

RECORD OF DECISION

Apalachicola-Chattahoochee-Flint River Basin Master Water Control Manual Update and Water Supply Storage Assessment Alabama, Florida, and Georgia

The Final Environmental Impact Statement (FEIS) dated December 16, 2016, for the Apalachicola-Chattahoochee-Flint (ACF) River Basin Master Water Control Manual (WCM) Update and Water Supply Storage Assessment (WSSA) addresses the operation of the five federal dam and reservoir projects in the ACF Basin, comprising 19,573 square miles in Alabama, Florida, and Georgia, authorized by the Rivers and Harbors Act of 1946, Section 1, Public Law (P.L.) No. 79-525, 60 Stat. 634 (1946) (1946 RHA) and subsequent legislation. The Proposed Action Alternative (PAA) is contained in the FEIS, dated December 16, 2016. Based on the FEIS, the ACF River Basin Master WCM Update, the WSSA, the reviews by other Federal, State, and local agencies, Native American Tribes, input from the public, and the review by my staff, I find the plan recommended by the Chief of Engineers through the Director of Civil Works, Alternative 7K, to be technically feasible, in accordance with environmental and other applicable statutes, and the alternative that best serves the overall public interest.

The FEIS, incorporated herein by reference, evaluated various alternatives that would meet the purpose and need of determining how the U.S. Army Corps of Engineers (USACE) projects in the ACF Basin should be operated for their authorized purposes, in light of current conditions and applicable law, and to implement those operations through updated water control plans and manuals. The original Master WCM for the ACF system was published in 1958. WCMs for individual projects were developed later, as the federal ACF projects were constructed. However, due to disputes and litigation spanning several decades involving the ACF Basin States of Alabama, Florida, and Georgia, the Master WCM has not been updated since its original publication. Additionally, USACE has not made a final decision regarding the allocation of storage in Lake Lanier to accommodate current and future water supply withdrawals, the subject of multiple requests by the State of Georgia and a 2011 ruling by the U.S. Court of Appeals for the Eleventh Circuit (the Eleventh Circuit). USACE has operated the ACF system of projects in accordance with the status quo reflected in a draft 1989 Master WCM update, and with interim operating plans pursuant to section 7 consultation of the Endangered Species Act (ESA) of 1973 (P.L. 93-205) with respect to releases from Jim Woodruff Dam. The FEIS evaluates the impacts throughout the ACF Basin, including the Apalachicola River and Apalachicola Bay, of system operations under an updated master WCM for purposes including flood risk management, hydropower, navigation, fish and wildlife conservation, recreation, water quality, and water supply.

The PAA (Alternative 7K) would update the Master WCM and individual project water control plans to operate the federal projects as a balanced and integrated system to meet all authorized project purposes in the ACF Basin, and would formally accommodate current and projected water supply uses of Lake Lanier in response to the 2011 Eleventh Circuit decision and the State of Georgia's revised (2015) request. It would also conform to the terms and conditions of a Biological Opinion issued by the U.S. Fish and Wildlife Service (USFWS) on September 14, 2016, in compliance with the ESA. The PAA (Alternative 7K) includes the following key water management measures and other features:

- Maintains current guide curves for the storage reservoir projects (Lake Lanier, West Point Lake, and Walter F. George Lake), without structural changes to any project.

- Revises action zones—specific elevation ranges of reservoir pools that govern operational decisions when surface elevations are within each zone—to promote more effective use of conservation storage throughout the system to meet authorized purposes in consideration of numerous factors, including the ability of the reservoirs to refill (considering hydrology, watershed size, and physical constraints of each reservoir), recreation impacts and hazard levels, and the proportionality of zone drawdown between projects.
- Updates and formally incorporates into the WCM a basin-wide drought operations plan that would be initiated in response to declining levels of composite conservation storage in the ACF system, enabling USACE to operate the system more effectively under drought conditions such as those that have been experienced in the basin since the original Master WCM was issued. Specific minimum releases from Jim Woodruff Lock and Dam would be determined in relation to levels of composite conservation storage in the ACF Basin projects, and normal minimum release and maximum fall rate provisions could be suspended until composite conservation storage in the basin could be replenished to a level that could support them. Plans and priorities would be established for project operations requiring the use of available inactive storage in the projects should composite conservation storage be fully depleted during an exceptional drought in the future.
- Maintains current flood risk management operations, with no reduction in flood control storage at any project.
- Updates hydroelectric power generation operations to provide for a more flexible generation schedule in all action zones under non-drought conditions and a more constrained generation schedule under drier conditions.
- Provides a predictable, navigation channel with a minimum depth of seven feet in the Apalachicola River from Apalachicola, Florida to Columbus, Georgia, for four to five consecutive months each year (January- April/May), subject to hydrologic conditions in the ACF Basin.
- Maintains the current basin inflow computation method to inform water management operations.
- Prescribes operations at Jim Woodruff Lock and Dam to support federally-listed species in the Apalachicola River (Gulf sturgeon and three mussel species) in accordance with the 2016 Biological Opinion. Operations include minimum releases from Jim Woodruff Dam of 5,000 cubic feet per second (cfs) and maximum ramping rates (vertical changes in water surface elevation over time) downstream of Jim Woodruff Lock and Dam. Ramping rates would be suspended, and minimum flows reduced to 4,500 cfs, during drought operations and under prolonged low flow conditions, in accordance with the drought operations plan and Biological Opinion.
- Continues current reservoir and river fish spawn standard operating procedures.
- Continues current fish passage lockage procedures at Jim Woodruff Lock and Dam.
- Continues current operations and opportunities for recreation.

- Maintains existing releases to help meet minimum flow requirements for water quality from Buford Dam and West Point Dam, including minimum releases of 675 cfs from West Point Dam, and releases from Buford Dam, in conjunction with Georgia Power Company operations at Morgan Falls Dam and the Atlanta Regional Commission, to support a continuous seasonal minimum flow of 650 cfs (November – April) and 750 cfs (May – October) in the Chattahoochee River at Atlanta, just upstream of the confluence with Peachtree Creek.
- Accommodates current levels of water supply withdrawals from Lake Lanier under existing agreements (20 million gallons per day (mgd)).
- Allows for the reallocation of 254,170 acre-feet of conservation storage in Lake Lanier sufficient to accommodate gross water supply withdrawals of 222 mgd from Lake Lanier as requested by the State of Georgia by the year 2050, in response to the 2011 Eleventh Circuit decision. This reallocation would be contingent on executing a water supply storage agreement, by which the State of Georgia would agree to pay for the cost of storage in Lake Lanier, and by which USACE would agree to accommodate both current and future uses of that storage pursuant to the Water Supply Act of 1958.
- Provides for releases from Buford Dam sufficient to support downstream water supply withdrawals between the Dam and Peachtree Creek up to the estimated year 2050 need of 379 mgd, while also meeting other downstream release requirements, pursuant to the 1946 RHA.

Background and Alternative Formulation Process

The Federal ACF system, extending from the headwaters of Lake Lanier in the upper ACF basin to the intersection of the Apalachicola River and the Gulf Intracoastal Waterway (GIWW) 5.9 miles upstream of Apalachicola Bay, comprises five federal dam and reservoir projects: Buford Dam/Lake Lanier, West Point Dam and Lake, Walter F. George Lock and Dam and Lake, George W. Andrews Lock and Dam and Lake, and Jim Woodruff Lock and Dam/Lake Seminole. As noted above, the ACF Master WCM has not been formally updated since its issuance in 1958, and USACE has been operating the federal projects in the ACF system pursuant to a draft 1989 WCM and interim operational plans for ESA purposes. Additionally, water supply withdrawals from Lake Lanier have continued since 1990, when previous water supply contracts (with the exception of two relocation agreements, entered into as compensation for the relocation of existing facilities during dam construction) expired and litigation regarding water supply uses commenced. The present effort to update the ACF WCM began at the direction of the Secretary of the Army in January 2008, following the expiration of the congressionally-authorized ACF River Basin Compact (P.L. 105-104). After soliciting comment and holding a series of public meetings, USACE issued a Final Scoping Report in January 2009 stating the purpose of bringing the WCM up to date to reflect then-current operations and conditions. This included ongoing water supply uses of Lake Lanier that were considered, as explained in a 2009 legal opinion from the USACE Chief Counsel (2009 Chief Counsel Opinion), to be within USACE authority to approve under the Water Supply Act of 1958, 43 U.S.C. § 390b.

In July 2009, the United States District Court for the Middle District of Florida issued an opinion concluding that then-current water supply withdrawals and releases from Lake Lanier were unauthorized by either the 1946 RHA or the Water Supply Act, and issued an injunction ordering cessation of those withdrawals and releases within three years. Accordingly, USACE sought public comment and released a revised scoping report in March 2010, acknowledging the requirement to comply with the court order in any updated WCM. In 2011, the Eleventh

Circuit reversed the district court decision and instructed USACE to reevaluate its authority to accommodate water supply under the combined authority of the 1946 RHA, a 1956 statute (P.L. 84-841, July 30, 1956) (“1956 Act”) amending the 1946 RHA, and the Water Supply Act. The 2011 Eleventh Circuit decision led to reconsideration of the Department of the Army’s denial of an earlier request by the State of Georgia for storage in Lake Lanier to meet future water supply needs. The USACE’s Chief Counsel prepared a legal and technical analysis and submitted a legal opinion (2012 Chief Counsel Opinion) to the court in June 2012, setting forth the USACE view that it has authority under the aforementioned statutes to accommodate the State of Georgia’s current and requested future water supply uses of Lake Lanier. Specifically, the 2012 Chief Counsel Opinion, in consideration of the 2011 Eleventh Circuit decision, concluded that USACE is authorized under the 1946 RHA to make increasing releases from Buford Dam (Lake Lanier) to accommodate increasing water supply withdrawals downstream at Atlanta, and that USACE has additional, discretionary authority under the Water Supply Act to reallocate storage for additional withdrawals from Lake Lanier. Accordingly, USACE once again sought public comment and issued an Updated Scoping Report in March 2013, clarifying that the WCM update process would include consideration of the State of Georgia’s water supply request under the 1946 RHA, the Water Supply Act, and other applicable laws, consistent with the 2011 Eleventh Circuit decision and 2012 Chief Counsel Opinion.

Although the scope of the water supply alternatives that may practically be considered has changed several times due to court decisions and legal opinions since 2008, throughout the WCM update process, USACE has consistently identified the goal of updating its operations to reflect current conditions and comply with applicable law, including the ESA. As discussed below, the FEIS evaluated a range of alternatives that reflect the best USACE engineering judgment applied to the operations of the ACF system, and encompasses a range of water supply operations responsive to the State of Georgia’s request. The FEIS fully evaluates the reasonably expected effects of each alternative on authorized purposes and the human environment. The FEIS responds to many specific issues raised by the public during the public review process. USACE recognizes that there is continued disagreement among the States of Alabama, Florida, and Georgia regarding the allocation of waters in the ACF Basin, and USACE has continually asserted its preparedness to implement, in accordance with federal law, any comprehensive water allocation formula that the States of Alabama, Florida, and Georgia could agree upon. Updating the Master WCM would not preclude USACE from adjusting its operations in response to such an agreement. Following implementation of the updated WCM, the WCMs could be revised, and additional analysis conducted pursuant the National Environmental Policy Act of 1969 (NEPA) (P.L. 91-190) and other documentation prepared as necessary, in the event the States reach agreement or Congress or the federal courts take action that could implicate the USACE operation of the ACF system.

The alternative formulation process for the ACF Master WCM Update consisted of two phases, responsive to the need to update operations to reflect current conditions under the project authorization and other applicable laws, as well as the need to evaluate the State of Georgia’s request that USACE exercise its discretionary authority to formally accommodate current and future water supply withdrawals from Lake Lanier and downstream at Atlanta. The first phase focused on updating and improving overall system operations, and the second phase focused on alternatives related to the State of Georgia’s water supply request. In both phases, only alternatives that were considered feasible in light of current conditions and facilities, and compliant with existing law, were carried forward for full consideration.

In the first phase, water management measures—that is, guidelines for storing or releasing water to meet individual water management goals—were developed, screened, and subsequently combined to form system-wide water management alternatives, each meeting the authorized purposes of the ACF system. (See FEIS Volume 1, Table ES-2; FEIS Volume

1, Section 4.3.) In developing these water management measures, USACE relied upon its technical staff expertise, as well as input from the public received in response to scoping reports, at stakeholder workshops, and in other communications, to update operations to better accomplish the purposes of the ACF system in light of current conditions. Water management measures that were incompatible with USACE authority or the physical limitations of existing infrastructure were not carried forward, as they would not meet the purpose and need of updating the operations of the ACF system in light of current conditions and applicable law. USACE identified seven different sets of water management measures—current water management operations, and six alternatives—that it believed would achieve the authorized purposes of the ACF system within existing authorities and physical infrastructure, comply with legal requirements including ESA obligations, avoid increased risk to public safety, and respond to contemporary water resource needs in the basin to the extent practicable. These water management alternatives were evaluated using the USACE Hydrologic Engineering Center-Reservoir System Simulation (HEC ResSim) modeling software and ranked based on performance metrics aligned with ACF project purposes of navigation, hydropower, recreation, fish and wildlife conservation, and water supply. In this modeling, only current water supply withdrawals from Lake Lanier under existing relocation agreements (20 mgd) and current water supply withdrawals from the Chattahoochee River downstream at Atlanta (277 mgd) were considered, in order to identify water management operations that would best serve authorized purposes before consideration of additional water supply storage in Lake Lanier. Water Management Alternative 7, including revised action zones, a new drought operations plan, modified hydropower generating schedules, and a more dependable navigation channel, along with maintaining current guide curves and other operations for minimum flows and support to federally listed threatened and endangered species, had the highest composite ranking with respect to the authorized purposes.

In the second phase of the alternative formulation process, water supply options were developed and screened to address current and future water supply withdrawals from Lake Lanier and from the Chattahoochee River downstream at Atlanta, up to and including future needs set forth in the State of Georgia's revised (2015) request. The consideration of water supply involved two separate objectives, reflecting different statutory authorities recognized in the 2011 Eleventh Circuit decision and 2012 Chief Counsel opinion: (1) accommodating current and future water supply withdrawals downstream of Buford Dam as provided under the 1946 RHA, and (2) determining whether and in what amount to reallocate storage to accommodate current and future water supply withdrawals from Lake Lanier. This second phase of the alternative formulation process identified an array of water supply options that were then combined with either Water Management Alternative 1 (current water management operations) or Water Management Alternative 7 (revised water management operations) to produce water management/water supply alternatives for detailed evaluation and impact analysis in the Draft Environmental Impact Statement (DEIS) and FEIS. The evaluation of water supply alternatives proceeded from a baseline of 20 mgd withdrawn from Lake Lanier and 277 mgd withdrawn from the Chattahoochee River at Atlanta: that is, withdrawals that are both authorized under existing relocation contracts at Lake Lanier (20 mgd), and that are currently made with the support of releases from Lake Lanier under the authority of the 1946 RHA (277 mgd). The baseline of 20 mgd from Lake Lanier and 277 mgd at Atlanta was incorporated into the "no action" alternative (Alternative 1A) and Alternative 7B, described below. Every other alternative developed in the second phase included varying assumed amounts of withdrawals from Lake Lanier, withdrawals at Atlanta, and return flows into Lake Lanier and downstream, all within ranges previously determined by the 2012 Chief Counsel Opinion to be within the USACE authority to accommodate under the 1946 RHA, the 1956 Act, and the Water Supply Act, based on estimated impacts to authorized purposes. By developing this broad range of alternatives, USACE was able to fully evaluate the impacts to

the human environment of updating ACF system operations and of granting, denying, or granting in part the State of Georgia's water supply request.

USACE also prepared a WSSA to more fully evaluate the potential impacts to the authorized purposes of the ACF system of reallocating storage in Lake Lanier under the authority of the Water Supply Act. (See FEIS Volume 3, Appendix B.) This WSSA examined in greater detail the water supply withdrawals to be accommodated under the PAA; more specifically, 242 mgd in withdrawals from Lake Lanier, including a reallocation of 254,170 acre-feet of storage in Lake Lanier to accommodate 222 mgd beyond the 20 mgd currently withdrawn under relocation contracts, and 379 mgd in withdrawals downstream at Atlanta, for a total of 621 mgd by 2050. The PAA was specifically compared to the "future without project condition" alternative, Alternative 7J, which projected future withdrawals from Lake Lanier (20 mgd) and downstream at Atlanta (379 mgd) if USACE did not reallocate storage for either current or future withdrawals from Lake Lanier. This comparison enabled USACE to document the specific effects of reallocating storage under the supplemental authority of the Water Supply Act. As documented in the FEIS and the WSSA, USACE also considered other potential means of addressing the State of Georgia's projected water supply needs, including conservation, groundwater, desalination, new nonfederal reservoirs, existing surface water sources (other than Lake Lanier), and reallocation of flood risk management storage or inactive storage in Lake Lanier. The WSSA concluded that the proposed reallocation of 254,170 acre-feet of conservation storage in Lake Lanier is the most cost effective and timely means of satisfying the State of Georgia's projected water demands. The WSSA and FEIS demonstrate that the PAA would not involve any structural changes or major operational changes, nor would it seriously affect any authorized purpose of the ACF system, whether compared against the "no action" alternative (Alternative 1A) or the future without project condition alternative modeled for purposes of the WSSA (Alternative 7J).¹

Summary of Alternatives Considered in the FEIS

Including the "no action" alternative and the PAA, a total of 10 alternatives underwent detailed evaluation in the FEIS, as follows:

- Alternative 1A (the "no action" alternative): This alternative consists of the continuation of current water management operations (i.e., operations under the 1989 draft manual and 2012 Revised Interim Operations Plan) and the status quo of water supply in the Atlanta region, including withdrawals from Lake Lanier under relocation contracts (20 mgd); continuation of gross water supply withdrawals of 108 mgd from Lake Lanier (with no reallocation of storage to formally support the withdrawals); and releases from Buford Dam to support current downstream withdrawals from the Chattahoochee River of 277

¹ The overall impacts to all authorized purposes (and the environment) from the PAA would not be significant compared to the "no action" alternative, and the impacts from the PAA and the "future without project condition" (reallocation) alternative, Alternative 7J, would be comparable (except with respect to water supply needs, which would not be fully met under Alternative 7J). (See FEIS, Volume 1, Executive Summary, Table ES-6; FEIS, Volume 1, Section 6.) The WSSA further examined quantifiable impacts to hydropower and recreation and estimated that annual benefits and revenues foregone would be reduced by 1.2 percent and 1.5 percent, respectively, under the PAA compared to Alternative 7J. With respect to hydropower, the PAA would result in an estimated reduction in total energy and capacity value of less than one percent compared to either the "no action" alternative (\$170,730,890 vs. \$171,646,137, 0.5% difference), or the "future without project condition" (reallocation) alternative (\$170,730,890 vs. \$172,092,807, 0.8 percent difference). (See FEIS Volume 1, Section 6.5.3.) USACE has calculated an estimated annual credit to the hydropower account that would offset losses to hydropower. (See FEIS Volume 3, Appendix D, Hydropower Analysis Report, Table 40.)

mgd. This alternative assumed the continuation of current water supply return rates to Lake Lanier of 29 percent and to the Chattahoochee River of 82 percent.

- Alternative 1L: This alternative consists of the continuation of current water management operations; withdrawals from Lake Lanier under relocation contracts (20 mgd); reallocation of storage in Lake Lanier sufficient to provide gross water supply withdrawals of 108 mgd from Lake Lanier; and releases from Buford Dam to support downstream withdrawals of the estimated 2050 need of 379 mgd. This alternative assumed water supply return rates to Lake Lanier of 29 percent and to the Chattahoochee River of 95 percent.
- Alternative 7A: This alternative consists of improved water management operations (i.e., revised water management operations under Water Management Alternative 7); withdrawals from Lake Lanier under relocation contracts (20 mgd); reallocation of storage in Lake Lanier sufficient to provide gross water supply withdrawals of 108 mgd from Lake Lanier; and releases from Buford Dam to support current downstream withdrawals of 277 mgd. This alternative assumed water supply return rates to Lake Lanier of 29 percent and to the Chattahoochee River of 82 percent.
- Alternative 7B: This alternative consists of improved water management operations; withdrawals from Lake Lanier under relocation contracts (20 mgd); and releases from Buford Dam to support current downstream withdrawals of 277 mgd. This alternative assumed water supply return rates to Lake Lanier of 50 percent and to the Chattahoochee River of 82 percent.
- Alternative 7H: This alternative consists of improved water management operations; withdrawals from Lake Lanier under relocation contracts (20 mgd); reallocation of storage in Lake Lanier sufficient to provide gross water supply withdrawals of 165 mgd from Lake Lanier; releases from the proposed Glades Reservoir to provide 40 mgd of the State of Georgia's 2013 request; and releases from Buford Dam to support downstream withdrawals of the estimated 2040 need of 408 mgd. This alternative assumed water supply return rates to Lake Lanier of 40.4 percent and to the Chattahoochee River of 94 percent. This alternative was the proposed action alternative identified in the DEIS. This was the only alternative carried forward to the FEIS that included the proposed Glades Reservoir. Although the Glades Reservoir was subsequently removed from the State of Georgia's water supply proposal and eliminated from the FEIS as no longer reasonably foreseeable, Alternative 7H was carried forward to clearly illustrate the different environmental impacts between this previously proposed alternative and the PAA for the FEIS.
- Alternative 7I: This alternative consists of improved water management operations; withdrawals from Lake Lanier under relocation contracts (20 mgd); reallocation of storage in Lake Lanier sufficient to provide gross withdrawals of 205 mgd from Lake Lanier; and releases from Buford Dam to support downstream withdrawals of the estimated 2050 need of 379 mgd. This alternative assumed water supply return rates to Lake Lanier of 40.4 percent and to the Chattahoochee River of 95 percent.
- Alternative 7J: This alternative consists of improved water management operations; withdrawals from Lake Lanier under relocation contracts (20 mgd); and releases from Buford Dam to support downstream withdrawals of the estimated 2050 need of 379 mgd. This alternative assumed water supply return rates to Lake Lanier of 50 percent and to the Chattahoochee River of 95 percent. This alternative was the "future without project condition" alternative that served as the basis for comparison to the PAA in the WSSA.

- Alternative 7K (the PAA): This alternative consists of improved water management operations; withdrawals from Lake Lanier under relocation contracts (20 mgd); reallocation of storage in Lake Lanier sufficient to provide gross water supply withdrawals of 222 mgd from Lake Lanier; and releases from Buford Dam to support downstream withdrawals of the estimated 2050 need of 379 mgd. This alternative assumed water supply return rates to Lake Lanier of 43 percent and to the Chattahoochee River of 95 percent.
- Alternative 7L: This alternative consists of improved water management operations; withdrawals from Lake Lanier under relocation contracts (20 mgd); reallocation of storage in Lake Lanier sufficient to provide gross water supply withdrawals of 108 mgd from Lake Lanier; and releases from Buford Dam to support downstream withdrawals of the estimated 2050 need of 379 mgd. This alternative assumed water supply return rates to Lake Lanier of 29 percent and to the Chattahoochee River of 95 percent.
- Alternative 7M: This alternative consists of improved water management operations; withdrawals from Lake Lanier under relocation contracts (20 mgd); reallocation of storage in Lake Lanier sufficient to provide gross water supply withdrawals of 165 mgd from Lake Lanier; and releases from Buford Dam to support downstream withdrawals of the estimated 2050 need of 379 mgd. This alternative assumed water supply return rates to Lake Lanier of 40.4 percent and to the Chattahoochee River of 95 percent.

Each of the alternatives to the “no action” alternative, other than Alternative 1L, would include improved water management operations for authorized purposes, including revised action zones to more effectively manage storage throughout the system, a new drought operations plan to respond to adverse hydrologic conditions, more flexible hydropower operations during non-drought conditions, and a more reliable, seasonal navigation channel. None of the alternatives would reduce current levels of flood risk management, and all would conform to an applicable Biological Opinion to comply with the ESA. The alternatives do not differ substantially in their overall environmental impacts. Specifically, none of the alternatives would have more than negligible overall effects on flow conditions, salinity, or fish and aquatic resources in the Apalachicola River and Bay. Instead, the principal difference among the alternatives is the amount of water supply withdrawals and wastewater returns that would be made at Lake Lanier and downstream at Atlanta, and the effects of the alternatives differ most notably in the upper Chattahoochee reach of the system.

Alternative 7K was selected as the PAA. Alternative 7K would satisfy the purpose and need by improving system water management operations, and responding to the State of Georgia’s water supply request by accommodating current and future withdrawals from Lake Lanier and from the Chattahoochee River downstream at Atlanta. (See FEIS Volume 1, Section 1.2.) The PAA would provide balanced support to all authorized purposes and manage the basin as an integrated system, without major structural or operational changes and without seriously affecting ACF authorized purposes. The PAA would implement a new drought operations plan to improve the resilience of the system during drought, including additional operational restrictions to conserve storage during extended low flow conditions. Although drought operations would be triggered earlier, and would therefore occur more frequently under the PAA, this would have no effect on the climatologic drought conditions, and would reduce the severity of extended low flow conditions resulting from the climatologic drought condition compared to the “no action” alternative. The PAA would incorporate the terms and conditions and reasonable and prudent measures set forth in the 2016 Biological Opinion to minimize take and avoid jeopardy to listed threatened and endangered species in the Apalachicola River and Bay, and the PAA would have no more than negligible effects overall on flow conditions in the

Apalachicola River, or water quality, salinity, and fish and aquatic resources in the River or Bay. Compared to the “no action” alternative, the PAA would have substantially beneficial effects on navigation, and impacts to hydroelectric power generation would be negligible. Recreation would experience slightly adverse effects at Lake Lanier and Walter F. George Lake and slightly beneficial effects at West Point Lake. The PAA would result in slightly adverse to adverse effects on lake levels and land use at Lake Lanier and Walter F. George Lake, and slightly beneficial effects on lake levels at West Point Lake. Effects on flow conditions below Buford Dam would be slightly beneficial, and effects on flow conditions between Morgan Falls Dam and Walter F. George Dam and between Walter F. George and Jim Woodruff Lock and Dam would be slightly adverse.

Some water quality and riverine and aquatic resources parameters indicated slightly adverse to substantially adverse effects, primarily in the upper reach of the Chattahoochee River, associated with increased wastewater discharges that were projected to occur along with increased water supply withdrawals in the upper Chattahoochee River reach under the PAA. Specifically, the effects on the water quality measures of median total dissolved oxygen, phosphorus, and nitrogen, would be slightly to substantially adverse in certain reaches of the ACF Basin under the PAA, and effects on riverine fish and aquatic resources in the upper and middle Chattahoochee reaches would be slightly to substantially adverse, due to the water quality changes. (See FEIS Volume 1, Section 6.5.3 and Tables 6.1-18, 6.1-21, and 6.1-22.) The water quality impacts projected in the upper and middle Chattahoochee reaches would not be expected to extend to the Apalachicola River and Bay, where effects on riverine and estuarine fish and aquatic resources would be negligible. Although the FEIS projected adverse water quality impacts associated with increased wastewater returns, it is likely that dischargers would be required to reduce pollutant loads under new National Pollutant Discharge Elimination System (NPDES) permits that would be required for such discharges, to avoid degradation under the Clean Water Act (CWA) (P.L. 92-500). As noted by the Georgia Environmental Protection Division (GaEPD) in a letter dated February 1, 2017, GaEPD would require reductions in concentrations of pollutants when necessary to maintain compliance with water quality standards, and so the adverse water quality effects presented in the FEIS may be overstated. Even taking into account the adverse impacts to water quality projected under the PAA, the overall impacts to the biological and physical environment and to historic, cultural, and natural resources would not be substantially adverse, nor would those impacts differ substantially from any of the alternatives evaluated in the FEIS. (See FEIS, Volume 1, Table ES-6.) Of all the alternatives that fully met both the water management and water supply objectives, the PAA would have the least overall adverse effects on lake levels, stream flow conditions, water quality, and other natural resource and socioeconomic resource considerations.

Alternative 7A, consisting of improved water management operations and current levels of water supply withdrawals, has been identified as the “environmentally preferable” alternative since it would, for a limited time, meet the water management and water supply objectives while causing the least damage to the biological and physical environment. However, Alternative 7A would not meet the purpose and need with respect to future water supply needs, which would not be accommodated. Under Alternative 7A, only current water supply withdrawals of 128 mgd from Lake Lanier and 277 mgd from the Chattahoochee River downstream would be accommodated, without provision for increased withdrawals over time. Alternative 7A would be expected to have fewer adverse impacts than those associated with the PAA due to the lesser amount of wastewater returns that were modeled in the upper Chattahoochee River reach. (See FEIS, Volume 1, Section 6.) Apart from water quality in specific reaches, environmental impacts to the remainder of the ACF Basin did not differ substantially between Alternative 7A and the PAA. Moreover, as noted above, those adverse water quality impacts may not fully materialize with increased withdrawals under the PAA, since new NPDES permits may result in

reduced concentrations of pollutants. Alternative 7A was not chosen as the PAA because, although it would satisfy the water management objectives and meet current water supply needs with lesser projected adverse water quality impacts, it would not satisfy the objectives for meeting future water supply needs. (See FEIS, Volume 1, Sections 5.1 and 6.5.1.) Specifically, Alternative 7A would not accomplish the authorized purpose of accommodating future, increased downstream water supply withdrawals as provided for under the 1946 RHA, nor would it address the State of Georgia's future water supply needs from Lake Lanier, in response to the 2011 Eleventh Circuit decision. The substantial benefits to the water supply purpose under the PAA were determined to outweigh the potentially adverse water quality impacts associated with increased water supply uses, in the upper Chattahoochee reaches where those impacts were projected to occur.

All practicable means to avoid or minimize adverse environmental effects and environmental harms were analyzed and incorporated into the recommended plan. Best management practices (BMPs) as detailed in the FEIS will be implemented to minimize impacts. The only substantially adverse effects of the PAA would be due to potential increased wastewater discharges by municipal wastewater treatment facilities in the Atlanta region. These increased wastewater discharges are directly related to increased withdrawals for water supply in the Atlanta region. The FEIS identifies these potential substantial adverse effects, but recognizes that increased wastewater discharges may result in dischargers being required to reduce pollutant loads under new NPDES permits to avoid degradation under the CWA. The increased wastewater discharges would not be made by USACE and would not be caused by reservoir operations, and concentrations of pollutants would likely be reduced in future NPDES permits issued by GaEPD to maintain compliance with water quality standards. Other adverse effects identified in the FEIS for the PAA and other alternatives on flow conditions, land use, socioeconomic considerations, and other resource areas are generally slight or negligible. None of those effects rise to a level of significance compared to the "no action" alternative that would warrant specific mitigation measures or a degree of uncertainty that would warrant extensive new monitoring activity. Therefore, substantial adverse effects are not likely to occur as a result of the federal action and do not require implementation of specific compensatory mitigation measures by USACE. No specific mitigation commitments are included in the PAA or other alternatives. However, all the alternatives incorporate measures known to benefit fish and wildlife such as current fish spawning and passage procedures and ramping rates and minimum releases from Jim Woodruff Dam to comply with ESA requirements, in accordance with the 2016 Biological Opinion. (See FEIS, Volume 1, Section 6.10.)

Statutory Compliance

Following consultation pursuant to section 7 of the ESA, USFWS issued a Biological Opinion, dated September 14, 2016, that determined the recommended plan will not jeopardize the continued existence of the following federally listed species or adversely modify designated critical habitat: fat threeridge mussel (*Amblema neislerii*); purple bankclimber mussel (*Elliptio sloatianus*); Chipola slabshell mussel (*Elliptio chipolaensis*); and Gulf sturgeon (*Acipenser oxyrinchus desotoi*). The Biological Opinion specified a number of terms and conditions and reasonable and prudent measures that would minimize take of endangered species and avoid jeopardizing the species. USACE submitted a letter to the USFWS on February 21, 2017 to further clarify the terms and conditions in the biological opinion, and USFWS provided its concurrence by email dated March 1, 2017. The PAA implements all the terms and conditions and reasonable and prudent measures. The Biological Opinion is included in Appendix J of Volume 6 of the FEIS.

Pursuant to section 106 of the National Historic Preservation Act of 1966, as amended (P.L. 89-665), USACE determined that the recommended plan has no effects on historic

properties. USACE consulted the appropriate State Historic Preservation Officers and Tribal Historic Preservation Officers and interested parties in the area of potential effect. The Alabama Historical Commission, Florida Division of Historical Resources, and Georgia Historic Preservation Division all sent letters in response to the FEIS expressing concurrence with the no effect determination.

In accordance with federal tribal policy and tribal treaty obligations, USACE consulted early and often with 25 federally recognized Tribes and/or Tribal Historic Preservation Officers representing Tribes with ancestral ties and interest in the action area in order to ensure cultural properties and usual and accustomed areas important to Tribal people were not impacted.

Pursuant to section 307 of the Coastal Zone Management Act (CZMA) of 1972 (P.L. 92-583), a determination of consistency of the alternative identified in the DEIS as the proposed action alternative (Alternative 7H) with the Florida Coastal Zone Management Program (FCZMP) was provided to the State of Florida Department of Environmental Protection (FDEP) in the DEIS released for agency and public review on December 9, 2015. In a letter dated January 29, 2016, FDEP provided comments on the DEIS determining that the proposed action alternative was inconsistent with the FCZMP and objecting to the USACE consistency determination, which failed to take into account recent statutory revisions to the FCZMP. After reviewing FDEP's comments and other comments on the DEIS, USACE revised the proposed action alternative to the PAA (Alternative 7K). On September 16, 2016, USACE resubmitted by letter a revised and updated FCZMP consistency determination addressing the procedural issues with the initial consistency determination and explaining, with additional detailed supporting documentation and technical information, the USACE position that the PAA is consistent to the maximum extent practicable with the FCZMP. USACE also included detailed responses to FDEP's DEIS comments in the FEIS. On December 9, 2016, FDEP replied to the revised USACE consistency determination and again found that the PAA was inconsistent with the enforceable policies of the FCZMP, repeating earlier assertions that USACE management of its facilities in the ACF Basin favors the State of Georgia's consumption of water, which in turn harms resources in the Apalachicola River and bay. USACE disagrees with FDEP's conclusions. Specifically, as explained in USACE's September 16, 2016 consistency determination—and further documented in the FEIS—the PAA would be expected to have no appreciable incremental effect on flow conditions (quantity or timing) in the Apalachicola River or on salinity and hydrodynamic conditions in the Apalachicola Bay estuary, and negligible or no effects on oyster populations or the oyster industry in Apalachicola Bay, compared to the "no action" alternative. While FDEP did not concur with USACE's consistency determination, USACE has concluded that the PAA complies with the enforceable policies of the FCZMP to the maximum extent practicable, and therefore meets the requirements of the CZMA, for the reasons set forth in the September 16, 2016 letter and supporting documentation.

Pursuant to section 305(b) of the Magnuson-Stevens Fishery Conservation and Management Act of 1976, as amended (P.L. 94-265), USACE determined that the PAA may adversely affect designated Essential Fish Habitat (EFH). The Department of Commerce, National Marine Fisheries Service (NMFS) provided a conservation recommendation in a letter dated January 15, 2016, that the Master WCM include a minimum flow of 5,000 cfs from Jim Woodruff Dam at all times. After release of the FEIS, NMFS submitted a letter dated January 20, 2017, repeating this recommendation and also recommending that USACE should develop comprehensive biological monitoring plans for eastern oyster and white shrimp in multiple locations in Apalachicola bay and estuary, develop an adaptive management plan to offset or mitigate lost ecological resources for any occurrences of flows in the Apalachicola River less than 5,000 cfs. The PAA and Biological Opinion contemplate that flows from Jim Woodruff Dam could be reduced to 4,500 cfs during drought and prolonged low flow conditions. USACE considered NMFS's minimum flow recommendation in both the DEIS and FEIS and concluded

that there would be little to no effect on biological resources in Apalachicola Bay and estuary with the implementation of the PAA, even if flow conditions in the Apalachicola River downstream of Jim Woodruff Lock and Dam declined below 5,000 cfs for a brief period of time (up to 90 days) over the modeled period of record (73 years). In a letter dated March 7, 2017, USACE provided a formal response to the NMFS letter as required by law, reiterating its view that the PAA is consistent with the 5,000 cfs conservation recommendation to the maximum extent practicable. USACE also noted that monitoring will take place at several locations downstream of Jim Woodruff Lock and Dam including at the USGS 02359170 Apalachicola River NR Sumatra, Florida gage, which will monitor for dissolved oxygen, temperature, and specific conductivity approximately 20 miles above the mouth the Apalachicola River. Finally, USACE noted in its March 7, 2017 letter that although USACE believes that the PAA will not significantly change conditions in the estuary, in compliance with the USFWS Biological Opinion, an adaptive management technical team is being organized to provide recommendations for improved monitoring and water management in the ACF based on the data collected.

Additional Comments Submitted in Response to FEIS

By letter dated September 23, 2015, the DEIS was filed with the U.S. Environmental Protection Agency (EPA). The EPA notice of availability of the DEIS for public review and comment was published in the *Federal Register* on October 2, 2015, initiating a 60-day comment period that was subsequently extended by an additional 45 days, to January 15, 2016. Copies of the DEIS were provided to agencies, tribes, and members of the public who had specifically requested a copy. In addition, copies of the DEIS were provided to local libraries in locations throughout the ACF Basin. All comments submitted during the public comment period were considered, and responses to substantive issues raised in comments were included in the FEIS. The FEIS was published in the *Federal Register* on December 16, 2016, commencing a minimum 30-day state and agency review period that was subsequently extended by 16 days to February 1, 2017. A number of federal, state, local, and non-governmental entities submitted comments during and after the review period. Many of these comments repeated information that had previously been submitted and have already been addressed in the DEIS and/or FEIS. New issues raised in the comments are addressed below. The comments received in response to the FEIS did not result in any changes to the FEIS.

EPA submitted comments on the FEIS on February 14, 2017, acknowledging that the FEIS includes revisions and further analysis responsive to EPA's comments on the DEIS, but expressing new or continued concern with regard to several issues. First, EPA expressed uncertainty regarding the alternatives analysis, specifically the impacts to action zones in relation to different water supply withdrawal rates assumed during alternatives development (20 mgd during the first phase versus 128 mgd under the "no action" alternative). As explained above and in the FEIS, USACE developed alternatives through a two-step process that first included evaluation of water management operations for the system as a whole, and then added various permutations of water supply withdrawals in response to the State of Georgia's water supply request. USACE first evaluated water management operations that could best manage the ACF system for its authorized purposes, before considering the reallocation of storage for water supply under supplemental authority. Thus, when initially modeling revised water management operations in the first phase of alternative development, USACE included current withdrawals of 20 mgd from Lake Lanier under existing agreements, and 277 mgd that are currently withdrawn downstream at Atlanta. In the second phase of alternatives development, USACE included different water supply withdrawal and return scenarios under either current or revised water management operations. The "no action" alternative reflected both current water management operations and current water supply withdrawals, including 128 mgd that are currently withdrawn from Lake Lanier and 277 mgd that are withdrawn from the

Chattahoochee River downstream. While increased lake withdrawals may result in lower reservoir levels, as reflected in the different alternatives evaluated in the FEIS, the operational rules remain consistent.² The action zones are designed to meet the basin requirements in a balanced manner under multiple hydrologic conditions, with or without increased water supply withdrawals.

EPA also expressed concerns regarding nonattainment of state water quality standards and associated modeling implications under the PAA, and limited discussion in the FEIS of the effect of the PAA on the NPDES permits and Total Maximum Daily Loads downstream of Lake Lanier. EPA suggested that USACE provide an updated list of NPDES permittees. The State of Alabama, through its Office of Water Resources, the Alabama Department of Environmental Management (ADEM), and others also expressed concerns related to water quality and the cost of updating NPDES-permitted facilities under the PAA.

As discussed above, the adverse impacts to water quality that are identified in the FEIS under the PAA would be directly caused by the anticipated increased effluent discharges in the Atlanta region. (See FEIS, Volume 1, Section 6.1.2.) Pursuant to the 1946 RHA, the PAA would accommodate increased downstream water supply withdrawals below Buford Dam in the Atlanta region. As a result of increased water supply withdrawals it is reasonably foreseeable that treated wastewater discharges to the Chattahoochee River in the Atlanta region will also increase. If the authorized pollutant levels in the current NPDES permits are maintained but the amount of permitted discharges increases, then substantial adverse water quality impacts could occur, and those effects were assumed for analytic purposes in the FEIS. However, because the CWA anti-degradation provision prohibits the current reach from being degraded below state use standards, it is likely that the pollutant levels permitted in each NPDES permit will be reduced. USACE does not administer the NPDES permit program. The State of Georgia, which has requested the additional water supply withdrawals and has been delegated authority for NPDES permitting, is responsible for evaluating the impacts of future NPDES permits. Until the increased water supply permits are authorized and the new NPDES permits are devised, any cost analysis by USACE would be speculative and misleading. In response to EPA's comment on the FEIS, USACE has requested and received updated NPDES permit information from EPA, and USACE will post that updated information on the Mobile District website.

In coordination with GaEPD, USACE has made releases from Buford Dam to maintain minimum flows of 650 to 750 cfs and would continue to do so under the PAA. Recent seasonal reductions to 650 cfs have been made at the request of GaEPD, which has conducted water quality monitoring and adaptive management during implementation. The adaptive management called for a return to 750 cfs should the water quality monitoring indicate adverse impacts, but this provision was never triggered. USACE considered this along with the water quality modeling in its analysis of water quality impacts for this reach of the Chattahoochee River. Based on this information and the modeling for the PAA, USACE does not believe that water quality monitoring or adaptive management is required to prevent impacts to water quality standards. In addition to the minimum flow at Peachtree Creek, the WCMs also provide for special releases from Buford Dam sluice to improve dissolved oxygen immediately below Buford Dam, if necessary. Aside from the dissolved oxygen events, GaEPD has not notified USACE of water quality issues that would necessitate increased flows in the reach of river between Buford

² EPA's February 14, 2017 letter appears to reflect a misunderstanding regarding lake level impacts. EPA commented that the difference in 108 mgd in water supply withdrawals from Lake Lanier would result in a reduction in the Lake Lanier elevation of three feet. However, according to USACE's peer reviewed analysis, the 108 mgd withdrawal will only lower Lake Lanier by 0.13 inches. The lake level was determined with the following calculations: (1) 1 mgd = 3.0684 acre-feet, therefore 108mgd = 331.4 acre-feet (108 x 3.0684); (2) 331.4 acre-feet is equivalent to approximately 0.13 inches of storage at Lake Lanier ((331.4 acre-feet/30,000(feet/acre-feet)) x 12 (inches/foot) = 0.13 inches).

Dam and Morgan Falls Dam. GaEPD also commented in its February 1, 2017 letter that it believes flows could be reduced to 550 cfs at Peachtree Creek at times without adverse effects on water quality. USACE has not modeled that scenario but could consider it as a deviation, if circumstances warrant, subject to additional analysis as may be appropriate at that time.

The Southeastern Power Administration (SEPA) and Southeastern Federal Power Customers (SeFPC) submitted comments on the FEIS reasserting objections to the use of 2007 water demands as the “no action” alternative baseline, based on a concern that utilizing the 2007 water demand and operating rules in the “no action” alternative obscured impacts to hydropower. The “no action” alternative represents continuation of the current water management operation at each of the USACE projects in the ACF Basin. System drought operations that were formulated and occurred in 2007 have evolved to what is now included in the May 2012 USFWS Biological Opinion. The FEIS did not use the actual hydropower generation numbers from 2007 in order to cap or constrain hydropower generation. To further limit any potential anomalies that might result from using a low hydropower generation year as the baseline comparison, USACE examined the entire 73-year period of record to ensure that the hydropower generation numbers used were within an acceptable range, and concluded that the hydropower purpose would not be seriously affected by the proposed action.³ Both SEPA and SeFPC also commented that USACE should reexamine cost allocations to ensure that hydropower does not bear an undue share of the costs of operating and maintaining the federal ACF projects. Although USACE has not revised the ACF system cost allocation study as part of the WCM update process, USACE has calculated a credit that would be applied to the hydropower account upon the reallocation of storage to water supply under the proposed action, effectively adjusting costs allocated to the hydropower purpose.

The State of Alabama, through its Office of Water Resources, Alabama Power Company (APC), Columbus Water Works (Georgia), and Tri-Rivers Water Development Association repeated concerns that the PAA fails to establish minimum flow targets in the Middle Chattahoochee reach of the river below West Point dam of, for example, 2,000 cfs at the APC Plant Farley and 1,350 cfs at Columbus, Georgia. Some of these commenters suggested that authority could be found for such flow requirements in the authorizing legislation for West Point Dam, similar to the authority provided for water supply releases from Buford Dam under the 1946 RHA. After further consideration of comments from these entities and others and reviewing all relevant authorizing statutes, USACE does not interpret the authorizing legislation to require that USACE operations ensure specific minimum flows at Columbus, Georgia, or Columbia, Alabama. However, USACE notes that the flows that various parties have requested for this reach are in fact currently met, and would continue to be met under the PAA as modeled, more than 94 percent of the time. Moreover, the master and individual project WCMs allow for temporary operational deviations, as appropriate and as hydrologic conditions allow.

³ SeFPC additionally commented that the USACE response in the FEIS to an earlier SeFPC comment regarding the proper baseline for measuring impacts to hydropower mischaracterized that comment. (See FEIS Volume 4 at C-1286 to C-1287.) USACE acknowledges that the earlier SeFPC comment did not propose using “pre-dam” or 1958 operating conditions as a baseline, but rather, the energy production determination in a 1996 Rehabilitation Study and a minimum of four hours per weekday peak power generation. *Id.* USACE modeled the “no action” alternative based on current operations, and utilized water supply consumption information for 2007 as representative of current water demand. Additionally, in the Water Supply Storage Assessment, USACE compared hydropower benefits under the PAA (with a reallocation of storage) to hydropower benefits under a “future without project condition” (Alternative 7J) in which storage would not be reallocated to water supply. Compared to either Alternative 7J or the “no action” alternative, and based on USACE’s evaluation of the ACF project authority and the modeled effects of the proposed operations over a 73-year period of record, the PAA would not result in major operational changes or serious impacts to hydropower.

Such deviations are done on a case-by-case basis, and do not require the establishment of mandatory flow targets. (See FEIS, Volume 2, WCM Chapter 7.) Current ACF system operations and the PAA do incorporate a minimum, continuous flow of 675 cfs from West Point Dam, based on language in a report of the Chief of Engineers (See House Document No. 87-570 (September 24, 1962)), which was adopted in the Congressional authorization for the West Point Dam in the Flood Control Act of 1962, P.L. 87-874, § 203, 76 Stat. 1182 (Oct. 23, 1962), recognizing a need for minimum flows of 670 cfs at West Point, Georgia, for the purpose of maintaining water quality below the dam.

GaEPD and the Georgia Water Supply Providers⁴ provided comments on the FEIS, including a new substantive comment that USACE has not considered or applied the 1956 Act (P.L. 84-841) when determining the USACE authority to meet the State of Georgia's water supply request. The 1956 Act authorizes the Secretary of the Army to enter into a contract with Gwinnett County, "upon such terms and for such period not to exceed fifty years as he may deem reasonable for the use of storage space" in Lake Lanier to provide "a regulated water supply in an amount not to exceed eleven thousand two hundred acre-feet of water annually." USACE has considered the 1956 Act and recognizes that—as determined by the 2011 Eleventh Circuit and noted in the 2012 Chief Counsel Legal Opinion—it remains a viable authority for authorizing water supply uses of up to 11,200 acre-feet annually (equivalent to 10 mgd) at Lake Lanier by Gwinnett County alone, independent of the Water Supply Act. However, USACE has evaluated a request by the State of Georgia to meet all current and projected water supply needs of the Atlanta region, including Gwinnett County. Responding to that request, the PAA would incorporate the full amount of the State of Georgia's request for withdrawals from Lake Lanier, including withdrawals by Gwinnett County, by executing one or more agreements with the State of Georgia, which submitted the request. The later-enacted, broader authority conferred under the Water Supply Act is sufficient to encompass all of the State of Georgia's requested withdrawals, whereas the 1956 Act is limited to 10 mgd by Gwinnett County alone.

Moreover, according to information provided by the State of Georgia, Gwinnett County withdraws more than 80 mgd at present, and will have a need for more than 140 mgd by the year 2050, both figures well above the 11,200 acre-feet annually that could be authorized under a contract pursuant to the 1956 Act. (See FEIS Volume 3, WSSA, Appendix A, the State of Georgia 2015 Water Supply Request, Enclosure, Tables 3 and 4.) Thus, as a practical matter, while the 1956 Act does provide additional support for the conclusion that USACE has the authority to accommodate the State of Georgia's requested withdrawals, it is not necessary to contract separately under that authority in order to implement the PAA. Instead, a Water Supply Act storage agreement with the State of Georgia could accommodate all of the current and projected withdrawals by Gwinnett County. If USACE were to contract separately with Gwinnett County under the authority of the 1956 Act, it would likely do so on terms consistent with its Water Supply Act storage agreements, and would reduce the amount of storage it would allocate to water supply under an agreement with the State of Georgia by a corresponding amount. In the FEIS and WSSA, USACE has taken into account the current and projected needs of Gwinnett County, as well as the 20 mgd currently withdrawn without charge under relocation agreements with Buford and Gainesville. The PAA would accommodate all of these withdrawals through the existing relocation agreements and through an additional storage agreement or agreements with the State of Georgia.

GaEPD, Representative Doug Collins, the City of Gainesville, Georgia, and the Georgia Water Supply Providers provided comments on the FEIS questioning whether statements in the

⁴ The Atlanta Regional Commission, the City of Atlanta, the Atlanta-Fulton County Water Resources Commission, the Cobb County-Marietta Water Authority, DeKalb County, Forsyth County, Fulton County, the City of Gainesville, and Gwinnett County, jointly represented by King & Spalding LLP.

FEIS regarding the total of 18 mgd (gross) that Gainesville withdraws from Lake Lanier under a 1953 agreement incorrectly “reinterprets” the terms of that agreement by imposing a cap on gross withdrawals. USACE disagrees that utilizing the gross withdrawal figure of 18 mgd in the FEIS constitutes a reinterpretation of the 1953 contract or misrepresents Gainesville’s current average withdrawals. To the contrary, the 18 mgd figure accurately approximates current withdrawals by Gainesville that, when combined with the approximately 10 mgd that Gainesville returns to Lake Lanier, result in the net withdrawal of 8 mgd pursuant to the relocation agreement. This interpretation is consistent with past practice and with information submitted by the State of Georgia to support its water supply request. Future increases in withdrawals by Gainesville could be accommodated from the storage that would be allocated to water supply under the PAA, pursuant to an agreement with the State of Georgia, which would be responsible for determining withdrawal rights by municipalities and other entities utilizing that storage.

In developing modeling scenarios for alternatives to be considered in the WCM and EIS, USACE made necessary assumptions about the amount of withdrawals that Gainesville and Buford would make under their existing relocation agreements. Those relocation agreements, which were executed without charge in the 1950s in compensation for the relocation of existing facilities during reservoir construction, authorize certain withdrawals from Lake Lanier, regardless of any decisions USACE might make to include storage for additional water supply withdrawals now or in the future. The Gainesville agreement authorizes the City to “remove” up to “eight million gallons of water from the reservoir of Buford Dam within any 24-hour period,” and the Buford agreement authorizes the removal of to two million gallons per 24-hour period. Together, the relocation contracts clearly authorize total withdrawals of at least 10 mgd.⁵ However, since the early 1970s, the Gainesville contract has been understood to place a limitation on net, rather than gross, daily withdrawals, recognizing that Gainesville returns treated wastewater to Lake Lanier along with withdrawals it makes for water supply.⁶ Currently, as explained in the DEIS and FEIS—and consistent with information provided by the State of Georgia in response to an information request from USACE⁷—Gainesville withdraws

⁵ See, e.g., *Tri-State Water Rights Litigation*, 639 F. Supp. 2d 1308, 1347 (M.D. Fla. 2009), *rev’d*, *Tri-State Water Rights Litigation*, 644 F.3d 1160 (11th Cir. 2011); *Tri-State Water Rights Litigation*, 644 F.3d at 1198, 1202 n.38.

⁶ The City of Gainesville and GaEPD cite to a draft, “Supplement to Relocation Contract” that was part of a 2003 litigation settlement vacated by the U.S. Court of Appeals for the D.C. Circuit in *Southeastern Federal Power Customers v. Geren*, 514 F.3d 1316 (2008). That draft contract, which was never executed, acknowledged the parties’ longstanding interpretation of the original 1953 relocation agreement to provide for net, rather than gross, withdrawals up to 8 mgd, and would have construed the 1953 agreement to allow the City of Gainesville to withdraw a gross annual average of 18 mgd without charge. The draft contract also contemplated a separate water supply storage contract that would have, upon execution, increased the amount of uncharged, gross annual withdrawals under the Supplement to Relocation Contract to 21.3 mgd, and authorized additional withdrawals, with payment by the City of Gainesville for storage costs, beyond a gross annual average of 21.3 mgd. Settlement Agreement, *Southeastern Federal Power Customers, Inc., U.S. Army Corps of Engineers, Water Supply Providers, the State of Georgia, and the Southeastern Power Administration* art. 3.3, Exhibits B & D (9 January 2003). Neither contract was executed. The settlement agreement was declared invalid. However, rather than demonstrating that total withdrawals under the original 1953 relocation agreement are boundless, the structure of those draft supplemental contracts reflects the practical need to distinguish withdrawals under the relocation agreement from withdrawals under a future water supply storage agreement, such as the State of Georgia now seeks.

⁷ Letter, Judson H. Turner, Director, Georgia Department of Natural Resources, Environmental Protection Division to Colonel John J. Chytka, Commander, U.S. Army Corps of Engineers, Mobile District (May 30, 2014), Attachment A (showing gross withdrawals by City of Gainesville between 16.4 and 19.66 mgd annually, 2004-2013, and total withdrawals by City of Buford between 0.81 and 1.06 mgd annually, 2004-2013).

approximately 18 mgd and returns approximately 10 mgd, for a net total of 8 mgd. Thus, for purposes of evaluating current withdrawals from Lake Lanier, under relocation agreements, in the FEIS, USACE has included the 18 mgd in gross withdrawals by Gainesville, plus the 2 mgd to which Buford is entitled to withdraw under its relocation agreement, for a total of 20 mgd in withdrawals already authorized under relocation agreements.

The State of Georgia has requested that USACE take action to accommodate additional, uncontracted withdrawals from Lake Lanier as well as future water supply needs projected to the year 2050, well beyond any withdrawals that were contemplated in 1953, when USACE and Gainesville entered into the current relocation agreement. Accordingly, USACE decided to use 20 mgd as the baseline amount of gross withdrawals already made or authorized under relocation agreements at Lake Lanier—18 mgd by Gainesville and 2 mgd by Buford—for purposes of both the NEPA “no action” alternative and the WSSA “future without project condition” alternative (FEIS Alternative 7J). USACE anticipates that, under the PAA, USACE would continue to accommodate existing withdrawals of up to 20 mgd without charges under relocation agreements, and would enter into a new agreement with the State of Georgia for storage sufficient to accommodate the additional water supply withdrawals that the State of Georgia has requested to meet needs projected to the year 2050.

GaEPD, Representative Collins, and the Georgia Water Supply Providers also reiterated comments objecting to the storage accounting methodology reflected in the FEIS and encouraging USACE to adopt a policy that could provide greater credit for return flows or other made inflows. As noted in the comments, the Department of the Army has issued a notice of proposed rulemaking and is currently receiving public comments on a proposed rule that addresses storage accounting and return flow credits with respect to water supply storage uses at USACE reservoirs. The modeling assumptions utilized in the FEIS were not based on this proposed rule, but rather, on methodologies currently employed by the Mobile District, and on withdrawals and returns that are actually occurring or are reasonably expected to occur, regardless of what accounting methodology may be utilized in the future. This Record of Decision for the ACF WCM would not affect that rulemaking, which is proceeding as a separate action.

The FDEP, the State of Alabama, and others submitted comments expressing the view previously stated in comments on the DEIS that the PAA favors the State of Georgia’s consumption of water over other authorized purposes, and at the expense of downstream resources in the Apalachicola River and Bay, and exceeds USACE authority under the Water Supply Act. FDEP submitted evidence from the ongoing case *Florida v. Georgia*, No. 142 Orig., in support of its views and requested that USACE delay the record of decision and reevaluate its PAA with respect to the State of Georgia’s water supply request. Additionally, Senators Nelson and Rubio, and Representative Dunn and twenty-six Members of Congress, wrote to USACE requesting that implementation of the final WCM be stopped pending resolution of the dispute between the States of Florida and Georgia, in response to a February 14, 2017 report of the Special Master appointed in the case.

The PAA does not favor the State of Georgia’s consumption of water over other authorized ACF purposes and does not purport to allocate water between the States of Georgia and Florida, or Alabama. USACE has thoroughly evaluated impacts of the proposed action and concluded that the PAA would accomplish the authorized purposes of the ACF system. More specifically, the reallocation of 254,170 acre-feet of storage in Lake Lanier for water supply would not seriously affect the authorized purposes of the ACF system or involve major structural or operational changes. Although Apalachicola Bay and the Apalachicola River below the GIWW are not physically part of the authorized ACF system of projects, USACE did evaluate, in the FEIS, impacts of the PAA and other alternatives on flow conditions, salinity, and fish and

aquatic species in the River and Bay. Those impacts were found to be negligible overall, and would not be substantially different under any of the alternatives considered—including alternatives that modeled fewer water supply withdrawals from Lake Lanier than are currently taking place or that would be accommodated under the PAA. Thus, the analysis contained within the FEIS does not support the assertion that adjusting USACE operations to accommodate water supply uses under the PAA would come at the expense of downstream resources in the ACF Basin, including the Apalachicola River and Bay, or exceed USACE authority.

With respect to the *Florida v. Georgia* case, USACE will review any final decision from the U.S. Supreme Court and consider any operational adjustments that are appropriate in light of that decision, including modifications to the then-existing WCM, if applicable. However, USACE is not a party to the case, and USACE operations are not at issue in the litigation. Rather, the case involves the State of Florida's request for an equitable apportionment of the waters of the ACF Basin, specifically through a cap on consumption of water by the State of Georgia. *Florida v. Georgia*, No. 142 Orig., Report of the Special Master 18 (February 14, 2017). The United States has participated in the case as *amicus curiae*, but has taken no position as to whether the State of Florida's requested relief should or will be granted. Should the Supreme Court issue a decree apportioning the waters of the ACF Basin, should the States reach agreement endorsed by Congress on an allocation of basin waters, or should Congress enact other legislation affecting the purposes or operation of the federal ACF system, USACE would take those developments into account and adjust its operations accordingly, including new or revised WCMs, new or supplemental NEPA or ESA documentation, or any other actions as may be appropriate under applicable law. In the meantime, however, the purpose and need stated in the FEIS is to determine how to operate the system of federal projects in the ACF Basin for their authorized purposes, in light of current conditions and applicable law. The adoption of the PAA would, after decades of delay and deferral, result in improved operations under an updated WCM, but would not apportion the waters of the ACF Basin among the States or in any way prejudice the Supreme Court, the States, or the Congress from with respect to a future apportionment of the waters of the ACF Basin.

Finally, NMFS provided additional conservation recommendations in response to the FEIS, as discussed above. The Department of Interior, National Park Service and USFWS, Northwest Florida Water Management District, ACF Stakeholders, Chattahoochee Riverkeeper, and Florida Fish and Wildlife Conservation Commission submitted comments on the FEIS reiterating comments provided earlier. The National Wildlife Federation, Florida Wildlife Federation, and Apalachicola Riverkeeper submitted consolidated comments reiterating previously expressed concerns, and specifically questioning implementation of ESA conservation recommendations. In response to the latter comment, the 2016 Biological Opinion has been included as an appendix to the FEIS, and its reasonable and prudent measures and conservation recommendations are described in Section 6.4.4 of the FEIS, Volume 1. Pursuant to section 7 of the ESA, all terms and conditions, conservation measures, and reasonable and prudent alternatives and measures resulting from the formal consultations shall be implemented in order to minimize take of endangered species and avoid jeopardizing the species.

Conclusion

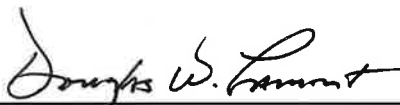
Technical, environmental, and economic criteria used in the formulation of alternative plans were those specified in the Water Resources Council's 1983 Economic and Environmental Principles and Guidelines for Water and Related Land Resources Implementation Studies. All applicable laws, executive orders, regulations, and local government plans were considered in evaluation of alternatives. All comments received during the WCM update process, including from other Federal agencies, the States of Alabama,

Florida, and Georgia, local agencies, Native American Tribes, and other members of the public were considered. The PAA would satisfy the purpose and need of updating the master WCM to operate the federal ACF projects for their authorized purposes, in light of current conditions and applicable law. The reallocation of 254,170 acre-feet of storage in Lake Lanier for water supply, subject to the execution of a binding agreement with the State of Georgia for the use of that storage and payment of costs allocated thereto, would meet the objective of responding to the 2011 Eleventh Circuit decision and the State of Georgia's revised water supply request, without seriously affecting authorized purposes or involving major structural or operational changes, as documented in the FEIS and WSSA. Finally, implementing the PAA would not apportion the waters of the ACF Basin or preclude the States, the Supreme Court, or the Congress with respect to a possible future apportionment.

Based on the foregoing, I hereby adopt the PAA for the immediate implementation of the updated Apalachicola-Chattahoochee-Flint River Basin Master Manual, and for the reallocation of 254,170 acre-feet of storage in Lake Lanier for water supply. The Commander, South Atlantic Division is authorized to implement the updated water control plans and manuals immediately. The Chief of Engineers is authorized on my behalf to enter into a water supply storage agreement with the State of Georgia or its authorized representatives for the use of 254,170 acre-feet of storage in Lake Lanier.⁸ Periodic review of the water control plan will provide opportunities to make adjustments as conditions in the basin may change. Appropriate public coordination to satisfy environmental, economic and technical issues will occur prior to any modifications. This Record of Decision completes the NEPA process.

3-30-17

Date



DOUGLAS W. LAMONT, P.E.
Senior Official Performing the Duties of the
Assistant Secretary of the Army (Civil
Works)

⁸ This may be accomplished through a single agreement with the State of Georgia for the full amount of storage, or multiple agreements with the State of Georgia or other entities designated by the State of Georgia for different amounts up to a cumulative total not to exceed 254,170 acre-feet of storage, consistent with the analysis set forth in the EIS, provided, however, that at the time of execution of any agreement, all applicable law must be complied with, including such supplemental NEPA analysis as may be necessary to evaluate actions not considered in the FEIS.