure at a time, determining the operation for that measure that might best satisfy the objectives, and then developing another alternative by adding another measure, or in some instances, considering a variation

of the last added measure." A.R., ECF No. 61 at D-00044227. As a result, the Corps intended for the alternatives to build upon each other, "ultimately establishing the recommended plan for water management in the ACT Basin." *Id.* During this process, some management measures were eliminated because they did not pass the screening criteria established to define the scope of the action. *Id.* at D-00044198. Of the twelve alternatives, eight were briefly discussed and rejected, while four alternatives—the No-Action Alternative and Plans D, F, and G (the Proposed Action Alternative)—were carried forward for further analysis. *See id.* at D-00044226-58.

The Alabama Plaintiffs argue that the FEIS' alternatives analysis was deficient because it did not consider alternatives requiring the Corps "to generate minimum levels of hydropower." Pls.' Mot., ECF No. 83 at 59. They claim that "[b]y failing to consider an alternative that would serve Allatoona's hydropower purpose in that way, the Corps failed to consider an adequate range of alternatives for its NEPA analysis." *Id.* Defendants counter that "[t]he Corps' consideration of alternatives was fully reasonable and complied with NEPA." Defs.' Cross-Mot., ECF No. 95 at 47. They argue that "every alternative studied in the FEIS includes hydropower generation[,] and its treatment of hydropower generation throughout the document is reasonable. . . . Therefore the FEIS did not need a separate alternative that required additional hydropower generation." *Id.* at 47-48. The Alabama Plaintiffs object to this "non-sequitur" in their reply, arguing that "the action zones in each proposal allowed the Corps to generate zero hydropower if it so desired." Pls.' Reply, ECF No. 99 at 34-35. However, because the Court has already rejected the claim that the Corps has discretion under the Master Manual to generate zero hydropower, and for the additional reasons discussed below, the Court concludes that the Alabama Plaintiffs have not shown that the Corps' selection and discussion of the alternatives was arbitrary or capricious.

Applying the deferential "rule of reason," the Court concludes that the twelve alternatives the Corps considered "enabled reasoned choices considering the objectives" identified in the FEIS, especially in light of the Corps' "competing goals" and "the extensive explanations that the Corps provided for [*100] its screening decisions." *Id.* at 1306; *see, e.g.*, A.R., ECF No. 61 at D-00044198-99 (Section 4.1, "Management Measures Eliminated from Consideration"), D-00044199-26 (Section 4.2, "Management Measures Considered for Further Evaluation"), D-00044226-58 (Section 4.3, "Basin-wide Alternatives Evaluated," and Section 5, "Description of the Proposed Action and Alternatives"). First, the record supports the Corps' claim that every alternative studied in the FEIS "involved satisfying the hydropower purpose, through peaking operations as well as through continuous operation of certain generating units[.]" Defs.' Reply, ECF No. 102 at 21 n.10; *see* A.R., ECF No. 61 at D-00044226-58. Next, the Court looks to the objectives of the proposed action, as "[t]he range of alternatives that must be considered in the EIS need not extend beyond those reasonably related to the purposes of the project." *Westlands*, 376 F.3d at 868 (citation and internal quotation marks omitted). As relevant here, an objective of the Master Manual update was to "[i]mprove system performance to achieve congressionally authorized project purposes[.]" A.R., ECF No. 61 at D-00044226; with the FEIS specifically stating that each alternative "should address one or more of the congressionally authorized project purposes[.]" *id.* at D-00043868. Since "[h]ydropower is one of the congressionally authorized purposes in the ACT Basin[.]" the FEIS explains that "[r]ecommended measures for off-peak hydropower operations to achieve other objectives or benefits were determined to be inconsistent with the authorized hydropower purpose" and "recommended measures that would dictate non-peak hydropower operations or would otherwise have a

significant adverse effect on the hydropower function were not carried forward for detailed consideration." *Id.* at D-00043784. Thus, while there are changes to hydropower operations under the Master Manual, each action alternative contemplated generating hydropower, including the Proposed Action Alternative. *See supra* section IV.B.2.b. (concluding that the FEIS properly modeled hydropower impacts resulting from the modified action zone hydropower generation schedule); A.R., ECF No. 61 at D-00046477 ("Although the Proposed Action Alternative would result in an insignificant decrease (approximately 0.6%) in hydropower production, the authorized project purpose would continue to be met year round."). As a result, the FEIS did not need to consider a separate alternative that alone contemplated minimum hydropower production, as such a concern was already embodied in each of the alternatives. *See Native Ecosystems Council v. U.S. Forest Serv.*, 428 F.3d 1233, 1249 (9th Cir. 2005) ("NEPA does not require federal agencies to consider alternatives that are substantially similar to other alternatives."); *Westlands*, 376 F.3d at 868 (same conclusion for alternatives "not significantly distinguishable from alternatives actually considered").

Since the Alabama Plaintiffs do not claim that the Corps "improperly defined its objectives," *Slater*, 198 F.3d at 867; the Court agrees with Defendants that "[i]t was reasonable for the Corps to evaluate hydropower in the alternatives [*101] as undertaken in the FEIS," since this evaluation entailed "a recognition that the Corps must balance hydropower with other basin purposes, and need not prioritize hydropower at the expense of other project purposes," Defs.' Cross-Mot., ECF No. 95 at 48; *see also* A.R., ECF No. 61 at D-00044198 (explaining that the Corps cannot "prioritize project purposes," except for flood risk management during a flood event, and that any measure that "recommended prioritization of project purposes was not carried forward for further consideration"), D-00043979 (explaining that droughts experienced over the past several decades have revealed that during extended low-flow periods, ACT projects' hydropower operations did not previously "provide sufficient flexibility to adequately meet other authorized purposes[,] thus providing the impetus for the resulting changes in the Master Manual).

Accordingly, because the record demonstrates that Defendants properly defined the objectives of the Master Manual update and identified alternatives that would accomplish those objectives while eliminating those that would not, the Alabama Plaintiffs' challenge to the adequacy of the Corps' alternatives analysis must fail. *See Custer*, 256 F.3d at 1041; *Busey*, 938 F.2d at 198. The fact that the FEIS "may not have considered a specific alternative preferred by" the Alabama Plaintiffs, *i.e.*, one focused solely on minimum levels of hydropower, "is simply not grounds for finding that the agency failed to meet its obligations in preparing the [FEIS], or that the agency's decision was 'arbitrary and capricious.'" *City of Roseville v. Norton*, 219 F. Supp. 2d 130, 170 (D.D.C. 2002), *aff'd*, 348 F.3d 1020 (D.C. Cir. 2003); *see also In re ACF Basin*, 554 F. Supp. 3d at 1306 (stating that the Corps is not required to consider a party's "preferred alternatives" or "to analyze any specific number or scope of alternatives"); *Env't Def.*, 515 F. Supp. 2d at 87 (concluding that the plaintiffs failed to show that the Corps' rejection of other alternatives for a flood control project in Missouri "suggest[ed] a lapse of rational decisionmaking"); Order, *Georgia v. U.S. Army Corps of Eng'rs*, No. 1:14-cv-03593 (N.D. Ga. Sept. 29, 2017), ECF No. 61 at 43 (concluding in separate litigation over the ACT Manual "that the Corps complied with NEPA in setting the scope of the update and considered ample alternatives while excluding others").

For all these reasons, the Court **GRANTS** summary judgment to Defendants and Intervenor-Defendants on the Alabama Plaintiffs' and Intervenor-Plaintiffs' NEPA claims, concluding and agreeing with Defendants that the Corps' "complex, multi-year, and iterative study process," which involved "sophisticated modeling" and several

rounds of public comment, and culminated in "thousands of pages of data and analysis[.]" satisfies NEPA's procedural requirements. Defs.' Reply, ECF No. 102 at 17; *see also In re ACF Basin*, 554 F. Supp. 3d at 1307 (concluding in the ACF case that the Corps fulfilled its obligations under NEPA to identify potential alternatives, subject those alternatives to "a thorough analysis," and consider potential environmental impacts, and that "simply" disagreeing with "the Corps' analysis or methodological choices" [*102] is insufficient to overturn the federal action absent "*substantial* procedural flaws").

C. Defendants Did Not Violate the APA

The Court lastly addresses the Alabama Plaintiffs' remaining claims under the APA, taking into consideration the related amicus arguments provided by AMEA. The Alabama Plaintiffs make two overarching arguments as to why the Corps has violated the APA in adopting the Master Manual: the Corps (1) acted in excess of its statutory authority; and (2) acted arbitrarily and capriciously by departing from its prior operational precedents without a reasoned basis for doing so. Pls.' Mot., ECF No. 83 at 36. Pursuant to the APA, the Court reviews these challenges to ensure the Corps acted within the scope of its statutory authority, 5 U.S.C. § 706(2)(C) ; and that its decision was based on a consideration of all the relevant factors and was supported by substantial evidence in the record, *see State Farm*, 463 U.S. at 43-44 . In other words, the Court must decide, "on the basis of the record the agency provides, whether [this] action passes muster under the appropriate APA standard of review." *Fla. Power & Light Co. v. Lorion*, 470 U.S. 729 , 744 , 105 S. Ct. 1598 , 84 L. Ed. 2d 643 (1985).

1. The Master Manual Complies with the Corps' Statutory Obligations and Properly Balances the Authorized Project Purposes of the ACT Basin, Including at the Allatoona Project

The Alabama Plaintiffs first argue that under the Master Manual, the Corps is operating the Allatoona Project "contrary to the direction of Congress in the Flood Control Act of 1941." Pls.' Mot., ECF No. 83 at 36. They contend that the Manual "'materially change[s] the nature of the Allatoona Project" by "substantially deemphasizing" the congressional authorized project purposes of hydropower generation and navigation "for the sake of recreation." *Id.* at 36-43. By advancing recreation over hydropower and navigation, the Alabama Plaintiffs argue that the Corps has engaged in an unlawful "reordering of project purposes" without congressional approval and has thus exceeded its authority in violation of the APA. *See id.* In response to these claims, Defendants argue that the Master Manual is "reasonable" and "consistent" with all congressional authorizations, including but not limited to the Flood Control Act of 1941. *See* Defs.' Cross-Mot., ECF No. 95 at 13-18. They contend that for the Allatoona Project, recreation was appropriately considered and did not "illegally supplant" other authorized project purposes, including hydropower (to which the Corps only made small, authorized adjustments) and navigation (to which the Corps made no substantive operational changes). *See id.* at 18-27; Defs.' Reply, ECF No. 102 at 7 ("Plaintiffs have created any purported ranking of project purposes out of whole cloth."). Because they argue that the Master Manual does not "abandon[]" hydropower, navigation, or any other project purpose, and instead reasonably explains the Corps' actions "in balancing all authorized purposes through its updated operations[.]" Defendants claim that the highly technical Manual is entitled to deference. Defs.' Cross-Mot., ECF No. 95 at 27; *see* Defs.' Reply, ECF No. 102 at 14-17. The Georgia [*103] Parties likewise argue that the Master Manual is consistent with the Corps' statutory obligations and does not "abandon," "reorder," or "deemphasize" authorized project purposes but rather properly balances

them within the Corps' discretion. See Intervenor-Defs.' Cross-Mot., ECF No. 97 at 9-20.

The Corps, as a federal agency, is "a creature of statute[.]" and in operating its various reservoirs, it has "only those authorities conferred upon it by Congress." *Michigan v. EPA*, 268 F.3d 1075, 1081 (D.C. Cir. 2001). It is established that the Corps operates projects in the ACT Basin "pursuant to 'specific' and 'general' authorities established by Congress." *In re ACF Basin*, 554 F. Supp. 3d at 1288. "Specific authorities are established in the original legislation authorizing construction of a certain project" and can be thought of as creating the project-specific authorized purposes. *Id.* These authorizing statutes often "refer to and incorporate 'reports' that the Corps presents to Congress as part of the authorization process to provide recommendations regarding the benefits of the projects." *Id.* Specific authorities are supplemented by general authorities, which "apply to all federal agencies or Corps reservoirs," *id.* at 1288-89; and include the Fish and Wildlife Coordination Act of 1958, the Endangered Species Act of 1973, the Flood Control Act of 1944, the Water Pollution Control Act Amendments of 1972, and the Water Supply Act of 1958, A.R., ECF No. 61 at D-00043779; see also 33 C.F.R. § 222.5(f)(1) (requiring water control plans to consider "all applicable Congressional Acts," including those "established after project construction"). The FEIS lists the seven authorized project purposes applicable to the entire ACT Basin that derive from specific and general authorities: (1) flood risk management; (2) hydropower; (3) navigation; (4) fish and wildlife conservation; (5) recreation; (6) water quality; and (7) water supply. A.R., ECF No. 61 at D-00043779. It identifies the first three as the "expressly authorized project purposes" of the ACT Basin and the latter four as the general "operational objectives" that supplement the three specific ones. *Id.*

To determine the specific and general authorities applicable to the Allatoona Project, the Court begins its analysis with the Flood Control Act of 1941, the statute which authorized the Corps to build and operate Allatoona Lake and Dam. See Pub. L. No. 77-228, 55 Stat. 638, 638-41 (1941). That Act stated that "[t]he plan for the Allatoona Reservoir . . . for flood control and other purposes" was to be carried out "in accordance with the recommendation of the Chief of Engineers in House Document Numbered 674," *id.* at 641; which in turn provided the Corps' recommendation to Congress that construction of the Allatoona Project be authorized "for the control of floods, regulation of stream flow for navigation, and the development of hydroelectric power," A.R., ECF No. 61 at D-00013497.0002. As a result, the Allatoona Reservoir's project-enabling legislation, the Flood Control Act of 1941, authorized it as a "multipurpose project" for the specific authorities of flood risk management, hydropower, and navigation. *Id.* at D-00044902.

However, it is not just [*104] the Flood Control Act of 1941 that "unambiguously" identifies the congressionally authorized purposes at Allatoona. Intervenor-Defs.' Reply, ECF No. 103 at 6 (quoting Pls.' Reply, ECF No. 99 at 8); Defs.' Cross-Mot., ECF No. 95 at 14 (stating that the "Basin-and Project-specific authorities are not the entirety of the legislative landscape"). The above-referenced general statutory authorities, applicable to all Corps projects, also make "recreation, water quality, fish and wildlife conservation, and water supply" authorized project purposes at Allatoona, even though those authorities were established after Allatoona's construction began. A.R., ECF No. 61 at D-00044902, D-00044948; 33 C.F.R. § 222.5(f)(1). The Allatoona Project and its seven purposes were later incorporated into Congress' plan for the whole ACT Basin, enacted in the River and Harbor Act of 1945, which authorized the development of the basin for the purposes of "navigation, flood control, power development, and other purposes, as outlined in House Document Numbered 414[.]" Pub. L. No. 79-14, § 2, 59 Stat. 10, 17 (1945); see also A.R., ECF No. 61 at D-00053821 ¶ 7 (H.R.

Doc. No. 414, 77th Cong. (1941) (calling for "a comprehensive plan" of development of the ACT Basin system "for navigation, hydroelectric power, flood control, and other purposes").

Using this historical context and the text of these enabling statutes, the Court concludes that the Corps has "a good deal of discretion" in its management of the ACT Basin to "balance the[] various [specific and general] interests" at play at its numerous reservoirs, including at the Allatoona Project. *Ubbelohde*, 330 F.3d at 1027 . The text of the authorizing legislation does not provide "a method of deciding whether the balance actually struck by the Corps in a given case is correct or not." *Id.* For example, the Flood Control Act of 1941 simply states that the Allatoona Reservoir should be constructed "for flood control and other purposes" as outlined in House Document No. 674, Pub. L. No. 77-228 , 55 Stat. 638 , 641 (1941); which in turn lists, in no apparent order of importance, flood risk management, navigation, and hydropower generation as the three specific authorized purposes of the project, A.R., ECF No. 61 at D-00013497.0002; *see also id.* at D-00044902 (describing the Allatoona Project as "multipurpose"). Similarly, the River and Harbor Act of 1945 created a development plan for the entire ACT Basin for "navigation, flood control, power development, and other purposes," again in no ranking order. Pub. L. No. 79-14 , § 2, 59 Stat. 10 , 17 (1945); *see also In re ACF Basin* , 554 F. Supp. 3d at 1302 ("Congress did not order the priorities of the project purposes in the Rivers and Harbors Act[.]"). The Court agrees with Defendants that this textual evidence demonstrates that these two laws do not "rank, prioritize, emphasize, or otherwise provide direction for the Corps to prefer one purpose or another[.]" but rather "merely list[]" and "discuss" all three specific purposes—hydropower, navigation, and flood risk management—"in general terms." Defs.' Reply, ECF No. 102 at 8-9.

Furthermore, neither statute indicates how to treat any of the generally applicable authorized purposes as compared to the specific ones, nor could they, since all of the general statutory authorities—" P.L. 78-534 , P.L. 85-500 , P.L. 85-624 , P.L. 92-500 , and [*105] P.L. 93-205"—were enacted later in time than the Flood Control Act of 1941 and the River and Harbor Act of 1945 (with the exception of the Flood Control Act of 1944). A.R., ECF No. 61 at D-00044902. Although there is a textual argument to be made that later-in-time authorities are broadly encompassed by the "and other purposes" language that appears in both enabling statutes, the Corps' policy settles the issue, as it "states that legally authorized purposes recognized after P.L. project construction receive appropriate consideration," again in no specified ranking order, "when making water control decisions just as those for which costs have been allocated." *Id.* at D-00043977; 33 C.F.R. § 222.5(f)(1)

Therefore, the principal requirement for the basin itself and at the Allatoona Project is that the Corps consider, through the proper procedures and a transparent public process, each authorized purpose in order to strike an appropriate balance for WCM updates. *See In re ACF Basin*, 554 F. Supp. 3d at 1302 ("The Corps has significant discretion to balance the often competing purposes at its multi-purpose reservoirs."); *Ubbelohde*, 330 F.3d at 1027 (requiring courts to "review the Corps' decisions to ensure that it considered each of the[] authorized] interests before making a decision"); *accord In re Operation of Mo. River Sys. Litig.*, 421 F.3d 618 , 629 (8th Cir. 2005). Consistent with this mandate, the Corps did "not assign priorities to [] project purposes" in the Master Manual, but instead, "consider[ed] all of the authorized purposes when making [balanced] water management decisions in the basin" so as to minimize conflict "between the individual authorized purposes." A.R., ECF No. 61 at D-00053478. The Court does not conclude, however, as the Alabama Plaintiffs claim, that the Corps has "virtually unreviewable discretion to 'balance' project purposes." Pls.' Reply, ECF No. 99 at 9.

Rather, the Court has concluded that the Corps is empowered "to develop a Master Manual to describe how it will operate the [ACT] system to balance conflicting purposes[.]" *In re ACF Basin*, 554 F. Supp. 3d at 1289 (citing 33 U.S.C. § 709); and that at the Allatoona Project, there are seven combined general and specific authorized project purposes, A.R., ECF No. 61 at D-00044902.

On the "balancing" point, the parties present opposing views of *South Dakota v. Ubbelohde*, 330 F.3d 1014 (8th Cir. 2003), a case involving state challenges to the Corps' management of the Missouri River. *Id.* at 1019. In that case, the Eighth Circuit analyzed the Flood Control Act of 1944 to determine that its text "sets up a balance between" flood control and navigation, which it identifies as "the dominant functions of the River's reservoir system[.]" and recreation and other interests, which it calls the "secondary uses" provided by the Act. *Id.* at 1027 (citing *ETSI Pipeline Project v. Missouri*, 484 U.S. 495 , 512 , 108 S. Ct. 805 , 98 L. Ed. 2d 898 (1988)). The Eighth Circuit determined that the Flood Control Act of 1944 "provides some law to apply," although given its "minimal guidance," courts need only ensure that the Corps gives equal consideration to project purposes, which does not necessarily amount to "equal results." *Id.* at 1027, 1031. Ultimately, based on the evidence, including the legislative history and "the sequential listing of interests" [*106] in the text of the Act, the Eighth Circuit concluded that for the Missouri River system, "the Corps' primary concerns should be flood control and navigation" before recreation. *Id.* at 1032. The Alabama Plaintiffs argue that *Ubbelohde* indicates that the Corps has "limited" authority to operate its projects for certain purposes and "is precluded, at the very least, from *abandoning* those project purposes in either a de facto or de jure manner." Pls.' Mot., ECF No. 83 at 41. The Georgia Parties claim, however, that *Ubbelohde* supports theirs and Defendants' argument that the Flood Control Act of 1941 "does not dictate the balance of purposes" or the "priority the Corps can or must give to different interests[.]" Intervenor-Defs.' Reply, ECF No. 103 at 6-7 (quoting *Ubbelohde*, 330 F.3d at 1032).

The Court agrees with Defendants and Intervenor-Defendants that, as with the Flood Control Act of 1944 at issue in *Ubbelohde*, the Flood Control Act of 1941, the authorizing legislation for Allatoona, "provides no basis to determine whether the balance the Corps struck in the ACT Manual is appropriate." Intervenor-Defs.' Reply, ECF No. 103 at 7; *Ubbelohde*, 330 F.3d at 1027 . Rather, the Flood Control Act of 1941 is even less helpful than the Flood Control Act of 1944, as the 1944 Act textually references both specific and general authorities, thereby "set[ting] up a balance" between dominant and secondary interests, *Ubbelohde*, 330 F.3d at 1027 ; whereas the 1941 Act, in conjunction with House Document No. 674, only enumerates flood risk management, hydropower, navigation, "and other purposes" as the authorized project purposes at Allatoona, since the general authorities went into effect later in time.

At the same time, however, the Court agrees with the Alabama Plaintiffs that *Ubbelohde* and a later Eighth Circuit case, *In re Operation of Missouri River System Litigation*, 421 F.3d 618 (8th Cir. 2005), provide support for the contention that under the APA, the Corps is prohibited from wholly "reorder[ing]" and/or "abandon[ing]" Allatoona's seven congressionally authorized project purposes. Pls.' Reply, ECF No. 99 at 9. Even if the Court were to adopt the Eighth Circuit's divide between dominant and secondary uses of a reservoir system, for example labeling Allatoona's "expressly authorized project purposes" of hydropower, flood risk management, and navigation as the dominant functions, and the later in time "operational objectives" of recreation, water quality, water supply, and fish and wildlife conservation as the secondary uses, A.R., ECF No. 61 at D-00043779; the Court agrees that the Corps cannot abandon any of these priorities—especially the "dominant"

ones, *see In re Operation of Mo. River*, 421 F.3d at 629 n.7 ("If, due to extreme conditions, the Corps is faced in the future with the unhappy choice of abandoning flood control or navigation on the one hand or recreation, fish and wildlife on the other, the priorities established by the [Flood Control Act of 1944] would forbid the abandonment of flood control or navigation."). The question thus becomes whether the Alabama Plaintiffs are correct that at the Allatoona Project, the Master Manual abandons the [*107] "dominant" authorized project purposes of hydropower and navigation in favor of the "secondary" interest of recreation. *See id.* (explaining that changes amounting to "some more limited degree of support for" dominant functions "could be held to constitute 'abandonment'").

For the reasons explained below, the Court concludes that under the Master Manual, the Corps has not actually or functionally abandoned or deemphasized the congressionally authorized project purposes of (1) hydropower, and (2) navigation at the Allatoona Project, nor has it "reordered" or "materially altered" them in any impermissible way. Instead, the Court agrees with Defendants that the Corps crafted "modest incremental changes to" the ACT Master Manual that appropriately considered and balanced the various applicable specific and general project purposes, and therefore "in no way has exceeded its authority." Defs.' Reply, ECF No. 102 at 8.

a. The Master Manual Does Not "Deemphasize" Hydropower at the Allatoona Project

The Alabama Plaintiffs argue that the Master Manual should be set aside because it "substantially deemphasizes the congressionally authorized purpose of hydropower generation" at the Allatoona Project. Pls.' Mot., ECF No. 83 at 37. They claim that under the Master Manual, the Corps plans to raise lake levels "to the maximum extent possible" by reducing releases from Allatoona Dam, implementing new action zones, using a new guide curve or "fall phased draw down" that holds water in Allatoona later in the year, and "asserting unprecedented discretion not to generate any power" via changes to hydropower generation schedules, all of which they claim "changes Allatoona from a power project with incidental recreation benefits to a recreational project with incidental power benefits." Pls.' Reply, ECF No. 99 at 10; Pls.' Mot., ECF No. 83 at 27. To support their argument, the Alabama Plaintiffs pull language from the FEIS to argue that a stated "goal of the new Manual is to have 'substantially higher lake elevations' than historical averages[,]" Pls.' Mot., ECF No. 83 at 27 (citing A.R., ECF No. 61 at D-00044278); and that the Corps' intent behind the new action zones—the source of the Corps' alleged newfound discretion to generate zero hydropower—is "'to manage the lake at the highest level possible for recreation and other' unspecified 'purposes' to the detriment of hydropower generation releases," *id.* at 28 (citing A.R., ECF No. 61 at D-00044402). They claim that the resulting reduction in hydropower and downstream flows occurs at various levels in all seasons but "is especially acute" during the August to November "critical low-flow period[]" "when peak hydropower and downstream flow support are needed most." *Id.* at 38. By eliminating minimum hydropower requirements, "substantially reduc[ing] the volume of water available for hydropower[,]" and reallocating that storage to benefit recreation, the Alabama Plaintiffs contend that the Master Manual "constitutes a 'material alteration' in its operation" and in Allatoona's authorized project purposes that cannot occur without prior congressional [*108] approval. *Id.* at 37, 39-40, 43; Pls.' Reply, ECF No. 99 at 10.

In response, Defendants argue that "hydropower operations under the Master Manual are similar to historical norms and not the drastic departure that Plaintiffs suggest." Defs.' Reply, ECF No. 102 at 11. They contend,

like the Georgia Parties, that impacts to hydropower are "minor," "modest," and "small," and "fully consistent with the general congressional directive to operate the ACT projects for multiple purposes, including but not limited to hydropower generation." Defs.' Cross-Mot., ECF No. 95 at 20; Intervenor-Def's.' Cross-Mot., ECF No. 97 at 13-14. As a result, they claim that the Alabama Plaintiffs "cannot credibly contend [that] the minor operational adjustments in the ACT Manual constitute fundamental or material changes" to the authorized project purpose of hydropower, Intervenor-Def's.' Cross-Mot., ECF No. 97 at 15; or that such changes, actually "contemplated for drought operations[,] were [solely] intended to benefit recreation[.]" Defs.' Cross-Mot., ECF No. 95 at 20.

The Corps issued the updated Master Manual pursuant to 33 C.F.R. § 222.5 , which requires the Corps to develop WCMs "to conform with objectives and specific provisions of authorizing legislation and applicable Corps of Engineers reports." 33 C.F.R. § 222.5(f)(1) . At the same time, "[i]t has long been the custom of Congress to approve" Corps projects on the basis of "preliminary plans and to authorize the Chief of Engineers to make such modifications as later studies indicate are necessary." *United States v. 2,606.84 Acres of Land*, 432 F.2d 1286 , 1292 (5th Cir. 1970), *cert. denied*, 402 U.S. 916 , 91 S. Ct. 1368 , 28 L. Ed. 2d 658 (1971); *see also United States v. 255.25 Acres of Land*, 712 F.2d 1263 , 1266-67 (8th Cir. 1983); *Creppel v. U.S. Army Corps of Eng'rs*, 670 F.2d 564 , 572 (5th Cir. 1982). "The reports with reference to which such projects are adopted are 'never intended to be the final plans for the . . . project,' *United States v. 2,606.84 Acres of Land*, 432 F.2d 1292 , but are merely 'planning document[s] that explore[] in general rather than detailed terms the feasibility of the engineering and economic aspects of the Project,' *United States v. 255.25 Acres of Land*, 712 F.2d at 1266 ." *Britt v. U.S. Army Corps of Eng'rs*, 769 F.2d 84 , 89 (2d Cir. 1985). As such, the rule is that "[e]ven when a project's purpose is authorized by Congress, the executive officer charged with responsibility for the project may modify its purpose unless this action is *so foreign to the original purpose* as to be arbitrary or capricious." *Creppel*, 670 F.2d at 572 (emphasis added). Otherwise, it would "impart[] both stupidity and impracticality to Congress to conclude that the [authorizing] statute impliedly forbids any change in a project once approved, and thus prevents the agency official from providing for the unforeseen or the unforeseeable, . . . or from adjusting for changes in physical or legal conditions." *Id.* at 572-73; *see also* 33 C.F.R. § 222.5(f)(3) (allowing revisions "as necessary" to WCMs due to "developments in the project area and downstream" and changes in technology, legislation, and "other relevant factors").

Both Congress and the Corps have long recognized that the Corps' discretion to make certain improvements to its authorized water projects "is an important delegation of [its] authority." *See* A.R., ECF No. 61 at SUPPAR022996; H.R. Rep. No. 2165, Authorizations [***109**] for Reservoirs, Levees, and Flood Walls for Flood Control, Flood Control Act of 1946, 79th Cong. (1946) ("[I]t has been the policy of . . . the Congress to recognize that changing conditions often make plans obsolete, and to avoid undue rigidity they have given . . . the Chief of Engineers the authority to modify plans as may be found necessary and desirable."). However, post-authorization changes are subject to certain restrictions, *Env't Def. Fund, Inc. v. Alexander*, 467 F. Supp. 885 , 899 (N.D. Miss. 1979), *aff'd*, 614 F.2d 474 (5th Cir. 1980); and any change must "serve the original purpose of the project[.]" *Creppel*, 670 F.2d at 573 ; such that modifications that "[m]aterially alter the scope or function of the project" or "change the authorized plan of improvement" require prior congressional approval, A.R., ECF No. 61 at SUPPAR022997.

"No hard-and-fast rule can be cited as governing when a project modification should be presented to Congress

for further consideration." *Alexander*, 467 F. Supp. at 901 ; *see also* A.R., ECF No. 61 at SUPPAR022997 (calling it "a matter of judgment" whether a proposed post-authorization change "is or is not a permissible one"). The Corps has provided some guidance in a 1951 Chief of Engineers' report regarding "the scope of executive authority to modify projects previously approved by Congress," and reaffirmed these principles in a later 1969 legal memorandum to the Special Assistant to the Secretary of the Army. *Alexander*, 467 F. Supp. at 900-01 . Based on this guidance, material alterations include "the deletion or addition of project purposes where not otherwise authorized by law, or substantial changes in the relative sizes of project purposes," whereas "engineering changes" which involve changes to "the location, dimension, method of construction, minor variations in the allocation of storage for the various project purposes, and changes in the size and scope of the project to meet needs which differ from those which existed at the time of authorization" are permissible "so long as the scope and function of the project are not materially altered." *Id.* at 901 (quoting the 1969 memorandum—A.R., ECF No. 61 at SUPPAR022997). In sum, the Corps' authority to make changes to water projects without first seeking congressional approval is broad but not unlimited.

The Court turns to the administrative record to determine whether the Alabama Plaintiffs are correct in arguing that the Corps exceeded its statutory authority by materially changing, without congressional approval, the hydropower "purpose or function" of the Allatoona Project "for the sake of recreation." Pls.' Mot., ECF No. 83 at 37, 42 (quoting *Alexander*, 467 F. Supp. at 908-09). For the Alabama Plaintiffs to successfully argue that "the Corps has illegally shifted priority from hydropower to recreation," the record must show that: (1) "recreation is a focus of the updated manuals," such that reductions in hydropower operations "were intended to benefit recreation[;]" or (2) such reductions were so significant in relative size so as to have the effect of "substantially deemphasizing" hydropower while elevating recreation. Defs.' Cross-Mot., ECF No. 95 at 20; A.R., ECF No. 61 at SUPPAR022997. For the reasons explained [*110] below, the Court concludes that neither argument is supported by the record.

i. Hydropower Was Not Abandoned or Reordered for the Sake of Recreation, Which Was Appropriately Considered Among Allatoona's Other Project Purposes

The Alabama Plaintiffs claim that the Master Manual's "stated goal is to cut back on releases and hold as much water in the [Allatoona L]ake as possible so the Corps can promote local recreational uses of the lake" to the alleged illegal "diminishment of hydropower generation[.]" Pls.' Mot., ECF No. 83 at 11. However, the FEIS does not identify recreation as an objective of the Master Manual, *see, e.g.*, A.R., ECF No. 61 at D-00043862-63 (Section 1.2, "Purpose and Need"), D-00043868-70 (screening criteria), D-00044226, D-00044196; and it explains that any proposed changes "that would significantly affect other project purposes or . . . would require . . . congressional authorization[.]" are "not consistent with the purpose and need of updating the WCM[.]" *see id.* at D-00043863 ("[T]his EIS does not address any proposed changes to water management practices that exceed existing congressional authority.").

Instead, the FEIS identifies as a primary objective of the update the development of a basin-wide drought management plan, *id.* at D-00044196; because changing conditions and droughts experienced in the ACT Basin over the past decades have revealed that peaking hydropower operations "would need to be more flexible to avoid drawing down the pools so low that the Corps could not meet other authorized purposes[.]" like navigation, water quality, and recreation, Defs.' Cross-Mot., ECF No. 95 at 17 (citing A.R., ECF No. 61 at D-

00043979); *see also* A.R., ECF No. 61 at D-00043785 (explaining that during the 2006 to 2008 drought, the Corps did not have an applicable drought plan across the ACT Basin and "generally responded to drought conditions by reducing hydropower generation at Allatoona Lake and Carters Lake as the reservoir pools dropped throughout the summer and fall"). The FEIS adds that at Allatoona Lake in the past, sustained hydropower operations during times of drought have adversely affected the Corps' balancing of project purposes there. A.R., ECF No. 61 at D-00044196. Thus, a goal of the update was to implement drought contingency plans, as required by Corps regulations, *id.*; *see also* ER 1110-2-1941, Drought Contingency Plans (Sept. 15, 1981); to improve operational flexibility to reduce water uses during severely dry times, A.R., ECF No. 61 at D-00043773, D-00044196; *see also id.* at D-00043785-87 (explaining the drought management plan, its key features, and the reasons for its implementation).

At Allatoona Lake, the newly created drought management plan "consist[s] of progressively reduced hydropower generation as pool levels decline[.]" and a modified hydropower generation schedule based on the action zones' four ranges of power so as to create flexibility during drought. *Id.* at D-00044206, D-00044224, D-00044258. As the FEIS explains, this plan results in "substantially higher lake elevations under drought conditions than the No Action Alternative" or other action plans, and [*111] this "improvement in water surface elevation conditions at Allatoona Lake . . . would largely be attributable to the proposed phased drawdown guide and revised action zones" that "call for more conservative project operations to conserve storage with the onset of extremely dry conditions in the basin." *Id.* at D-00044278. Thus, when the Alabama Plaintiffs quote the FEIS to argue that a goal of the updated Manual was to have "substantially higher lake levels," *see* Pls.' Mot., ECF No. 83 at 47 (arguing that higher lake levels mean "less, not more, hydropower generation"); they tellingly excluded portions of the text clarifying that those higher lake levels would be "under drought conditions" pursuant to the drought management plan, rather than for the sole purpose of benefiting recreation at the expense of hydropower under normal conditions, *compare* Pls.' Mot., ECF No. 83 at 27, 42, and Pls.' Reply, ECF No. 99 at 17, with A.R., ECF No. 61 at D-00044278.

The same is true for other statements in the FEIS that the Alabama Plaintiffs cite to as evidence of the Manual's alleged improper focus on recreation. For example, they claim that the FEIS "expressly justified the new four-hour cap on hydropower production in the top action zone as creating 'an overall benefit to recreational use of the lake[.]'" and "that as a general matter, the 'action zones would be used to manage the lake at the highest level possible for recreation and other purposes.'" Pls.' Reply, ECF No. 99 at 17 (citing A.R., ECF No. 61 at D-00044235-36, D-00044402, D-00044406). However, they fail to include the related portions of the FEIS explaining that Allatoona's four action zones are "shaped to mimic the seasonal demands for hydropower" and that this reshaping, coupled with adjustments to the range of power generation hours per day, are aimed at creating "operational flexibility to meet power demands" and "provid[ing] for more effective management of conservation storage" and overall improvement in lake levels, "particularly under drier conditions[.]" changes which would "likely provide for improved conditions in APC lakes and [Corps] projects downstream of Allatoona Lake" during droughts. A.R., ECF No. 61 at D-00044402-03, D-00044406, D-00043788-89; *see also id.* at D-00044248 ("Action zones are used to manage the lakes at the highest level possible within the conservation storage pool while balancing the needs of all authorized purposes with water conservation as a national priority used as a guideline.").

Similarly, the Alabama Plaintiffs claim that the "FEIS touted the 'guide curve revision in the fall' as 'further

benefit[ing] recreational uses at Allatoona Lake "' Pls.' Reply, ECF No. 99 at 18 (citing A.R., ECF No. 61 at D-000444245). However, this language is from a sub-section titled "Recreation" (under a larger section titled "Relationship to Water Management Objectives and Project Purposes") dedicated to describing the effects of the Proposed Action Alternative on recreational uses at Allatoona Lake. A.R., ECF No. 61 at D-000444244-45. Meanwhile, one of the other sub-sections in this portion of the FEIS is titled "Hydropower," and there [*112] the FEIS explains that the phased fall drawdown guide curve "provide[s] additional benefit[s] for hydropower generation compared to the current guide curve," in addition to benefits to recreation and flood risk management. *Id.* The Court therefore agrees with Defendants that the Alabama Plaintiffs' portrayal of recreation as a focus of the Master Manual is a "red herring" based on the Alabama Plaintiffs' reliance on "out of context statements," Defs.' Cross-Mot., ECF No. 95 at 19; and that benefits to recreation were "one reason among others for selecting the" Proposed Action Alternative, Intervenor-Def.' Cross-Mot., ECF No. 97 at 12; *see also* A.R., ECF No. 61 at D-00044245 ("Plan G would be likely to provide improvements with respect to flood risk management, hydropower generation, navigation, fish and wildlife conservation, recreation, and water quality.").

The FEIS further explains that conserving water in storage upon the onset of drought, which results in higher Allatoona lake levels, benefits all project purposes. *See, e.g.*, A.R., ECF No. 61 at D-00043789, D-00044278, D-00044266; Defs.' Cross-Mot., ECF No. 95 at 19; Intervenor-Def.' Cross-Mot., ECF No. 97 at 11-12, 17. For example, the "additional measure in Plan G to reduce hydropower production during September through November to facilitate implementation of the phased fall guide curve drawdown" is expected to provide additional benefits at Allatoona with respect to recreation but also "overall hydropower production." A.R., ECF No. 61 at D-00044245. Other benefits include, but are not limited to, "higher median lake levels" at Allatoona for all purposes for more months of the year, *id.* at D-00044278; improved flood risk management operations at Allatoona Lake,⁴⁰ *id.* at D-00044244, D-00044266; and benefits to fish and wildlife conservation resources in the Alabama River resulting from drought plan enhancements, *id.* at D-00044245.

Although some effects of the Master Manual are expected to benefit recreation, *see id.* at D-00044470 (anticipating that the Proposed Action Alternative can avoid lake level declines into the most severe recreational impact category by "an additional 2,416 days over the 73-year modeled period of record compared to the No Action Alternative"); "others are expected to be slightly adverse[.]" Defs.' Cross-Mot., ECF No. 95 at 19 n.3. A recreational impacts study at Allatoona Lake, *see* A.R., ECF No. 61 at D-00044468 (Table 6.6.-27, "Allatoona Lake recreation impacts"); indicates that the amount of time that lake levels will be categorized in the "Recreation Impact" range increases from 28.4% under the No-Action Alternative to 37.7% of the time under the Proposed Action Alternative, *id.* at D-00044470; which translates to an increase in the amount of time that Corps beaches and swim areas are "unusable" and marinas and slip docks are detrimentally affected, *id.* at D-00044467-68; *see also id.* at D-00044958 (explaining that at the "Recreation Impact Level," recreation is "more severely affected," as regular swim areas are exposed, two boat ramps are closed, and almost half of private docks are affected). Overall, the Allatoona Manual specifically [*113] states that water managers will "attempt to maintain reasonable lake levels, especially during the peak recreational use periods," but notes that "there are no specific requirements relative to maintaining recreational levels" and that "[o]ther project functions usually determine releases from the dam and the resulting lake levels." *Id.* at D-00044958. This directly undermines the Alabama Plaintiffs' claim that recreation is driving the changes to the Master Manual.

The Alabama Plaintiffs attempt to rebut Defendants' explanations by contending that the Master Manual's changes (*i.e.*, "the action zones, reduced generation schedule, eliminating of minimum hydropower, and fall phased guide curve") "apply not just in drought, but in *all* operating conditions" and that "any regulatory requirement to have a drought plan does not negate the Corps' responsibility to operate Allatoona for its authorized hydropower . . . purpose[]." Pls.' Reply, ECF No. 99 at 18. The Court rejects this argument and concludes that in view of hydrological changes over the years and prior droughts, the FEIS has adequately explained the need to develop a basin-wide drought plan that "incorporate[s] variable hydropower generation requirements" from Allatoona Lake, A.R., ECF No. 61 at D-00044205; based on seasonal demands and creates operational flexibility to in fact support hydropower and other purposes in low flow conditions, which is what the Corps historically did in response to reservoir pools dropping during the summer and fall of the 2006 to 2008 drought, *id.* at D-00043785-90, D-00043979 ("[H]ydropower production has [historically] been curtailed, as necessary, to balance the entire system operation."). The record, including a study analyzing the effects of the Manual "on hydropower benefits," indicates that these changes do not "negate" Allatoona's authorized hydropower purpose, both in periods of drought and non-drought, but instead provide capacity and energy benefits compared to the No-Action Alternative. *See id.* at D-00044444-60; Defs.' Reply, ECF No. 102 at 12 ("The FEIS discusses hydropower and the proposed changes at great length and in great detail." (citing A.R., ECF No. 61 at D-00043788-89, D-00043877-78, D-00043979-80, D-00044158-62)).

Based on the above analysis, the Court concludes that recreation was not the sole focus of the updates to the Master Manual, or even an intended target of any resulting changes to hydropower operations, and it rejects the Alabama Plaintiffs' claim that the Corps improperly reordered, abandoned, deemphasized, or "elevate[d] this secondary project purpose over the originally authorized" hydropower purpose. Pls.' Reply, ECF No. 99 at 17. And, to the extent that the Alabama Plaintiffs dispute the Corps' ability to consider recreation at all, the Court concludes that at a minimum, the Corps was statutorily authorized to consider impacts and benefits to recreation at Allatoona Lake and at the rest of its projects. As noted above, "[f]unctions such as recreation, water quality, and water supply, and fish and wildlife conservation are considered [project] [*114] purposes under general legislation" since Corps' policy equally recognizes legally authorized purposes that were enacted "after project construction . . . just as those for which costs [were] allocated." A.R., ECF No. 61 at D-00043977; 33 C.F.R. § 222.5(f)(1) . As relevant here, the Flood Control Act of 1944, despite being enacted after the Flood Control Act of 1941, also applies to the Allatoona Project, and authorizes the Corps "to construct, maintain, and operate public park and recreational facilities in reservoir areas" under its control. Pub. L. No. 78-534 , § 4, 58 Stat. 887 , 889 (1944); *see also* 16 U.S.C. § 460d (adding that the "water areas" of Corps projects "shall be open to public use generally for boating, swimming, bathing, fishing, and other recreational purposes"). As such, recreation was not an "illegitimate" consideration in the Master Manual but rather appropriately considered and reasonably balanced, even if "secondar[ily]," among Allatoona's other authorized project purposes. Pls.' Reply, ECF No. 99 at 17.

ii. Reductions in Hydropower Are Not So "Substantial" or "Significant" So as to Have the Effect of Materially Altering the Size of Allatoona's Hydropower Purpose

Relatedly, the Alabama Plaintiffs appear to argue that regardless of the Corps' specific intent as to recreation, by eliminating minimum hydropower requirements and "substantially reduc[ing] the volume of water available for hydropower[.]" the Corps has engaged in an unauthorized reallocation of Allatoona's reservoir storage away

from power generation that has the effect of benefitting recreation "at the expense of" hydropower. Pls.' Mot., ECF No. 39 at 39, 42. Using changes in the percentages of conservation storage available for hydropower releases in the new four action zones alleged by APC, the Alabama Office of Water Resources, and the State of Alabama in their comments on the FEIS, the Alabama Plaintiffs argue that this reallocation adversely affects the size of Allatoona's authorized hydropower purpose, amounting to a "material alteration" in operation that requires prior congressional approval. *Id.* at 39-40, 42-43. Relying on these comments, the Alabama Plaintiffs contend that during the summer May 1 to September 1 period, the amount of storage available for normal hydropower releases in action zones 1 and 2 is reduced by 43%, compared to Zone 1 storage under the 1993 Draft Manual; that as of October 1, Zones 1 and 2 combined experience a 67% reduction in storage compared to the 1993 draft's Zone 1; and that "[d]uring the critical July-August period, when peak generation is needed most, 45% to 55% of the total conservation storage is in Zone 4, which is off-limits to normal hydropower generation." *Id.* at 28, 39 (citing A.R., ECF No. 61 at D-00049516, D-00049593-95, D-00043419-20, D-00045583-85). They claim that the new action zones provide a "stark illustration of how the Corps has disregarded Congress' direction that power generation was one of Allatoona's primary purposes[.]" especially since the 1968 NEPA-approved Allatoona Manual "contained no action zones," and the 1993 Draft Manual introduced action zones but still required minimum levels of hydropower generation. [*115] *Id.* at 38-39. Additionally, the Alabama Plaintiffs fault the FEIS for not isolating hydropower loss at the Allatoona Project "during the dry season or during any particular month[.]" and instead only computing monthly data for the ACT system "as a whole," especially since APC has provided the Corps with data "about Allatoona-specific losses" in monthly hydropower generation. Pls.' Reply, ECF No. 99 at 11. Regarding this issue, the Corps concluded that "the effects of the phased drawdown, action zones, and hydropower generation schedules are either trivial or beneficial to hydropower." See Intervenor-Defs.' Cross-Mot., ECF No. 97 at 13-17; Defs.' Cross-Mot., ECF No. 95 at 20 (calling adjustments to hydropower operations "small" and "modest overall"). The Corps and its Hydropower Analysis Center conducted an analysis to understand how updated system operations would affect hydropower generation, comparing the results under the No-Action Alternative with the "three alternative flow scenarios" under the action Plans D, F, and G. See A.R., ECF No. 61 at D-00044444 (explaining that this complete report is included in Appendix E to the FEIS), D-00044457-60. This analysis found that total system generation under the Proposed Action Alternative would increase slightly (by 282 megawatt-hours or about 0.1%) compared to the No-Action Alternative, while the projected average annual energy benefits for all ACT projects would decrease slightly (by \$255,000 out of more than \$222 million or about 0.11%). *Id.* at D-00044460. The simulation also showed an overall system increase in hydropower generation of up to 2% from January through August, only minor losses in generation in the fall (a 2% decrease in September, under a 6% decrease in October, and just over a 3% decrease in November), and an increase in generation in December. *Id.* at D-00044456-57, D-00044460.

At Allatoona specifically, the FEIS indicates that the Proposed Action Alternative results in an annual decrease of only 0.4% in total system energy benefits compared to the No-Action Alternative. See A.R., ECF No. 61 at D-00048486 (comparing the total system energy benefits baseline number of \$5,081,000 to the Proposed Action number of \$5,062,000, which equates to only a \$19,000 decrease), D-00044458 (variation of the same chart); Defs.' Reply, ECF No. 102 at 11; Pls.' Reply, ECF No. 99 at 11 n*. As discussed, the Alabama Plaintiffs do not contest these numbers on their own terms, but instead present alternative sets of data from APC and other Alabama-interested entities that are computed in different ways.⁴¹

The Court first notes its agreement with Defendants and the Georgia Parties that in calculating hydropower impacts, the Alabama Plaintiffs "err[] by focusing on the individual projects rather than the entire system as a whole, which contradicts congressional intent for the AC[T] Basin." *In re ACF Basin*, 554 F. Supp. 3d at 1301 ; see Intervenor-Def.' Reply, ECF No. 103 at 12 (rejecting the claim that it was improper for the Corps "to consider impacts to hydropower from a system-wide perspective, rather than focusing just on the output of Allatoona Lake"). The Corps operates the Allatoona [*116] Project as part of the larger ACT system, see A.R., ECF No. 61 at D-00043977 ("ACT projects (including APC projects) are operated as a system to the maximum extent possible rather than as a series of individual, independent projects."); and the power produced there is marketed throughout the southeast and sold on a system-wide basis, *id.* at D-00043979. Further, Allatoona Lake provides only a small portion of the overall hydropower generated within the ACT system—72 marketable capacity ("MW") out of 2,215 MW—or 3% of total basin-wide dependable capacity, *id.* at D-00044450; and only 2% of the ACT Basin's total energy benefits, *id.* at D-00044458. Likewise, the conservation storage in Allatoona Lake is only 10.8% of total conservation storage for the entire ACT Basin, see *id.* at D-00043778; with APC controlling the majority (about eighty percent) of the available storage in the basin, *id.* at D-00043928. Given this data, the Court defers to the Corps' projections of system-wide hydropower impacts, showing a 0.1% increase in overall system generation, a 0.11% decrease in average annual energy benefits project-wide, and a 0.4% annual decrease in energy benefits at Allatoona specifically. *Id.* at D-00044460, D-00048486; see *A.L. Pharma, Inc. v. Shalala*, 62 F.3d 1482 , 1490 (D.C. Cir. 1995) (affording "a high level of deference to an agency's evaluations of scientific data within its area of expertise"). As the FEIS explains, "[t]he dependable capacity calculation procedure for the ACT Basin projects began by approximating each project's contribution . . . in meeting the system capacity requirements," A.R., ECF No. 61 at D-00044450; and based on the resulting numbers, it concluded that "[a]t the majority of plants, no noteworthy differences would be expected between the No Action Alternative and the Proposed Action Alternative[,]" *id.* at D-00044460.

For the same reasons, the Court also rejects the Alabama Plaintiffs' argument that "the FEIS' projections for 'overall' hydropower production during the course of an entire year . . . [was] not the appropriate frame of reference[,]" and that the Corps should have instead focused on the low-flow August to November fall period. Pls.' Reply, ECF No. 99 at 10-11. As discussed above, the FEIS analyzes changes in system-wide monthly hydropower generation, comparing the No-Action and action alternatives, and concludes that there is up to a 2% increase from January through August, a 2% decrease in September, under a 6% decrease in October, just over a 3% decrease in November, and a 3% increase in December. See *id.* at D-00044456-57 (explaining that "it was necessary to look at how the generated energy is distributed on a monthly basis"), D-00044460. So although the FEIS concedes that operational changes cause "a loss in generation from September through November[,]" *id.* at D-00044460; it explains and graphically demonstrates that these percentages of overall hydropower generation loss are small, even during the alleged "critical season for hydropower production" to which the Alabama Plaintiffs point, Pls.' Reply, ECF No. 99 at 11. These numbers further indicate that depending on the season, hydropower levels may [*117] increase or decrease, thereby contradicting the Alabama Plaintiffs' assertion that there are "substantial" reductions in hydropower generation "across the board—in all seasons of the year." Pls.' Mot., ECF No. 83 at 38. That public commenters have criticized the changes in hydropower operations under the Master Manual as not focusing on "'critical demand months'" at Allatoona and as not reflecting "'the most valuable use of hydropower[,]" and that other entities have computed "Allatoona-specific losses" that differ from the Corps' system-wide projections for those fall months, Pls.' Reply,

ECF No. 99 at 11 (quoting A.R., ECF No. 61 at D-00046481); does not dissuade the Court from concluding that the FEIS reasonably explained its decision to use "net effect" projections data for the entire ACT Basin, *see* Intervenor-Def.' Reply, ECF No. 103 at 11-12; and therefore, supplied a rational connection between the evidence and the technical decision made, *see State Farm*, 463 U.S. at 43. Instead, the Court agrees with Defendants and the Georgia Parties that the numbers in the FEIS indicate that impacts of the Master Manual on hydropower are not "material," "substantial," or "significant" in relative size but rather "small," "modest," and within the Corps' discretion to manage the hydropower purpose of the Allatoona Project, and of the ACT Basin as a whole—in tandem with the other authorized project purposes. *See* Defs.' Reply, ECF No. 102 at 11 (arguing against the finding of a "material alteration" here because the Master Manual does not change the size of any project purpose, or prescribe any physical or structural changes, at Allatoona or elsewhere in the basin).

An assessment of the administrative record and its discussion of the Master Manual's changes to the phased guide curve drawdown, action zones, and the hydropower peak generation schedule further supports the Court's conclusion that any resulting adjustments in hydropower operations at the Allatoona Project are not drastically different from prior operations under earlier manuals so as to create a "material alteration."

For example, it has been the Corps' historic practice to reduce the conservation pool in the fall months "to increase the flood pool storage in anticipation of the wet spring season by 'drawing down' the guide curve to lower levels." Defs.' Cross-Mot., ECF No. 95 at 22 (citing A.R., ECF No. 61 at D-00044948, D-00013501.0064). The Corps began seasonally varying the storage allocations at Allatoona Lake in the 1950s after studies indicated this could increase the project's overall benefits, and as a result, the 1962 Allatoona Manual required raising the conservation pool elevation during the summer, with a drawdown beginning in the fall. A.R., ECF No. 61 at D-00013501.0014. By segmenting the conservation pool based on a "power guide curve" "developed from a study of past stream-flow records[,] *id.* at D-00013501.0028; this version of the Allatoona Manual introduced "an early form of action zones," Defs.' Cross-Mot., ECF No. 95 at 22 n.5. An actual system of action zones was later developed and implemented at Allatoona Lake in 1989 to **[*118]** address low-flow conditions, A.R., ECF No. 61 at D-00044761; and these zones, divided into Zones 1 and 2, were incorporated into the 1993 Draft Manual, along with adjustments to the drawdown that were made over time, *see id.* at D-00044250, D-00044904, D-00013496.0041, D-00013496.0072, D-00011371.0003-04. The 1993 action zones allowed for scaling back or suspending routine hydropower operations during times of drought to conserve storage, *see id.* at D-00013496.0041-42, D-00013496.0072; as is also the case for the updated four action zones as part of the Master Manual's drought management plan, *see, e.g., id.* at D-00044205-221, D-00044257, D-00044224 (explaining that in the update, the Corps considered varying the amount of generation for each action zone and reducing the amount of available generation "under drought protocols"). For example, Zone 3, which indicates drier than normal conditions or impending drought conditions, allows for "a reduced amount of peaking generation . . . to meet system hydropower demand" while ensuring that the reservoir refills to elevation 840 feet by May *id.* at D-00044950. The FEIS explains that "[s]hould drier than normal hydrologic conditions exist or persist, the reduced peak generation will continue until the reservoir level rises to a higher action zone." *Id.* Only in Zone 4, which indicates "severe drought conditions," can peak generation be suspended, albeit never interrupting the 240 cfs minimum flow release,⁴² a requirement which also existed under 1993 Draft Manual's version of Zone 2. *Id.* at D-00044950, D-

00013496.0072.

As Defendants explain, contrary to the Alabama Plaintiffs' claims that the Master Manual, via the four action zones, reallocates significant percentages of conservation storage away from hydropower generation to favor recreation, as compared to the 1993 Draft Manual, *see* Pls.' Mot., ECF No. 83 at 39, 42; "[a]ction zones do not reduce storage for hydropower," but rather "segment the conservation pool to indicate lake levels at which releases for any purpose—including hydropower—should be reduced during progressively dry conditions so that other authorized purposes can be managed as well[.]" Defs.' Cross-Mot., ECF No. 95 at 23. Through its analyses and data collection, the Corps determined that the four refined action zones, along with changes to the seasonal shaping of the guide curve and daily hydropower generation ranges, "provide greater flexibility and capacity to better meet peak hydropower demands when most needed, generally June through August[.]" and would not adversely affect hydropower operations at APC or other Corps projects in the ACT Basin. A.R., ECF No. 61 at D-00044236, D-00044244. Furthermore, because the action zones continue to be "used as a general guide to the hydropower peaking generation available from the Allatoona Project to help meet system hydropower commitments[.]" *id.* at D-00044949; the Court rejects the Alabama Plaintiffs' claim that Allatoona is no longer being operated as a peaking plant at times "when hydropower is needed most[.]" Pls. Reply, ECF No. 99 at 12. Rather, the Court agrees with Defendants [*119] and concludes that the Master Manual's action zone operational changes are not "stark" deviations from prior manuals but "similar in nature to adjustments made from the first days of the project and continuing until the present update." Defs.' Cross-Mot., ECF No. 95 at 22; *see* A.R., ECF No. 61 at D-00044949 (explaining that the evolution of the Allatoona Project's decades-long operations has culminated in "[a] seasonal conservation pool regulation guide curve and conservation storage action zones" that balance all authorized project purposes).⁴³

The same is true for changes to the shape of the power guide curve over the years. *See* Pls.' Mot., ECF No. 83 at 21 (1951 Manual's guide curve), 23 (1968 Manual's rule curve), 24 (1993 Draft Manual's guide curve), 27 (2015 Master Manual's updated rule curve). Using these graphs, the Georgia Parties describe the differences between these various rule curves as only "a slight shift from a straight drawdown generally starting *later* in the prior versions to the phased drawdown generally starting *earlier* in this one[.]" which the Corps determined would not affect overall hydropower generation. *See* Intervenor-Defs.' Cross-Mot., ECF No. 97 at 16-17 (explaining that in line with prior manuals, the drawdown, although now "phased," reduces the reservoir from full pool in the summer by about 20 feet to a lower winter pool level); A.R., ECF No. 61 at D-00044949, D-00044904 (explaining the Manual's seasonal changes to elevation levels—drawing down to 835 feet by October 1, holding steady at 835 feet through November 15, and drawing down to 823 feet by December 31). Defendants also noted the similarities in shape and level between the 1962 guide curve and Zone 3 of the updated Master Manual. *See* Defs.' Cross-Mot., ECF No. 95 at 23. The Court therefore rejects the Alabama Plaintiffs' claim that the new phased guide curve "marks a substantial break from previous guide curves[.]" Pls.' Mot., ECF No. 83 at 28; and agrees with Defendants to conclude that the resulting changes cannot be material simply because "the current drawdown no longer occurs precisely when Alabama wants," especially since Allatoona's authorizing legislation did not include a fall drawdown or any accompanying specifications—"this was a discretionary change first made on the Corps' initiative in the 1950s[.]" Intervenor-Defs.' Cross-Mot., ECF No. 97 at 16; *see* H.R. Rep. No. 2165, Authorizations for Reservoirs, Levees, and Flood Walls for Flood Control, Flood Control Act of 1946, 79th Cong. (1946) (recognizing the Corps' authority "to modify plans" if

"necessary and desirable" so long as the changes support the original project purposes).

Furthermore, the Court has already rejected the Alabama Plaintiffs' contention that the Corps has newfound discretion not to generate hydropower "not only in 'emergency conditions,' . . . but at all times." Pls.' Reply, ECF No. 99 at 18. As explained above, the Corps continues to operate the Allatoona Project as a peaking plant, with the action zones guiding the process for achieving, rather than abandoning, system hydropower peaking generation commitments. See A.R., ECF No. 61 at D-00044949-51 [*120] (explaining each action zone's range of hours for peaking generation). Only in emergency situations or severe drought conditions is peaking generation sometimes suspended, *id.* at D-00044949-50 (defining these limited circumstances), D-00043979-80; and even then, hydropower is generated through the small Allatoona service unit that "maintain[s] the 240 cfs minimum flow release" that provides constant flows downstream, *id.* at D-00044950, D-00043939. As the Georgia Parties explain, "[r]etaining discretion to curtail peaking hydropower generation during drought conditions is not the same as 'eliminating' peaking hydropower generation at Allatoona Lake." Intervenor-Defs.' Reply, ECF No. 103 at 10; see also Defs.' Cross-Mot., ECF No. 95 at 23-24 (explaining that the action zones do not abandon "peaking hydropower operations as an overall project purpose" but "recognize that in certain circumstances, peak releases will have to be reduced" due to a lack of water in storage).

Finally, as the Court concluded that the Master Manual is not a material change from prior operations, so too does it conclude that it is not a "material alteration" from the Allatoona Project's original congressional authorization, as the Corps' modest adjustments to hydropower are not "so foreign to the original purpose as to be arbitrary or capricious." *Creppel*, 670 F.2d at 572. Instead, "*hydropower benefits have increased*—both in terms of allocated storage and generation capacity—compared to Congress' original 1941 authorization." Intervenor-Defs.' Cross-Mot., ECF No. 97 at 14 (emphasis in original).

For example, Allatoona Lake's turbine capacity has increased from the originally authorized 30,000 kilowatts of generating capacity, A.R., ECF No. 61 at D-00013497.0005; to 82,200 kilowatts, as reflected in the Master Manual, *id.* at D-00044893, D-00044896. This increase aligns with the Chief of Engineers' endorsement of "future extensions" and "enlargement" of power capacity at the Allatoona Project stated in House Document No. 674. *Id.* at D-00013497.0002, D-00013497.0004. Also, the Board of Engineers originally recommended "providing for a maximum power pool at elevation 830" so as to "provide a reasonable degree of flood control without unduly affecting the interests of power development[.]" *Id.* at D-00013497.0004. And yet, under the Master Manual, the maximum power pool elevation is ten feet higher at 840 feet. *Id.* at D-00044893.

In addition, more storage has now been allocated to hydropower than Congress initially planned, as under the Master Manual, total conservation storage available for hydropower generation is 284,580 acre-feet at maximum elevation 840 feet, *id.* at D-00044904, D-00044906; compared to the original allotment of 182,500 acre-feet of maximum hydropower storage capacity, *id.* at D-00013497.0018. As elaborated above, see *supra* note 6; the specific number of acre-feet allotted to both flood control and hydropower storage was discretionarily changed twice following Congress' original authorization, Intervenor-Defs.' Cross-Mot., ECF No. 97 at 15; and by 1946, the allocation was 389,000 acre-feet [*121] between elevation 835 and 860 feet for flood control and 253,000 acre-feet between elevations 800 and 835 feet for power generation and conservation, A.R., ECF No. 61 at D-00013496.0020. Today's number of allotted acre-feet for hydropower

generation remains higher than the 1941 original number and the 1946 adapted number, and it is also higher than the number adopted in the first 1951 Allatoona Manual (228,570 acre-feet). *Id.* at D-00011308.0010. As a result, any reallocations in hydropower storage the Alabama Plaintiffs now complain of as "material" cannot be considered so because hydropower generation under the Master Manual "would still far outpace congressional expectations for the project in the authorizing legislation." *In re ACF Basin*, 554 F. Supp. 3d at 1301. As the Northern District of Georgia has stated in relation to the ACF Basin, "[a] reallocation cannot cause a serious effect on the hydropower purpose established by Congress where the project will still be generating significantly more hydropower than Congress expected even after the reallocation." *Id.* Furthermore, it is not possible for the Corps' discretionary changes to the peaking generation schedule to deviate from the Allatoona Project's original authorization, as the Flood Control Act of 1941 and the related subsequent Corps reports did not specify the level of peaking generation that is to be required. *See, e.g., In re Operation of Mo. River*, 421 F.3d at 629 (rejecting challenge to the Corps' consideration of navigation support because the authorizing legislation "does not set forth what level of river flow or length of navigation season is required").

Despite this evidence that hydropower benefits under the Master Manual have exceeded congressional expectations, the Alabama Plaintiffs argue that the Master Manual nonetheless deviates from the Flood Control Act of 1941 and its "polestar" principle that the Allatoona Project must not just increase but *maximize* hydropower storage, while minimizing storage for other project purposes. Pls.' Reply, ECF No. 99 at 14. The Court rejects this argument, as it has already determined that the Allatoona Reservoir was authorized as a "multipurpose" project that does not prioritize any one of the hydropower, navigation, or flood risk management specific purposes over the others. A.R., ECF No. 61 at D-00044902. In addition, the statements to which the Alabama Plaintiffs cite in support of this argument do not persuasively create a "polestar" principle for the Allatoona Project, as one is from a Division Engineer's report that was never referenced by Congress, the Chief of Engineers, or the Board of Engineers in the authorization of the project, *see* Intervenor-Defs.' Reply, ECF No. 103 at 8 (citing A.R., ECF No. 61 at D-000053805, D-00053808, D-00013497.0002); and the other comes from House Document No. 414, which was prepared only after the Flood Control Act of 1941 was enacted and did not discuss or revise the Allatoona Reservoir plans but rather recommended construction of other ACT Basin projects, *id.* at 8-9 (citing A.R., ECF No. 61 at D-00053821-22). House Document No. [*122] 414 advocates not only for changes like the aforementioned ones that "increas[e] the development of hydroelectric power" but also "[d]esirable modifications" within the Corps' discretion that "arise much more frequently than in normal times, and should often be put into effect more rapidly than extensive and detailed investigations and reports can be made and presented to Congress." H.R. Doc. No. 414, 77th Cong. at 5-6 (1941).

In sum, the record does not support the Alabama Plaintiffs' overall claim that a "reallocation[] of storage 'to provide more stable recreation levels' without prior Congressional approval" occurred.⁴⁴ Pls.' Mot., ECF No. 83 at 20. As a result, the Court concludes that the Corps' adjustments to hydropower operations under the Master Manual do not exceed its statutory authority because they "serve the original purpose[s] of the [Allatoona P]roject[.]" *Creppel*, 670 F.2d at 573 ; do not have the effect of materially deemphasizing the relative size of Allatoona's hydropower purpose to elevate recreation, both in comparison to prior operations and Allatoona's authorizing legislation, *see Alexander*, 467 F. Supp. at 901 ; and are "reasonable and reasonably explained," thus "deserv[ing] significant deference from this Court[.]" *In re ACF Basin*, 554 F. Supp. 3d at 1301 .

b. The Master Manual Does Not "Deemphasize" Navigation at the Allatoona Project

Neither does the record support the Alabama Plaintiffs' argument that the Master Manual abandons or "effectively deletes navigation as an Allatoona project purpose." Pls. Mot., ECFNo. 83 at 40. The Alabama Plaintiffs claim that although Congress authorized Allatoona for navigation, "the Corps disclaims any obligation to operate Allatoona for the express purpose of navigation support[.]" which they state "is needed most in the fall low-flow season, . . . the exact season when the new Manual proposes to reduce or eliminate hydropower releases in the interest of higher lake levels for recreation." *Id.* They contend that the Corps is "offload[ing] its navigation responsibilities" onto APC on the inadequate bases that the Allatoona Project is "'distant from the navigation channel," *id.* at 40-41 (quoting A.R., ECF No. 61 at D-00043980); and "'has never been regulated to make specific releases to support downstream navigation[.]" Pls.' Reply, ECF No. 99 at 15 (quoting Defs.' Cross-Mot., ECF No. 95 at 24); which results in cutting "incidental navigation benefits[.]" *id.* at 17. In response, Defendants argue that "[n]avigation remains a fully implemented purpose in the basin" and that "[m]arginal changes to the management of Allatoona Lake—which is far upstream of navigable waterways—in no way undermine [] the basin's broad navigation purpose." Defs.' Reply, ECF No. 102 at 12. The Court agrees.

"[R]egulation of stream flow for navigation" was one of the three specific project purposes for which construction of the Allatoona Reservoir was initially recommended, *see* A.R., ECFNo. 61 at D-00013497.0002 (recommending, in House Document No. 674, construction at Allatoona Lake for "the improvement of the river below the dams for navigation"); and later authorized via the Flood Control Act of 1941, *see* Pub. L. No. 77-228, 55 Stat. 638, 638-41 (1941) (approving House [*123] Document No. 674's plan). Four years later, the River and Harbor Act of 1945 adopted the same specific authorized purposes for the ACT Basin, sanctioning development of the Alabama-Coosa River and its tributaries for "navigation, flood control, power development, and other purposes[.]" Pub. L. No. 79-14, § 2, 59 Stat. 10, 17 (1945). Therefore, Congress intended that navigation be balanced among the other competing purposes at both the Allatoona Project and for the ACT Basin as a whole. Defs.' Reply, ECF No. 102 at 12-13.

The FEIS states that although Allatoona Lake was originally authorized to support downstream navigation, it is "not regulated for navigation because [it is] distant from the navigation channel, and any releases for that purpose would be captured and reregulated by APC reservoirs downstream." A.R., ECF No. 61 at D-00043980; *see also id.* at D-00044961 ("Due to the intervening APC projects, there are no specific reservoir regulation requirements to support navigation at Allatoona Dam."). Navigation "occurs only on the Alabama River downstream of Montgomery, Alabama, the *head of navigation*[.]" *id.* at D-00044199 (emphasis in original); and flow in the Alabama River "is largely controlled by APC impoundments on the Coosa and Tallapoosa Rivers above Robert F. Henry Dam[.]" *id.* at D-00044803. Therefore, water released at the Allatoona Project, located "far upstream in Georgia, must travel more than 360 river miles and pass through" several APC dams before converging with the Coosa River and eventually reaching the Alabama River. Defs.' Cross-Mot., ECF No. 95 at 25 (citing A.R., ECF No. 61 at D-00043909); Intervenor-Def's Cross-Mot., ECF No. 97 at 18 (citing A.R., ECF No. 61 at D-00043916, D-00044199). As a result, the FEIS explains that "[d]ownstream navigation in the Alabama River benefits indirectly from the operation of the Allatoona Lake . . . project[] for the other authorized purposes." A.R., ECF No. 61 at D-00043980; *see also id.* at D-00044961 ("[T]he seasonal variation in reservoir storage does redistribute downstream flows and other operations at Allatoona provide a benefit to downstream navigation."). As Defendants explain, "the Allatoona Project has

never been regulated to make specific releases to support downstream navigation[,] but "[r]ather releases from Allatoona for other purposes support navigation incidentally, and the entire Basin is managed to accomplish this purpose." Defs.' Cross-Mot., ECF No. 95 at 24; see also A.R., ECF No. 61 at D-00044803 (explaining that a "critical component in the water control plan for navigation involves using an amount of storage from APC storage projects similar to that which has historically been used," a plan which "does not include flow requirements from Allatoona" because it is "not regulated specifically for navigation"). These operational choices make functional sense given that APC controls eighty percent of the available conservation storage in the ACT Basin (above areas where navigation occurs), A.R., ECF No. 61 at D-00043928; and is required, pursuant to FERC licenses, to release minimum discharges from its reservoirs to support navigation on the Alabama River, *id.* at D-00044803-04, [*124] D-00043960; see *id.* at D-00044199 ("Releases by APC together with local inflows downstream of the Coosa and Tallapoosa Rivers' confluence are expected to provide the required flow in the Alabama River . . .").⁴⁵ Therefore, the Corps is not, as the Alabama Plaintiffs claim, "offload[ing] its navigation responsibilities" onto APC, Pls.' Mot, ECF No. 83 at 40-41; but rather looking to the entity "in the best position to take appropriate action[.]" *In re ACF Basin*, 554 F. Supp. 3d at 1307 .

This "decades-old practice of supporting navigation more than 300 miles downstream on the Alabama River *incidentally* through releases for other purposes, rather than making dedicated releases from Allatoona Lake" has been the Corps' practice since the reservoir was constructed and fits with the original vision Congress adopted in the project's authorizing legislation. Intervenor-Def's. Cross-Mot., ECF No. 97 at 18 (emphasis added). For example, House Document No. 674 included commentary that "[t]he estimate of annual benefits indicates that in effect the [Allatoona P]roject is essentially a power project with important benefits in flood protection and incidental benefits to navigation[.]" A.R., ECF No. 61 at D-00013497.0006; and it specifically stated that the reservoir was to be constructed "in the combined interests of flood control and power development," with regulated stream flow providing benefits "to navigation should the Alabama and Coosa Rivers be further improved at some future time[.]" *id.* at D-00013497.0004; see also *id.* at D-00013497.0018-21 (elaborating on the project's anticipated benefits to and storage allocations for hydropower and flood control but not navigation, instead stating that "the development of Allatoona Dam for flood control and power will fit" into the comprehensive ACT scheme "for flood control, navigation, and power"). Additionally, the 1941 Definite Project Report, substantially in agreement with House Document No. 674's plan adopted by Congress, similarly discusses in detail the operational plan of the Allatoona Reservoir and Dam "for flood control" and "for power" but not for navigation. *Id.* at SUPPAR027131-32. Several decades later, in 1992, the Corps issued a report in response to a congressional request that it survey its various reservoir projects to identify the purposes for which each project was authorized, as compared to the purposes for which each project was actually being operated. *Id.* at D-00006416.0002. For the Allatoona Project, the Corps informed Congress, using identical language repeated in the 2014 FEIS, that although navigation was an authorized purpose,

[t]he project is not regulated for navigation because it is located distant from the navigation channel and any releases for that purpose would be captured and reregulated by the [APC] reservoirs located downstream. Navigation benefits *indirectly* from the operation of the project for the other authorized purposes."

Id. at D-00006416.0010 (emphasis added).

In line with this historical congressional awareness and tacit approval of operating the Allatoona Project for indirect navigation [*125] benefits, none of the authorizing legislation or founding supplemental reports contained any regulations specifically addressing navigation, *see, e.g., id.* at SUPPAR027115-27215, D-00013497; which is also true of the earlier ACT Basin Master Manuals from 1951, 1962, and 1993, *see* Defs.' Cross-Mot., ECF No. 95 at 25 (citing A.R., ECF No. 61 at D-00013495, D-00013501, D-00013496.0022). Therefore, contrary to the Alabama Plaintiffs' claims that the Corps has altogether abandoned navigation as an authorized purpose at the Allatoona Project, the record indicates that navigation is being treated as it always has been, both at Allatoona, and balanced among other project purposes for the entire ACT Basin. *See In re Operation of Mo. River*, 421 F.3d at 629 (explaining that when the authorizing legislation "does not set forth what level of river flow or length of navigation season is required" to serve the navigation project purpose, courts need only review the changes to ensure that the Corps considered downstream navigation in balancing competing interests).

Furthermore, the record shows that improving navigation support, particularly during drought conditions, was an objective of the updated Master Manual. *See* A.R., ECF No. 61 at D-00044196 (aiming to "[m]ore accurately define flow requirements for APC projects to support navigation on the Alabama River downstream"), D-00044342 (calling it a "primary goal" to determine minimum flow requirements to support navigation year-round "on balance with the other needs and requirements in the basin"), D-00044199-205 (assessing various management measures for supporting navigation). The resulting changes provide "for seasonal navigation releases, coupled with seasonal maintenance dredging, to support commercial navigation in the Alabama River for a 9.0-foot or 7.5-foot channel depth as long as sufficient basin inflow above the APC projects . . . is available." *Id.* at D-00053478.

The record indicates that these changes will increase, not decrease, navigational benefits in comparison to prior operations. *See, e.g.,* A.R., ECF No. 61 at D-00044344-52 (explaining that under the No-Action Alternative, "navigation channel conditions are likely to continue to deteriorate," but that under the Proposed Action Alternative, there is expected to be "a notable increase in the number of years during which full 9-ft navigation channel depths would be available for commercial navigation"), D-00044442-43. The FEIS graphically demonstrates that "in all months of the year except November, the navigation flow conditions for [the Proposed Action Alternative] equal or represent an improvement under conditions for the No Action Alternative[.]" and that there are only slight adverse effects during November resulting from the phased drawdown with reduced hydropower production. *Id.* at D-00044352. Using this data, the FEIS logically deduces that the "overall effect of operations at Allatoona Lake" under the Master Manual "on navigation conditions in the Alabama River downstream of Montgomery . . . would likely be inconsequential according to the results [*126] of the model simulations." *Id.*

Accordingly, as with the Allatoona Project's hydropower purpose, the Court concludes that the Corps has not, in any of the relevant updates to the Master Manual, abandoned or deemphasized the project's congressionally authorized navigation purpose, and therefore the Corps cannot be deemed to have exceeded its statutory authority in this regard. Instead, in accordance with congressional directives, its own regulations, and its technical expertise, the Corps has made reasonable and sufficiently explained "incremental changes" to navigation in the ACT Basin, Defs.' Cross-Mot., ECF No. 95 at 27; that do not impermissibly advance recreational interests over navigation at the Allatoona Project, and that are therefore to be afforded "an

extreme degree of deference[.]" *Alaska Airlines*, 588 F.3d at 1120 .

2. The Master Manual Is Not an "Unexplained and Arbitrary Departure from Established Operations"

In their final argument, the Alabama Plaintiffs contend that "[a]t the very least, the Corps' reordering of project purposes" was, even if statutorily permissible, "arbitrary" and "an unexplained departure from established operations" of the Allatoona Project. See Pls.' Mot., ECF No. 83 at 43-44 (criticizing the Master Manual for "sharply depart[ing] from [] precedent without acknowledging, let alone explaining, its departure from its prior practices"). They argue that the Corps has ignored and failed to meaningfully respond to public comments indicating that retaining more water at Allatoona "when it is most needed" in other places will reduce hydropower generation, eliminate critical navigation flow support, and cause harmful downstream impacts, and that, "in choosing to preference recreational interests at the expense of hydropower, navigation, flood control, and, most critically, the environment[.]" the Corps has "failed to engage in reasoned decision-making," as mandated by the APA. *Id.* at 44, 47.

In response to these claims, Defendants contend that the Master Manual "provides a well-reasoned explanation for changes in operations that support all project purposes and comply with subsequent legislation and regulations[.]" and is therefore entitled to substantial deference under *Chevron, U.S.A., Inc. v. Nat. Res. Def. Council, Inc.*, 467 U.S. 837 , 104 S. Ct. 2778 , 81 L. Ed. 2d 694 (1984). See Defs.' Reply, ECF No. 102 at 14-17; Defs.' Cross-Mot., ECF No. 95 at 15-16. Likewise, the Georgia Parties argue that the Master Manual does not reflect a change in Corps policy or practice, and that even if it did, the Corps has adequately justified all changes. See Intervenor-Defs.' Cross-Mot., ECF No. 97 at 20-21.

The Court is unpersuaded by the Alabama Plaintiffs' "alternative showing" argument, Pls.' Reply, ECF No. 99 at 20; as it merely reiterates, albeit in slightly different form, many of the arguments that the Court has already considered and rejected. For example, the Alabama Plaintiffs argue that the Master Manual departs from the Corps' "historical practices" by adopting action zones at Allatoona Lake that are "intended 'to manage the lake at the highest level possible for recreation and other purposes.'" Pls.' Mot., ECF No. [*127] 83 at 44-45. To support this argument, they point to "prior decisions" by the Corps (one of which comes from inadmissible extra-record evidence) which they claim "establish[] that the Allatoona Project should not maintain high reservoir levels to benefit recreation at the expense of generation and navigation[.]" See *id.* at 45-46.

However, the Court has already explained why the FEIS does not support concluding that the Master Manual deemphasizes the Allatoona Project's authorized hydropower and navigation purposes to favor recreation. The Court has also already rejected: (1) the Alabama Plaintiffs' characterization of the four action zones as providing the Corps with newfound, unbounded discretion to not generate any hydropower at any time; and (2) their use of out-of-context statements regarding higher lake levels focusing on recreation, and has instead explained how conserving water in storage during drought, which does result in higher lake levels, benefits all project purposes. Furthermore, based on the record, the Court has already concluded that the Master Manual's operational changes to both hydropower and navigation are modest, incremental, and reasonably explained, in other words, "similar in nature" to historic changes, Defs.' Cross-Mot., ECF No. 95 at 22; rather than the "unexplained and arbitrary departure" towards recreational interests as the Alabama Plaintiffs contend, see Pls.' Mot., ECF No. 83 at 46-47. Therefore, even if the Master Manual could be deemed a departure in some

ways from prior Manuals, the Corps has acknowledged the pertinent operational adjustments and "adequately explained the reasons for its substantive action[.]" *In re ACF Basin*, 554 F. Supp. 3d at 1304 ; specifically, why it chose the Proposed Action Alternative over all other options, including the No-Action Alternative. The Court must "uphold a decision of less than ideal clarity if the agency's path may reasonably be discerned[.]" and here, the Court concludes that the Corps' path towards the Master Manual is sufficiently clear.⁴⁶ *Bowman Transp.*, 419 U.S. at 286 .

Throughout this Memorandum Opinion, this Court, similar to many others, has concluded that the Corps "has significant discretion to balance" the competing purposes at its various reservoirs. *In re ACF Basin*, 554 F. Supp. 3d at 1302 ; *accord Ubbelohde*, 330 F.3d at 1027 ; *In re Operation of Mo. River*, 421 F.3d at 629 ; *Am. Rivers v. U.S. Army Corps of Eng'rs*, 271 F. Supp. 2d 230 , 252-53 (D.D.C. 2003). Specifically, the Corps has the power to issue WCMs governing its reservoir projects by developing a binding Master Manual detailing how it will operate the ACT River Basin "to balance conflicting purposes." *In re ACF Basin*, 554 F. Supp. 3d at 1289 (citing 33 U.S.C. § 709 , section 7 of the Flood Control Act of 1944); *see also Ubbelohde*, 330 F.3d at 1027 (elaborating on the "good deal of discretion" the Flood Control Act of 1944 provides to the Corps in its management of river systems). Pursuant to this statutory authority, the Corps has promulgated regulations that explicitly contemplate updating those manuals "to conform with changing requirements resulting from" basin developments and changes in technology, legislation, and other relevant factors. 33 C.F.R. § 222.5(f)(3) . As a result, the "Purpose and Need" section [*128] of the FEIS, citing to section 7 of the Flood Control Act of 1944, states that the updated plans and manuals, promulgated pursuant to the APA's notice and comment process, "comply with existing [Corps] regulations and reflect operations under existing congressional authorizations, taking into account changes in basin hydrology and demands from years of growth and development, new/rehabilitated structural features, legal developments, and environmental issues." A.R., ECF No. 61 at D-00043772.

Ultimately, the Court concludes, based on all of the above-referenced evidence and data analysis from the administrative record, that it appropriately accords deference to the updated Master Manual because it does not, as the Alabama Plaintiffs contend, amount to the Corps "transgress[ing]" the Flood Control Act of 1941 by materially altering or "transform[ing]" the Allatoona Project, Pls.' Reply, ECF No. 99 at 8; nor does it exceed any other statutory authority the Corps administers in managing the ACT River Basin,⁴⁷ Defs.' Cross-Mot., ECF No. 95 at 14-16. Instead, the Court agrees with Defendants that the Master Manual "represents the culmination of the Corps' detailed study and in-depth decision making process" regarding "a technical judgment within its expertise[.]" Defs.' Reply, ECF No. 102 at 15; and "[w]hen examining this kind of scientific determination, as opposed to simple findings of fact," the Court must be "at its most deferential[.]" *Balt. Gas*, 462 U.S. at 103 .

V. Conclusion

For the foregoing reasons, the Court **DENIES** the Alabama Plaintiffs' Joint Motion for Summary Judgment, ECF No. 83; **DENIES** Intervenor-Plaintiffs' Joint Motion for Summary Judgment, ECF No. 85; **GRANTS** Defendants' Cross-Motion for Summary Judgment, ECF No. 96; **GRANTS** Intervenor-Defendants' Joint Cross-Motion for Summary Judgment, ECF No. 98; and **DENIES** Intervenor-Defendants' Supplemental Motion for Summary Judgment Based on the Preclusive Effect of an Intervening Judgment, ECF No. 129. An appropriate Order accompanies this Memorandum Opinion.

SO ORDERED.

Signed: Emmet G. Sullivan

United States District Judge

November 9, 2023

ORDER

For the reasons stated in the accompanying Memorandum Opinion issued this day, it is hereby

ORDERED that Defendants' Cross-Motion for Summary Judgment, ECF No. 96, is **GRANTED**; and it is further

ORDERED that Intervenor-Defendants' Joint Cross-Motion for Summary Judgment, ECF No. 98, is **GRANTED**; and it is further

ORDERED that Plaintiffs' Joint Motion for Summary Judgment, ECF No. 83, is **DENIED**; and it is further

ORDERED that Intervenor-Plaintiffs' Joint Motion for Summary Judgment, ECF No. 85, is **DENIED**; and it is further

ORDERED that Intervenor-Defendants' Supplemental Motion for Summary Judgment Based on the Preclusive Effect of an Intervening Judgment, ECF No. 129, is **DENIED**.

SO ORDERED.

Signed: Emmet G. Sullivan

United States District Judge

November 9, 2023

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When citing electronic filings throughout this Opinion, the Court cites to the ECF header page number, not the original page number of the filed document, with the exception of the Administrative Record ("A.R."), which is to the Bates number assigned to the relevant corresponding document in Defendants' certified list of contents of the administrative record. *See generally* Defs.' Notice of Filing of Certified List of Contents of, and Production of, Administrative R., ECF No. 61, Attachment B, Parts 1-6 [hereinafter cited as A.R., ECF No. 61].

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Although docketed at ECF No. 96, the complete briefing for Defendants' Cross-Motion for Summary

Judgment is docketed at ECF No. 95. Therefore, the Court cites to the ECF header page number of ECF No. 95 when citing to Defendants' brief.

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Although docketed at ECF No. 98, the complete briefing for Intervenor-Defendants' Joint Cross-Motion for Summary Judgment is docketed at ECF No. 97. Therefore, the Court cites to the ECF header page number of ECF No. 97 when citing to Intervenor-Defendants' brief.

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In 2006, the Corps began using the term "flood risk management" in lieu of the term "flood control" to "more appropriately characterize[]" its mission. A.R., ECF No. 61 at D-00043862. The Court does the same unless quoting the administrative record.

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In 1954, Congress suspended parts of the River and Harbor Act of 1945 to permit APC to develop its own projects on the Coosa River under a license issued by the Federal Power Commission (now the Federal Energy Regulatory Commission). A.R., ECF No. 61 at D-00043985. Today, four APC projects (Weiss Lake, H. Neely Henry Lake, Logan Martin Lake, and R.L. Harris Lake) are authorized to operate for navigation and flood risk management in coordination with the Corps and in accordance with Corps regulations. *Id.* at D-00043985-86, D-00044178.

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After construction began on the Allatoona Reservoir, storage allocations were again reconsidered in 1946. A.R., ECF No. 61 at D-00013496.0020. Congress' original authorization in 1941 called for 422,500 acre-feet of flood control storage and 182,500 acre-feet of power storage. *Id.* at D-00013497.0018. Then, in the 1941 Definite Project Report, flood control storage decreased to 212,000 acre-feet, and power storage increased to 456,000 acre-feet. *Id.* at SUPPAR027127. The 1946 reconsideration resulted in 389,000 acre-feet allocated to flood control and 253,000 acre-feet for power generation. *Id.* at D-00013496.0020.

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A peaking plant releases water through the turbines of a dam and generates power at times of most, or "peak" demand.

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There are eleven daily peaking hours during the winter period from October 1 through March 31: 5:00 a.m. to 9:00 a.m. and 3:00 p.m. to 10 p.m., Monday through Friday, and six during the summer period from April 1 through September 30: 1:00 p.m. to 7:00 p.m., Monday through Friday. A.R., ECF No. 61 at D-00044449. "The maximum daily amount of peak generation for each plant [is] then defined as the product of the number of daily peaking hours times the installed capacity of the plant." *Id.*

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The Court appreciates the analysis provided by *amicus curiae*.

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The Court addresses the arguments from Intervenor-Defendants' supplemental motion for summary judgment, ECF No. 129; where relevant to the parties' pending cross-motions for summary judgment, see ECF Nos. 83, 85, 95 & 96, and 97 & 98.

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It is uncontested that the Alabama Plaintiffs have standing to pursue their claims. See Pls.' Mot., ECF No. 83 at 35-36.

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Intervenor-Plaintiffs also argue that the Corps did not adequately address water quality issues in the Master Manual. See Intervenor-Pls.' Mot., ECF No. 85 at 15-19. Unlike the Alabama Plaintiffs, they do not advance this argument under the CWA and ER 1110-2-8154 but under NEPA. See *id.* at 15-19. The Court therefore addresses their water quality arguments in the NEPA section of this Memorandum Opinion. See *infra* section IV.B.

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An appeal of this decision is currently pending in the Court of Appeals for the Eleventh Circuit ("Eleventh Circuit"). See Pl. State of Ala.'s Notice of Appeal, *In re ACF Basin Water Litig.*, No. 1:18-MI-43 (N.D. Ga. Sept. 10, 2021), ECF No. 236 at 1; Notice of Appeal, *In re ACF Basin Water Litig.*, No. 1:18-MI-43 (N.D. Ga. Oct. 6, 2021), ECF No. 243 at 1.

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The pendency of the above-referenced Eleventh Circuit appeal does not affect the Court's preclusion

analysis. See *El-Amin v. Virgilio*, 251 F. Supp. 3d 208 , 211 (D.D.C. 2017).

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"The term 'privity' signifies that the relationship between two or more persons is such that a judgment involving one of them may justly be conclusive upon the others, although those others were not party to the lawsuit."

Gill & Duffus Servs., Inc. v. A. M. Nural Islam, 675 F.2d 404 , 405 (D.C. Cir. 1982).

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The Georgia Parties call this Alabama's "fallback" CWA argument, which they contend Alabama has asserted in the ACT and ACF cases. Intervenor-Defs.' Suppl. Mot., ECF No. 129 at 7.

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This conclusion did not turn on any specifics about the State of Georgia's water quality standards and was therefore intended to apply to water quality standards across states, including Alabama's water quality standards at issue in the ACT case.

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The Georgia Parties argue that the Court should follow the Court of Appeals for the Third Circuit's standard for assessing when two cases are "substantially unrelated" under the "unmixed questions of law" exception, as articulated in *Burlington Northern Railroad Co. v. Hyundai Merchant Marine Co.*, 63 F.3d 1227 , 1236 (3d Cir. 1995). See Intervenor-Defs.' Suppl. Mot. Reply, ECF No. 139 at 9-10. Given its above analysis, the Court declines this invitation.

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Alabama claims that "[o]ne specific and critical factual difference is that in this case, the Corps' operations under the ACT Manual will contribute to violations of water-quality standards that were incorporated in a 'Total Maximum Daily Load,' or 'TMDL,' at Weiss Lake in Alabama." Ala.'s Opp'n to Suppl. Mot., ECF No. 134 at 24. The Court agrees that this is a factual difference between the ACT and ACF cases, as the Northern District of Georgia did not analyze TMDLs in-depth in its 2020 decision. See *In re ACF Basin Water Litig.*, 467 F. Supp. 3d 1323 , 1338 (N.D. Ga. 2020). The Court therefore addresses ACT water quality arguments regarding TMDLs on the merits. See *infra* section IV.A.2.a.

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As noted above, Intervenor-Plaintiffs do not even make the same water quality claims as APC and Alabama, instead advancing those claims solely under NEPA and not the CWA or the Corps' ERs, as the Alabama Plaintiffs do. *See supra* note 12.

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As APC notes in its opposition, "[t]hough they never use the phrase, the Georgia Parties appear to claim that [APC] was 'adequately represented' because the State of Alabama was supposedly appearing as *parens patriae*." APC's Opp'n to Suppl. Mot., ECF No. 137 at 9.

"[U]nder the doctrine of *parens patriae*, a state is deemed to represent all of its citizens, when the state is a party in a suit involving a matter of sovereign interest." *Menzel v. Cnty. Utils. Corp.*, 501 F. Supp. 354 , 357 (E.D. Va. 1979). However, the ACT and ACF cases do not involve matters of one sovereign's interest but rather multi-state river basins controlled not by any one State but by a federal agency. Further, "a state cannot proceed as *parens patriae* when the United States, the superior 'parent of the country,' is the defendant." *Gov't of Province of Manitoba v. Zinke*, 273 F. Supp. 3d 145 , 165 (D.D.C. 2017). The D.C. Circuit has "decided that the extent to which a state may sue as a representative of its residents 'must be qualified by [a] statement of the type and extent of the interests to be represented, and of the defendants against whom the action is brought.'" *Id.* at 166 (quoting *Pennsylvania v. Kleppe*, 533 F.2d 668 , 673 (D.C. Cir. 1976) (emphasis in original)). Thus, even if the Georgia Parties had argued for the application of *parens patriae*, the federal nature of the Corps and their officers as defendants implicates "policy concerns, apart from the injury itself," and prevents the doctrine from being used here to claim Alabama was fit to represent the Alabama Parties' claims in the ACF case. *Id.*

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The CWA was amended after the Supreme Court's decision in *EPA v. Cal. ex rel. State Water Res. Control Bd.*, 426 U.S. 200 , 96 S. Ct. 2022 , 48 L. Ed. 2d 578 (1976), but these amendments "merely expanded the federal government's obligation to comply with both procedural and substantive 'requirements.'" *See* Intervenor-Defs.' Cross-Mot., ECF No. 97 at 22 n.10 (citing *New York v. United States*, 620 F. Supp. 374 , 383 (E.D.N.Y. 1985)).

Thus, to the degree the Supreme Court's ruling "construed the substantive 'requirements' of § 313 to mean effluent limitations, such ruling was unaffected by the 1977 amendments enacted by Congress." *New York*, 620 F. Supp. at 382 .

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Another district court has suggested that *National Wildlife Federation v. U.S. Army Corps of Engineers*, 132

F. Supp. 2d 876 (D. Or. 2001), can be "significant[ly]" distinguished from cases like the instant action, since it "involved a series of dams which were all located in the same state, thus requiring the enforcement of only one set of water quality standards." *North Dakota v. U.S. Army Corps of Eng'rs*, 270 F. Supp. 2d 1115 , 1127 (D.N.D. 2003). That court wrote that when "other downstream states may assert similar violations of their respective water quality standards[,] . . . the complexity of the issues present[ed] . . . appears to lessen the probability of . . . success on the merits." *Id.* It therefore held that "[a]lthough the Corps of Engineers has been held liable for non-compliance with state water quality laws in one other reported decision, the courts have yet to see one state along a major river system comprised of several dams and reservoirs spread over many states succeed in a state water quality standards enforcement action." *Id.* at 1128 . Applied here, while Allatoona Dam is in Georgia, operations under the Master Manual can affect Georgia's, as well as, Alabama's water quality standards, thereby limiting the persuasive effect of *National Wildlife Federation* in this case.

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The Georgia Parties also correctly note that the Weiss Lake TMDL only mentions the Corps once and does not purport to impose specific requirements on the Corps or on any of its operations, including at Allatoona Lake. See Intervenor-Defs.' Suppl. Mot. Reply, ECF No. 139 at 14; A.R., ECF No. 61 at D-00027180-81.

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The Alabama Plaintiffs seem to distinguish between whether the Corps has already violated the CWA or whether it will "in the future." See Pls.' Resp. to Suppl. Authority Notice, ECF No. 120 at 2. The Court views this distinction as immaterial since the Alabama Plaintiffs cannot identify any enforceable CWA "requirement," either now or in the future. See *North Dakota*, 270 F. Supp. 2d at 1126 ("North Dakota has alleged *future* violations of the [CWA] and state water quality standards. [Its] failure to show . . . how the Corps . . . is currently in violation of the [CWA] or state water quality standards weighs against its success on the merits. . . .").

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To the extent the Alabama Plaintiffs argue that reduced flows from the Allatoona Project under the Master Manual also impact APC's obligations under its FERC license for its Coosa Project and make it "more burdensome" for APC to comply with the license's dissolved-oxygen requirements at Weiss Dam and Lake, see Pls.' Mot., ECF No. 83 at 18; the Court declines to analyze this claim, as the Alabama Plaintiffs do not actually address whether FERC licenses serve as a source of "requirements" within the meaning of section 313(a) of the CWA as against the Corps. And, it may well be that the FERC is "in the best position to take appropriate action" by adjusting the requirements in APC's Coosa license. *In re ACF Basin*, 554 F. Supp. 3d at 1307 .

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In its reply briefing, the Corps raises a new argument that "even if the water quality standards were 'requirements,' Congress has not authorized their application to the Corps' decisions regarding the Master Manual" because "[t]he scope of section 1323(a) is limited by 33 U.S.C. § 1371(a) , which provides that the CWA 'shall not be construed as . . . affecting or impairing the authority of the Secretary of the Army to maintain navigation.'" Defs.' Reply, ECF No. 102 at 35. The Court finds it unnecessary to address this claim, and also, it does not consider arguments raised for the first time in a reply brief. *Carter v. Geo. Wash. Univ.*, 387 F.3d 872 , 883 (D.C. Cir. 2004).

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As discussed in the Factual Background, prior to the updates that spurred this litigation, the last finalized ACT Master Manual was adopted in 1951, along with a WCM for the Allatoona Project in 1951, 1962, and 1968. *See supra* section II.B. at 27. Although the 1968 Allatoona Manual was adopted prior to NEPA's passage in 1969, the Corps issued a FEIS for its then-existing Allatoona operations under that manual in 1974. *Id.* at 29-31. As the Alabama Plaintiffs note, the 1993 Allatoona Draft Manual was not similarly subjected to NEPA review. *Id.* at 31.

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Many other courts have concluded that the status quo is the only proper interpretation of the No-Action Alternative, regardless of the legality of current operations. *See, e.g., Biodiversity Conservation All. v. U.S. Forest Serv.*, 765 F.3d 1264 , 1269-70 (10th Cir. 2014) (finding that the agency properly included unlawful use of federal lands as part of its no-action baseline); *Tenn. Env't Council v. Tenn. Valley Auth.*, 32 F. Supp. 3d 876 , 887 (E.D. Tenn. 2014) (requiring the defendant "to employ a 'no action' alternative of the status quo, as opposed to the future consequences of [a] consent decree"); *Colo. Off-Highway Vehicle Coal. v. United States*, 505 F. Supp. 2d 808 , 817 (D. Colo. 2007) ("The validity of earlier decisions affecting the status quo is not an issue in the no-action analysis.").

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In their reply, the Alabama Plaintiffs argue that the FEIS "deprived the public" of information because it "did not disclose the impacts of certain operations in the new Manual, such as its inclusion of action zones, that the agency started using when it chose to implement the 1993 draft manual." Pls.' Reply, ECF No. 99 at 28. They claim that this "conceal[ed] a significant component of impact." *Id.* at 29. The Court disagrees, as the FEIS explains in detail historical changes to the guide curves and action zones at the Allatoona Project. And, in any event, this reply argument that the public was "deprived" of information on action zones differs from how the Alabama Plaintiffs' styled their concerns in their opening brief, where they only contended that the absence of action zones "in the 1968 NEPA-reviewed manual" would mean that "allowing the 1993 draft manual to serve as the baseline would wrongly 'assume[] the existence of [the] proposed project,' rendering

the baseline meaningless." Pls.' Mot., ECF No. 83 at 54.

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The Court therefore rejects Intervenor-Plaintiffs' arguments against the Corps' use of the HEC-5Q Model, *see* Intervenor-Pls.' Mot., ECF No. 85 at 17 n.3; especially since they only point to acknowledgements the Corps already made and considered regarding that model's "assumptions and limitations," *see* A.R., ECF No. 61 at D-00036296; *see also* Defs.' Reply, ECF No. 102 at 24 n.11 (stating that despite disclosing the model's limitations, the Corps "is entitled to deference in its determination that the model was nevertheless appropriate"). Nor will the Court consider the extra-record report cited to by Intervenor-Plaintiffs regarding modeling problems in a case involving the ACF Basin. Intervenor-Pls.' Mot., ECF No. 85 at 17.

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The Georgia Parties agree but do not provide arguments in support of the contention that the Corps erred in the FEIS by assuming that the CC-MWA's "current water supply withdrawals from Allatoona Lake would be capped at levels below its actual use." *See* Intervenor-Defs.' Cross-Mot., ECF No. 97 at 6 n.1, 25 n.13. Instead, they disputed this claim in separate litigation challenging the ACT Manual and FEIS. *See generally* Compl., *Georgia v. U.S. Army Corps of Eng'rs*, No. 1:14-cv-03593 (N.D. Ga. Nov. 7, 2014), ECF No. 1. As the Court explains below, this claim was rejected by the Northern District of Georgia in 2017. *See* Order, *Georgia v. U.S. Army Corps of Eng'rs*, No. 1:14-cv-03593 (N.D. Ga. Sept. 29, 2017), ECF No. 61 at 43-45.

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The Court is not persuaded by the Alabama Plaintiffs' attempt to point to the number of customers served by the CC-MWA's withdrawals as evidence to support their "implication that future withdrawals will nevertheless exceed [the FEIS'] conservative estimation," which as Defendants note, "already accounts for [the CC-MWA's] existing water supply contract" that it uses to supply those customers." *See* Defs.' Reply, ECF No. 102 at 22; Pls.' Reply, ECF No. 99 at 34.

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Direct effects "are caused by the action and occur at the same time and place[,]" while indirect effects "are caused by the action and are later in time or farther removed in distance, but are still reasonably foreseeable." 40 C.F.R. § 1508.1(g) .

To satisfy NEPA, agencies must consider both direct and indirect environmental effects of the project under consideration. *Sierra Club v. FERC*, 867 F.3d 1357 , 1371 (D.C. Cir. 2017).

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Like the Alabama Plaintiffs, the Montgomery Board argues that the Corps failed to "model its discretion to reduce hydropower" releases at Allatoona Lake to zero. See Intervenor-Pls.' Mot., ECF No. 85 at 18-19. The Court already rejected this argument for the Alabama Plaintiffs and does not address it again here.

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The Tombigbee River is not part of the ACT Basin "per se" but joins the Alabama River to form the Mobile River upstream of Mobile Bay. Intervenor-Pls.' Mot., ECF No. 85 at 11 n.1.

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According to the FEIS, "APC actually manages the summer pool [of Lake Martin] to elevation 489.5 [feet], and the use of that elevation for the modeling was coordinated with the APC." A.R., ECF No. 61 at D-00044296.

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Section "6.6 Socioeconomics" of the FEIS notes that "[i]mpact analyses were evaluated on socioeconomic resource areas relative to project purposes in the ACT Basin[.]" A.R., ECF No. 61 at D-00044438; so if Intervenor-Plaintiffs are correct in their contention that "recreation is not an authorized operating purpose at Allatoona," Intervenor-Pls.' Mot., ECF No. 85 at 23; then they have directly contradicted their own argument that recreation should have been analyzed in greater detail.

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In explaining the operating changes pursuant to Lake Martin's new FERC license, Russell Lands and LMRA cite to an extra-record exhibit filed by the Alabama Plaintiffs with their motion for summary judgment. See Intervenor-Pls.' Mot., ECF No. 85 at 13, 29 (citing Ex. 3, Decl. of Alan L. Peeples, ECF No. 83-3).

This extra-record exhibit is one of seven exhibits, totaling over seven hundred pages, that the Alabama Plaintiffs filed in support of their motion. See *generally* Exs. 1-7, ECF Nos. 83-1-83-7. However, parties are not allowed to supplement the administrative record "unless they can demonstrate unusual circumstances justifying a departure from this general rule." *City of Dania Beach v. FAA*, 628 F.3d 581, 590 (D.C. Cir. 2010) (citation omitted). As Defendants argue, such extra-record evidence is appropriate to show standing but has no other use in an APA case, Defs.' Cross-Mot., ECF No. 95 at 14 n.1, 44 n.16; nor have the Alabama Plaintiffs attempted to make a showing of unusual need to supplement the record, see *Am. Wildlands v. Kempthorne*, 530 F.3d 991, 1002 (D.C. Cir. 2008) (elaborating on the three "unusual circumstances" in which parties may supplement the record); Intervenor-Defs.' Cross-Mot., ECF No. 97 at 17 n.7 ("Alabama does not try to justify its resort to extra-record evidence."). Accordingly, the Court does not consider any of these extra-record exhibits on the merits, whether cited by the Alabama Plaintiffs or, as

here, by Intervenor-Plaintiffs.

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The Georgia Parties and the Alabama Plaintiffs dispute whether higher lake levels benefit Allatoona's flood risk management purpose. *Compare* Pls.' Mot., ECF No. 83 at 29-30, 47, *and* Pls.' Reply, ECF No. 99 at 18-19, *with* Intervenor-Defs.' Cross-Mot., ECF No. 97 at 11-12, 17, 20, *and* Intervenor-Defs.' Reply, ECF No. 103 at 14. According to the Alabama Plaintiffs, holding water in Zone A of the flood control pool "indefinitely" during the fall period amounts to higher lake levels, which means "less, not more, flood control[.]" Pls.' Mot., ECF No. 83 at 29-30, 47. The Court rejects this argument, as the FEIS conducted a technical analysis of the effects of adopting the phased drawdown on flood control impacts downstream of Allatoona Lake, and the results indicated that such changes reduce flooding overall and would not "significantly affect flood risk management at Allatoona Lake." *See* A.R., ECF No. 61 at D-00044218-21, D-00044462-66, D-00043876-77; *see also* Intervenor-Defs.' Cross-Mot., ECF No. 97 at 12 (explaining that delaying releases through the phased drawdown provides flood protection). The FEIS thereby identifies flood control as a benefit of the Manual's changes at Allatoona. A.R., ECF No. 61 at D-00044243-44, D-00044266. The Alabama Plaintiffs do not challenge the results of this analysis. Further, the Allatoona Manual (Appendix A to the FEIS) explains how the "prime objective" of flood risk management is attained at Allatoona via the "five flood action zones defined above the top of the conservation storage[.]" *See id.* at D-00044952-57, D-00045086. The Court thus defers to the Corps' "complex judgments" about this flood control methodology and data analysis. *Alaska Airlines, Inc. v. TSA*, 588 F.3d 1116, 1120 (D.C. Cir. 2009). Regardless, flood risk management is still one benefit out of many, and thus, the Alabama Plaintiffs fail to demonstrate that "[t]he Manual deemphasizes congressionally authorized purposes for the sake of recreation." Pls.' Mot., ECF No. 83 at 42.

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The Alabama Plaintiffs also cite to extra-record exhibits, including a declaration from its own expert, in opposing the hydropower projections made by the Corps. *See, e.g.*, Pls.' Reply, ECF No. 99 at 11 (citing Ex. 3, Decl. of Alan L. Peeples, ECF No. 83-3), 19-20 (same); Pls.' Mot., ECF No. 83 at 34, 38.

They attempt to use these exhibits, which include additional data and public records, to argue that "a material alteration of the Allatoona Project," including changes in the relative size of its hydropower purpose, "is not hypothetical" but "*already* has followed" the changes made to the Master Manual. Pls.' Reply, ECF No. 99 at 19-20; Pls.' Mot., ECF No. 83 at 38. Although they claim they are not contending that these extra-record exhibits "should be formally part of the administrative record[.]" they argue that judicial review should not be "an artificial game" and should consider the developments at the Allatoona Project that have followed the implementation of the Master Manual. Pls.' Reply, ECF No. 99 at 20. As the Court has already concluded, *see supra* note 39, this "use of extra-record evidence to allege negative impacts to hydropower as a result of the Master Manual's changes is improper and should be disregarded[.]" Defs.' Cross-Mot., ECF No. 95 at 20 n.4. "It is black-letter administrative law that in an [APA] case, a reviewing

court should have before it neither more nor less information than did the agency when it made its decision." *CTS Corp. v. EPA*, 759 F.3d 52 , 64 (D.C. Cir. 2014) (citation and internal quotation marks omitted).

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"With normal seepage from the [Allatoona P]roject, the actual minimum flow released to meet[] the minimum flow is around 300 cfs." A.R., ECF No. 61 at D-00044970.

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The Court is therefore unpersuaded by 2001 statements the Alabama Plaintiffs cite to made by a federal commissioner regarding a previous multistate compact for the ACT Basin. See Pls.' Mot., ECF No. 83 at 39; Pls.' Reply, ECF No. 99 at 13. Not only do these statements come from a different time period and context, but they are only "current impressions" rather than "final conclusions." See A.R., ECF No. 61 at SUPPAR026150 ("Nothing we say here today should be considered to indicate that we either concur or non concur with regard to any or all of the items on a specific proposal submitted by the ACT Commission.").

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Similar to the Alabama Plaintiffs, *amicus curiae* AMEA argues that the Flood Control Act of 1944, specifically "the limited reach of" section 4, "does not grant the Corps independent authority to manage storage for recreational purposes." Amicus Br., ECF No. 94 at 21. They claim that "[t]he statutory authority for the support for a full pool to accommodate recreation in summer months is simply missing in [s]ection 4 of the Flood Control Act or any statute relied upon by the Corps to promulgate the WCM." *Id.* at 22. Given that the Court has concluded that the updated Master Manual's changes were not "predicated on using storage to support recreational purposes[.]" *id.*; the Court is unpersuaded by AMEA's further arguments on this point.

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Moreover, in updating the Master Manual, the Corps worked with APC to create "a navigation plan that provides necessary navigable channel flows," *i.e.*, releases that support navigation when basin inflows meet or exceed seasonal targets, but also allows for APC to reduce or suspend such releases during low-flow drought periods. See A.R., ECF No. 61 at D-00044199-201.

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The Georgia Parties proffer some additional arguments on this point that the Court finds unnecessary to consider, as it agrees that at base, "[a]ll that is required" of the Corps in updating the Master Manual is to "follow the appropriate procedures and explain its choices[.]" which it has done. See Intervenor-Defs.'

Reply, ECF No. 103 at 14-15; Intervenor-Def's.' Cross-Mot., ECF No. 97 at 20-21; *see also FCC v. Fox Television Stations, Inc.*, 556 U.S. 502 , 515 , 129 S. Ct. 1800 , 173 L. Ed. 2d 738 (2009) (requiring agencies that are updating prior policies to "display awareness" of any changes and provide "a reasoned explanation" for those changes).

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Amicus curiae AMEA argues that the Corps has exceeded its statutory authority and violated the APA by promulgating the Master Manual pursuant to section 7 of the Flood Control Act of 1944 (33 U.S.C. § 709), which it argues only authorizes the Corps to develop regulations or WCMs addressing storage changes to flood control and navigation, not hydropower generation. *Amicus Br.*, ECF No. 94 at 8-9. It argues that the Corps' interpretation of section 7 and its "plain language" to sanction "chang[ing] storage for hydropower and recreation is not entitled to deference" under the test laid out in *Chevron, U.S.A., Inc. v. Nat. Res. Def. Council, Inc.*, 467 U.S. 837 , 104 S. Ct. 2778 , 81 L. Ed. 2d 694 (1984), *see id.* ("Nowhere in Section 7 did Congress grant the Corps the authority to alter or change hydropower generation through the promulgation of regulations or a WCM."); and that the same is true for sections 4 and 5 of the Flood Control Act of 1944, which AMEA claims "do not lend support to the concept that the statute as a whole authorizes the Corps to re-order project purposes at Lake Allatoona[.]" *see id.* at 10-11. Although the Alabama Plaintiffs likewise contest "the Corps' plea for *Chevron* deference[.]" they do not assert a similar argument challenging the Corps' authority to promulgate the Master Manual under section 7 of the Flood Control Act of 1944, instead claiming that "*Chevron* has no role to play" because they are not asking the Court "to determine whether a Corps regulation interpreting the 1941 Flood Control Act's terms is reasonable" but rather that the Corps "transgressed th[at] Act in adopting a Manual that transforms Allatoona." *Pls. Reply*, ECF No. 99 at 8. Nonetheless, because the Court has already concluded that the Master Manual does not materially alter hydropower storage at the Allatoona Reservoir in favor of recreation and that the Corps has not attempted to "reorder" the hydropower project purpose, the Court rejects, without further consideration, AMEA's statutory argument based on section 7 of the Flood Control Act of 1944. In any event, many courts have accepted 33 U.S.C. § 709 as one of the primary federal laws, among other authorities, that provides the Corps with wide discretion in its comprehensive management of various river basins and its issuance of WCMs governing operations of those reservoir projects, which include information on balancing hydropower generation among other interests at play. *See, e.g., In re ACF Basin Water Litig.*, 554 F. Supp. 3d 1282 , 1290 (N.D. Ga. 2021); *South Dakota v. Ubbelohde*, 330 F.3d 1014 , 1019-20 , 1029-30 (8th Cir. 2003); *Am. Rivers v. U.S. Army Corps of Eng'rs*, 271 F. Supp. 2d 230 , 252-53 (D.D.C. 2003); *ETSI Pipeline Project v. Missouri*, 484 U.S. 495 , 503-04 , 108 S. Ct. 805 , 98 L. Ed. 2d 898 (1988); *accord In re Operation of Mo. River Sys. Litig.*, 421 F.3d 618 , 630 (8th Cir. 2005) ("The Corps' balancing of water-use interests in the 2004 Master Manual is in accordance with the [Flood Control Act of 1944]."). As such, contrary to AMEA's request, the Court declines to engage in a complete *Chevron* analysis of 33 U.S.C. § 709 , instead agreeing with Defendants that AMEA's argument "is much to[o] narrow and would tie the Corps' hands in direct contravention of Congress' broad grant of authority to the Corps to manage multiple use projects." *Def's.' Cross-Mot.*, ECF No. 95 at 15 n.2.