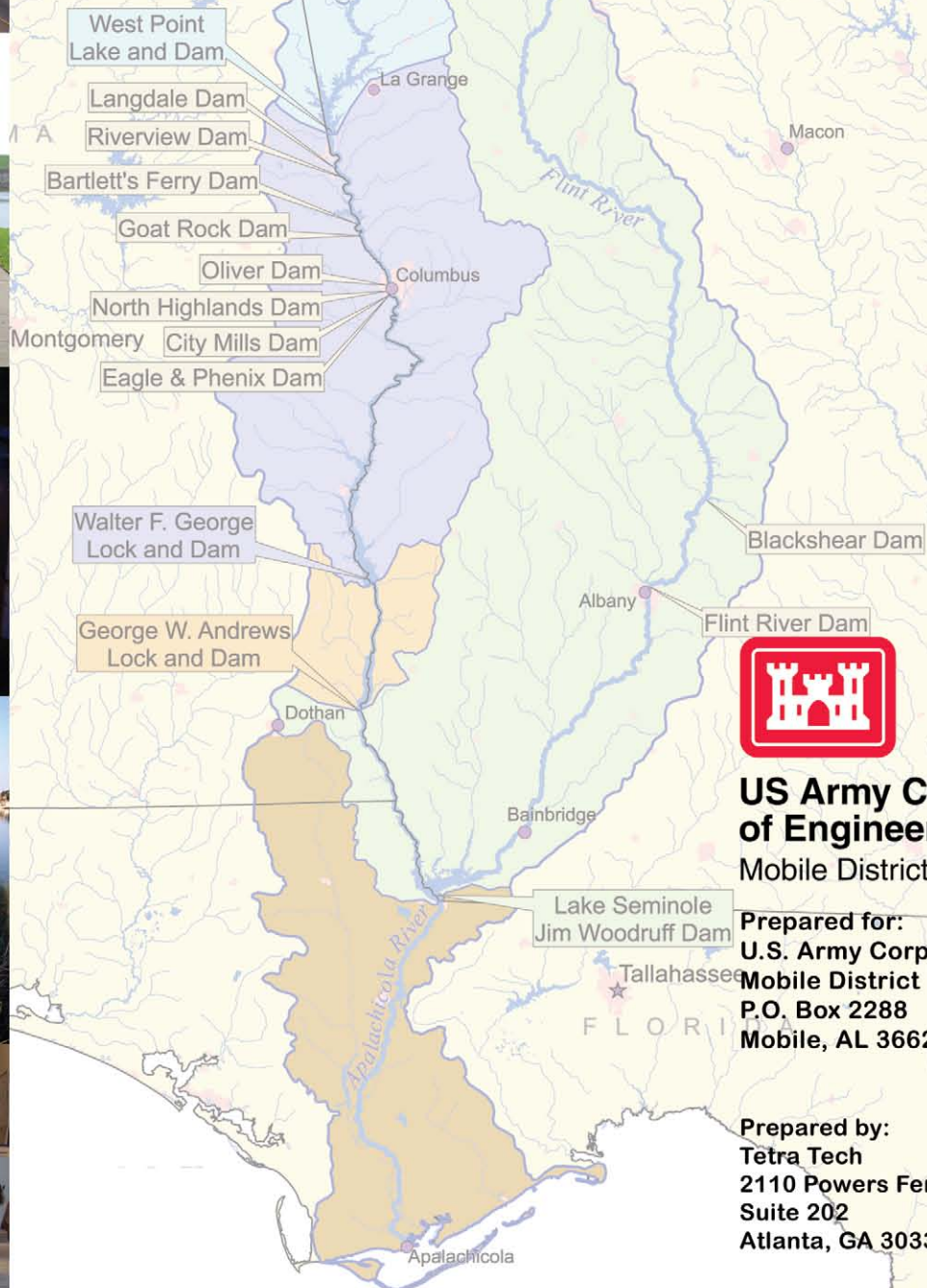




# UPDATED SCOPING REPORT Environmental Impact Statement

## Update of the Water Control Manual for the Apalachicola-Chattahoochee-Flint (ACE) River Basin, in Alabama, Florida, and Georgia

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**US Army Corps  
of Engineers®**

Mobile District

Prepared for:  
U.S. Army Corps of Engineers  
Mobile District  
P.O. Box 2288  
Mobile, AL 36628

Prepared by:  
Tetra Tech  
2110 Powers Ferry Road, SE  
Suite 202  
Atlanta, GA 30339

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## Executive Summary

The U.S. Army Corps of Engineers (USACE or Corps), Mobile District, conducted public scoping in fall 2008 and again in fall 2009 to initiate preparation of an Environmental Impact Statement (EIS) regarding development and implementation of an updated *Master Water Control Manual for the Apalachicola-Chattahoochee-Flint (ACF) River Basin* (Master Manual) in Alabama, Florida, and Georgia. A Notice of Intent to prepare an EIS was released February 22, 2008; a *Federal Register* notice to announce public scoping meetings was published September 19, 2008; and a *Federal Register* notice to revise the scope of the Draft EIS was published November 19, 2009. An interagency meeting was held October 9, 2008, and public scoping meetings were held at five strategic locations within the ACF River Basin between October 20 and 29, 2008. The USACE also contacted Native American Indian tribal leaders with interests in the ACF River Basin as part of the scoping efforts.

The purpose of scoping is to determine the range of issues to be addressed and to identify the significant issues to be analyzed in depth with respect to the proposed action. The process also helps to deemphasize insignificant issues, thereby narrowing the scope of the EIS process. Through the scoping process the Corps will identify the range of actions, alternatives, and impacts to be considered in the EIS for the update of the Master Manual. The EIS will provide supporting documentation for a decision on implementing a Master Manual update, as well as updating reservoir-specific water control plans to be included as appendixes to the Master Manual.

This scoping report provides background regarding the Corps' role in managing the ACF River Basin and the need to update the Master Manual (Section 1); describes the scoping activities conducted by the Corps (Section 2); categorizes the issues raised in the scoping comments (Section 3); summarizes the comments submitted by federal, state, and governmental agencies (Section 4); and provides the framework for preparing an EIS to address the potential for significant impacts on the human and natural environment resulting from implementation of an updated Master Manual (Section 5).

The appendixes to this report contain copies of all of the Corps' public communication and documentation about the scoping process; copies of all comments received during scoping (in their original format); and a report containing all the comments, broken down into segments and categorized by issues.

A total of 1,018 stakeholders participated in the 5 public scoping meetings. Table ES-1 shows a breakdown of participation by meeting location.



**Table ES-1. Participants by Scoping Meeting Location**

Date	Location	Attendance
October 20, 2008	Apalachicola, Florida	135
October 21, 2008	Dothan, Alabama	24
October 22, 2008	LaGrange, Georgia	365
October 23, 2008	Marietta, Georgia	93
October 29, 2008	Gainesville, Georgia	401
<i>Total</i>		<i>1,018</i>

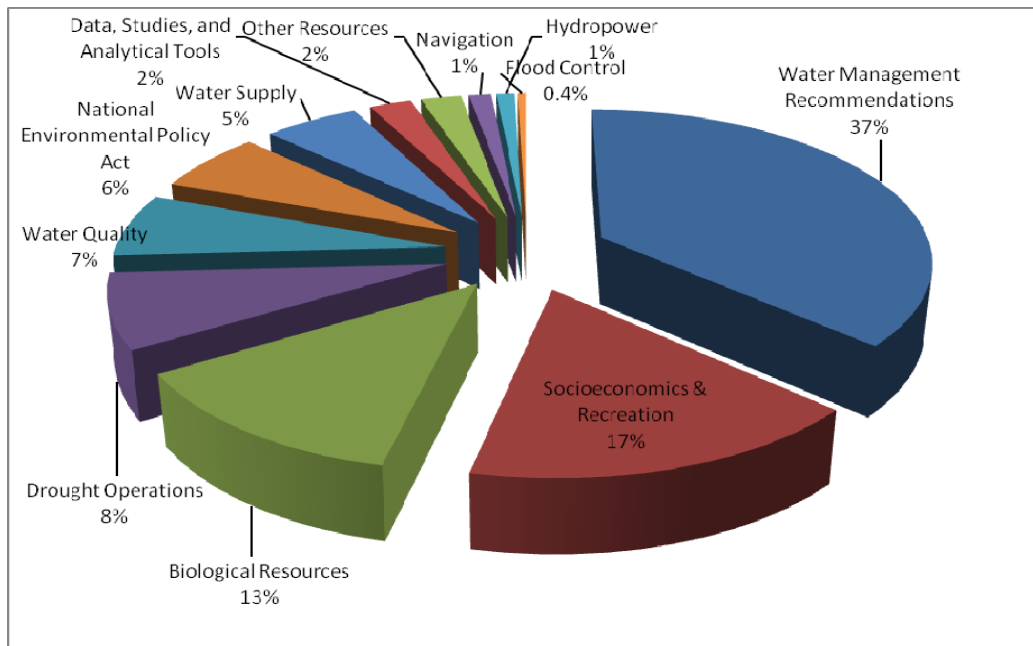
The public scoping effort for updates to the ACF River Basin Master Manual resulted in a total of 2,503 comments from 643 individuals, organizations, and agencies. The agencies included federal, state, and local governments. Federal agencies that submitted comments were the U.S. Environmental Protection Agency Region 4, the Southeastern Power Administration, and the U.S. Fish and Wildlife Service. Leaders from the Georgia and Florida congressional delegations submitted comments, along with the Georgia State House of Representatives. The three states—Alabama, Georgia, and Florida—submitted comments from their associated state agencies. Other local governmental agencies, including the Metropolitan North Georgia Water Planning District; Atlanta Regional Commission; Franklin County, Florida; Hall County, Georgia; Troup County, Georgia; Gwinnett County, Georgia; and the City of LaGrange, Georgia, submitted comments as well.

Two petitions were received during the scoping process in 2008. One was from “West Point Lake Advisory Council Needs Your Show of Support,” and it had been signed by 2,809 people. The second petition received included comments on the “Potential for the Turkey Run Landfill to Pollute Groundwater and Surface Waters in Violation of Georgia Environmental Protection Division Solid Waste Management Rules and Landfill Permit,” and it had been signed by 58 people.

All the comments from scoping were reviewed, analyzed, and organized into the 12 categories shown in Table ES-2. The table also shows the number of comments by category. Figure ES-1 shows the distribution of comments by category.

**Table ES-2. Distribution of Comments**

Category	Number of Comments
Water Management Recommendations	921
Socioeconomics and Recreation	418
Biological Resources	319
Drought Operations	196
Water Quality	167
National Environmental Policy Act	159
Water Supply	136
Data, Studies, and Analytical Tools	60
Other Resources	58
Navigation	32
Hydropower	26
Flood Risk Management	11
<i>Total</i>	<i>2,503</i>

**Figure ES-1. Distribution of comments by major category.**

As shown in Table ES-2 and Figure ES-1, most of the comments (921) were related to water management recommendations, which include the seven authorized project purposes and the Corps' ability to balance needs throughout the ACF River Basin. Other comments in this category addressed alternatives to consider (or mitigation), demand projections as they relate to downstream and future needs, and overall water conservation in the basin.

1 Issues and concerns regarding socioeconomics and the tie between water levels,  
2 recreation, and regional economics received the second-largest number of comments  
3 (418). Most of the comments received in this category pertained to the adverse  
4 socioeconomic impacts that have occurred in the northern portions of the ACF River  
5 Basin due to extremely low water levels in Lake Lanier and low or inconsistent water  
6 levels in West Point Lake. Similar comments were made by stakeholders in the middle  
7 and lower reaches of the basin, who attributed adverse economic conditions to low water  
8 flows. Comments were also made regarding the need to address adverse impacts on low-  
9 income and minority populations resulting from low lake levels; the potential for collapse  
10 of the seafood and fishing industry in the Apalachicola Bay region; safety hazards due to  
11 low water levels; concerns regarding property values, aesthetics, and quality of life; and  
12 myriad other concerns over the direct and indirect impacts of basin water management  
13 practices on socioeconomics. The primary message stakeholders have conveyed is that  
14 the Corps should fully assess in the EIS the socioeconomic impacts of water management  
15 practices at the individual projects and in the overall system.

16 The next three categories were biological resources (319), drought operations (196), and  
17 water quality (167). Biological resources comments pertained to fisheries; threatened and  
18 endangered species; flow concerns for Apalachicola Bay; and other biological issues such  
19 as habitat, research, and monitoring. The drought operation comments usually referenced  
20 drought conditions in the Lake Lanier watershed over the past decade. Some comments  
21 suggested that during periods of extreme drought conditions, the Corps needs to redirect  
22 and optimize its operational practices to balance project purposes by establishing  
23 management triggers, conservative reservoir operations, emergency drought measures,  
24 and water supply conservation measures and/or by prioritizing reservoir purposes. Water  
25 quality concerns were related to wastewater dilution, recreational uses, impacts of low  
26 lake levels and low flows, reevaluation of low-flow requirements, salinity in  
27 Apalachicola Bay, monitoring, effects of population growth, industrial discharges,  
28 maintaining existing minimum flows, the effect of the Revised Interim Operating Plan,  
29 and Total Maximum Daily Loads.

30 The *National Environmental Policy Act*, or NEPA, (159 comments) and water supply  
31 (136 comments) were the next two categories. NEPA-related comments discussed public  
32 involvement, the schedule, the baseline, the proposed action and alternatives, mitigation  
33 measures, compliance with other regulations, and cooperating agencies. The water supply  
34 comments pertained to importance compared to downstream uses, public water supply,  
35 real-time monitoring at the City of Atlanta's intake, concern over future availability,  
36 consideration of the Metropolitan North Georgia Water Planning District's plans, lack of  
37 congressional authority, cumulative effects, population growth, and monitoring of the use  
38 of storage. The remaining comment categories, with a total of 187 comments, were data,  
39 studies, and analytical tools; other resources; navigation; hydropower; and flood risk  
40 management.

41 Throughout this process, the public can obtain information on the status of the Master  
42 Manual update and the EIS by checking the USACE Mobile District Web site at  
43 [www.sam.usace.army.mil](http://www.sam.usace.army.mil). The scoping report will be posted at

- 1 [www.sam.usace.army.mil/pa/acf-wcm/index.htm](http://www.sam.usace.army.mil/pa/acf-wcm/index.htm), and it can be downloaded with or
- 2 without the appendixes.

## 1.0 Introduction

In fall 2008 the U.S. Army Corps of Engineers (USACE or Corps), Mobile District, conducted public scoping for preparation of an Environmental Impact Statement (EIS) regarding development and implementation of an updated *Master Water Control Manual for the Apalachicola-Chattahoochee-Flint River Basin* (Master Manual) in Alabama, Florida, and Georgia. The purpose of scoping, in accordance with the requirements of the *National Environmental Policy Act of 1969* (NEPA), is to solicit input from other agencies and the public to help identify all the relevant issues and alternatives that should be addressed in an Environmental Impact Statement (EIS). The EIS will provide supporting documentation for a decision on implementing a Master Manual update, as well as updating reservoir-specific water control plans to be included as appendixes to the Master Manual.

On July 17, 2009, Federal District Court Judge Paul A. Magnuson issued a memorandum and order in the case *In re Tri-State Water Rights Litigation* addressing the Corps' authority to provide water supply benefits through its operation of the Buford Dam/Lake Sidney Lanier project. The court's ruling introduced new information and circumstances that affect some of the determinations reflected in the Corps' January 2009 Final Scoping Report. On November 19, 2009, the USACE reopened public scoping to account for the court's ruling. The reopened scoping period provided the public an opportunity to submit comments on the significant new information and circumstances introduced by the July 17, 2009, court order.

This scoping report provides background regarding the Corps' role in managing the Apalachicola-Chattahoochee-Flint (ACF) River Basin and the need to update the Master Manual (Section 1); describes the scoping activities conducted by the Corps in both 2008 and 2009 (Section 2); categorizes the issues raised in the scoping comments (Section 3); summarizes the comments submitted by federal, state, and local government agencies (Section 4); and provides the framework for preparation of an EIS to address the potential for significant impacts on the human and natural environment resulting from implementation of an updated Master Manual (Section 5). The appendixes to this report contain copies of all of the Corps' public communication and documentation about the scoping process; copies of all comments received during scoping (in their original format); and a report containing all the comments, broken down into segments and categorized by issues.

### 1.1 Background

The ACF River Basin drains 19,800 square miles in parts of southeastern Alabama, northwest Florida, and central and western Georgia. About 74 percent of the basin lies in Georgia, 15 percent in Alabama, and the remaining 11 percent in Florida. The basin extends approximately 385 miles from the Blue Ridge Mountains to the Gulf of Mexico and has an average width of approximately 50 miles. It covers 50 counties in Georgia, 8 in Florida, and 10 in Alabama. The headwaters of the Chattahoochee River are in north Georgia, and the river flows along the Georgia-Alabama state line. The Chattahoochee

- 1 joins the Flint River at Lake Seminole. Downstream of the lake, the Apalachicola River
- 2 ultimately flows into the Gulf of Mexico via Apalachicola Bay in Florida (Figure 1).



**Figure 1. Apalachicola-Chattahoochee-Flint (ACF) River Basin.**



The ACF River Basin is a dynamic hydrologic system characterized by interactions between aquifers, streams, reservoirs, floodplains, and estuaries. Water resources in the basin have been managed to serve a variety of purposes, including navigation, hydroelectric power, flood risk management, water supply, and recreation. There are 16 reservoirs on the main stems of the Apalachicola, Chattahoochee, and Flint Rivers (5 federal and 11 non-federal projects), which have altered the natural stream flow and provided water supply improvements and recreational opportunities for the public in these resource areas. The interrelationship between operation of the dams and the resulting river flows has resulted in a highly regulated system over much of the basin. The principal rivers, particularly in the lower half of the basin, receive a substantial contribution of water from groundwater baseflow during dry periods (Comprehensive Water Resources Study Partners, 1995).

## 1.2 Federal Authorizations

Several pieces of authorizing federal legislation affect the ACF River Basin. Section 2 of the *River and Harbor Act of 1945* (Public Law [P.L.] 79-14) approved the general plan recommended in House Document 342, 76th Congress, for development of the Apalachicola, Chattahoochee, and Flint Rivers, Georgia and Florida, for the multiple purposes of navigation, hydroelectric power generation, and flood risk management. A modification to the 1945 general plan was authorized by Section 1 of the *River and Harbor Act of 1946* (P.L. 79-525), in accordance with the report of the Chief of Engineers dated May 13, 1946 (House Document 300, 80th Congress), to include Buford multipurpose reservoir (Lake Lanier), the Fort Benning Lock and Dam, and the Upper Columbia and Jim Woodruff multipurpose developments. The navigation feature of the project was to be provided by dredging, channel contraction works, construction of a series of locks and dams, and flow regulation by the upstream reservoirs. In the Apalachicola River portion of the project, the 1946 amendment provided that "...local interests furnish free of cost to the United States, as and when required, all rights-of-way, spoil-disposal areas, easements and other lands required for the provision and maintenance of a navigation channel in the Apalachicola River...." Further modifications authorized by Congress in 1953 (House Committee Public Works Resolution adopted May 19, 1953) substituted the now George W. Andrews and Walter F. George Locks and Dams for the Upper Columbia multipurpose project and Fort Benning Locks and Dam. The *Flood Control Act* of 1962 authorized West Point Lake, in accordance with House Document No. 570, 87th Congress.

Other authorities generally applicable to Corps reservoir projects may affect operation of the ACF system. Such authorities include the *Flood Control Act of 1944* (P.L. 78-534), which provides the authority to add recreation as a purpose and to contract for use of surplus water for domestic purposes; the *Water Supply Act of 1958* (P.L. 85-500, Title III), which provides the authority to include storage for municipal and industrial water supply; the *Fish and Wildlife Coordination Act of 1958* (P.L. 85-624), which provides the authority to modify projects to conserve fish and wildlife; the *Federal Water Pollution Control Act Amendments of 1972* (P.L. 92-500), known as the *Clean Water Act*, which establish the goal to restore and maintain the quality of the Nation's waters; and the

1 *Endangered Species Act of 1973* (ESA; P.L. 93-205), which provides the authority for  
2 operating projects to protect threatened or endangered fish and wildlife.

### 3 **1.3 Corps Projects in the ACF River Basin**

4 The Corps operates five dams in the ACF River Basin (in downstream order): Buford,  
5 West Point, Walter F. George, George W. Andrews, and Jim Woodruff. All but one is  
6 located wholly on the Chattahoochee River arm of the basin. The exception is the  
7 downstream-most dam, Woodruff, which is immediately below the confluence of the  
8 Chattahoochee and Flint rivers and marks the upstream extent of the Apalachicola River.  
9 Andrews is a lock and dam without any appreciable water storage behind it, but Buford,  
10 West Point, George, and Woodruff dams are reservoirs (Lakes Lanier, West Point,  
11 George, and Seminole, respectively) with a combined conservation storage capacity  
12 (relative to the top of each reservoir's full summer pool) of about 1.6 million acre-feet.  
13 Because Jim Woodruff Dam/Lake Seminole is operated as a run-of-river project, only  
14 very limited storage is available to support project purposes. The Corps projects in the  
15 ACF River Basin and their authorized project purposes are described in more detail in the  
16 following subsections.

#### 17 **1.3.1 Lake Sidney Lanier and Buford Dam**

18 The Corps' Buford Dam on the Chattahoochee River is a multipurpose project that  
19 provides benefits including flood risk management, hydroelectric power generation,  
20 navigation, recreation, water supply, water quality, and fish and wildlife conservation.  
21 Section 2 of the *River and Harbor Act of 1945* (P.L. 79-14) approved the general plan  
22 recommended in House Document 342, 76th Congress, for development of the  
23 Apalachicola, Chattahoochee, and Flint Rivers, Georgia and Florida, for the multiple  
24 purposes of navigation, hydroelectric power generation, and flood risk management. A  
25 modification to the 1945 general plan was authorized by Section 1 of the *River and*  
26 *Harbor Act of 1946* (P.L. 79-525), in accordance with the report of the Chief of  
27 Engineers dated May 13, 1946 (House Document 300, 80th Congress), and it included  
28 Buford multipurpose reservoir (Lake Sidney Lanier, or Lake Lanier).

29 The authorized project provides for a rolled-earth dam 1,630 feet long with crest at  
30 elevation 1,106 feet National Geodetic Vertical Datum of 1929 (NGVD), or about 192  
31 feet above streambed elevation; three earthen saddle dikes with a total length of 5,406  
32 feet; a chute spillway with crest at elevation 1,085 feet; a powerhouse in a deep cut, with  
33 steel penstocks in tunnels and concrete intake structure at the upstream end of the tunnels;  
34 and a flood control sluice tunnel paralleling the power tunnels.

35 Lake Lanier has a total storage capacity of 2,554,000 acre-feet at elevation 1,085 feet. Of  
36 this, 1,049,400 acre-feet (at elevation 1,070) is usable for power generation, 637,000  
37 acre-feet is reserved for flood risk management, and 867,600 acre-feet is inactive storage.  
38 The minimum power pool elevation is 1,035 feet, and the maximum power pool  
39 (maximum conservation pool) elevations are 1,071 feet in the summer and 1,070 feet in  
40 the winter. Lake Lanier has a surface area of 38,024 acres at elevation 1,070 feet. The

power installations consist of one generating unit of 6 megawatts (MW) and two units of 50 MW each, or a total of 106 MW. It operates in a peaking mode, generating power between two and six hours during normal operations each weekday depending on the conservation pool elevation. Weekend generation may occur if required to meet customer needs. When peaking generation is not occurring, the 6-MW unit is run continuously to assist in maintaining minimum downstream flows.

Since the mid-1970s, the Corps has, at times, made additional releases from the larger generating units during off-peak periods to accommodate downstream water supply withdrawals and to assist with maintaining a 750 cubic feet per second (cfs) minimum flow target established by the State of Georgia at Peachtree Creek. Such releases have been made in conjunction with the Georgia Power Company's operation of the Morgan Falls reservoir, which serves to reregulate releases from Buford Dam, and according to understandings among multiple parties, memorialized in a series of interim plans and agreements (e.g., an interim plan in 1975, a modified interim plan in 1979, and a short-term plan in 1986). As noted above, however, on July 17, 2009, Federal District Court Judge Paul A. Magnuson issued a memorandum and order in the case *In re Tri-State Water Rights Litigation*. The court determined that the Corps has exceeded its authority under the project authorization and the *Water Supply Act of 1958* by operating the Buford Dam/Lake Lanier project to accommodate present levels of withdrawals for water supply. The court's order states that "absent congressional authorization or some other resolution of this dispute" within three years of July 17, 2009, "the required off-peak flow will be 600 cfs and only Gainesville and Buford will be allowed to withdraw water from the lake."

### 1.3.2 West Point Lake and Dam

The Corps' West Point Dam and Lake were authorized by the *Flood Control Act* of October 23, 1962 (P.L. 87-874). The authorized project purposes for the reservoir are flood risk management, hydroelectric power generation, navigation, recreation, water quality, and fish and wildlife conservation.

The authorized project provides for a gravity-type concrete dam 896 feet long with earthen embankments at either end—1,111 feet long on the east end and 5,243 feet long on the west end. The total length of the dam and spillway is 7,250 feet. The main dam consists of a concrete non-overflow section, 185 feet long on the west side, and an earthen embankment retaining wall on the east side. The main dam has a gravity concrete spillway 390 feet long, including piers and abutments, with six tainter gates, each 50 feet by 41 feet. A monolith intake-powerhouse section and erection bay 321 feet long are constructed directly west of and adjacent to the spillway.

At the full pool elevation of 635 feet NGVD, the reservoir provides a total storage of 605,000 acre-feet, of which 307,000 acre-feet is usable. Flood risk management storage of 85,200 acre-feet is provided between pool elevations 635 feet and 641 feet. During the critical flood season, the reservoir is operated with a maximum power pool elevation of 625 feet to provide additional flood risk management storage of 221,000 acre-feet. West Point Lake has a surface area of 25,900 acres at an elevation of 635 feet. The power

installations consist of one generating unit of 3 MW and two units of 42 MW each, or a total of 87 MW.

When peaking generation is not occurring, the 3 MW unit is run continuously, releasing 675 cfs to the Chattahoochee River. It operates in a peaking mode, generating power between two and six hours during normal operations each weekday depending on the conservation pool elevation. Weekend generation may occur if required to meet customer needs. Lake levels vary during high inflows to the basin and during flood storage drawdown in the winter. Flood flows captured in the reservoir are usually released slowly over the subsequent weeks, unless additional flood flows are expected. Power releases during the low-flow season augment flows at the Georgia Power Company projects along the Chattahoochee River. The releases also provide water for navigation on the Apalachicola River below Jim Woodruff Lock and Dam during the winter.

### **1.3.3 Walter F. George Lock and Dam**

Walter F. George Lake, also known as Lake Eufaula, is created by the Walter F. George Lock and Dam on the Chattahoochee River about 183 miles upstream of Apalachicola Bay. The authorized project purposes are hydroelectric power generation, navigation, recreation, water quality, and fish and wildlife conservation. The existing project provides for a concrete dam, gated spillway, and single-lift lock, with earthen embankments at either side. The non-overflow section of the dam includes a powerhouse and an intake structure. The gated spillway is 708 feet long with a fixed crest at elevation 163 feet NGVD. The two earthen embankments, almost equal in length, have a total length of 12,128 feet, with crest elevation at 215 feet and a maximum height of about 68 feet. The non-overflow section of the concrete dam is 200 feet long, with the deck of the powerhouse section at elevation 208 feet. A lock 82 feet wide and 450 feet long, along with a 9-foot-deep, 200-foot-wide navigation channel extending to Columbus, Georgia, is authorized for navigation use. The lock has a lift of 88 feet with the normal upper pool elevation at 190 feet. Depths are 13 feet over the lower sill and 18 feet over the upper sill at normal pool elevation.

At the full pool elevation of 190 feet, the reservoir provides a total storage of 934,600 acre-feet, of which 244,400 is reserved for power production. Walter F. George Lake is the largest reservoir in the ACF River Basin; it has a surface area of 45,180 acres at elevation 190 feet. The power installation at the lake is being rehabilitated. When the rehabilitation is complete, the installation will consist of four generating units of 42 MW, for a total of 168 MW. It operates in a peaking mode, generating power between two and six hours during normal operations each weekday depending on the conservation pool elevation. Weekend generation may occur if required to meet customer needs.

### **1.3.4 George W. Andrews Lock and Dam**

The George W. Andrews Lock and Dam is a navigation project on the Chattahoochee River, 154 miles upstream of Apalachicola Bay. Its authorized project purposes are navigation, recreation, and water quality. It consists of a concrete fixed-crest spillway

340 feet long extending into the right bank with crest at elevation 102 feet NGVD, a concrete gate spillway adjacent to the lock 280 feet long with crest at elevation 82 feet NGVD, a single-lift lock with usable chamber dimensions of 82 feet by 450 feet, and a maximum lift of 25 feet. Depths are 13 feet over the lower sill and 19 over the upper sill at a normal pool elevation of 102 feet. The Andrews project reregulates inflows caused by peaking power operations at Walter F. George powerhouse.

### 1.3.5 Lake Seminole and Jim Woodruff Dam

The Jim Woodruff Lock and Dam is on the Apalachicola River 107.6 miles above its mouth, about 1,000 feet below the confluence of the Chattahoochee and Flint Rivers and 1.5 miles northwest of Chattahoochee, Florida. The reservoir, Lake Seminole, extends about 46.5 miles upstream along the Chattahoochee River to the vicinity of Columbia, Alabama, and about 47 miles upstream along the Flint River, or 17 miles above Bainbridge, Georgia. The authorized project purposes are hydroelectric power generation, navigation, recreation, water quality, and fish and wildlife conservation.

The existing project provides for a concrete open-crest spillway 1,634 feet long on the right bank, with crest at elevation 79 feet NGVD; a single-lift lock with usable chamber dimensions of 82 feet by 450 feet constituting a portion of the dam; an earthen section 506 feet long, with a maximum lift of 33 feet and a depth over the sills of 14 feet; a gated spillway 766 feet long with the bridge at elevation 107 feet NGVD, or about 67 feet above the streambed elevation; a powerhouse with an intake section constituting a portion of the dam; an earthen section 506 feet long to accommodate the switchyard and substation; and an overflow dike section 2,130 feet long on the left bank, with crest at elevation 85 feet. At the normal pool elevation of 77 feet, the reservoir has a total capacity of 367,320 acre-feet and a surface area of 37,500 acres. The power installation consists of three units of 14.45 MW, or a total of 43.35 MW. The reservoir level is normally maintained near elevation 77 feet. Pondage of one-half foot above and below this elevation is used to reregulate flows into the reservoir from upstream projects that operate as peaking plants. Because there is no flood risk management storage at this project, the reservoir level is maintained at elevation 77 feet by passing inflows through the spillway gates or through the powerhouse.

On March 7, 2006 the Corps of Engineers, Mobile District, initiated formal consultation with the US Fish and Wildlife Service (USFWS), pursuant to Section 7 of the *Endangered Species Act*, regarding the effects of existing operations at Jim Woodruff Dam and releases to the Apalachicola River on endangered and threatened species and associated critical habitat. Specific species/critical habitat affected include: the threatened Gulf sturgeon (*Acipenser oxyrinchus desotoi*) and critical habitat for the Gulf sturgeon; the endangered fat threeridge mussel (*Amblema neislerii*); the threatened purple bankclimber mussel (*Elliptioideus sloatianus*); and the threatened Chipola slabshell mussel (*Elliptio chipolaensis*). The formal consultation on what was termed the Interim Operation Plan was completed with the issuance of a Biological Opinion on September 5, 2006. Over the 2006-2008 timeframe, the Corps and USFWS continued to consult resulting in additional modifications to the IOP. Formal consultation was again requested

1 by the Corps on April 15, 2008, to consider further revising the IOP (RIOP) to include a  
2 drought contingency plan that allows for additional storage conservation and system  
3 recovery during periods of extreme drought and providing additional opportunities to  
4 conserve storage when entering and exiting drought conditions while still providing  
5 support for federally listed species and their critical habitat in the Apalachicola River. A  
6 final BO was issued by the USFWS on June 1, 2008, determining that the RIOP would  
7 not significantly impact the federally listed species. The RIOP is intended to govern  
8 releases from Jim Woodruff Dam until revised or replaced with a new Water Control  
9 Plan.

#### 10 ***1.4 Non-Corps-Owned Dams in the ACF River Basin***

11 There are 11 additional dams within the ACF River Basin that are not owned and  
12 operated by the Corps. Brief descriptions of the dams are provided below. Table 1  
13 provides an overview of all the dams (Corps and non-Corps) within the ACF River Basin.  
14 The Morgan Falls project is on the Chattahoochee River 30 miles below Buford Dam at  
15 river mile 312.6. The dam impounds a 7-mile reservoir that has a surface area of 580  
16 acres at elevation 866 feet. The total reservoir storage volume is about 2,450 acre-feet, of  
17 which 2,239 acre-feet (between elevations 858 and 866) is usable. In current practice,  
18 Georgia Power seeks to maintain a minimum elevation of 862 feet, resulting in usable  
19 storage of 1,710 acre-feet (between elevations 862 and 866). The maximum generating  
20 capacity of the project is 16.8 MW. Georgia Power operates the Morgan Falls Project as a  
21 modified run-of-river project to reregulate peaking flows from the Corps' upstream  
22 Buford Dam for power generation, drinking water supply, and assimilation of treated  
23 wastewater in the Atlanta region.

24 Below West Point Dam are a series of eight hydropower dams along approximately 32  
25 miles of river. Six of these dams are part of Georgia Power's Middle Chattahoochee  
26 Hydro Group; they are known individually as Langdale, Riverview, Bartlett's Ferry, Goat  
27 Rock, Oliver, and North Highlands. The first two, Langdale Dam and Riverview Dam,  
28 have very small, unnamed reservoirs. The larger projects at Bartlett's Ferry, Goat Rock,  
29 Oliver, and North Highlands are described below. The Middle Chattahoochee projects  
30 operate in a run-of-river-with-pondage mode, based on the outflow from the Corps' West  
31 Point Dam upstream.

32



**Table 1. Projects in the ACF River Basin**

Basin/River/Project Name	Owner/State/ Year Initially Completed	Drainage Area (Sq Mi)	Reservoir Size (Ac)	Total Storage (Ac-Ft)	Conservation Storage (Ac-Ft)	Power Capacity (kW)	Normal (Summer) Lake Elev (Ft)	Authorized Purposes for Corps-Owned Projects <sup>a</sup>
Chattahoochee River		8,770						
Buford Dam/Lake Lanier	Corps/GA/1957	1,040	38,542	1,957,000	1,087,600	86,000	1,071	FRM, HP, NAV, REC, WQ, FW
Morgan Falls Dam	GPC/GA/1903	1,340	580	2,450	NA	16,800	866	
West Point Dam and Lake	Corps/GA/1975	3,440	25,900	604,520	306,100	82,200	635	FRM, HP, NAV, REC, WQ, FW
Langdale Dam	GPC/GA/1860	3,600	152	NA <sup>b</sup>	NA	401	548	
Riverview Dam	GPC/GA/1902	3,600	75	NA	NA	480	531	FRM, HP, NAV, REC, WQ, FW
Barletts Ferry Dam	GPC/GA/1926	4,260	5,850	181,000	NA	129,300	521	
Goat Rock Dam	GPC/GA/1912	4,500	965	11,000	NA	68,100	404	FRM, HP, NAV, REC, WQ, FW
Oliver Dam	GPC/GA/1959	4,630	2,280	32,000	NA	60,000	337	
North Highlands Dam	GPC/GA/1900	4,630	131	1,500	NA	29,600	269	FRM, HP, NAV, REC, WQ, FW
City Mills Dam <sup>c</sup>	City Mills/GA/1863	4,630	110	684	NA	740	226	
Eagle and Phenix Dam <sup>c</sup>	Consolidated Hydro/GA1834	4,640	NA	260	NA	4,260	215	FRM, NAV, REC, WQ, FW
W. F. George Lock and Dam and Lake (Lake Eufaula)	Corps/GA/1963	7,460	45,180	934,400	244,400	130,000	190	
George W. Andrews Lock and Dam and Lake	Corps/GA/1963	8,210	1,540	18,180	NA	None	102	NAV, REC, WQ
Flint River		8,460						
Blackshear Dam and Lake <sup>c</sup>	Crisp Co./GA1930	3,800	8,700	144,000		13,000	237	
Flint River Dam/Lake Worth	GPC/GA/1920	5,310	1,400	NA		5,400	182	
Apalachicola River		19,600						
Jim Woodruff Lock and Dam/ Lake Seminole	Corps/FL/1954	17,230	37,500	367,320	NA	30,000	77	HP, NAV, REC, WQ, FW

<sup>a</sup> FC = flood control; HP = hydropower; NAV = navigation; REC = recreation; WQ = water quality; WS = Water Supply; FW = fish and wildlife conservation.

<sup>b</sup> NA = not available.

<sup>c</sup> Currently inoperative.

- 1 • Bartlett's Ferry Dam is on the Chattahoochee River upstream of Columbus,  
2 Georgia. The dam impounds Lake Harding, which has a surface area of 5,850  
3 acres at elevation 521 feet. The project includes a powerhouse composed of six  
4 units, which have a total generating capacity of 173 MW.
- 5 • Goat Rock Dam is at mile 172.2 on the Chattahoochee River. It impounds Goat  
6 Rock Lake, which has a surface area of 965 acres at elevation 404 feet. The  
7 powerhouse consists of six units with a total generating capacity of 40 MW. The  
8 project provides an instantaneous target minimum flow release of 800 cfs, or  
9 inflow, whichever is less, downstream of the dam.
- 10 • Oliver Dam, which impounds Lake Oliver, is at mile 163.5 on the Chattahoochee  
11 River downstream of Goat Rock Dam. The lake has a surface area of 2,280 acres  
12 at elevation 337 feet. The powerhouse consists of three 18-MW generating units  
13 and one small 6-MW generating unit, for a total capacity of 60 MW. The project  
14 provides an instantaneous target minimum flow release of 800 cfs, or inflow,  
15 whichever is less, downstream of the dam
- 16 • The North Highlands project is at mile 162.5 on the Chattahoochee River  
17 downstream of Oliver Dam. The impoundment has a water surface area of 131  
18 acres at elevation 269 feet. It has four units with a total generating capacity of  
19 29.6 MW. The project is operated in a run-of-river-with-pondage mode, based on  
20 the outflow from the West Point Dam upstream. It provides an instantaneous  
21 target minimum flow release of 800 cfs, or inflow, whichever is less, downstream  
22 of the dam; a daily average target minimum flow of 1,350 cfs, or inflow,  
23 whichever is less, downstream of the project; and a weekly average target  
24 minimum flow of 1,850 cfs, or inflow, whichever is less, downstream of the  
25 project.

26 Two other dams, City Mills Dam and Eagle and Phenix Dam, are located downstream of  
27 Georgia Power's Middle Chattahoochee Hydro Group. These dams are inoperative, and  
28 the Corps is considering them for removal under the authority of Section 206 of the  
29 *Water Resources Act of 1996*, as amended, in the interest of aquatic ecosystem  
30 restoration.

31 Lake Blackshear Dam, owned and operated by the Crisp County Power Commission,  
32 impounds the Flint River near Warwick, Georgia, at river mile 134.7. The power plant  
33 consists of four units with a total licensed capacity of 15.2 MW. The project consists of  
34 two earthen dams, each 30 feet high. The North Dam is 3,400 feet long, and the South  
35 Dam is 650 feet long. The drainage basin is approximately 3,764 square miles and begins  
36 at Hartsfield Airport just south of Atlanta, Georgia. The normal full pool elevation is 237  
37 feet above mean sea level (msl).

38 Lake Worth is formed by the Lake Worth Dam on the Flint River, at its confluence with  
39 Muckalee Creek and Kinchafoonee Creek. The Georgia Power Company owns and  
40 operates the project. The lake covers 1,400 acres and has 36 miles of shoreline. It is in  
41 Dougherty County just upstream of Albany, Georgia. The power installation consists of  
42 three units with a capacity of 5.4 MW.

## 1.5 The ACF Master Manual

In January 2008 Secretary of the Army Pete Geren directed the Corps to update the Master Manual. The current Master Manual was completed in 1958, and while reservoir regulation manuals for the later-constructed projects of West Point Dam, Walter F. George Lock and Dam, and George W. Andrews Lock and Dam were subsequently appended, and some reservoir manuals were updated, the Master Manual has not been comprehensively revised since 1958.

In 1989 two proposals caused controversy between water user groups, the states of Alabama, Florida, and Georgia, and various federal agencies. The Corps proposed to reallocate storage to municipal and industrial water supply at three reservoirs in the Alabama, Coosa, Tallapoosa (ACT) and Apalachicola, Chattahoochee, Flint (ACF) River Basins—Lake Lanier, Lake Allatoona, and Carters Lake—and the State of Georgia proposed to develop a regional reservoir near the Alabama state line (West Georgia Regional Reservoir). A draft Reallocation and Post-Authorization Report and draft Environmental Assessment had been prepared for the Lake Lanier proposal. A draft ACF River Basin Water Control Plan, dated October 1989, was included as an appendix to the post-authorization change report. The State of Alabama filed a lawsuit against the Corps in June 1990 to halt these proposed actions. As a result of the litigation, the proposed revisions to the Master Manual were deferred while the parties negotiated. The Corps has been operating under the Draft 1989 Master Water Control Plan pending the update of the Master Manual and individual project water control plans.

After a period of negotiation, the governors of Alabama, Florida, and Georgia and the Assistant Secretary of the Army/Civil Works addressed the issues of concern by signing a Memorandum of Agreement (MOA) on January 3, 1992. The MOA specified that a comprehensive study of the water resources of the basins would be conducted, in partnership among the states and the Corps, to develop the needed water resources data and to investigate the feasibility of implementing an interstate coordination mechanism (compacts) for resolving water resources issues in the ACT and ACF River Basins. The MOA contained a “live and let live” provision for water use in the basins while the ACT/ACF Comprehensive Study and negotiations were conducted. This approach permitted existing water users to reasonably increase water withdrawal amounts for the period necessary to negotiate a solution to the water issues. The MOA also specified that the Corps would operate the federal reservoirs in the ACT and ACF River Basins, within its statutory and contractual obligations, to maximize water resource benefits to the basins as a whole while taking into account the needs of existing water users and the need to maintain the historical flow regime in the rivers within the basins.

Subsequent supplemental MOAs extended the term of these agreements and continued to include the “live and let live” provisions. The Comprehensive Study partners recommended river basin compacts between the states as the mechanism for negotiation of water allocation formulas and management of the basins. The “live and let live” provisions were incorporated into the Interstate River Basin Compacts for each basin, signed into law by the President in November 1997; the MOAs were allowed to expire in September 1998.

1 It was envisioned that the Comprehensive Study would recommend, among other things,  
2 a conceptual plan for management of water resources in the ACT and ACF River Basins,  
3 including management of the federal and non-federal reservoirs within the basins; an  
4 assessment of existing and future water resource needs; the extent of water resources  
5 available within the basins to serve such needs; and an appropriate mechanism to  
6 implement management of the basins. The Comprehensive Study reports were never  
7 finalized, although much useful data on water resource needs and availability was  
8 generated and assessment and modeling tools were developed to assist in resource  
9 assessment and management of the basins.

10 Compact negotiations began in early 1998, with a December 31, 1998, deadline for  
11 reaching agreement on the water allocation formulas. By mutual agreement and in  
12 accordance with the provisions of the Compacts, the states extended the deadline  
13 numerous times. Nevertheless, the State Commissioners (governors of each state) were  
14 unable to reach an agreement on an equitable apportionment of the waters in either basin,  
15 and the Compacts were allowed to expire in August 2003 (ACF River Basin) and in July  
16 2004 (ACT Basin). Upon expiration of the ACT and ACF Compacts, Alabama and  
17 Florida reactivated their previous litigation and filed new litigation, resulting in a stay of  
18 any action by the Corps related to implementation of any new water supply contracts or  
19 changes in reservoir storage or water control operations. The states asserted in the  
20 litigation that water control operations in the ACF River Basin are not being conducted in  
21 accordance with approved water control plans, Corps regulations, and federal law. The  
22 ACF claims have been consolidated as Multiple District Litigation to be heard by one  
23 judge in the District Court for the Middle District of Florida—*In re Tri-State Water*  
24 *Rights Litigation* (M.D. Fla. No. 3:07-md-01).

25 Court-ordered mediation between the parties was initiated in March 2006 for both the  
26 ACT and ACF litigation. It expired in March 2007 (ACF River Basin) and in September  
27 2007 (ACT Basin). On January 30, 2008, Secretary Geren directed the Corps to proceed  
28 with updating the water control plans for the ACF River Basin. The Mobile District  
29 published a Notice of Intent (NOI) to prepare an EIS for the ACF Master Manual update  
30 in the *Federal Register* on February 22, 2008.

31 Water supply issues in the ACF River Basin were also the subject of litigation in the  
32 Federal District Court for the District of Columbia (D.C. Court) in December 2000, when  
33 the Southeast Federal Power Customers, Inc. (SeFPC) sued the Corps, alleging that use of  
34 water from Lake Lanier for water supply was not authorized and that the power  
35 customers were not receiving appropriate credit for hydropower losses. A Settlement  
36 Agreement in that lawsuit between the Corps and the SeFPC and Lake Lanier Water  
37 Supply Providers was reached in January 2003 and approved by the D.C. Court on  
38 February 8, 2004. The Settlement Agreement includes a proposal for the Corps to enter  
39 into interim water storage contracts at Lake Lanier for several municipalities and local  
40 governments, with the potential for the interim water storage contracts to roll over to  
41 permanent reallocation storage contracts in the future. Efforts to implement the  
42 Agreement, however, could not proceed because of an injunction obtained by the State of  
43 Alabama in another federal court. That injunction was dismissed, and on December 21,

1 2005, the SeFPC filed a motion with the D.C. Court to stay proceedings in the case  
2 pending completion of the NEPA process contemplated by the Settlement Agreement.

3 In January 2006, the D.C. Court issued an order granting the stay and specifically stating  
4 that the stay of the litigation would not release the Corps from its existing legal obligation  
5 to implement the Settlement Agreement as expeditiously as practicable. On June 16,  
6 2006, the Mobile District published in the *Federal Register* an NOI to prepare an EIS to  
7 address the proposed interim storage contracts. Public scoping meetings were held in  
8 November 2006, and a final Scoping Report was published in February 2007. The States  
9 of Alabama and Florida appealed the SeFPC D.C. Court decision to the D.C. Circuit, and  
10 arguments were heard in November 2007. On February 5, 2008, the D.C. Circuit held the  
11 Settlement Agreement invalid because it constituted a water allocation of more than 20  
12 percent without congressional consent, in violation of the *Water Supply Act of 1958*. The  
13 State of Georgia filed a petition for a writ of certiorari with the Supreme Court on the  
14 decision by the D.C. Circuit. The Supreme Court denied the petition January 12, 2009.

15 On November 1, 2007, the governors of Alabama, Florida, and Georgia met with  
16 executive branch leaders (Secretary of the Department of the Interior, Chairman of the  
17 Council on Environmental Quality [CEQ], Chief of Engineers) to discuss strategies for  
18 developing solutions to the decades-long “water wars” between the three states. The  
19 resulting discussions focused primarily on the ACF system and the need for the states to  
20 agree on a drought water-management plan. The mutually agreed-upon deadline was  
21 March 1, 2008. The negotiations did not reach an agreement and ended on the agreed-  
22 upon deadline date.

23 On July 17, 2009, Federal District Court Judge Paul A. Magnuson issued a memorandum  
24 and order in the case *In re Tri-State Water Rights Litigation*, referred to above,  
25 addressing the Corps’ authority to provide water supply benefits through its operation of  
26 the Buford Dam/Lake Sidney Lanier project. That decision is currently on appeal.  
27 Nonetheless, the Corps is revising the scope of the EIS and Master Manual updates in the  
28 following respects to address the Court’s order:

- 29 • The Court held that the Corps lacks the authority to continue to support the  
30 present levels of water supply withdrawals at Lake Lanier or to reallocate storage  
31 to accommodate those or additional withdrawals. Based on that ruling, the Court  
32 has ordered that such operations and most withdrawals from Lake Lanier must  
33 cease in July 2012. Thus, while the Corps had previously announced its intention  
34 to update the plans and manuals “to reflect current operations,” the Corps must  
35 now also prepare to update its plans and manuals to implement the operations  
36 necessary to comply with the Court’s order, which will require a reduction in  
37 water supply withdrawals “[a]t the end of three years, absent Congressional  
38 authorization or some other resolution of this dispute,”<sup>1</sup> or unless the order is  
39 overruled on appeal or otherwise modified.
- 40 • To conform with the Court’s order, the updated manuals would reflect, as of July  
41 17, 2012, water supply withdrawals from Lake Lanier limited to the amounts

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<sup>1</sup> *In re Tri-State Water Rights Litigation*, No. 07-md-01, slip op. at 93 (M.D. Fla. July 17, 2009)

1 authorized by relocation agreements with the Cities of Gainesville and Buford,  
2 Georgia. Those agreements, which were executed at the time of the reservoir's  
3 construction, authorize withdrawals of 8 million gallons per day (mgd) for  
4 Gainesville and 2 mgd for Buford, a combined 10 mgd.

- 5 • The Court's order would also require the updated manuals, as of July 17, 2012, to  
6 reflect that "the required off-peak flow [at Buford Dam] will be 600 cfs."  
7 Currently, peak hydropower demand at Buford Dam typically occurs on  
8 weekdays from 5:00 a.m. to 9:00 a.m. and 3:00 p.m. to 10:00 p.m. between  
9 October 1 and March 31, and on weekdays from 1:00 p.m. to 7:00 p.m. between  
10 April 1 and September 30. Thus, under the revisions to the manuals necessary to  
11 comply with the Court's order, the Corps will not release more than 600 cfs from  
12 Buford Dam to support water supply withdrawals when it is not generating  
13 hydropower to meet this peak demand.
- 14 • If the Court's order stands, the Corps will be required to update its plans and  
15 manuals to conform with the Court's order (as described above) and will begin  
16 implementing those operations in July 2012. The Corps will continue to consider  
17 its present operations as an alternative during this process, however, because the  
18 Court's order states that "current water-supply withdrawal levels" may continue  
19 for three years after July 17, 2009; because current operations provide an  
20 environmental baseline as the no-action alternative under NEPA; and because the  
21 Court's order may be overruled on appeal or otherwise modified. Should the  
22 states and other interested parties to *In re Tri-State Water Rights Litigation* reach  
23 an agreement that involves reallocation of storage for water supply, the Corps  
24 would be prepared to submit that agreement to the Army and higher executive  
25 branch authorities for consideration and possible referral to Congress. Should  
26 Congress enact legislation authorizing additional water supply at Lake Lanier, the  
27 Corps would update its operations, plans, and manuals accordingly.

28 The appendices to the Draft 1989 Master Water Control Plan include federal-reservoir-  
29 specific water control plans that outline the regulation schedules for each of the five  
30 projects, including operating criteria, guidelines, guide curves, and specifications for  
31 storage and releases from the reservoirs.

32 The operation of federal reservoirs in the ACF system provides benefits including flood  
33 risk management (previously referred to as flood control), fish and wildlife conservation,  
34 navigation, hydroelectric power generation, water supply, water quality, and recreation.  
35 To accomplish the authorized project purposes and to operate the system efficiently to  
36 maximize these and other benefits, water must be stored during the wetter times of each  
37 year and released from storage during drier periods. Generally, this means that water is  
38 stored in the lakes during the spring and released in the summer and fall. However, some  
39 benefits such as lakeside recreation, water supply, and lake fish spawning are achieved by  
40 retaining water in the lakes throughout the year or during specified periods. The complex  
41 hydrology and varied uses of the ACF system require that the Corps operate the system in  
42 a balanced operation in an attempt to meet all the authorized purposes while continuously  
43 monitoring the total system's water availability to ensure that minimum project purposes  
44 can be achieved during critical drought periods.



1 To help do this, the Corps has defined four Action Zones in each of the major ACF  
2 storage projects—Buford, West Point, and Walter F. George. Action Zone 1, the highest  
3 in each lake, defines a reservoir condition in which all authorized project purposes should  
4 be met. As lake levels decline, Action Zones 2 through 4 define increasingly critical  
5 system water shortages and guide the Corps in reducing flow releases as pool levels drop  
6 as a result of drier-than-normal or drought conditions. The Action Zones also provide a  
7 guide to the Corps to help balance the remaining storage in each of the three major  
8 storage reservoirs.

9 Corps regulations require developing a water control plan for each reservoir project, as  
10 well as a basin Master Water Control Manual (Master Manual) for the coordinated  
11 operation of multiple projects within a river basin. Regulations further require that these  
12 water control plans and manuals be updated or revised as necessary to conform with  
13 changing requirements due to developments in the project area and downstream,  
14 improvements in technology, new legislation, and other relevant factors, provided such  
15 revisions comply with existing federal regulations and established Corps policy. The  
16 water control plans and manuals for the Corps reservoir projects in the ACF River Basin  
17 are out-of-date and need to be updated. The last approved Apalachicola River Basin  
18 Reservoir Regulation Manual is dated 1958. Although separate water control plans for  
19 each federal reservoir project in the ACF River Basin have been prepared and updated  
20 since that time, many of them need to be updated. As stated previously, the Draft Water  
21 Control Plan for the ACF River Basin was updated in 1989 but never finalized. Although  
22 the 1989 draft plan was never finalized, the Corps has continued to operate the ACF in  
23 accordance with it, making small changes or adjustments as circumstances required.  
24 Coordination and consultation under the ESA has been accomplished for project  
25 operations as the need arose, although formal consultation for the basin-wide manual  
26 operations has not been completed.

27 The Corps now intends to proceed with updating those water control plans and the basin  
28 manual for the ACF. The proposed updates of the water control plans and manual are  
29 intended to reflect operations as they have evolved due to changing conditions in the  
30 basin and will fully comply with agency regulations, federal laws, and the Court's order.  
31 The states and other stakeholders will be involved in developing the plans. The process of  
32 updating the water control plans, subject to the availability of funds, is estimated to take  
33 approximately 2½ years. It will include public involvement and analysis under NEPA  
34 and consultation under the ESA. Furthermore, to satisfy its obligations under NEPA, the  
35 Corps will evaluate present circumstances as part of its EIS, while acknowledging that  
36 the Court has held that it lacks the authority to continue to accommodate present levels of  
37 water supply at Lake Lanier beyond July 17, 2012. Updating the water control plans and  
38 manuals will provide a baseline from which future studies or reallocations could be  
39 based, and it will provide a way to capture the Corps' current operating environment.

## 2.0 Scoping Process Summary

The *National Environmental Policy Act* is a “full disclosure” law, providing for public involvement in the NEPA process. All persons and organizations that have a potential interest in major action proposed by a federal agency—including other federal agencies, state and local agencies, federally recognized Native American Indian tribes, interested stakeholders, and minority, low-income, or disadvantaged populations—are encouraged to participate in the NEPA process.

The CEQ regulations implementing NEPA direct federal agencies that have decided to prepare an EIS to engage in a public scoping process. The purpose of scoping is to determine the range of issues to be addressed and to identify the significant issues to be analyzed in depth with respect to the proposed action and alternatives.

Following the decision to prepare an EIS for implementation of an updated Master Manual, the Corps initiated the scoping process. The Corps’ objectives for scoping were to identify public and agency concerns; clearly define the significant environmental issues and alternatives to be examined in the EIS, including the deemphasis of insignificant issues; identify related issues that originate from separate legislation, regulations, or Executive Orders (e.g., endangered species or environmental justice concerns); identify state and local agency requirements that must be addressed; and identify available sources of data, studies, or tools that could provide information valuable in preparing the EIS.

In 2008, the Corps’ scoping process consisted of the following elements:

- Publishing an NOI to prepare an EIS in the *Federal Register*
- Publishing an announcement of the dates and locations of five public scoping meetings in the *Federal Register*
- Updating the existing mailing list by means of an initial postcard requesting accurate contact information
- Distributing a newsletter and a public notice announcing public scoping meetings and locations to federal, state, and local agencies and officials; stakeholders; and other interested parties
- Preparing and launching a Web site that described the NEPA process and all the public involvement activities planned during EIS preparation and served as a tool for collecting public comments and updating the project mailing list
- Distributing a press release to media outlets
- Sending agency scoping and tribal consultation letters by email
- Sending agency scoping and tribal consultation letters by the U.S. Postal Service
- Holding a federal agency meeting and web conference to inform the agencies and solicit comments

- Hosting a Stakeholder's Workshop to share the new and improved version of reservoir simulation software called *Hydrologic Engineering Center (HEC)-ResSim* with all stakeholders groups involved with water management issues in the basin
- Holding five public scoping meetings to inform the public about the proposed action and to solicit oral and written comments on the issues that should be addressed in the EIS
- Reviewing and evaluating the oral and written comments received during the open comment period
- Publishing the scoping report on a Web site at [www.acf-wcm.com](http://www.acf-wcm.com)
- Distributing a newsletter announcing publication of the scoping report to federal, state, and local agencies and officials; stakeholders; tribes; and other interested parties.

The Corps' reopened scoping process in 2009 consisted of the following additional elements.

- Publishing an announcement to reopen public scoping in the *Federal Register*
- Distributing a public notice announcing the reopening of public scoping by email and through the U.S. Postal Service for those who did not have an email address or who requested hard-copy notices
- Preparing and launching a Web site that described the NEPA process and all the public involvement activities planned during EIS preparation and served as a tool for collecting public comments and updating the project mailing list
- Distributing a press release to media outlets
- Reviewing and evaluating the written comments received during the open comment period
- Publishing the scoping report on a Web site at [www.sam.usace.army.mil/pa/acf-wcm/index.htm](http://www.sam.usace.army.mil/pa/acf-wcm/index.htm)
- Distributing a newsletter announcing publication of the scoping report to federal, state, and local agencies and officials; stakeholders; tribes; and other interested parties.

## ***2.1 Initiating Scoping: Notice of Intent***

On February 22, 2008, the Corps published in the *Federal Register* an NOI to prepare an EIS for the proposed implementation of the updated ACF Master Manual. On September 19, 2008, a supplement to the NOI was published in the *Federal Register* to invite the public to participate in the NEPA scoping process. On November 19, 2009, an NOI was published in the *Federal Register* to reopen scoping to revise the scope of the Draft EIS.

The supplemental NOI in 2008 provided details on the dates and locations of the five open-house-style public scoping meetings scheduled at various locations throughout the

ACF River Basin, as well as information explaining the various methods to be used to collect comments from the public for consideration in preparing the Draft EIS.

Both the 2008 and 2009 notices listed Mr. Brian Zettle (USACE Mobile District) as the point of contact for questions regarding the manual update or the NEPA process. Copies of the *Federal Register* notices are provided in Appendix A.

## 2.2 Public Notices

The USACE posted press releases on the USACE Web site at [www.sam.usace.army.mil](http://www.sam.usace.army.mil) to announce both scoping opportunities (2008 and 2009). The press releases were also delivered to newspapers and radio and television stations throughout the basin (Tables 2 and 3). In addition to providing information on the USACE Web site, the Corps also launched a project-specific Web site in 2008, [www.acf-wcm.com](http://www.acf-wcm.com), to provide another avenue for communicating information to stakeholders about the EIS and Master Manual update, as well as to provide for Web-based comment submission during the scoping period. In 2009, the USACE Web site was incorporated into the District's existing site, [www.sam.usace.army.mil/pa/acf-wcm](http://www.sam.usace.army.mil/pa/acf-wcm). The District's site was used in 2009 to collect public comments and provide updates on the status of the EIS. The September 2008 press release summarized the proposed action and the dates, times, and locations of the public scoping meetings held in October 2008. The November 2009 press release announced the revisions that the Corps is making to the EIS based on the July 17, 2009, federal court ruling (Appendix B).

**Table 2. Newspapers that Received Press Releases**

Publication	Location
<i>Abbeville Herald</i>	Abbeville, Alabama
<i>Albany Herald</i>	Albany, Georgia
<i>Atlanta Journal Constitution</i>	Atlanta, Georgia
<i>Columbus Ledger-Enquirer</i>	Columbus, Georgia
<i>The Decatur Daily</i>	Decatur, Alabama
<i>Dahlonega Nugget</i>	Dahlonega, Georgia
<i>Dothan Eagle</i>	Dothan, Alabama
<i>Eufaula Tribune</i>	Eufaula, Alabama
<i>Forsyth County News</i>	Cumming, Georgia
<i>Gainesville Times</i>	Gainesville, Georgia
<i>Gulf County Breeze</i>	Gulf Breeze, Florida
<i>Gwinnett Daily Post</i>	Gwinnett County, Georgia
<i>Jackson County Floridian</i>	Marianna, Florida
<i>LaGrange Daily News</i>	LaGrange, Georgia
<i>Lanette Valley Times</i>	Lanette, Alabama
<i>Montgomery Advertiser</i>	Montgomery, Alabama
<i>Mundo Hispanico</i>	Atlanta, Georgia
<i>Opelika Auburn News</i>	Opelika, Alabama
<i>Pensacola News Journal</i>	Pensacola, Florida
<i>Tallahassee Democrat</i>	Tallahassee, Florida

**Table 3. Television and Radio Stations that Received Press Releases**

Name	City
WRBL TV (Channel 3, CBS)	Columbus, Georgia
WSB TV (Channel 2, ABC)	Atlanta, Georgia
WTVM TV (Channel 9, ABC)	Columbus, Georgia
WXIA TV (Channel 11, NBC)	Atlanta, Georgia
WGCL TV (Channel 46, CBS)	Atlanta, Georgia
WDUN (550 AM)	Gainesville, Georgia
WMJE (102.9 FM)	Gainesville, Georgia
WGST (640 AM)	Atlanta, Georgia
WSB Radio (98.5 FM)	Atlanta, Georgia

A newsletter containing the same information as the press release (Appendix C) was sent to more than 3,800 stakeholders, including federal agencies, state agencies, federally recognized Native American Indian tribes, local agencies and officials, public interest groups, private organizations, individuals, and other interested parties in 2008. In 2009, the relevant content of the November 19, 2009, *Federal Register* was distributed to stakeholders. The newsletter and notice were distributed through the U.S. Postal Service and electronically, if an email address had been provided.

The project mailing list was developed from an existing Corps-maintained database of stakeholders with an interest in activities within the ACF River Basin. In 2008, a postcard was sent to stakeholders to give them an opportunity to update their information to include an email address, provide an alternative contact's email address, state whether they would like to continue to receive mail through the U.S. Postal Service, or remove their name from the mailing list.

At this time, there are more than 6,800 stakeholders on the mailing list. As other interested parties have been identified, they have been added to the mailing list, which will be updated continually throughout the development and finalization of the EIS. Anyone requesting information or notice regarding the EIS will be added to the mailing list. Participants in the public and interagency scoping meetings have been added to the project mailing list as well. Requests to be added to the mailing list can be made at [www.sam.usace.army.mil/pa/acf-wcm](http://www.sam.usace.army.mil/pa/acf-wcm).

### **2.3 Native American Indian Tribal Consultation**

Government-to-government tribal consultation notices (Appendix D) were sent electronically on October 1, 2008, and through the U.S. Postal Service on October 15, 2008, to 26 federally recognized Native American Indian tribes in the United States. The consultation letters contained information regarding the update of the Master Manual, as well as announcements of the interagency and public scoping meetings. The letters also requested a response with respect to interest in participating in a consultation meeting regarding the EISs for both the ACF and ACT River Basins. The meeting was planned for November 13, 2008, in Spanish Fort, Alabama, outside Mobile. Mr. Tommy Birchett,

an archaeologist with the Mobile District, was identified as the point of contact for responses.

Seven of the 26 tribes responded to the initial electronic mailing, several of which mentioned schedule conflicts. Ultimately, only the Choctaw Nation of Oklahoma expressed interest in attending the meeting November 13, 2008.

A final mailing was sent electronically as a follow-up to ensure that no other tribes were interested in participating in government-to-government consultation at the time. Given the limited response, the Corps chose to coordinate with the tribes through email for the time being and referred the tribes to the various resources available online to find out more about the proposed Corps action.

## **2.4 Federal Agency Web Conference**

On September 26, 2008, the Corps sent an electronic invitation to attend a federal agency web conference to the points of contact previously identified in the ACF River Basin. A follow-up announcement was distributed October 6, 2008, to remind agencies of the meeting and request their participation in a pre-meeting agenda planning tool. An online survey was created to collect input from the agencies, and it was later used to establish the web conference agenda. The web conference was held October 9, 2008, at the Mobile District office in Mobile, Alabama. The purpose of the meeting was to provide background information on and an open discussion about updating the Master Manual. The meeting was also used to gather existing data and additional information that can be used in developing the Draft EIS.

Thirty representatives from 11 federal agencies participated in the web conference. In addition to presenting background information on the update of the Master Manual, the Corps provided information on the NEPA process and discussed the resource areas that would likely be considered in the EIS. A summary of the issues raised during the web conference is provided in Section 4.6 of this report. The meeting agenda and presentation are in Appendix E.

## **2.5 HEC-ResSim Technical Modeling Workshop**

The HEC has developed a new and improved version of its reservoir simulation software called *HEC-ResSim*. Recognizing *HEC-ResSim*'s sophisticated computational abilities and maturity as a generalized model, the Mobile District began working with HEC to modernize its ACT and ACF reservoir modeling applications using *HEC-ResSim*. The more powerful system modeling functions and ability to incorporate custom logic into water management decisions provide improved capability to actual operations and allow greater flexibility for evaluating alternatives.

In the interest of transparency and cooperation, the Mobile District and HEC hosted a workshop to share the new tools and data with all stakeholders groups involved with water management issues in the basin. The workshop took place at Jim Woodruff Lock



1 and Dam from September 30 to October 2, 2008, and it focused entirely on technical  
2 topics. Twenty-eight modelers attended the workshop. Twenty-three of the modelers  
3 represented three federal agencies, three state agencies, and one university; the five  
4 remaining modelers were private consultants representing the stakeholders.

5 The session proved very successful in terms of its objectives:

- 6 • Introduce the participants to the HEC-ResSim software.
- 7 • Initiate technology transfer by providing the participants with a copy of the  
8 software and the ACT/ACF Models, walk the participants through the model, and  
9 answer questions.
- 10 • Foster relationships by continuing longstanding technical working relationships  
11 with the stakeholders.

12 Copies of the workshop announcement and agenda are provided in Appendix F. Mobile  
13 District and HEC continue to refine the *HEC-ResSim* models of the ACF system.

## 14 **2.6 Public Scoping Meetings**

15 Public scoping meetings for the ACF River Basin were held on the following dates at the  
16 times and locations noted:

- 17 • Monday, October 20, 2008: Franklin County Courthouse, Apalachicola, Florida,  
18 5:00 p.m.–8:00 p.m.
- 19 • Tuesday, October 21, 2008: Dothan Convention Center, Dothan, Alabama,  
20 5:00 p.m.–8:00 p.m.
- 21 • Wednesday, October 22, 2008: Callaway Center at West Georgia, LaGrange,  
22 Georgia, 5:00 p.m.–8:00 p.m.
- 23 • Thursday, October 23, 2008: Cobb County Government Civic Center,  
24 Hudgins Hall, Marietta, Georgia, 4:00 p.m.–7:00 p.m.
- 25 • Wednesday, October 29, 2008: Georgia Mountain Center, Gainesville, Georgia,  
26 5:00 p.m.–8:00 p.m.

27 The venues were chosen on the basis of accessibility to the public throughout the ACF  
28 River Basin. An open house format was used at each meeting, and information stations  
29 with displays (Appendix G) and handouts (Appendix H) were available for viewing.  
30 Subject matter experts from the Corps and environmental contractors staffed each station,  
31 where information about the following was provided:

- 32 • The ACF River Basin Master Manual and federal-reservoir-specific water control  
33 plans
- 34 • Water management and federally authorized project purposes
- 35 • Modeling tools
- 36 • The NEPA process and EIS development

- Environmental resources
- Socioeconomics.

In addition, a welcome station, media station, written comments station, and court reporter were available to provide information and accept oral and written comments.

A total of 1,018 stakeholders participated in the 5 public scoping meetings. Table 4 shows a breakdown of the participation by meeting location.

**Table 4. Participants by Scoping Meeting Location**

Date	Location	Attendance
October 20, 2008	Apalachicola, Florida	135
October 21, 2008	Dothan, Alabama	24
October 22, 2008	LaGrange, Georgia	365
October 23, 2008	Marietta, Georgia	93
October 29, 2008	Gainesville, Georgia	401
<i>Total</i>		<i>1,018</i>

Following sign-in, a Corps representative offered a brief presentation to introduce participants to the format of the public scoping meeting and to clarify the purpose of the meeting. Corps experts and environmental contractors were available at stations to answer questions and accept comments. Laptop computers were set up to accept comments electronically through the project Web site; a staff member was on hand to help participants to use the computers. Comment forms were also available at the written comments station. In addition, a court reporter was available at each meeting to accept oral comments. Appendix I contains the oral comment roster. Transcripts of the oral comments are included in Appendix J, which contains all the comments the Corps received during scoping (in their original format).

## **2.7 Scoping Comments**

The public scoping effort for updates to the Master Manual in the ACF River Basin resulted in a total of 2,503 comments from 643 individuals, organizations, and agencies. A total of 2,269 comments were submitted during the formal scoping period that ended November 21, 2008, and 234 during the formal scoping period that ended January 4, 2010. Comments were submitted to the Corps through all available options—U.S. Postal Service, email, Web site, fax, verbal transcription, or in person at one of the scoping meetings held in 2008. Copies of all the public and agency comments received during the scoping process are presented in Appendix J.

Scoping continues throughout the preparation of an EIS. The Corps will accept and consider all comments regardless of when they are submitted. Comments submitted outside formal scoping periods, however, are not represented in this scoping report.

### 3.0 Scoping Comment Analysis

The scoping process for the EIS for implementation of an updated Master Manual resulted in the submission of comments from 643 individuals, organizations, and agencies and two petitions. As described in Section 2 of this report, the Corps received oral and written comments by U.S. Postal Service, email, on Web site forms, and at public scoping meetings. In the next stages of the EIS process, the Corps will use these comments to determine the scope and content of the Draft EIS. Note that the Corps does not endorse or validate the content of the comments received.

During the 2008 initial scoping period, 2,269 comments were received. An additional 234 comments were received during the 2009 reopened scoping period, for a total of 2,503 comments. The comments were categorized into 12 comment categories: Water Management Recommendations; Socioeconomics and Recreation; Biological Resources; Drought Operations; Water Quality; Water Supply; NEPA; Data, Studies, and Analytical Tools; Navigation; Hydropower; Flood Risk Management; and Other Resources. Some of the categories were further divided into subcategories to present the stakeholders' issues and recommendations more clearly. Table 5 provides the total number of comments by category. Appendix K contains all the comments received, sorted by category.

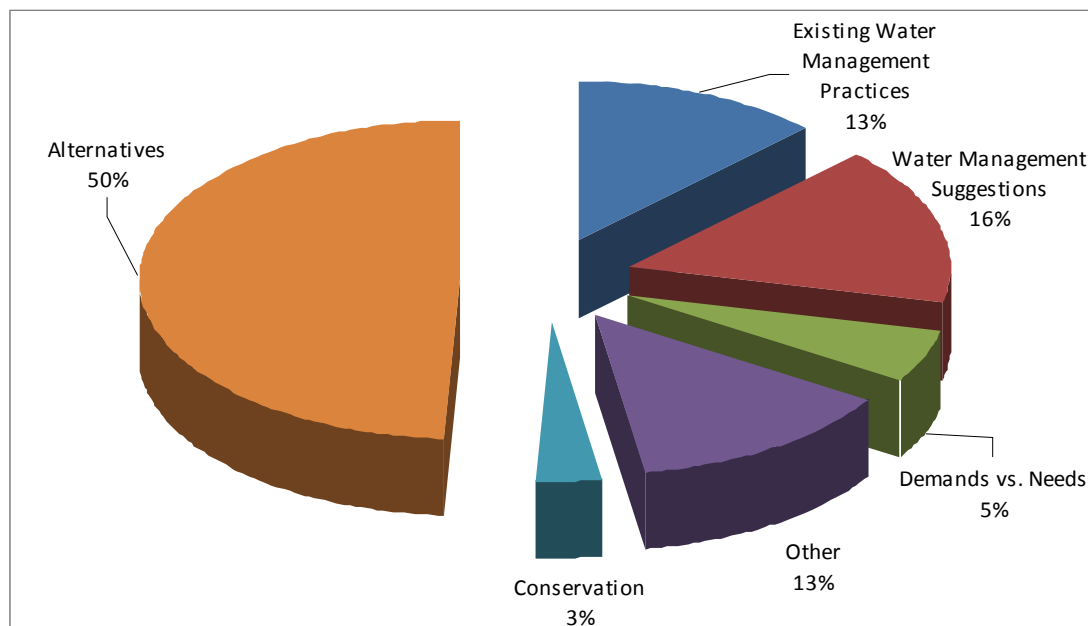
When considering the numbers represented in Table 5, it is important to note that some comments might be defined by more than one category. Also important to note is that some of the comments received were submitted by entities or organizations representing a specifically identified number of individuals. These letters are accounted for in the same manner as correspondence received from elected officials written on behalf of their constituents; that is, each letter is counted as one submission. Statistically, the petitions were accounted for separately and were not incorporated into the numbers presented in Table 5, as presented in Section 3.13.

**Table 5. Comments Categorized by Segment**

Category	Number of Comments
Water Management Recommendations	921
Socioeconomics and Recreation	418
Biological Resources	319
Drought Operations	196
Water Quality	167
National Environmental Policy Act	159
Water Supply	136
Data, Studies, and Analytical Tools	60
Other Resources	58
Navigation	32
Hydropower	26
Flood Risk Management	11
<i>Total</i>	<i>2,503</i>

### 3.1 Water Management Recommendations

Operation of federal reservoirs in the ACF River Basin for their authorized project purposes provides multiple benefits, including: fish and wildlife conservation, flood risk management, hydroelectric power generation, navigation, recreation, water supply, and water quality. During the 2008 scoping period, 868 comments related to the management of project purposes and Corps operations of the ACF River Basin were received, and during the 2009 reopened scoping period, 53 comments were received, for a total of 921 comments. These comments were further divided into six subcategories: (1) Existing Water Management Practices, (2) Water Management Suggestions, (3) Demands and Needs, (4) Conservation, (5) Alternatives, and (6) Other. Figure 2 shows the distribution of comments regarding water management recommendations.



**Figure 2. Distribution of comments among Water Management Recommendations subcategories.**

#### 3.1.1 Existing Water Management Practices

##### 3.1.1.1 Initial Scoping Period—2008

The Corps received 103 comments critiquing the manner in which the water management activities in the ACF River Basin are carried out. The comments regarding Lake Lanier addressed the low lake levels and their effects on recreation, safety, property values, the environment, and aesthetics. One commenter stated, “Sometimes it’s embarrassing. I have relatives that call from all over the United States and make jokes about do I have water in my lake.” Another said, “We also had dead mussels on the dry land at our house when the water was down.” Others called attention to a gauge error that occurred in 2006, citing the error as a contributor to the low lake levels that followed. Some questioned the

Corps' decisions to make releases from Lake Lanier at the beginning of the drought, given the small drainage area upstream and the known difficulty in refilling. Others questioned why water continues to be released from Lake Lanier even when the pool elevation is 22 feet below normal. A few commenters expressed their perception of preferential treatment of upstream users to the detriment of downstream users. A representative of Gwinnett County, citing paragraph 6d of Engineer Regulation (ER) 1110-2-240, stated, "We do not believe that the present Interim Operations Plan and its modifications follow this Corps rule." Another commenter stated that downstream lakes have recovered from their low levels, but continued releases from Lake Lanier in excess of inflow have not allowed its recovery.

Those commenting about West Point Lake complained primarily of low lake levels and the impact on recreation and recreational safety. One commenter stated that "[c]onditions of a low pool are extremely hazardous to those who use the lake for recreation and as a means of daily sustenance." Others questioned whether the Corps is operating West Point Lake in accordance with the congressional authorization. The West Point Lake Coalition, for example, stated that "the Corps operates West Point Lake specifically and the ACF system in general in a way that ignores the original, PRIMARY congressional authorizations as a group and focuses extensively on flood risk management as well as downstream and upstream demands that do not meet the purposes set forth by Congress. It appears that the Corps has established the flood risk management authorization as THE primary purpose ...." Some suggested that the Corps needs to take a more proactive approach to the creeks that feed into the lake by dredging them to prevent flooding of low-lying areas.

Some commenters were concerned about flows in the open-river sections downstream of the reservoirs. Some, such as the Alabama Department of Conservation and Natural Resources (ADCNR), expressed concern that "the water management policies of the past have often resulted in a degradation of the ecological integrity of a river ecosystem, which in the case of wildlife has led to a decrease in biodiversity and species sustainability." ADCNR added, "To protect ecological integrity, we need to mimic components of natural flow variability, taking into consideration the magnitude, frequency, timing duration, rate of change and predictability of flow, and sequencing of such conditions." Others were concerned that growth in the Atlanta region will cause the Corps to modify its operations of Lake Lanier to the detriment of the downstream uses of water supply and waste assimilation. The Columbus Water Works expressed concern that current operations do not pay adequate attention to Chattahoochee River flows in the middle stretch of the river and the minimum flow obligations of Georgia Power Company projects operating under a Federal Energy Regulatory Commission (FERC) license. A number of commenters were concerned that current operations favor endangered species (mussels) over people.

#### ***3.1.1.2 Reopened Scoping Period—2009***

During the 2009 reopened scoping period, the Corps received an additional 12 comments pertaining to existing water management practices. Regarding Lake Lanier, one commenter stated that "Hall County is being severally restricted from using the water

right here in our county so that people downstream of us can use the water from Lake Lanier.” Another commenter opposed using the Revised Interim Operating Plan (RIOP) as the basis for a new Water Control Plan because it relies solely on augmentation flows from Lake Lanier as the solution to the concerns identified in the Apalachicola River and vicinity. Three commenters provided similar comments regarding existing water management practices at West Point Lake. They suggested that the Flood Control purpose has been overemphasized in the current operations manuals as compared to the other authorized uses such as recreation, and releases are made from West Point Dam at a flow rate that is higher than what would occur naturally in order to satisfy downstream needs such as municipal waste assimilation and “thermo-electric” power. One commenter urged the Corps to abandon its current methodology of calculating basin inflow because the methodology does not accurately reflect inflows to the basin. Another commenter suggested that water management practices should account for following reasonably foreseeable actions and that “special attention should be paid to Corps policies to hold reservoirs high, operational changes that redistribute and/or store water previously released for navigation support and the effects of thousands of small reservoirs (current and future) in the ACF Basin.”

### **3.1.2 Water Management Suggestions**

#### **3.1.2.1 Initial Scoping Period—2008**

A total of 132 comments provided suggestions regarding potential modifications to current water management practices and water control plans. The comments from federal, state, regional, and local agencies are discussed in more detail in Section 4. The U.S. Environmental Protection Agency (EPA) identified a number of issues for inclusion in the updated water control plans, including a discussion of how operations have changed historically, drought contingency operations, compliance with new environmental requirements for water quality and endangered species, use of real-time data, and streamlining data exchange between agencies. The U.S. Fish and Wildlife Service (USFWS) provided a number of suggestions for consideration in updating the water control plans. The USFWS requested that the Corps develop a summary of the current operating rules for each project, an explanation of their basis in congressional authorization, and a description of the Corps’ discretion to change the operating rules. The USFWS recommended a comprehensive process for determining how ecological and social benefits could be increased by modifying the operation of the federal projects and suggested that the Corps consider the impacts of increasing consumptive demands in the ACF River Basin.

The Alabama Office of Water Resources (AOWR) stated that “[u]nless the Corps undertakes the revision to the Water Control Manuals in a manner that is consistent with federal law, including the recent decision of the United States Court of Appeals for the D.C. Circuit, the current effort will not help resolve the long-running controversy over the ACF River Basin.” AOWR further suggested that the update of the Master Manual focus on authorized purposes by assessing whether any changes in baseline conditions are necessary to comply with existing laws and regulations. The Florida Department of

1 Environmental Protection (FDEP) stated, “The master manual must clearly describe not  
2 only the relative priorities of each of the ACF reservoirs, but also how those priorities and  
3 additional uses and demands will be accommodated.” FDEP also suggested that the  
4 NEPA process evaluate Corps operations throughout the ACF River Basin. The Georgia  
5 Environmental Protection Division (GAEPD) stated, “It should be noted that the issuance  
6 of water withdrawal permits from Lake Lanier and the withdrawal and consumption of  
7 water from the ACF River Basin are state and local actions, not federal actions, and  
8 therefore should not be addressed within the scope of connected, cumulative, and similar  
9 federal actions.” The Atlanta Regional Commission (ARC) suggested that the Corps  
10 consider all reasonable alternatives; operate the ACF projects in accordance with their  
11 congressionally authorized purposes; and address the needs of the middle and lower  
12 portions of the basin. Hall County, Georgia, suggested that the updated manuals rely on  
13 the most up-to-date factual information examining new and different ways of operating  
14 the ACF projects.

15 The Students of River Basin Management at Florida State University provided several  
16 suggestions, including potentially revising the Action Zones, incorporating the RIOP into  
17 the updated manuals, defining the process of balancing the reservoirs, and incorporating  
18 adaptive management. One commenter was concerned that net local inflow accounts for  
19 not only stream flow into the reservoir but also consumptive depletions and evaporation  
20 from the reservoirs, which could adversely affect the computed inflows used in the RIOP.  
21 Another commenter encouraged further revision of the RIOP to limit the adverse effect  
22 on Lake Lanier. One commenter encouraged the use of *HEC-ResSim* to assist in  
23 developing new operating rules for the ACF projects and suggested that the water control  
24 plan consider effects on the Apalachicola River and Bay. The West Point Lake Coalition  
25 requested that the “winter drawdown” be no lower than elevation 633 feet.

26 One commenter suggested that the Corps’ updated Master Manual could be a critical tool  
27 in achieving joint agreement in interstate water management. Some commenters  
28 suggested that the updated Master Manual must be scientifically based and establish an  
29 equitable distribution of the waters of the ACF River Basin. One commenter suggested  
30 reducing releases from Lake Lanier when rain occurs in downstream portions of the ACF  
31 River Basin. Another commenter observed that the Flint River has not been developed in  
32 accordance with the original comprehensive plan for the ACF River Basin and that  
33 additional reservoirs would be helpful in solving the interstate water issues.

34 The Association of County Governments of Georgia (ACCG) stated, “Updating the plan  
35 should include new methods of forecasting runoff and modeling to ensure that the Corps  
36 ACF reservoirs, particularly Lake Lanier, are allowed to reach full pool no later than June  
37 1st of each year and are as full as practical during drought conditions while still meeting  
38 downstream, legally-required flows.” Numerous other commenters agreed with the idea  
39 of refilling Lake Lanier by June 1 of each year. Sixty-six comments encouraged  
40 balancing of project purposes. They indicated that all interests should be considered and  
41 evaluated and that upstream and downstream needs are equally important. One  
42 commenter suggested that “[t]here is sufficient water in the basin to meet reasonable  
43 needs for municipal and industrial water supply without causing harm to the environment  
44 or to other users if, but only if, the reservoirs are managed wisely.”

1 Fifteen comments encouraged a reduction in dependence on West Point Lake for meeting  
2 downstream needs. The Mayor of LaGrange, the West Point Lake Coalition, and the  
3 Troup County Chamber of Commerce all stated that “the project has been used as, using  
4 the Corps terms, ‘the workhorse’ of the basin. Nowhere in the Congressional  
5 authorization does Congress empower the Corps to take the resources at West Point and  
6 to use them exclusively for purposes other than those set by Congress.” A similar  
7 sentiment was expressed by 12 other commenters. One commenter suggested that faster  
8 reaction to changing conditions is needed and that there is no time for “lots of studies.”  
9 Five comments regarding monitoring were received. EPA suggested that “employing this  
10 same type of concept [referring to GAEPD’s process for monitoring water quality] in  
11 other areas would greatly enhance the ecological sustainability of the aquatic systems  
12 affected by construction, maintenance and operation of federal projects within the ACF  
13 watershed basin.” Another commenter suggested real-time monitoring for river flows in  
14 the Atlanta area to tailor releases to exactly what is needed. ACCG urged that “any new  
15 Water Control Plan not simply tweak or replicate the Corps existing operations. Instead,  
16 alternative operating plans must be developed using modern inflow forecasting and  
17 modeling to meet the agreed upon performance measures that will manage our shared  
18 water resources much more effectively both now and into the future.”

19 There were five comments regarding sharing the effects of drought throughout the ACF  
20 River Basin. One commenter expressed the opinion that “[a]ll communities benefiting  
21 from the Lanier withdrawals should be on the same water restrictions as those at Lake  
22 Lanier even if they have sufficient water while we are in a draught [sic]!” Another  
23 commenter described this notion as “sharing the pain.” Two comments encouraged  
24 conservative operations of the reservoirs to maintain higher pool levels. Seventeen  
25 commenters suggested conserving storage by reducing releases and withdrawals during  
26 drought times. One commenter stated, “Too much water has been allowed to flow  
27 downstream. Lake Lanier has been adversely affected by the drought and excessive  
28 outflow of lake water.” Another commenter suggested that releases above natural river  
29 flows should not be made when the lakes are in Action Zones 2–4. All 17 commenters  
30 shared the view that releases should be reduced until Lake Lanier has recovered.

### 31 **3.1.2.2 Reopened Scoping Period—2009**

32 A total of 16 comments provided during the 2009 reopened scoping period offered  
33 suggestions regarding potential modifications to current water management practices and  
34 water control plans. Two commenters suggested keeping Lake Lanier as full as possible.  
35 Another commenter suggested that the critical yield analysis should acknowledge that the  
36 entire conservation pool (from 1,035 to 1,070 msl) at Lake Lanier is available to meet  
37 hydropower and other downstream demands. The National Park Service (NPS) stated that  
38 the preservation of base flows in the Chattahoochee River is critical for ecological and  
39 recreational purposes and that a minimum flow in the river of no less than 1,000 cfs  
40 would preserve water quality and ecological and recreational uses of the river below  
41 Buford Dam. The NPS also suggested that the Corps consider modifying the release  
42 schedule from Buford Dam to allow for more gradual increases and decreases in water  
43 levels to mitigate the effects of sudden and dramatic changes in river levels.



One commenter suggested that the Corps consider the ongoing FERC relicensing of the Bartlett's Ferry facility and the operations of other non-Corps facilities during the Master Manual update. The Lake Lanier Association suggested that the water control plans include remediation measures rather than relying on augmentation flows as the solution to the system's problems. To accomplish this, the Association suggested that the Corps not use the RIOP as the presumptive basis for the new WCP and that mitigation factors be considered as alternatives to minimum flows for support of threatened and endangered species. Such factors include remediating the Apalachicola River channel, modifying or closing flows in the Chipola Cutoff, and modifying or closing Sikes Cut. The Association also suggested that the Corps consider alternatives to certain provisions of the RIOP, including the required minimum flows of 5,000/4,500 cfs and existing trigger criteria, prescribed storage/release thresholds, determining minimum flows on the basis of composite storage zones and "basin inflow," rise rates and fall rates, minimum seasonal flows and begin/end dates (e.g., for spring spawning), and percentage of Basin Inflow available for storage.

With regard to West Point Lake, one commenter encouraged the Corps to manage West Point Lake consistent with the congressional authorization for recreation and sport fishing and wildlife development and to manage the ACF System in a truly balanced manner based on the latest science and technology available. The commenter suggested that a revised rule curve should be implemented with action zones limited to a 3-foot variance from full pool.

The Apalachicola Riverkeeper provided information in a comment letter regarding pre-dam flows in the Apalachicola River. The Riverkeeper suggested that the unimpaired flow data set should be calibrated to achieve a comparable representation of the pre-dam flows to ensure that the data accurately reflect what would occur under natural conditions. The Riverkeeper also commented that the Corps must analyze whether and how the proposed alternative management regimes could affect past, present, and reasonably foreseeable future reservoir and dam operations. The Riverkeeper further urged the Corps to fully consider increasing storage capacity by such means as dredging sediments captured by the lakes, raising the tops of the dams, and acquiring flood-prone areas and reducing flood control. One commenter suggested that the WCP update should comply with ER 1110-2-240.

### **3.1.3 Demands and Needs**

#### ***3.1.3.1 Initial Scoping Period—2008***

Forty-six comments fell into the Demands and Needs category. Of these, 31 comments expressed concern regarding the ability of the federal projects in the ACF River Basin to meet downstream needs. Among the needs identified were minimum flow needs in the middle Chattahoochee portion of the basin; the needs of industry, such as the Farley Nuclear Plant; and ecosystem needs in the Apalachicola River and Apalachicola Bay. Some commenters believed that upstream needs for water supply and recreation should receive greater emphasis than downstream needs. Others were concerned that the Apalachicola River and Apalachicola Bay should be protected with adequate water flow.

Twelve commenters were concerned about the adequacy of water resources to meet future water needs. One commenter stated, “The new Water Control Plan should be designed to accommodate withdrawals consistent with projections contained in the Metropolitan North Georgia Water Planning Districts Water Supply and Conservation Plan.” Another suggested, “Consideration should be given [to] looking at future population projections and water demands from the river.” Three comments addressed the subject of growth management. One commenter observed that “[t]he man made problems of uncontrolled development which requires more water than is available without the least bit of concern for others in continuing development is more than we should or can be expected to swallow.” Another commenter asked “future growth and development in Atlanta to demonstrate where water supply will come from to support planned growth.”

### ***3.1.3.2 Reopened Scoping Period—2009***

Three comments from two commenters regarding demands and needs were provided during the 2009 reopened scoping period. Both commenters suggested that the Corps analyze the impacts of the proposed alternative management regimes together with reasonably foreseeable future water withdrawals from the Apalachicola, Chattahoochee, and Flint Rivers from federal, non-federal, and private projects and actions.

## **3.1.4 Conservation**

### ***3.1.4.1 Initial Scoping Period—2008***

The Corps received 27 comments related to water conservation. One commenter observed that conservation measures in the Atlanta area were effective. Another suggested that the “Metropolitan North Georgia Water Planning District is far ahead of the rest of the basin in these efforts and is currently revising its Water Supply and Conservation Plan to be even more aggressive.” Several commenters encouraged implementation of basin-wide conservation measures. Another commenter suggested that conservation measures should be developed for water uses in addition to water supply. According to one commenter, conservation measures should be incorporated into the Master Manual update.

### ***3.1.4.2 Reopened Scoping Period—2009***

During the 2009 reopened scoping period, the Corps received five comments related to water conservation. One commenter questioned whether the citizens downstream in Alabama and Florida are under the same water use restrictions as those in the Atlanta region. Another commenter observed that the Atlanta region is reluctant to “embrace” water conservation. A further commenter urged the Corps to require implementation of aggressive conservation measures that could reduce withdrawals and depletions from the ACF system.

### 3.1.5 Alternatives

#### 3.1.5.1 Initial Scoping Period—2008

There were 440 comments that suggested alternatives to be considered as part of the update of the Master Manual. Many of the comments received were associated with maintaining or raising full pool water levels at Lake Lanier and West Point Lake. Specifically, commenters would like Lake Lanier to remain at 1,071 feet or to be raised to 1,073 feet. Comments regarding West Point Lake requested eliminating the winter drawdown and maintaining the lake at between 633 and 635 feet. Other commenters suggested adopting “management triggers” for Lake Lanier, stating that “[t]he new WCP should incorporate specialized provisions for managing Lake Lanier that reflect its distinctive characteristics and management needs. Without them, Lake Lanier is destined to be disproportionately impacted by draw-downs for downstream management, without an ability to remain near full pool or to refill.”

Twenty-four commenters suggested construction of additional reservoirs to meet future water supply and other water resources needs. Five commenters encouraged restoring a historical flow regime to the Apalachicola River. One commenter suggested that some control of inter-basin transfers is needed. Four commenters suggested desalination as a potential source for future water supply, and four suggested a pipeline to bring Tennessee River water to the Atlanta area as a potential solution. Three commenters suggested that closing Bob Sikes Cut should be part of a solution to salinity problems in Apalachicola Bay.

Many of the alternatives suggested are outside the existing authority of the Corps and could not be implemented without additional congressional authority. Suggestions that are outside the existing Corps authority may be considered by conducting a feasibility study and making appropriate recommendations to Congress for their authorization. One authority for conducting such a feasibility study is Section 216 of the *Flood Control Act of 1970*, which authorizes studies to review the operation of completed federal projects and recommend project modifications “when found advisable due to significantly changed physical or economic conditions ... and for improving the quality of the environment in the overall public interest.” Such studies are conducted under the Corps’ General Investigation program and require cost-sharing from a local sponsor.

#### 3.1.5.2 Reopened Scoping Period—2009

Comments on water management alternatives received during the 2009 reopened scoping period were very similar to those received during the 2008 scoping period. Four of the 12 comments received suggested raising the level of Lake Lanier to 1,073 feet as a means of obtaining additional water supply in the Atlanta region. Two commenters again suggested eliminating the winter drawdown at West Point Lake and maintaining the lake at between 633 and 635 feet. One commenter pointed out that constraints on water management in the ACF system stem from the lack of sufficient water storage capacity (or infrastructure) in the Flint River Basin and suggested broadening the scope of the EIS to encompass a preliminary engineering study that would define the benefits of additional storage

facilities on the Flint River. Other water management alternatives suggested include refurbishing Jim Woodruff Lock and Dam to increase the "head limit" and operating Lake Lanier to provide water supply for the 2035 demand as defined in the Metropolitan North Georgia Water Planning District's (MNGWPDs) *Water Conservation and Water Supply Plan of 2009*.

### **3.1.6 Other**

#### ***3.1.6.1 Initial Scoping Period—2008***

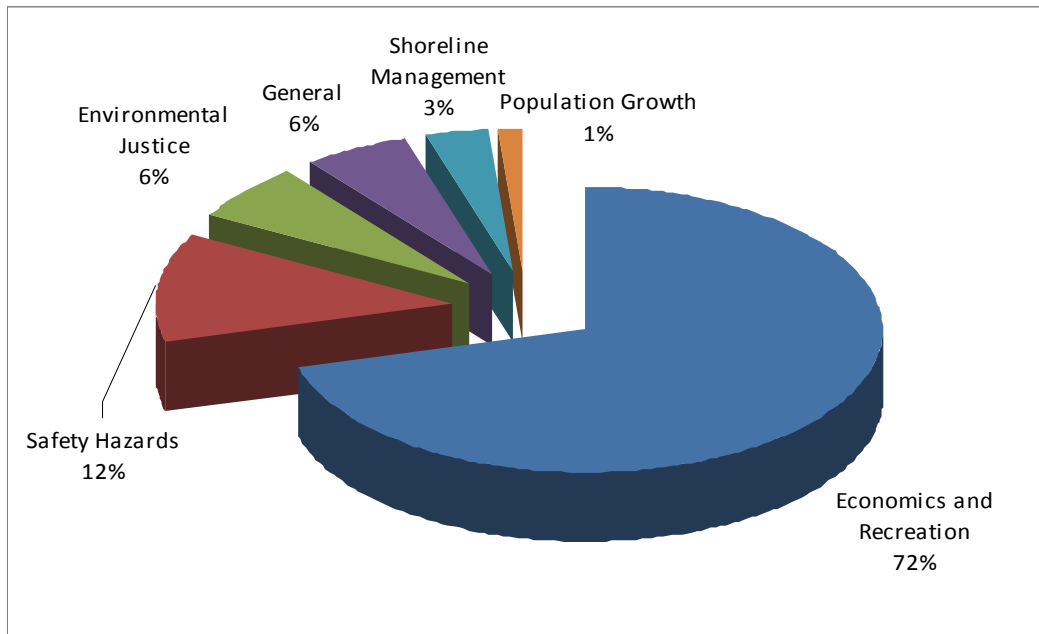
The Corps received 119 comments regarding water management that did not clearly fall within other subcategories and therefore were categorized as "Other". These comments were wide-ranging and cannot be easily summarized. A couple of commenters encouraged the Corps to conduct a thorough update, stating that "[o]nly the most thorough study and vetting resulting in a cultural change in the Corps understanding and management of the system will assure a basin that meets the needs for future generations." Another commenter expressed frustration with the time required to update the Master Manual. Other commenters described the scoping process as a waste of time and money.

#### ***3.1.6.2 Reopened Scoping Period—2009***

During the 2009 reopened scoping period, five comments regarding water management were categorized as Other. One commenter suggested that the Corps host a watershed summit to present good, better, best options for water management. Another commenter stated that the baseline in the EIS should document and evaluate the historical changes in the ACF River Basin with respect to changes in stream flows, including the amount, timing, and quality of flows in pre-dam and reservoir flow regimes. Another commenter stated that an accurate critical yield is an essential component of the Master Manual and water control plans for federal reservoirs and encouraged the Corps to seek public comment before finalizing its new critical yield analysis.

### **3.2 Socioeconomics and Recreation**

Socioeconomics (the study of the relationship between economic activity and social life) and Recreation received 404 comments during the 2008 initial scoping period and 14 comments during the 2009 reopened scoping for a total of 418 comments. Following review, the comments were further sorted into six subcategories: (1) Economics and Recreation; (2) Safety Hazards; (3) Environmental Justice; (4) Population Growth; (5) Shoreline Management; and (6) General Socioeconomic Issues. The percentage of comments assigned to each subcategory is shown in Figure 3.



**Figure 3. Distribution of comments among Socioeconomics and Recreation subcategories.**

It is important to note that concerns regarding socioeconomics—employment, lost revenue, economic growth, property values, recreation, environmental justice, public safety—are the underlying message in far more than the 418 comments directly attributed to this category. Though more comments were assigned to the Water Management Recommendations category than to this category, a large percentage of those recommendations were centered on achieving more favorable socioeconomic conditions for stakeholders throughout the ACF River Basin. Summaries of the issues raised, by subcategory, are provided in the following subsections.

### 3.2.1 Economics and Recreation

#### 3.2.1.1 Initial Scoping Period—2008

Recreation is a major economic driver for many of the communities in the ACF River Basin. In fact, recreation and economics are so closely intertwined in the comments provided by stakeholders that the two topics could not be disentangled. Of the 293 comments assigned to this subcategory, about 80 percent regarded the effects of low water levels in Lake Lanier and West Point Lake; the remaining 20 percent addressed the effects of low water flows in the Chattahoochee River south of West Point Dam. Stakeholders in Georgia raised numerous issues regarding the adverse impacts that prolonged low and inconsistent water levels in lakes Lanier and West Point have had on the local, regional, and state economies. The issues raised include job and income losses for water-dependent and recreation/tourism-based businesses, sharp declines in property values, lost recreation opportunities and declining quality of life, and lost opportunities

for economic growth. Many contended that the Corps has failed to take socioeconomic impacts into account in its water management practices. Several comments expressed a belief that the Corps is knowingly managing its dams to meet the downstream water flow needs of natural resources without regard for the socioeconomic impacts on the people of Georgia. Many of the comments were submitted on behalf of large organizations or associations that represent the concerns of thousands of stakeholders.

Stakeholders in the middle and lower regions of the ACF River Basin submitted more than 30 comments, which addressed the adverse economic and recreation impacts of low river flows in the Chattahoochee River south of West Point Dam. Alabama stakeholders raised issues regarding downstream flow requirements to meet hydropower project purposes and industrial users—critical components of the regional and state economy. Recreation is also a large economic driver in the eastern regions of the state, and low reservoir levels and river flow have affected the economy and quality of life for Alabamians. Florida stakeholders expressed great concern for the future of their seafood- and fishing-based economy, as well as the businesses that support that economy, including tourism, if adequate water flow into Apalachicola Estuary and Bay is not maintained. Florida stakeholders expressed grave concerns that if minimum flows for the survival of the Apalachicola estuarine ecosystem are not maintained, the economy of the Apalachicola Bay region will collapse, with no possibility for recovery.

Stakeholders offered an extensive list of basin-wide recommendations and actions that they believe the Corps should consider in updating the Master Manual and supporting EIS. The recommendations include the following:

- Develop an economic study on the impact of various water levels on each region of the ACF River Basin.
- Update the reservoir fisheries performance measures developed for the 1998 draft EIS for ACF water allocation (based on the findings of Ryder et al. [1995]) in light of any new information developed in the past 10 years, and use them to evaluate the relative impacts on reservoir sport fisheries of alternative operating plans.
- Fully analyze the relationship between recreational use of the lakes and the direct and induced economic impacts.
- Show scientific and economic facts to support flow requirements for downstream hydropower, endangered species habitat, and health of the seafood/oyster industry.
- Charge market-based fees for the use of Corps-owned recreational facilities and retain the revenues to fund project operation and maintenance.

Recommendations regarding Lake Lanier include the following:

- Assess the negative impact of questionable water supply on future economic development efforts in Atlanta.
- Provide federal assistance to lake property owners affected by cove erosion due to low lake levels.

- Consider all options for alleviating adverse economic impacts on water-dependent businesses in the Lake Lanier/Atlanta region.
- Develop a new water control plan that ensures the best and highest use of Lake Lanier to protect the regional economy.

Recommendations regarding West Point Lake include the following:

- Do not consider use of West Point Lake to support downstream navigation in any alternative operation plans without adequate study of the environmental and socioeconomic damages that could occur due to fluctuating water levels in the lake.
- Include the results of the West Point Lake independent economic study in the EIS as support for developing alternative water control operations at the lake.
- Restore and maintain all Corps-owned and -operated recreational facilities at West Point Lake.
- Maintain West Point Lake at full pool during peak recreational times.
- Perform a risk/benefit analysis of economics versus flood control for West Point Dam management practices.
- Change the start of winter drawdown of West Point Lake from November to January to improve the economic situation.
- Install mooring balls in West Point Lake for overnight fishing or camping as another source of revenue for the Corps. Lease the areas where mooring balls are located to local marinas to develop this resource.

Recommendations regarding economic and recreation issues in the middle and lower reaches of the Chattahoochee River and Apalachicola Bay include the following:

- Monitor boating access sites and strive to maintain water levels for recreational boating access.
- Consider the positive socioeconomic and environmental benefits to the Apalachicola River and Bay that would result from maintaining flows in the Chattahoochee River to support navigation.
- Include in the EIS an analysis of the economic value of the vast ecosystem services and cultural values provided by adequate flow to Apalachicola Bay.
- Conduct a comprehensive analysis of the economic, environmental, and social and cultural impacts tied to the loss of the traditional livelihoods of rural riparian counties and communities.
- Examine the irreversible adverse economic impacts of the loss of the oyster fishery due to low river flows.

### ***3.2.1.2 Reopened Scoping Period—2009***

Three comments were received during the 2009 reopened scoping period. The commenters reiterated the importance of the benefit to local and regional economies from

recreational use of the lakes. Because of the mild climate in the south, recreational use of the lakes occurs in all seasons, so the communities around the lakes can receive economic benefits year-round if the lake water levels are maintained at recreational-use levels. One commenter pointed out that the “economic benefit of West Point Lake has been estimated at approximately five times the economic benefit” of an automaker’s manufacturing plant in the same county.

A Florida stakeholder requested that the EIS address the economic impact of Apalachicola Bay salinity and nutrient composition on the bay’s seafood industry.

### **3.2.2 Safety Hazards**

#### **3.2.2.1 Initial Scoping Period—2008**

Stakeholders submitted about 50 comments regarding the safety hazards encountered by recreational users when reservoir levels are not maintained at adequate levels. Commenters point out that low water levels result in exposed or near-surface objects that pose great danger to boaters, as well as damage to recreational equipment. Some commenters also state that low water levels are to blame for drowning due to sudden drop-offs or changes in terrain. Commenters recommended that the Corps keep the reservoirs at full pool to avoid recreational safety hazards. One commenter suggested that the Corps “[p]ermit dredging and removal of hazardous shallows/shoals in the primary thoroughfares, thereby adding additional water capacity to the lake and making the lake safer for navigation.”

#### **3.2.2.2 Reopened Scoping Period—2009**

One comment on safety hazards was received during the 2009 reopened scoping period. The commenter noted that “[a]dditionally, low flows restrict the ability of law enforcement and emergency personnel to utilize the river for patrol and rescue operations.”

### **3.2.3 Environmental Justice**

#### **3.2.3.1 Initial Scoping Period—2008**

Approximately 25 comments regarding socioeconomic impacts on low-income and minority populations were submitted. Individuals and organizations in and around West Point Lake expressed concern for the low-income and minority populations and communities that rely on the lake for recreation as well for supplemental sustenance. Comments from the nonprofit organization 100 Black Men of West Georgia stated that “[a]ctions which result in lower elevations of West Point Lake represent a potential or threat of denial of access to recreational resources for minority and low income populations in the West Georgia and East Alabama.” The organization further stated that the Corps is ignoring the original authorized purpose of recreation “[a]nd the needs and expectations of minority and lower income households in west Georgia and east Alabama.”



1 The 100 Black Men of West Georgia asked the Corps to “[e]ngage far more intensely and  
2 with a great deal more thoroughness in addressing environmental justice issues at West  
3 Point Lake.” The West Point Lake Advisory Council requested that the Corps ensure  
4 recreational access for low-income families. One commenter contended that the “[i]ssue  
5 of ensuring recreational access for low income and minority families that the West Point  
6 Lake Advisory Council is attempting to push is ridiculous.” The comment went on to say  
7 that the population affected is those wealthy enough to own a house with boat dock on  
8 the lake, not the poor, and the rich are trying to use the Environmental Justice issue to  
9 help themselves. In addition, several comments were made regarding the loss of income  
10 for many low-income families that rely directly on the lakes and rivers for their income.  
11 Commenters raised concern that decreased water flow in the middle regions of the ACF  
12 River Basin and in Apalachicola Bay could have severe economic impacts for entire low-  
13 income or minority communities.

#### 14 **3.2.3.2 Reopened Scoping Period—2009**

15 Environmental justice comments received during the 2009 reopened scoping period  
16 focused on the use of the Corps lakes by low-income and minority populations for  
17 sustenance and recreation. Several comments were specific to West Point Lake. In  
18 general, the commenters stated that low lake levels result in muddy shorelines or even  
19 closed parks, limiting or restricting access to the water, which make the lakes undesirable  
20 for recreational use and hampers the ability to catch fish for food. One commenter  
21 requested that “Any contemplation of a revised or new operations manual must provide  
22 for stable, higher lake elevations to satisfy the needs of these populations and this must be  
23 studied and understood as required by Executive Order 12898.”

#### 24 **3.2.4 Other Socioeconomic Issues**

##### 25 **3.2.4.1 Initial Scoping Period—2008**

26 **Population Growth.** Six commenters addressed the issue of future population growth as a  
27 factor the Corps must consider in the Master Manual and supporting EIS. Commenters  
28 want the Corps to include population projections in any consideration of alternative  
29 operational practices and to consider them a factor in management of the ACF River  
30 Basin as a whole.

31 **Shoreline Management.** Thirteen comments were submitted by individual stakeholders  
32 requesting that the Corps consider revisions to dock permitting policies, better manage  
33 shoreline debris, perform annual shoreline allocation reviews, and provide for better  
34 enforcement of existing shoreline management policies.

35 **General Comments.** About 20 comments addressed socioeconomics but did not clearly  
36 fit into the other subcategories. These comments include a number of statements  
37 regarding the personal enjoyment of living on the water, the importance of ensuring that  
38 the resources in the ACF are protected for future generations, and the disappointment and  
39 anger many stakeholders feel about the current low water levels in Lake Lanier and West  
40 Point Lake.

#### 3.2.4.2 Reopened Scoping Period—2009

**Population Growth.** No comments were received.

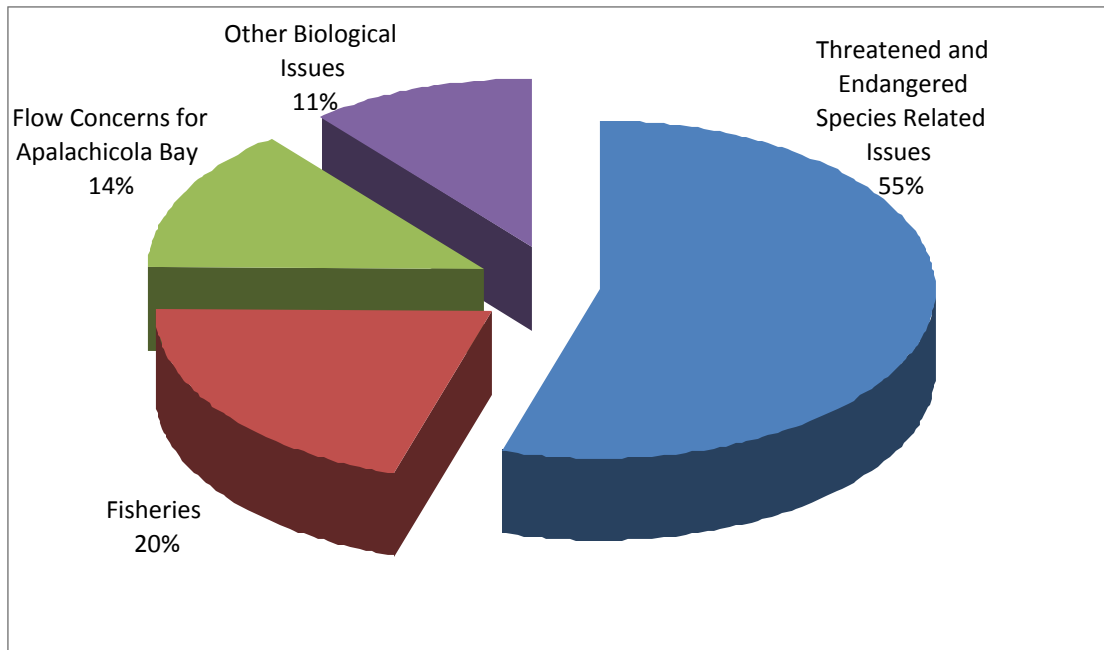
**Shoreline Management.** One shoreline management comment was received during the 2009 reopened scoping period, noting that an increase in Lake Lanier's water level could adversely affect the shoreline and structures close to the shoreline. The commenter suggested that "Stimulus money could be used to make shoreline improvements to adjust for the rise in water level."

**General Comments.** Of the seven general comments received during the 2009 reopened scoping period, three comments were directed toward the use of Lake Lanier water supply and how it should be addressed in the EIS. Two commenters said the issue must be addressed in the EIS, whether it be as indirect or cumulative effects, because of the enormous impact (including economic and social impacts) that would result from stopping the use of Lake Lanier for water supply. One commenter said that "the Corps cannot ignore the enormous environmental, social, and economic costs that would result from ceasing to provide water supply to the millions of Georgians that have depended on Lake Lanier for decades by merely declaring that its 'no action' alternative will not include water supply." However, an Alabama stakeholder said the Corps should not base ACF operational decisions on the potential economic impact from uses that are not congressionally authorized: "To the extent economic factors exist that are unrelated to the Congressionally authorized purposes of these revisions, Alabama believes they are irrelevant and cannot be considered as a basis for operational changes in the Basin."

Other general comments of a socioeconomic nature were related to West Point Lake and adverse impacts on low-income and minority populations; the social and economic importance of the ability to continue to fish the Apalachicola River and Bay Basin; the need to address reasonably foreseeable commercial, residential, and road construction in the cumulative impacts analysis; and the opinion that the EIS should assess impacts such as the affect on human and commercial resource services.

### 3.3 Biological Resources

The Corps received 284 comments in the Biological Resources category during the initial 2008 scoping period. An additional 35 comments were submitted during the 2009 reopened scoping period, for a total of 319 comments. The Biological Resources comments were divided into four subcategories: Fisheries, Threatened and Endangered Species, Flow Concerns for Apalachicola Bay, and Other Biological Issues. Figure 4 shows the distribution of comments categorized as Biological Resources.



**Figure 4. Distribution of comments among Biological Resources subcategories.**

### 3.3.1 Threatened and Endangered Species

#### 3.3.1.1 Initial Scoping Period—2008

The Corps received 165 comments related to threatened and endangered species. Commenters noted that water availability for people should be considered a priority over the protection of mussels and that Lake Lanier should not be drawn down to provide for this species. Others stated that navigation should be abandoned as a project purpose because of its detrimental effect on endangered species. Commenters stated that the Interim Operating Plan (IOP) and RIOP are “flawed” because of a lack of studies on the endangered species at West Point Lake. Some commenters said that more research needs to be conducted on endangered wildlife in the ACF River Basin. EPA recommended that the Corps address and fully document the effects of any proposed actions on threatened and endangered species when considering alternatives for the EIS.

Comments with recommendations for threatened and endangered species in the ACF River Basin include:

- Revisit the list of threatened and endangered species periodically during the planning process and verify the accuracy of the species/habitats list when beginning to prepare a Biological Assessment.
- Participate with the USFWS and other federal and state agencies in efforts to locate and monitor extant populations in the remaining unimpounded portions of the Chattahoochee River and its tributaries.

- 1 • Conduct an EIS to determine the amount of water needed for mussels and other  
2 endangered species downstream to survive.
- 3 • Address the same ESA-protected resources for the Master Manual update as for  
4 the RIOP—the Gulf sturgeon (*Acipenser oxyrinchus desotoi*), fat three ridge  
5 (*Amblema neislerii*), Chipola slabshell (*Elliptio chipolaensis*), and purple  
6 bankclimber mussel (*Elliptoideus sloatianus*), all of which have designated  
7 critical habitat within the action area.
- 8 • Ensure that a sufficient quality and quantity of water is provided in such a manner  
9 as to resemble the natural riverine flow regime. This flow regime should provide  
10 aquatic habitat conditions that support a diversity of endemic aquatic species  
11 (including fish, plants, mussels, and other invertebrates) and their life-cycle  
12 requirements. As a function of the natural flow regime, both intra- and inter-  
13 annual variations of flows should be implemented to sustain biological diversity  
14 and a balanced community of organisms.

### 15 3.3.1.2 Reopened Scoping Period—2009

16 The Corps received 10 comments related to threatened and endangered species during the  
17 2009 scoping period. Comments with recommendations for threatened and endangered  
18 species in the ACF River Basin include:

- 19 • A minimum flow of 5,000 cfs is more than necessary to protect endangered  
20 species; it should be 2,500 cfs or less. USFWS should be required to document  
21 the minimum flow required for endangered species. The Corps used what it called  
22 a "baseline" flow, which was actually flows produced by reservoir operations  
23 from 1975 to 2007. The correct baseline flow for endangered species protection is  
24 run-of-the-river flows. Augmentation flows that disproportionately affect Lake  
25 Lanier are not required by the ESA and should not be imposed by the new WCP.  
26 As a result of using the wrong environmental baseline to evaluate the RIOP,  
27 USFWS confused natural mortality with "take" caused by the RIOP.
- 28 • Analyze threats to endangered and threatened species, critical habitat,  
29 Apalachicola Bay-specific threats, and threats to fisheries in the Apalachicola  
30 River. Also, evaluate all available means to maximize the likelihood that  
31 endangered and threatened species will recover to the point of de-listing by  
32 implementing recommendations in recovery plans.
- 33 • The manual update process should also evaluate the Corps' compliance with  
34 existing environmental laws because since the reservoirs were constructed,  
35 Congress and the affected states have enacted new environmental protection laws  
36 and regulations.

### 3.3.2 Fisheries

#### 3.3.2.1 Initial Scoping Period—2008

The 60 Fisheries comments were further divided into the following subcategories: Wildlife and Fisheries, Improvement of Lake Fisheries, Commercial Fisheries, and the Facilitation of Migratory Fish Passage. Most comments about fisheries in the ACF River Basin were related to the drawdown of freshwater throughout the entire system. Commenters noted that at Lake Lanier, fish, clams, mussels, and the like are suffering because of the low water levels. At West Point Lake, bald eagles and other wildlife are being injured because of the low water levels. Trees and fish habitat in the lower Apalachicola River and Bay are being affected by low water flow and an increase in salinity, which could cause long-term ecological damage. Commercial fisheries are in a decline, and mortality rates could be directly related to a reduction of freshwater inflow.

The USFWS commented that when considering alternatives for an EIS, the Corps should consider the major wildlife presence at Eufaula National Wildlife Refuge and all migratory species inhabiting that area during certain seasons. Recreational users commented that critical recreational species directly affected by changes in water level, as well as by potential water allocation changes, should be identified when evaluating alternatives in the EIS. Commenters noted that trout fisheries, which are not part of the natural habitat of the ACF River Basin, should not be accommodated by releasing water out of the lake to maintain a specific water temperature. Commercial fisheries, such as oysters, crab, shrimp, pinfish, and the like, should be protected when addressing freshwater needs in an EIS, and impacts on these species should be taken into careful consideration.

Commenters strongly encouraged fish passage operations at Jim Woodruff Lock and Dam. ADCNR recommended that the Corps establish a goal to develop a fish passage plan for all Corps locks and dams in the ACF River Basin. The fish passage plan should identify key species that need upstream and downstream movement. A lock passage program similar to the one currently employed by the Corps at Woodruff Lock and Dam would be a good starting point. Potential impacts on migratory fishes related to Corps operations also should be considered.

Recommendations for fisheries in the ACF River Basin include the following:

- Conduct an assessment alongside the EIS to study the effects of low water flows on fisheries in the ACF River Basin.
- Apply a spatially explicit hydrodynamic model of the Apalachicola Bay to assess the effects of alternative operations on salinity regimes and, in turn, on the relative distribution of salt marshes, submerged grass beds, and oyster beds in the bay (USFWS suggestion).
- Conduct monitoring studies to determine the present state of aquatic life and to develop new water control plans that reflect the wildlife conservation actions identified in Alabama's Comprehensive Wildlife Conservation Strategy (ADCNR suggestion).

- Coordinate with wildlife agencies from Alabama, Georgia, and Florida to explore ways to incorporate the draft Standard Operating Procedures with new alternatives.
- Conduct an assessment with the EIS to evaluate species reductions in crab, shrimp, and oyster populations in Apalachicola Bay.

### **3.3.2.2 Reopened Scoping Period—2009**

Five comments were received during the 2009 reopened scoping period. The commenters recommendations for fisheries in the ACF River Basin include the following:

- Establish the proper baseline to examine the effects of varying flow regimes on fish species.
- In the EIS, analyze flow impacts on marine species and habitats, including the Gulf striped bass and sturgeon.

## **3.3.3 Flow Concerns for Apalachicola Bay**

### **3.3.3.1 Initial Scoping Period—2008**

Thirty-six comments were related to flow concerns for Apalachicola Bay. Salinity in the bay has increased and is affecting the species in the bay, allowing saltwater predators to move into the estuary. Commenters noted that the contributions of the Apalachicola estuary to the commercial seafood industry are significant and should be protected. Sustained minimum flows, as defined by the RIOP, will not sustain the commercial seafood industry in Apalachicola Bay. Dredging and shipping interests have created more avenues for salt water to enter the estuary. Statistical data available through the Florida Fish and Wildlife Service show reduced landings of crab, shrimp, oysters, pinfish, and the like, and the data should be taken into consideration when evaluating alternatives for the EIS.

### **3.3.3.2 Reopened Scoping Period—2009**

During the 2009 reopened scoping period, eight comments were received regarding Apalachicola Bay flow concerns. Commenters expressed the need for the Corps to conduct a comprehensive and robust analysis of the environmental consequences of potential management regimes and to establish ecologically sound in-stream flows. One commenter stated that the Corps needs to develop and implement a fundamentally new approach to managing the ACF that will protect and restore the ecological health of the entire ACF system to make up for the degradation that has resulted from the construction and operation of the ACF reservoirs, the impoundment of water, consumptive water uses, and navigational dredging.

### 3.3.4 Other Biological Issues

#### 3.3.4.1 Initial Scoping Period—2008

Twenty-three comments were categorized as Other Biological Issues. Commenters noted that the potential impact of increased municipal and agricultural withdrawals for future management of the reservoirs should also be included in the EIS. The Corps must avoid operations that will violate or lead to violations of water quality standards. The Corps should ensure that even under drought conditions, sufficient flow is maintained below each dam so that water quality standards and endangered species are protected. The Corps should coordinate with the USFWS, EPA, and appropriate state agencies in Alabama, Florida, and Georgia to ensure that the Master Manual and water control plans are compliant with the ESA and the *Clean Water Act*.

Comments with recommendations for other biological resource areas in the ACF River Basin include the following:

- The EIS should include a discussion of secondary effects (actions that happen later in time) on major water chemical, physical, and biological characteristics. The discussion on the chemical characteristics could relate both the water velocity and volumes to, at least, temperature, dissolved oxygen, and conductivity. Detailed discussions on major physical characteristics could include the frequency of riparian habitat inundation, the distribution or redistribution of sediment particles based on sediment particles and flow energy (size/load related to velocity), and maintenance of benthic habitat.
- Include a Biological Assessment of effects on these species and their designated critical habitats, as required by the implementing regulations (at Title 50 of the *Code of Federal Regulations* [CFR], section 402.12) for Section 7 of the ESA.
- Noxious growths of various exotic species, such as hydrilla and Eurasian milfoil, have become a constant management concern at the ACF federal reservoirs, especially at Lake Seminole and Lake Eufaula. The Corps should investigate the feasibility of occasional drawdowns for controlling aquatic plants.
- The Corps should evaluate the effects of past and proposed project operations on flood durations and floodplain habitats.
- ADCNR recommended the development of a new Master Manual for the ACF that reflects the wildlife conservation actions identified in Alabama's Comprehensive Wildlife Conservation Strategy where appropriate.
- ADCNR recommended that the Corps establish a goal to develop a fish passage plan for all Corps locks and dams in the ACF. The fish passage plan should identify key species that need upstream and downstream movement. With those species in mind, evaluate viable fish passage methods. A lock passage program similar to the one employed by the Corps at Woodruff Lock and Dam would be a good starting point. This would greatly benefit adult migratory fish such as striped bass, Alabama shad, American eel, Gulf sturgeon, and many other fish species.

#### 3.3.4.2 Reopened Scoping Period—2009

Twelve comments were received during the 2009 reopened scoping period. The commenters' recommendations for other biological resources in the ACF River Basin include the following:

- The Corps should evaluate the effects of past and proposed project operations on flood durations and floodplain and wetland habitats.
- The EIS should document and evaluate the historical changes in the ACF River Basin to establish the proper baseline.

### 3.4 Drought Operations

Management of water resources during the current drought conditions—specifically, water releases to achieve certain project purposes or benefits at the potential expense of other project purposes or benefits—is of major concern to the commenters throughout the ACF River Basin. Current drought conditions in the Lake Lanier watershed, along with drought conditions in previous years throughout the basin, make the allocation of water difficult. The Corps received 191 comments in the 2008 initial scoping period related specifically to drought operations and 5 more comments during the 2009 reopened scoping period, for a total of 196 comments.

#### 3.4.1 Initial Scoping Period—2008

The commenters made the following recommendations applicable to the basin:

- Prioritize reservoir purposes during extreme drought events by defining which project purposes are most important.
- Update the critical yield analysis with an opportunity for public input.
- Use conservative reservoir operations during drought by reducing releases to a minimum (inflow equal to outflow).
- Include in the Master Manual emergency drought measures that provide for reducing releases during drought.
- Water supply conservation measures are necessary during drought.
- In extreme drought, let the flow of the river determine flows into Apalachicola Bay. Do not support Apalachicola River flows by releases from reservoirs above the inflows.

Some recommendations were specific to Lake Lanier:

- Establish and use management triggers (pool elevations at which predetermined actions would be taken) during drought, especially at Lake Lanier.
- Draw down Lake Lanier last when drought occurs, recognizing the small drainage area supplying the lake.



- During drought, reduce the releases from Lake Lanier in the winter to meet the reduced flow target at Peachtree Creek, 650 cfs.

Commenters in the headwaters maintained that to protect Lake Lanier during droughts to preserve its utility for water supply and recreation, the lake should be disengaged from the current practice of operating with all reservoirs as part of a system. Commenters in the lower portion of the basin, on the other hand, stated that too much water is being retained upstream and that natural flows are not being adequately mimicked to protect species and the Apalachicola Bay. There were six comments regarding sharing the effects of drought. Some suggested that water conservation measures, such as water use restrictions, should be implemented throughout the ACF River Basin so that the effects of drought are not focused on one region or part of the basin.

EPA encouraged the development of an adaptive management plan to address the uncertainty associated with in-stream flow. The need to evaluate future climate changes in climate was specifically referenced in eight of the comments received. Commenters asked that the Corps recognize that the dry weather patterns that the Southeast has experienced in recent years will likely continue in the future and that management of water systems within the ACF River Basin must take that into account. One commenter recommended that predictions for both increased drought and increased heavy rain events be factored into the Corps' Master Manual planning process. The USFWS recommended that the Corps consider how climate change might affect ACF flow regimes and how to best adapt reservoir operations to the most likely foreseeable changes. The effects of a given set of operating rules will vary depending on whether the basin's climate becomes drier, wetter, more variable, or less variable. In particular, it is vitally important to adapt the level set as the top of conservation pool to the long-term hydrology of the basin and the essential purposes the projects serve. The Corps already practices this concept, with occasional variances from the guide curves to store water above the top of conservation pool elevation during dry periods. The USFWS recommended that the Corps explicitly address climate-based operational flexibility in the Master Manual update and in the analyses of the EIS.

### **3.4.2 Reopened Scoping Period—2009**

During the 2009 reopened scoping period, the Corps received five comments pertaining to drought operations. The Apalachicola Riverkeeper observed that Apalachicola River flows during recent droughts were significantly reduced even though the droughts were no worse than the previous droughts. Another commenter suggested that the Corps should evaluate the impacts of more severe and/or extended droughts in the future and should consider implementing drought management plans with reasonable triggers to declare drought conditions. Another commenter stated that the Corps must consider the amount of water that might be lost from the basins through inter-basin transfers and consumptive uses and should consider appropriate limitations on any such losses, particularly under drought conditions. This commenter further suggested that Lake Lanier operations should take advantage of the entire conservation pool down to elevation 1,035 feet, consistent with the critical yield analysis.

### 3.5 Water Quality

The Corps received 155 comments during the 2008 initial scoping period addressing water quality issues in the ACF River Basin. Drinking water throughout the entire basin is an extreme concern to citizens and to local, state, and federal government agencies. Twelve more comments regarding water quality issues were received during the 2009 reopened scoping period, for a total of 167 comments.

#### 3.5.1 Initial Scoping Period—2008

Comments from citizens near West Point Lake stated that “[w]ater quality has suffered greatly as a result of frequent fluctuations in West Point Lake, which supplies water to the City of LaGrange.” Record low water levels at West Point Lake were also cited as causing algae blooms due to high nutrient levels in the water. The need for improved treatment of sewage from the City of Atlanta to prevent pollution of waters downstream and to ensure that water quality standards are met was also expressed in the comments received. These concerns are associated with the need to maintain water quality for recreational activities, such as swimming and fishing. There is also a concern that reductions in stream flow would result in MeadWestvaco’s shutting down operations to avoid violations of its National Pollutant Discharge Elimination System permit. Commenters also expressed concern regarding poor water quality due to raw sewage being released from houseboats directly into the river. Above all, citizens expressed the need for the Corps to avoid operations that will violate or lead to violations of water quality standards. Specifically, they recommended the following:

- Examine the effects of reservoir operations on water quality, at projects and in the tailrace, in the Master Manual update, including ongoing and potential future effects on dissolved oxygen, temperature, pH, conductivity, nutrient and organic material dynamics, and various industrial and municipal discharges.
- Maintain water quantity stations above and below all dams, and support flow stations below each lock and dam (ADCNR recommendation).
- Adjust West Point Lake operations to ensure adequate inflow of water and lake elevations to dilute nutrient loading into the lake.
- Adopt a permanent water quality minimum flow of 650 cfs at Peachtree Creek, where the Corps has already granted this flow reduction based on water quality data and assurances from GAEPD.

#### 3.5.2 Reopened Scoping Period—2009

Recommendations made during the 2009 reopened scoping period regarding drought operations in the ACF River Basin included the following:

- The Corps should ensure that operational changes meet water quality standards, “even under drought conditions.”

- The effects on water quality from erosion caused by exposed shoreline should be analyzed.
- Adopt a permanent water quality minimum flow of 650 cfs at Peachtree Creek, where the Corps has already granted this flow reduction based on water quality data and assurances from GAEPD.

This comment was based on assumptions prior to the July 17, 2009, court ruling. In the reopened scoping based on changes due to the court ruling, commenters requested that the current minimum flow target of 750 cfs at Peachtree Creek not be abandoned. Specifically, water quality below Buford Dam should be analyzed to ensure water quality standards are not violated. Results of the BacteriALERT program “highlight the importance of releases from Buford in maintaining water quality in the Chattahoochee River National Recreation Area.”

- All reasonably foreseeable actions associated with changes in point source and nonpoint source discharges and their assimilation due to changes in stream flow should be included in the analysis.
- Analyze the impacts on water quality and salinity in the Apalachicola River and Bay and in surrounding floodplain habitats and sloughs.

### **3.6 Water Supply**

Conforming with the Court’s July 17, 2009 order will alter the alternatives for the Master Manual with respect to water supply. Regardless, withdrawals for water supply at Lake Lanier, as well as at other Corps lakes and unimpounded river portions between the lakes, have been permitted by states. A number of suppliers of municipal and industrial water supply rely on operations throughout the ACF River Basin to meet their water supply needs. The Corps received 117 comments regarding water supply within the ACF River Basin in 2008 and 19 more comments during the 2009 reopened scoping period, for a total of 136 comments.

#### **3.6.1 Initial Scoping Period—2008**

During the 2008 scoping period, 19 commenters expressed the opinion that water supply is more important than downstream uses. These commenters tended to live in the upstream portions of the ACF River Basin. They depend on a reservoir or river flow for their drinking water, and they pointed out that there are no alternative sources of supply. These commenters consider drinking water for human consumption and survival of greater importance than fish and wildlife concerns.

Thirty of the comments received discussed the socioeconomic importance of water supply to the Atlanta region. These commenters, who live in the upstream portion of the basin, expressed concern regarding future economic development efforts if water supplies are uncertain. Sixteen comments were related to concerns over the future availability of water supply in the Atlanta region. GAEPD, for example, pointed out that water supply options are limited almost exclusively to surface water. Others who live in the lower

portions of the basin expressed the opinion that continued population growth in the Atlanta region should not occur if adequate water supplies are not available. Commenters also called upon the Corps to consider the water conservation measures that can be taken or have already been taken, as well as to include considerations from the MNGWPD's Water Supply and Water Conservation Plan. Four commenters pointed out that water supply is not an authorized purpose for Lake Lanier and that only Congress may change the original authorized purposes. One of the comments received expressed concern over contaminants (oil) in the water supply due to piping water during times of drought.

Some alternatives for water supply other than Lake Lanier were suggested:

- Adding storage capacity on the Flint River, which would increase the total water storage capacity in the ACF River Basin
- Desalination
- Additional groundwater
- Tennessee River.

Two comments on water supply were received from the LaGrange area. They stated that releasing water from West Point Lake to supplement lost or reduced flows from agricultural demands in the Flint River Basin is not a congressionally authorized function of West Point Lake.

### **3.6.2 Reopened Scoping Period—2009**

The comments received in 2009 regarding water supply were focused on different areas from the comments received in 2008, although some of the suggested alternatives for water supply remained the same. Comments in 2009 asked that the Corps assess the impact of potential new reservoirs on existing federal reservoirs, as well as regulate restrictions on water withdrawals for a variety of uses. The State of Georgia also noted that “since the NEPA regulations instruct the Corps to consider alternatives that are beyond its authority, a federal district court ruling that the Corps lacks authority to operate Lake Lanier for water supply should not alter the scope of the EIS.” It was also pointed out that studies completed by the ARC, Metro Water Planning District, and Georgia's Water Contingency Task Force found “that there is no reasonable replacement water source available to metro Atlanta.” Other options presented by Georgia's Water Contingency Task Force include:

- Pump-storage reservoirs along tributaries to the Chattahoochee River
- Deviation from Georgia's interim in-stream flow policy and Peachtree Creek flow target
- Inter-basin, intra-basin, and interstate water transfers
- Aquifer storage and recovery.

Upstream water users are very concerned about how the Court's order will affect their water supply. The City of Cumming is “vehemently opposed to the revisions to the

Master Water Control Manual, especially as disclosed in subsection (b) on the Notice received on November 24, 2009,” after the investment made in expansions approved through various permitting agencies. Forsyth County described its claimed right to water from the Chattahoochee River, which has been restricted by the construction of Buford Dam, and requested that consideration be given to the County’s obtaining a “reasonable share of water from the lake equal to the supply that would have been available from the river” (if the dam had not been built). Forsyth County also associates growth in the area with the presence of the lake and believes that water supply from Lake Lanier should be allowed to support the water demands the lake’s presence has created.

### 3.7 National Environmental Policy Act

The Corps received 79 comments related to the NEPA process during the initial scoping period in 2008. The comments were further sorted into the following subcategories: (1) Scoping and Public Involvement, (2) Baseline Conditions, (3) Proposed Action and Alternatives, (4) Mitigation, (5) Schedule, (6) Other Applicable Regulations, (7) Cooperating Agencies, and (8) General. During the reopened scoping period in 2009, the Corps received an additional 80 comments regarding the NEPA process. Those comments were sorted within the same subcategories. The percentage of comments assigned to each subcategory during both scoping periods is shown in Figure 5. The Corps received a combined total of 159 comments related to the NEPA process during the 2008 and 2009 scoping periods—79 in 2008 and 80 in 2009.

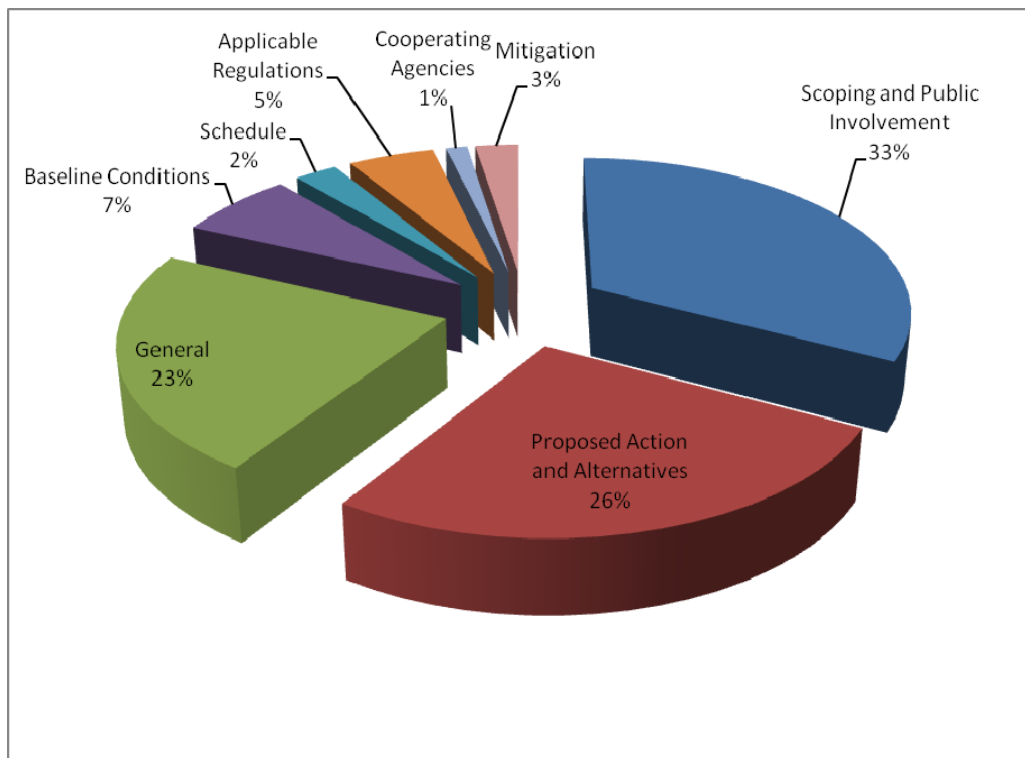


Figure 5. Distribution of comments among NEPA subcategories.

### 3.7.1 Scoping and Public Involvement

#### 3.7.1.1 Initial Scoping Period—2008

Twenty-five comments focused on issues related to the scoping process and public involvement opportunities were submitted. Several stakeholders said they welcomed the opportunity to work with the Corps. Opinions concerning the single scoping meeting in Florida were mixed: Some commenters expressed dissatisfaction with the size of the meeting facility (too crowded to allow interaction with Corps representatives), whereas others were grateful for the opportunity to gain more information about the ACF River Basin and NEPA process. One commenter noted that many people in the Apalachicola Bay area feel there is a bias in favor of upper-basin needs. Some commenters expressed dissatisfaction with the scoping meeting format (no opportunity for public hearing-type comments); others found the meetings informative and professionally conducted. One commenter expressed dissatisfaction with the Web-based comment tool. Several stakeholders criticized the Corps for not providing more information to the public at the scoping stage, claiming that the paucity of details about the proposed action, alternatives, and identified issues hampered meaningful opportunity to provide input. Some commenters asserted that the scoping process conducted by the Corps was inadequate and did not meet the guidelines for scoping under NEPA, the public participation requirements of the *Water Resources Development Act* (WRDA), or the Corps' own implementing regulations for either act. (Refer to agency comment summaries in Section 4.0.)

Stakeholders offered the following recommendations that the Corps should consider to provide more meaningful communication and cooperation between the Corps and stakeholders as the project moves forward:

- Provide a clear statement of the purpose of and need for the proposed action.
- Provide a summary of the current operating rules for each project, an explanation of their basis in congressionally authorized purposes, and a description of how much discretion the Corps has to change the rules. Post the summary on the District's Web site for use by other agencies and the public early in the Master Manual update work schedule.
- Develop a flowchart or some other form of audit trace to demonstrate the influence of the stakeholder concerns on the Master Manual.
- Hold a joint meeting with all stakeholders to discuss the findings of the scoping process.
- Implement scoping and alternatives development procedures similar to those used by the Corps to update the Water Control Manuals in the Missouri River Basin.
- Provide for a more formalized stakeholder process to work through the goals of the basin study and alternatives to be considered.
- Provide a third-party mediator at future public meetings.
- Establish a Lake Lanier "crisis team" of Corps employees who are clearly available to stakeholders.

### 3.7.1.2 Reopened Scoping Period—2009

Twenty-seven comments pertaining to the scoping process and public involvement were submitted during the reopened scoping period. Many of the comments contained general introductory remarks regarding the submission of comments and reiteration of the general requirements for scoping and public involvement required under NEPA. Several commenters, including the USFWS, GAEPD, Upper Chattahoochee Riverkeeper, Apalachicola Riverkeeper, Tri-Rivers Waterway Development District, and Lake Lanier Association, stated that comments submitted by their respective agencies/organizations during the 2009 scoping period were in addition to their original scoping comments provided in 2008. A couple of commenters provided additional documents to be considered in the EIS and Master Manual development process.

GAEPD commented that “the revised scope is neither a necessary nor appropriate reaction to the July 17, 2009 ruling. Moreover, the revised scope violates the letter and spirit of NEPA and is contrary to the public interest and common sense.” FDEP contended that current scoping efforts do not meet WRDA and NEPA requirements and that the Corps must provide additional scoping once the proposed action is more adequately defined. FDEP also stated that “the Corps should release its draft critical yield analysis for the ACF Basin, transparently describe the critical yield formula, the underlying data, and its corresponding methodologies and assumptions, and afford opportunity for public review and comment.” The AOWR commented on the requirement to choose a resource area from those on the online comment form, which it felt was overly restrictive.

The Apalachicola Riverkeeper requested “a peer review by the National Academy of Sciences for the Draft EIS and Water Control Manuals [water control plans] for the ACF [River] Basin pursuant to 33 U.S.C. § 2343(a)(3)(A)(iii).” He also commented that “The Draft EIS must ensure that high quality environmental information is available to public officials and citizens before decisions are made and actions are taken so that information can help the Corps make decisions regarding the Water Control Manuals [water control plans] that are based on an understanding of environmental consequences, and take actions that protect, restore, and enhance the environment.”

## 3.7.2 Baseline Conditions

### 3.7.2.1 Initial Scoping Period—2008

Eight comments pertained to establishing a “baseline” set of conditions against which the Corps will analyze the proposed action and alternatives in the EIS.

FDEP believes that the 1958 Water Control Manual should be used as the baseline (as opposed to the 1989 draft plan or current existing operations) and that the NEPA process must evaluate all changes in the Corps’ reservoir operations and their impacts since that time. This opinion was echoed in the comments provided by both Representative Allen Boyd and the Apalachicola Riverkeeper.

1 The AOWR asserted that the Corps must use the currently approved water control plans  
2 for each reservoir to establish a baseline. The AOWR stated that “draft manuals, the use  
3 of action zones or other proposed operations that have never been subject to the public  
4 scrutiny demanded under NEPA and the Corps’ implementing regulations should not be  
5 used as a starting point of the Corps’ review or effort to update the manuals.” Similar  
6 comments were made by Georgia Power and on behalf of the SeFPC customers.

7 Comments submitted on behalf of West Point Lake stakeholders contended that “the  
8 Corps cannot select the Interim Operating Plan, the Revised IOP, or designate any  
9 baseline year as the foundation for development of the new WCMs and associated EIS.”  
10 They continued by recommending that the Corps begin the Master Manual process with a  
11 “clean slate.”

### 12 **3.7.2.2 Reopened Scoping Period—2009**

13 Three comments regarding the baseline were submitted. The Apalachicola Riverkeeper  
14 commented that

15 [t]o establish the proper baseline, the Draft EIS should document and  
16 evaluate the historical changes in the ACF Basin with respect to the  
17 following indicators:

- 18 • Historical flows;
- 19 • Acres of river and floodplain wetlands lost;
- 20 • Acres of native upland habitats lost;
- 21 • Miles of streambed lost or modified;
- 22 • Changes in stream flows;
- 23 • Changes in ground water elevations;
- 24 • Changes in the concentrations of indicator water quality  
25 constituents;
- 26 • Changes in the abundance, distribution, and diversity of  
27 indicator fish communities; and
- 28 • Changes in rainfall, and reasonably foreseeable future  
29 changes.

30 FDEP commented that “[a]n analysis that compares proposed WCM [water control  
31 manual] revisions to anything other than a baseline that does not include water supply  
32 withdrawals and releases from Lake Lanier would be inappropriate, unlawful and in  
33 direct contravention of the Phase 1 Order.” The Tri Rivers Waterways Development  
34 Association echoed FDEP’s sentiment that the water supply withdrawals from Lake  
35 Lanier are not authorized and therefore must not be considered in the baseline.



### 3.7.3 Proposed Action and Alternatives

#### 3.7.3.1 Initial Scoping Period—2008

Nineteen comments were assigned to this subcategory, but the proposed action and alternatives to be considered were at the heart of a vast number of comments assessed in other categories. Comments regarding the proposed action were somewhat general in nature, with most of the comments focused on the alternatives to be considered. Comments provided by several Georgia stakeholders (GAEPD, ARC, Association of County Commissioners of Georgia, MNGWPD, Hall County Government Board of Commissioners, and one individual) expressed concern that the revised water control plans and EIS would merely document existing operations and not consider potentially viable alternatives. One commenter pointed out that the Corps must show that the EIS actually informed decision-making rather than justifying a decision already made. GAEPD expressed opposition to making any version of the IOP and RIOP part of the proposed action, noting that instead there should be a range of reasonable and feasible alternatives for the continued operation of the federal reservoirs.

Comments provided by Tri-Rivers Waterway Development District and MeadWestvaco urged the Corps to include in its environmental documentation “a clear explanation of the federal ‘action’ which the Corps is evaluating for purposes of NEPA” and that the proposed action “should be defined as the operation of ACF reservoirs according to their authorized purposes.” FDEP reminded the Corps to “clearly describe all decisions, particularly in the water control plans and their reservoir regulation schedules, so that all parties can easily understand the Corps’ proposed action and that action can be reasonably evaluated under NEPA.”

The issue of what alternatives the Corps should consider is complex, as demonstrated by the very wide array of comments and recommendations made by stakeholders at every level of state and local government, public interest groups and organizations, private citizens, and other federal agencies. Many of the comments and recommendations were captured in Section 3.1, Water Management Recommendations. In addition, summaries of the detailed comments and recommendations made by federal, state, and local government agencies with regard to the proposed action and alternatives are also provided in Section 4 of this report. The following discussion addresses the comments categorized under NEPA during the comment-sorting process.

Some of the more general comments made regarding alternatives included requests that the Corps consider alternative operating plans to balance water supply needs and economic impact with downstream needs. The Cobb Chamber of Commerce urged the Corps to consider making changes to improve the balance among project purposes, even if doing so requires congressional approval. Another commenter urged that the Corps not limit itself to considering alternatives believed to be within its current authority because doing so could overlook alternatives that would achieve the highest and best use of the federal projects. Several comments urged the Corps not to limit alternatives to only those that mimic the manner of operations of the RIOP. One organization suggested that the

Corps prioritize reservoir purposes during extreme drought events, making the protection of wildlife the top priority.

FDEP recommended that the Corps assess an alternative based on true basin inflow, an alternative that uses the entire conservation pool in Lake Lanier, a strong water conservation alternative, and a species recovery-based alternative.

GAEPD recommended consideration of separate alternatives based on reallocation of storage for water supply, rule curve changes at all projects in the ACF River Basin, different methods for optimizing the ACF system, and optimal operations for meeting endangered species needs other than those in the RIOP. They also reminded the Corps that the "no-action" alternative should be interpreted to mean "no change" from the current management direction or level of management intensity; consequently, it would be "a useless academic exercise" to consider as the no-action alternative returning a resource to its earlier, unaltered state.

The USFWS would like the Corps to consider changes to minimum releases and winter drawdown windows for the benefit of downstream species; an alternative that addresses increases in consumptive water demands in the basin; ways that standard operating procedures for fish spawning could be included among the mix of alternatives; and an alternative that allows Lake Eufaula (Walter F. George Lake) to behave more like a river and then compare these with the existing operating regime and other alternatives.

Comments submitted on behalf of West Point Lake stakeholders asked that the Corps assess a full-pool (633–635 feet msl) "run of the river" alternative; an alternative that eliminates or significantly reduces Action zones at West Point Lake; and an operations alternative that ensures that water quality standards are met and that the standards are at proper levels for the project. The stakeholder also stated that the Corps should not consider any alternative that uses the water in West Point Lake to provide minimum flows for waste assimilation or municipal or industrial needs downstream, or support downstream navigation without an adequate study of the ecological and environmental damages caused by lake fluctuations to support that activity.

Tri-Rivers Waterway Development District and MeadWestvaco noted that the Corps should begin by "setting forth a set of operations that fulfills the authorized purposes of the reservoirs, according to the primary legal authorities." They added that [a]ny alternative that differs from optimal operation of the reservoirs for primary authorized purposes should be clearly identified as such; the need and/or legal basis to deviate from operation of the reservoirs for optimal fulfillment of the primary authorized purposes should be clearly explained; and that the Corps should clearly explain applicable limitations on any deviation from operations for primary project purposes, such as a time limit and the circumstances under which the Corps will restore primary operating parameters."

### 3.7.3.2 Reopened Scoping Period—2009

During the 2009 reopened scoping period, 23 comments were submitted regarding the proposed action and alternatives. In its comments, the USFWS asserted that “alternative sources of water supply for the Atlanta metro area need to be considered including the anticipated short and long-term impacts to surface and groundwater resources as a consequence of the revised scope. We recommend that the Corps’ alternatives analysis include the cumulative effects of the proposed action and the expected proliferation of multiple surface and groundwater projects that may also affect the operation of the federal reservoirs and ultimately flows to the Apalachicola River.”

FDEP provided the following comments with respect to the proposed action and alternatives:

- Fully examine direct, indirect, and cumulative impacts to Apalachicola River and Bay.
- Consider all reasonable alternatives, even those outside the agencies’ jurisdiction, and clearly explain in the EIS any alternatives that were considered but eliminated from detailed analysis.
- Review alternatives to maintaining reservoir levels for recreation/sportfish management.
- When considering alternative plans, assume that the entire conservation pool of ACF reservoirs is available.

The AOWR stated, “Alabama does not believe the Corps can, or should, make any assumptions in the manual update process regarding possible future Congressional action that might expand its current authority.” AOWR further stated that the Corps must focus the EIS and Master Manual on only the authorized purposes within its authority, noting that to do otherwise would be a waste of time and taxpayer money. AOWR identified a number of objectives that the scope of the Master Manual should address:

- Determination of the critical yield of each reservoir using the most current hydrologic and climatic conditions
- Adherence to the operational baseline as set forth in detail in the July 17, 2009, court order
- Use of the agreed-upon *HEC-5* model or development of a new model that is agreed upon by the Corps and the states
- Assessment of whether any changes in the baseline conditions are necessary to comply with existing laws and regulations
- Analyses of any proposed modifications against the baseline set forth in the court order and other legal requirements to develop the proposed operations for Lake Lanier, West Point Lake, and Lake Walter F. George (Lake Eufaula).

AOWR also expressed concern “that some proposed reservoir projects under consideration in Georgia may have impact upon inflows into the federal reservoirs in the

ACF Basin, including inflows from the Flint River,” and requested that the Corps fully assess within cumulative impacts any water that might be lost through transfers or consumptive uses.

GAEPD, the ARC, and Gwinnett County Department of Water Resources submitted separate letters that reflected similar comments. The comments contended that the Corps must include water supply in Lake Lanier as an alternative, noting that to do otherwise would be “arbitrary and capricious.” Gwinnett County Department of Water Resources said “At minimum, the Corps should study whether and to what extent water supply impacts reservoir operations at various levels to accommodate whatever ruling may ultimately issue in the pending litigation.” Other alternatives requested for consideration included “water supply at the current levels,” “water supply being provided to Buford and Gainesville (10 mgd) with the off-peak flow at 600 cfs,” and “water supply being authorized at the level of yield for the year 2035 found in the Metropolitan North Georgia Water Planning District’s Water Conservation and water Supply Plan of 2009.” The ARC further contended that the EIS “should assist decisionmakers in determining whether to seek additional authority for water supply operations at Lake Lanier.” The ARC also stated that “[t]he EIS should therefore be broad enough to acknowledge the current legal reality while, at the same time, accommodating the possibility that the current reality might change.” GAEPD asserted that the no-action alternative must be based on current conditions, which include water supply in Lake Lanier.

The Apalachicola Riverkeeper commented that the EIS must rigorously explore and objectively evaluate all reasonable alternatives, even those outside the agencies’ jurisdiction. In addition, the Riverkeeper requested that the EIS consider an alternative that “manages the ACF system to ensure the maintenance of ecologically sound in-stream flows that will protect and restore the chemical, physical, and biological integrity of the Apalachicola River and its floodplain, the Chattahoochee River, the Flint River, and the Apalachicola Bay; and will recover threatened and endangered species and species at risk in those waters.” Last, the Riverkeeper reminded the Corps that the “recommended alternative must protect and restore the ecological health of the Apalachicola River and Bay and the entire ACF system and comply with environmental protection laws.”

The Upper Chattahoochee Riverkeeper asked that the Corps consider an alternative that integrates non-Corps, federally licensed reservoirs into a meaningful drought contingency plan.

Other comments included a request that the EIS address the freshwater needs of the Apalachicola River, estuaries, and bay.

### **3.7.4 Additional NEPA Topics**

#### **3.7.4.1 Initial Scoping Period—2008**

**Mitigation.** FDEP stated that key mitigation elements must include conservation and water transfers.

1 **Schedule.** The Corps received three comments regarding the timeline for completing the  
2 Master Manual update and the accompanying EIS. The commenters stressed that time is  
3 of the essence, and one added that the EIS cannot be “all things to all people.”

4 **Compliance with Other Regulations.** Three comments were made regarding the  
5 requirement that the Corps meet all applicable laws in its water management operations.  
6 Specific laws mentioned include the *Coastal Zone Management Act*, *Clean Water Act*,  
7 and ESA.

8 **Cooperating Agencies.** A comment from the Apalachicola Riverkeeper suggested that  
9 the Corps consider engaging EPA as lead agency—with the U.S. Geological Survey  
10 (USGS), the National Oceanic and Atmospheric Administration, the National Marine  
11 Fisheries Service, USFWS, the Corps, and others in cooperating roles— all overseen by  
12 the National Research Council. A comment from Representative Boyd encouraged the  
13 Corps to continue working with the National Research Council as the project moves  
14 forward.

15 **General NEPA Comments.** Eighteen of the comments submitted addressed NEPA but  
16 did clearly not fit within the defined NEPA subcategories. Some of the comments were  
17 included in the general introductory language provided as a lead-in to more specific  
18 comments that have been addressed elsewhere in this report. Several commenters thanked  
19 the Corps for the opportunity to participate in the process or offered their assistance as  
20 the project moves forward. Some comments were pleas to the Corps to help their  
21 communities, “do the right thing,” and ensure the protection of both the human and  
22 natural environment for future generations. A few commenters expressed doubt that the  
23 long-standing battle over water can be resolved, admonished politicians and “big  
24 government;” or conveyed an overall tone of disappointment or disgust with management  
25 of the ACF River Basin.

#### 26 **3.7.4.2 Reopened Scoping Period—2009**

27 **Mitigation.** Three comments were submitted regarding mitigation. The ARC asserted that  
28 the Corps needs to consider mitigation measures to mitigate the catastrophic  
29 environmental and economic impact of the operational alternative defined in the  
30 November 19, 2009, *Federal Register* notice. The ARC further stated that the EIS should  
31 assess various mitigation options proposed by Gwinnett County to address Florida’s  
32 concerns in the Apalachicola River and Bay.

33 FDEP contended that “the Corps should consider additional system-wide mitigation with  
34 regard to water quantity and flows in the ACF Basin.” It further stated that the Corps  
35 should “analyze increased wastewater recycling and reuse, coupled with wastewater  
36 treatment and water conservation measures, as an alternative and as a means to mitigate  
37 any impacts associated with the Corps’ proposed action and cumulative impacts of new  
38 sources of water supply in the ACF Basin.”

39 **Schedule.** One commenter requested that the Corps get the Master Manual update done  
40 “soon.”

**Compliance with Other Regulations.** Five comments were made regarding the requirement that the Corps meet all applicable laws and regulations in the development of the updated Master Manual and EIS. Gwinnett County Department of Water Resources asserted that NEPA, properly applied, requires the Corps to include water supply at and above current uses in its EIS. FDEP reminded the Corps that “the Apalachicola River and Bay—and indeed, the entire State of Florida—are protected by the enforceable policies of the federally approved Florida Coastal Management Program.” FDEP further stated that regardless of the Phase 1 Order, the Corps must comply with NEPA, the Water Supply Act of 1958, the Flood Control Act, the ESA, and the Coastal Zone Management Act. The Apalachicola Riverkeeper echoed a similar sentiment, reminding the Corps that the alternative ultimately recommended by the Draft EIS must also comply with the full suite of federal laws and policies designed to protect the environment. The NPS made the Corps aware that the EIS must be mindful of the Chattahoochee River National Recreation Area and the protections it is afforded by various laws and regulations.

**Cooperating Agencies.** No comments were received.

**General NEPA Comments.** Eighteen comments were categorized within this subcategory. FDEP commented that the EIS should assess a full range of alternatives and associated impacts on Florida and the Apalachicola River and Bay. The Corps also should make any updated critical yield analysis and new model for the ACF River Basin available to Florida for review and comment. In addition, cumulative impacts analysis must consider the following reasonably foreseeable actions:

- All depletion of water within the entire ACF River Basin, including metro Atlanta uses, irrigation in the Flint River Basin, and reservoir evaporation
- Depletion of water from population growth in metro Atlanta
- Modifications to seasonal or altered timing of flows caused by federal and non-federal reservoir operations
- Point and large-scale nonpoint source pollutant discharges
- Effects of flow alterations and continued loss of aquatic habitats in Apalachicola River and Bay
- Implementation of drought management plans and triggers
- Occurrence of more severe and extended droughts in the future.

FDEP further stated that “the cumulative impacts of proposed reservoirs [in Georgia], and any additional water supply sources or diversions necessitated by the Phase 1 Order, must be evaluated by the Corps as part of the WCM EIS process.” It added, “The Corps also should evaluate the impacts of growth induced by providing new sources of water supply in the ACF Basin.”

The AOWR echoed FDEP’s concerns, stating that “in assessing the cumulative impacts associated with the operation of the ACF Basin, the Corps must consider the amount of water that may be lost from the basins through inter-basin transfers and consumptive uses

1 and should consider appropriate limitations on any such losses, particularly under drought  
2 conditions.”

3 The ARC “firmly believe[s] that any objective analysis will show that there is enough  
4 water in the ACF Basin to meet the reasonable needs of all stakeholders if the reservoirs  
5 are operated properly.” GAEPD commented that to not consider water supply in the EIS  
6 would be a waste of resources and taxpayer dollars. GAEPD further stated that “the  
7 Corps cannot ignore the enormous environmental, social, and economic costs that would  
8 result from ceasing to provide water supply to the millions of Georgians that have  
9 depended on Lake Lanier for decades by merely declaring that its ‘no action’ alternative  
10 will not include water supply.”

11 The Apalachicola Riverkeeper made several comments including the following:

- 12 • Define and utilize the historical flow conditions of the Apalachicola,  
13 Chattahoochee, and Flint rivers as the baseline, with particular attention to the  
14 historical flow regime of the Apalachicola River.
- 15 • Comprehensively analyze the direct, indirect, and cumulative impacts of the  
16 proposed alternatives. As CEQ has made clear, in situations like those in the ACF  
17 where the environment has already been greatly modified by human activities, it  
18 is not sufficient to compare the impacts of the proposed alternative against the  
19 current conditions. Instead, the baseline must include a clear description of how  
20 the health of the resource has changed over time to determine whether additional  
21 stresses will push it over the edge.
- 22 • “Cumulative effects analysis must address impacts from past, present and future  
23 actions through the basin including, but not limited to water withdrawals through  
24 basin from federal and non-federal activities; reservoir and dam operations;  
25 navigational dredging activities; commercial, residential, and infrastructure  
26 development; changes in rainfall, water quantity, salinity, wetland losses, sea  
27 level rise, and storm events from climate change; and improvements in water  
28 conservation.”
- 29 • Evaluate alternatives that will protect and restore the ecological health of the  
30 Apalachicola River and Bay, and the entire ACF system. The EIS must also state  
31 how alternatives considered in it and decisions based on it will or will not achieve  
32 policy goals established under NEPA and other applicable environmental laws  
33 and policies.

34 One commenter urged the Corps to include in the Record of Decision a thorough  
35 explanation of its modeling and analysis of proposals and alternatives, as well as its  
36 reasons for accepting or rejecting them. Another commenter urged the Corps to consider  
37 the impacts of its actions basin-wide, including the Apalachicola Bay. Gwinnett County  
38 Water Department restated the Corps’ legal obligations under NEPA.

### 3.8 Data, Studies, and Analytical Tools

Fifty-six comments received during the 2008 initial scoping period were assigned to the category Data, Studies, and Analytical Tools. Four more comments were received during the 2009 reopened scoping period, for a total of 60 comments in this category. The comments are summarized below.

#### 3.8.1 Initial Scoping Period—2008

The highest number of comment submissions requested that impact analysis and studies be conducted for the ACF River Basin. Commenters stated that the Corps' EIS should address the accumulation of scientifically based data on the available water and current water withdrawals along the ACF system. The EIS should quantify the relationship between increasing consumptive demands in the ACF River Basin and the benefits from various project purposes. In assessing the cumulative impacts associated with the operation of the ACF River Basin, the Corps needs to consider the amount of water that might be lost from the basins through inter-basin transfers and consumptive uses and should consider appropriate limitations on any such losses, particularly under drought conditions. Any raw data input should be measured using modern technology.

Commenters asked that a clear discussion and delineation of the pertinent water management responsibilities of federal and state agencies be included as a part of the EIS. The Corps has no authority to make decisions on matters of water supply planning and must defer to the states on such issues. However, commenters saw the need for the Corps to examine water supply withdrawals (or the lack thereof), and the consequences of them, as impacts of the proposed federal action. Furthermore, the EIS should document the volume of storage that has been contracted for water supply or has been proposed in each project and any limitations due to the hydrologic conditions of meeting the contracts.

Commenters asked that when compiling an EIS, the Corps use the new *HEC-ResSim* model software to the maximum advantage in developing new operating rules and that data from other modeling software be accepted or rejected but not ignored. Commenters also asked the Corps to examine the location of water withdrawals and discharges along the Chattahoochee River to ensure their accuracy: "The HEC-ResSim model places certain water withdrawal and wastewater discharge points in the wrong location along the Chattahoochee River. Because of these errors, the predicted release from Lake Lanier necessary to meet the 750 cfs flow requirement at Peachtree Creek is less than what is actually needed."

Additional studies and analyses recommended by commenters include the following:

- Interagency technical workgroups could assist the Corps in compiling the information necessary to craft a balanced set of alternatives and to analyze their effects on resources.



- 1 • The National Research Council should be permitted to do a study of all basins  
2 throughout the three states so that science, rather than politics, can dictate  
3 appropriate water policy.
- 4 • An assessment of water availability, supply options, demand-management  
5 alternatives, and socioeconomic factors that influence uses in the ACF system  
6 would be useful.
- 7 • EPA encouraged including in the EIS a discussion that connects management  
8 plans to reallocation of water storage. Of special interest are the effects of  
9 management plans on discharge rates (including velocities) and river elevations  
10 (including volume).
- 11 • The Corps should evaluate the effects on Apalachicola Bay and Estuary salinity  
12 and nutrient composition (to evaluate salt marshes, submerged grass beds, oysters,  
13 floodplain habitats, channel morphology, and bank erosion).
- 14 • A thorough evaluation of project-related flow regime alterations and the potential  
15 benefits of restoring features of the pre-project flow regimes, specifically the  
16 approach described by Richter and Thomas (2007), should be conducted.

### 17 **3.8.2 Reopened Scoping Period—2009**

18 In the initial scoping period, commenters asked that when compiling an EIS, the Corps  
19 use the new *HEC-ResSim* model software to the maximum advantage in developing new  
20 operating rules and that data from other modeling software be accepted or rejected but  
21 not ignored. In the 2009 reopened scoping period, state agencies asked that all three states  
22 (Alabama, Florida, and Georgia) have the opportunity to become acquainted with  
23 *HEC-ResSim* and requested that it be used only if the three states and the Corps agree on  
24 its use in modeling updates.

## 25 **3.9 Navigation**

26 The Corps received 28 comments on navigation during the 2008 initial scoping period.  
27 Four more comments were received during the 2009 reopened scoping period, for a total  
28 of 32 navigation comments. Navigation comments from the two comment periods are  
29 summarized.

### 30 **3.9.1 Initial Scoping Period—2008**

31 Of the 28 comments the Corps received regarding navigation, there were an equal  
32 number of those in favor and those opposed to navigation. One comment also focused on  
33 the environmental impacts of dredging in the Apalachicola River. The following is a  
34 summary of the comments regarding navigation:

- 35 • Navigation is no longer a high priority and might be altering the natural  
36 environment.
- 37 • Navigation is no longer a viable means of transportation.

- Revisions to the manual must recognize navigation as a primary project purpose and reflect the statutory intent to support downstream communities by resuming channel maintenance in the Apalachicola River acceptable to FDEP and by providing adequate flow to support navigation.
- Navigation is an important economic driver in this region, but releases should not be made from Lake Lanier to support navigation.
- The Corps is responsible for operating and maintaining the authorized navigation channel. Commenters urged the Corps to “explain in its revised manual and the accompanying environmental documentation how it intends to provide for the needs of the communities and industries located in the middle and lower portions of the ACF River System.”

The Tri-Rivers Waterway Development Association and industries located on the Chattahoochee River, such as MeadWestvaco, encouraged the Corps to continue to support navigation on the system by pursuing water quality certification from FDEP for maintenance dredging and by managing reservoir releases to support navigation. Such commenters cite the original congressional authorization as the basis for their position. Those who do not favor continued support of navigation point to the lack of navigation traffic on the system and the adverse environmental effects of dredging in the Apalachicola River. One such commenter suggested that the Corps abandon navigation as a function of the ACF system.

### **3.9.2 Reopened Scoping Period—2009**

The Corps received four comments regarding navigation during the 2009 reopened scoping period—three supportive of navigation and one focused on the environmental impacts of dredging in the Apalachicola River. The themes of the comments were very similar to those of the 2008 scoping period. One commenter mentioned the importance of the Corps providing navigation support for businesses and industries on the Chattahoochee River, for transportation purposes and for meeting water elevation and flow needs. That commenter stated he has no objection to the use of “action zones” as long as those zones adequately provide for the flood control, navigation, and hydropower authorized purposes of the ACF system. The commenter further stated that drought contingency operations factored into the development of action zones must not unduly burden West Point Lake and Walter F. George Lake in favor of excess conservation upstream in Lake Lanier. Two commenters suggested that the Corps revise the scope of its EIS to ensure that reliable, year-round navigation on the ACF system is a required alternative and is fully provided for in the revision of water control plans and manuals. One of these commenters urged the Corps to work cooperatively with FDEP and other appropriate stakeholders, including navigation interests, environmental interests, and local governments, to obtain state water quality certification. Should those efforts not be successful, this commenter suggested, the Corps has sufficient federal preemptive authority to maintain the federal navigation project in the absence of state water quality certification.

### 3.10 Hydropower

#### 3.10.1 Initial Scoping Period—2008

The Corps generates power at dams on the Chattahoochee River and markets the power through the Southeastern Power Administration. Of the 26 comments received related to management for hydropower during the 2008 initial scoping period, the number of comments that called for hydropower production as a priority was the same as the number that called for hydropower production to be reduced in times of drought conditions. The following is a summary of the comments regarding hydropower:

- Hydropower customers are willing to forego their authorized storage as long as proper compensation is provided.
- Hydropower is one of the original authorized project purposes for Lake Lanier, and it provided the economic justification for the project.
- Any changes in the plan that creates operational restrictions, or redistributes project benefits, should be accompanied by a reallocation of project costs and compensation to the affected [project] purpose.

The commenters that favored hydropower operations at the ACF projects tended to be marketers or users of power, such as the Southeastern Power Administration (SEPA), power cooperatives, Georgia Power Company, or industries. These commenters cited the original congressional authorization, together with the fact that sale of hydropower repays a portion of project costs, as justification for their position. According to SEPA, “[a]ny change in the plan which creates operational restrictions, or redistributes project benefits, should be accompanied by a reallocation of project costs and compensation to the impacted purpose.” A representative of the SeFPC suggested that “the hydropower customers are willing to forego their authorized storage at the projects as long as there is proper compensation.” Those commenters who did not favor hydropower operations at the ACF projects believe that other purposes, such as water supply, are of higher priority. Those holding this viewpoint tended to reside in the upstream portion of the basin.

#### 3.10.2 Reopened Scoping Period—2009

No hydropower-related comments were received during the 2009 reopened scoping period.

### 3.11 Flood Risk Management

In cases of extreme wet-weather conditions, the Corps manages operations at federal reservoirs to reduce damage caused by flooding. Given the current drought conditions, only a limited number (nine) of the comments received during the 2008 initial scoping period were related to flood risk management. Only two more comments concerning flood risk management were received during the 2009 reopened scoping period, for a total of 11 comments. The comments are summarized below.

### 3.11.1 Initial Scoping Period—2008

Comments regarding flood risk management came primarily from residents near West Point Lake. The flood risk management operation of this lake involves lowering the pool level during the winter months to provide additional flood storage. There were comments on both sides of this issue. Those residing on the lake or using it for recreation generally supported reductions in the drawdown of the reservoir in winter to provide flood risk management in the future. The West Point Lake Association and the City of LaGrange, for example, supported drawing West Point reservoir no lower than elevation 633, as opposed to the current operation of drawing down to 628. The larger response associated with flood damage reduction requested the removal of this project purpose in favor of higher water levels to support recreation, citing the greater perceived economic impact associated with recreation as compared to flood damage reduction. Those residing downstream, however, predictably held a different viewpoint, citing their dependence on West Point Lake for flood protection. These commenters pointed out that flood risk management was an original purpose for constructing the reservoir and that downstream residents still rely on that protection.

### 3.11.2 Reopened Scoping Period—2009

During the 2009 reopened scoping period, the Corps received two comments regarding flood risk management. The City of Lagrange, Georgia, commented that flood concerns north of West Point should be addressed by providing additional flood storage in Lake Lanier along with reduced lake elevations there for winter flood storage, not by relying on increased storage capacity in West Point Lake. With reference to a flood event in fall 2009, the City suggested that practices used by the Corps during that event worked well and should be incorporated into operating plans and that “set aside” flood storage at West Point should be reduced accordingly, especially during winter months.

## 3.12 Other Resources

During the 2008 initial scoping period, 52 comments that related to other resource areas—air quality, cultural resources, geology and soils, and hazardous, toxic, and radioactive waste—were received. Six more comments were received during the 2009 reopened scoping period, for a total of 58 comments. These comments on other resource areas are summarized below.

### 3.12.1 Air Quality

#### 3.12.1.1 Initial Scoping Period—2008

Three comments were related to air quality. They noted that the Corps should address and fully document the effects of proposed actions on air quality. The commenters noted that trees are dying due to drought conditions. The absence of trees can significantly affect the natural cycle, which (when functioning properly) can chemically break down air pollution. More water would ensure the ecological balance needed for better air quality.

### **3.12.1.2 Reopened Scoping Period—2009**

No comments were received.

## **3.12.2 Cultural Resources**

### **3.12.2.1 Initial Scoping Period—2008**

Seven comments regarding cultural resources were submitted. According to the commenters, Florida's historical heritage is at risk due to declining environmental conditions and the toll taken on the commercial fisheries industry for which the Apalachicola River is known. The community of Franklin County is dependent on the Apalachicola River and Bay for its livelihood and culture. Commenters asked that the Corps consider the loss of the cultural heritage of the Apalachicola oysterman if river flows are too low to maintain the fishery at adequate levels to make it economical for oyster harvesting to continue, and they asked that the Corps provide a better guide for protecting cultural resources in the Master Manual.

### **3.12.2.2 Reopened Scoping Period—2009**

One cultural resources comment was received during the 2009 reopened scoping period. The commenter stated that the EIS should consider the impacts of "rapidly fluctuating water levels" on archaeological and historic sites within the Chattahoochee River National Recreation Area. The commenter is particularly concerned that accelerated erosion due to bank scouring caused by the fluctuating releases from Buford Dam negatively affect the Ivy Mill ruins in Roswell, Georgia, which are listed on the National Register of Historic Places, as well as other archaeological sites in the Chattahoochee River National Recreation Area.

## **3.12.3 Geology and Soils**

### **3.12.3.1 Initial Scoping Period—2008**

Twenty-nine of the comments received were related to geology and soils. Commenters expressed concern about bank erosion at Lake Lanier and how it could diminish the future storage capacity of Lake Lanier. Some commenters pointed out that bare soil near the banks will eventually wash into the nearby creeks and tributaries, creating a water quality issue. A few commenters feel that development should be limited around Lake Lanier to prevent erosion and to control the drawdown of the lake for drinking water.

Other commenters pointed out that West Point Lake has severely eroded along the shoreline and caused silt buildup near private docks. The commenters feel the Corps could minimize erosion and soil deposition in the lake by keeping lake levels at or above 633 feet msl.

### 3.12.3.2 Reopened Scoping Period—2009

Five comments on geology and soils were received during the 2009 reopened scoping period. They concerned changes in flow and the corresponding impact on the riverbeds, erosion, and siltation. One commenter requested that the EIS address the “significant physical impacts” resulting from the abrupt water level changes in the Chattahoochee River due to releases from Buford Dam. The commenter said the abrupt changes in flow result in bank erosion and siltation in the Chattahoochee River and its tributaries.

Three of the geology and soils comments were related to the Apalachicola River. One commenter said that the construction and operation of the Jim Woodruff Dam has deepened and widened the Apalachicola River channel below the dam through the deposition of dredged material in the floodplain, degrading the condition of the riverbed. The commenter asked that the Corps consider repairing the riverbed below Woodruff Dam and suggested non-flow measures such as the “mechanical removal of vegetation on the banks, the reshaping of the riverbed and banks, and the placement of appropriately sized gravel.” The second commenter asked that the EIS address changes in the river channel morphology due to altered flows, including bank erosion. The third comment about the Apalachicola River concerned Swift Slough and Chipola Cutoff, two of the river’s distributaries (streams that branch off and flow away from the main stream channel). The commenter expressed concern that Swift Slough is threatened due to channel incising and sedimentation, whereas Chipola Cutoff is increasing in size and is “claiming an ever-increasing share of the mainstream of the river, now up to 40 percent.” The commenter asked that the Corps study alternatives to address these problems.

One comment pertained to geology and soils in the ACF River Basin as a whole. The commenter requested that the EIS document, as part of the baseline conditions, the miles of streambed lost or modified due to the historical changes that have occurred in the ACF River Basin.

## 3.12.4 Hazardous, Toxic, and Radioactive Waste

### 3.12.4.1 Initial Scoping Period—2008

The Corps received 13 comments regarding the recently permitted Turkey Run Landfill, which will be constructed near a tributary that feeds into West Point Lake. Commenters expressed concern that contaminants from the proposed landfill could leach into West Point Lake and groundwater supply sources, thereby polluting their drinking water. Commenters also pointed out that recreation on West Point Lake could be adversely affected if the landfill were to reduce the water quality and cleanliness of the lake.

### 3.12.4.2 Reopened Scoping Period—2009

No comments on hazardous, toxic, and radioactive waste were received.

### 3.13 Petitions

#### 3.13.1 Initial Scoping Period—2008

Two petitions were received:

- “West Point Lake Advisory Council Needs Your Show of Support (SOS)”
- “Comments on the Potential for the Turkey Run Landfill to Pollute Groundwater and Surface Waters in Violation of GAEPD Solid Waste Management Rules and Landfill Permit.”

The West Point Lake Advisory Council submitted a petition signed by 30 persons at the LaGrange public meeting and later mailed in an additional 2,779 signatures. The petition calls for all levels of government to ensure that five concerns are heard:

1. Maintain a minimum lake level of 633–635 feet msl.
2. Maximize positive economic impact.
3. Return to managing the lake consistent with congressionally authorized purposes.
4. Restore and maintain recreational facilities.
5. Ensure recreational access for low-income and minority families.

These comments were also received in conjunction with other comments and were categorized appropriately in previous sections of this report.

The second petition, related to the Turkey Run Landfill, had been signed by 58 persons. The area of concern is adjacent to West Point Lake, and the comments indicate a need to address adverse water quality impacts on the City of LaGrange’s water supply that might occur because of the landfill. Although the landfill is not within the Corps’ regulatory authority for the Master Manual, under the NEPA process it may be considered in various aspects of documenting activities within the area of influence of the Corps’ reservoirs. Copies of the petitions are provided in Appendix L.

#### 3.13.2 Reopened Scoping Period—2009

No petitions were received.

## 4.0 Federal, State, and Local Agency Responses

This section summarizes the comments that federal, state, and governmental agencies submitted through letters to the USACE Mobile District during the 2008 and 2009 scoping periods. Comments from the federal agencies (EPA, SEPA, and the Department of the Interior's USFWS) are summarized first, followed by state agency comments (in alphabetical order) and finally local government input. Copies of all the public and agency comments received during the scoping process are provided in Appendixes J (2008 comments) and M (2009 comments).

### 4.1 Federal Agencies

#### 4.1.1 EPA Region 4

##### 4.1.1.1 Initial Scoping Period—2008

Comments from EPA Region 4 were received December 8, 2008, in a letter signed by Mr. Heinz Mueller. EPA noted that it understands that the updated Master Manual will identify all constraints, including authorized project purposes, power contract commitments, hydrologic and climatologic factors, downstream lake and basin-wide conditions, and potential threats of flood and drought, and will include the resultant lake levels required to satisfy all of these various requirements.

**Master Manual.** In comments regarding the Master Manual update, EPA suggested that the manual include sections on current project operations and a historical review; operational changes necessitated by drought contingency requirements and data supporting such changes; updated data reflecting current basin conditions; proposed new environmental requirements for meeting water quality standards; how compliance with endangered species law/fish spawning needs will be accomplished; procedures for capturing/using real-time data provided by additional gauges; results of recent computerized modeling; and proposed improved streamlining of data exchange between agencies.

**NEPA.** With respect to NEPA, EPA noted that adverse impacts from any proposed action should be avoided, minimized, and/or mitigated. EPA's specific recommendations follow:

- Address and fully document effects on threatened or endangered species, cultural resources, air quality, and wetlands. Ensure that the proposed action complies with Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations. Fully document that no unacceptable adverse cumulative or secondary impacts will result.



- Address and fully document the effects of the proposed action on water quality, including effects on Total Maximum Daily Load implementation and impaired waters. Include information on the impairment status and Total Maximum Daily Loads of all ACF system water bodies.
- Consider the consequences of any major changes to conservation storage at lakes Lanier, West Point, and Walter F. George.
- Make the best management practices that will be implemented to control sediment runoff and manage stormwater at the lakes part of the Master Manual.

***Water chemical, physical, and biological characteristics.*** EPA comments related to water chemical, physical, and biological characteristics noted that the EIS should:

- Include discussion connecting management plans to reallocation of water storage. Of special interest are effects of management plan changes on discharge rates and river elevations. Discuss the secondary effects on major water chemical, physical, and biological characteristics.
- Discuss major biological characteristics, including potential alterations to aquatic species that require flow in their habitat. In evaluating alternatives, describe their impact on the sustainability of the aquatic environment and related human benefits.
- Discuss ACF adaptive management plans (AMPs), which should address the uncertainty associated with in-stream flow prescriptions and should include conservation and resource-protective flow standards based on available information; identify monitoring programs; and identify an effective revision procedure.
- Employ in the ACF River Basin a concept similar to that described in the GAEPD request for flow reductions in the Chattahoochee River, which relies on a series of predictive models. Monitor identified flow-related sensitive endpoints and use a notification procedure when certain conditions that require flow change exist.

#### ***4.1.1.2 Reopened Scoping Period—2009***

No comments were received.

### **4.1.2 SEPA**

#### ***4.1.2.1 Initial Scoping Period—2008***

Comments from SEPA were received November 21, 2008, in a letter signed by Mr. Herbert R. Nadler. The comments included the following points:

- Project repayment costs were developed and assigned based on authorized purposes receiving certain benefits from the projects. Such costs are to be repaid by the purposes through the use of project features, such as available storage.

- Plan changes that create operational restrictions or redistribute project benefits should be accompanied by reallocating project costs and compensating the affected purpose. It is not fair or equitable to expect an authorized purpose to be responsible for costs that do not correspond to the level of benefits received. Reduction in the availability of power affects SEPA's preference customers.
- Municipalities and cooperatives that benefit from project generation depend heavily on their government allocation of capacity and energy to meet their peak loads. Reductions in the level of benefits available should be accompanied by appropriate compensation.

#### **4.1.2.2 Reopened Scoping Period—2009**

No comments were received.

### **4.1.3 USFWS**

#### **4.1.3.1 Initial Scoping Period—2008**

Comments from USFWS were received November 21, 2008, in a letter signed by Ms. Gail A. Carmody. Regarding the Master Manual, USFWS requested a summary of the current operating rules for each project, an explanation of their basis in congressionally authorized purposes, and a description of how much discretion the Corps has to change the rules. USFWS recommended posting the summary on the District's Web site. Regarding resources, USFWS recommended the following:

- *Threatened and endangered species.* Address the same ESA-protected resources for the manual update as for the RIOP. The EIS should include a Biological Assessment of effects on these species and their designated critical habitats.
- Contact the states directly and obtain current lists of resources of concern to the state fish and wildlife agencies that could be affected by project operations. Participate with USFWS and other federal and state agencies in efforts to locate and monitor extant populations in the unimpounded portions of the Chattahoochee River and its tributaries.
- *Reservoir fisheries.* USFWS cooperated with the Corps for the 1998 draft EIS for ACF water allocation to develop a reservoir fisheries performance measure. USFWS recommends that the Corps update this performance measure and use it to evaluate the relative impacts of alternative operating plans on reservoir sport fisheries.
- *Fish passage.* Continue to support and facilitate research on fish passage at Jim Woodruff Dam, and at other ACF federal dams as appropriate, with a goal of identifying and implementing operations that would allow riverine species to travel their historic migratory pathways. Incorporate such procedures into the manual, as appropriate.

- 1 • *Water quality.* In the manual, closely examine the effects of reservoir operation on  
2 water quality, including ongoing and potential future effects on dissolved oxygen,  
3 temperature, pH, conductivity, nutrient and organic material dynamics, and  
4 various industrial and municipal discharges.
- 5 • *Invasive aquatic plants.* Investigate the feasibility of occasional drawdowns for  
6 controlling aquatic plants as part of the manual update.
- 7 • *Floodplain habitats.* Evaluate the effects of past and proposed project operations  
8 on flood durations and floodplain habitats.
- 9 • *Apalachicola Bay habitats and fisheries.* Apply a spatially explicit hydrodynamic  
10 model of the bay to assess the effects of alternative operations on salinity regimes  
11 and, in turn, on the relative distribution of salt marshes, submerged grass beds,  
12 and oyster beds in the bay.

13 With respect to the alternatives, USFWS recommended the following:

- 14 • *Minimum releases.* Use the Master Manual update to comprehensively evaluate  
15 storage options in the context of the impacts of altered flow regimes at the ACF  
16 dams and the benefits of restoring more natural patterns to the monthly, daily, and  
17 instantaneous releases from the ACF dams. Consider how providing windows of  
18 more stable flows during critical periods might increase the abundance and  
19 diversity of native fishes and other aquatic resources in tailwaters.
- 20 • *Winter drawdown.* Consider the potential risks and benefits of reducing the  
21 magnitude of the autumn drawdown and/or of beginning the spring refill earlier,  
22 especially during dry periods. Consider other alternatives to achieving flood  
23 protection.
- 24 • *Climate change.* Consider how climate change might affect ACF flow regimes  
25 and how to best adapt reservoir operations to the most likely foreseeable changes.  
26 Address climate-based operational flexibility in the manual update and in the  
27 analyses of the EIS.
- 28 • *Consumptive water demands.* Consider the impacts of increasing consumptive  
29 water demands in the basin.
- 30 • *Fisheries management.* With USFWS and the wildlife agencies of the three states,  
31 explore ways to incorporate the draft standard operating procedures into the mix  
32 of alternatives evaluated in the manual update.
- 33 • *National wildlife refuge.* Use an annual pattern cycling between the highest levels  
34 in late winter/early spring and the lowest levels in the late summer. Consider how  
35 the benefits and impacts of such a scheme compare with the existing operating  
36 regime and other alternatives.

37 In addition, USFWS noted that it strongly supports the idea of organizing interagency  
38 technical workgroups, which would assist the Corps in compiling the information  
39 necessary to craft a balanced set of alternatives and to analyze their effects. USFWS is  
40 willing to participate in such workgroups.

#### 4.1.3.2 Reopened Scoping Period—2009

Comments from USFWS were received December 17, 2009, in a letter signed by Ms. Sandra Tucker. The comments included the following points:

- The cover letter stated that the previous comments submitted (November 21, 2008) are still relevant and should be addressed under this revised scope.
- In addition, alternative sources of water supply for the Atlanta metro area, including the anticipated short- and long-term impacts on surface and groundwater resources as a consequence of the revised scope, need to be considered.
- USFWS recommended that the Corps' alternatives analysis include the cumulative effects of the proposed action and the expected proliferation of multiple surface and groundwater projects that also affect the operation of federal reservoirs and ultimately flows to the Apalachicola River.
- The previous comments from November 21, 2008, were attached to the USFWS's cover letter.

#### 4.1.4 National Park Service, Chattahoochee River National Recreation Area

##### 4.1.4.1 Initial Scoping Period—2008

Ms. Denesia Cheek, NPS Southeast Regional Hydrologist, submitted comments in an e-mail on November 21, 2008. The comments included the following points:

- Manage water and balance the lakes in the ACF system during times of drought, navigation, hydropower, recreation, water supply, water quality, and other project purposes.
- The NPS expressed concerns regarding any decision to reduce flows at Peachtree Creek to less than 750 cfs, the level the NPS sees as a meaningful threshold for preserving water quality and biological health in the river. Historical research indicates that 750 cfs provides better support for recreation and resources than would lower flows. As a federal land management agency responsible for managing a significant percentage of the Chattahoochee River, the NPS continues to recommend an instantaneous flow of 750 cfs at Peachtree Creek under drought conditions; such a flow is needed to protect resources (fish, wildlife, and recreation) within the Chattahoochee park unit.

#### 4.1.4.2 Reopened Scoping Period—2009

Mr. Daniel Brown submitted comments in a letter on behalf of the NPS and Chattahoochee River National Recreation Area (CRNRA) with comments on the planned update to the Corps' water control plan for Buford Dam. The comments included the following points:

- In summary, the national importance of the Chattahoochee River corridor as an ecological, recreational, and historic resource has been established by its inclusion in the National Park system. To ensure park resources are “preserved and protected from developments and uses which would substantially impair or destroy them,” the NPS would like to work cooperatively with the USACE to manage flows within the Chattahoochee River. The preservation of base flows in the Chattahoochee for ecological and recreational purposes is critical. The NPS would like to see a minimum flow in the river established at no less than 1,000 cfs to ensure that both ecological and recreational uses of the river are preserved. In addition, the NPS encourages the USACE to evaluate the possibility of establishing a flow standard within the central reach of the park (i.e., at the Norcross or Roswell gauge) to ensure that water quality and minimum flows are preserved throughout the recreation area. Finally, the USACE should consider modifying the release schedule from Buford Dam to allow for more gradual increases and decreases in water levels to mitigate the effects of sudden and dramatic changes in river levels. As the USACE prepares the EIS and updated Master Manual, the NPS requests that NPS input and impacts on the CRNRA be fully evaluated and considered.
- *Ecological issues.* The Chattahoochee River supports many species of fishes, including both rainbow and brown trout. Several past scientific studies examined the effects of varying flow regimes on fish species. One study on trout reproductive success (Nestler 1985) was completed by the USACE during an evaluation of a proposed reregulation dam at river mile 342. The report found that rainbow and brown trout habitat was optimal at flows of 1,000–1,500 cfs. A more recent report by Peterson and Craven (2007) stated that “discharge characteristics affected riverine fishes recruitment ... during both spawning and rearing periods.” The study found that during the spring spawning period, higher discharges (> 3,500 cfs) positively influenced reproductive success and concluded that reproductive success could be increased if suitable discharges were maintained during critical periods. The report also found, however, that high flow pulses that do not mimic natural seasonal precipitation events have substantial negative influence on fish species, particularly during the summer rearing period. The high velocity of currents created by the pulses of water is detrimental to the survival of juvenile and young-of-year fishes because of the increased metabolic rate associated with swimming in these currents.
- *Recreational issues.* Recreation and navigational uses of the river benefit from moderate and more consistent flows. According to a Recreation Flow Preference Report completed by CH2MHILL in 2000, the preferred recreation flows for wade/float fishing, rowing, and power boating is 1,000–1,200 cfs. This report

further documented that the ideal recreational flow of 1,000–1,200 cfs was available less than 1 percent of the time during the summers of 1997 and 2000 (period studied). The Nestler report (1985) identified optimal canoeing conditions for all user levels as occurring at between 1,250 cfs and 7,000 cfs. Both of these studies provide strong support for considering baseline flows above 1,000 as crucial to support the recreational uses envisioned by Congress when the CRNRA was established.

- *Cultural resource issues.* Cultural resources within the CRNRA are similarly affected by water releases from Buford Dam. The Ivy Mill ruins in Roswell date back to the 1830s and are on the National Register of Historic Places. Ivy Mill is prone to flooding during protracted high water releases from Buford Dam, and the flooding has contributed to site degradation. In addition to Ivy Mill, the NPS has documented dozens of archaeological sites within the CRNRA, many of which occur adjacent to the Chattahoochee River and its tributaries. These archaeological sites are at high risk of damage from accelerated erosion due to the bank-scouring effects caused by fluctuating releases from Buford Dam. A number of historic fish weirs within the CRNRA are also threatened or have been lost because of siltation, erosion, and flooding related to the current water regime (Gerdes and Messer 2007). The EIS should consider the impacts of rapidly fluctuating water levels on archaeological and historic sites within the CRNRA.

## **4.2 Political Entities**

### **4.2.1 U.S. Congress: Georgia Delegation**

#### **4.2.1.1 Initial Scoping Period—2008**

Representatives Tom Price, John Linder, Paul Broun, and Nathan Deal submitted a letter September 18, 2008, to Secretary John Paul Woodley. The letter states the following:

- Water quality and supply should be an expressed priority of the Corps in this process.
- The Master Manual should be made current, taking into account the water supply shortage many Georgia communities face. Consider a plan that accounts for the complex dynamics of the 3.5 million people in Metro Atlanta that depend on Lake Lanier for drinking water, and keep in mind that Lake Lanier provides the bulk of the storage for the entire ACF River Basin.
- The Corps should conduct a thorough analysis of operation of the ACT and ACF basins, looking for alternative methods to improve water management of these precious water resources.

#### **4.2.1.2 Reopened Scoping Period—2009**

No comments were received.

## **4.2.2 U.S. Congress: Florida Delegation**

### ***4.2.2.1 Initial Scoping Period—2008***

Senator Bill Nelson and Representative Allen Boyd from Florida submitted comments in a letter received November 21, 2008. The comments included the following:

- The EIS must be truly comprehensive and must affect the Master Manual.
- The CEQ's guidance states that real problems should be identified early and properly studied. Appropriate related analyses should be identified and considered. The scoping process should consider all aspects of the "affected environment" in the ACF.
- The updated manual must establish a scientifically based and equitable distribution of the waters of the ACF system. Accumulate data on the available and current water withdrawals.
- In-stream flow requirements should be sufficient to fulfill authorized uses. Assess the impact of variations of freshwater flow on the ecology of the Apalachicola River and downstream coastal ecosystems. In the assessment, compare the unimpaired flow regime, historical flow records, and flows imposed in the current RIOP.
- Assess water availability, supply options, demand-management alternatives, and socioeconomic factors.
- Continue working with the National Research Council to facilitate a complementary study to the Corps' EIS.

### ***4.2.2.2 Reopened Scoping Period—2009***

No comments were received.

## **4.2.3 Georgia House of Representatives**

### ***4.2.3.1 Initial Scoping Period—2008***

Mr. Carl Von Epps of the Georgia House of Representatives submitted comments in a letter received June 2, 2008. His comments focused on Executive Order 12898, Federal

Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, and included the following:

- Lowering lake levels at West Point Lake represents a potential for denial of access to recreational resources for minority and low-income populations in West Georgia and East Alabama. Potential impacts on "consistent consumption of fish and wildlife" also must be considered. A significant amount of shoreline used for recreational activities has been affected. Mr. Von Epps questioned the magnitude of the study and suggested managing the project in a manner that would ensure minimal impact on the affected communities.

- West Point Lake was assigned a cost allocation of 44.3 percent of its allocated investment to recreation and sportfishing and wildlife development. This is the highest cost allocated to any of the congressional purposes authorized for the lake.
- The Corps uses West Point Lake “as its workhorse” to provide for other demands throughout the river basin, while ignoring the original authorized purpose of recreation, as well as the needs and expectations of minority and low-income residents.
- The Corps is required to determine the effects on minority and low-income populations, to coordinate research and data collection, to conduct public meetings, and to develop inter-agency model projects.
- The Corps should reconsider and fully address the impacts that have resulted thus far under the IOP, especially during the summers of 2006 and 2007.
- The project should be managed so usable winter and summer pool elevations more closely approximate the initial recreational impact level of 632.5 feet msl, ensuring recreational use of the lake.

#### ***4.2.3.2 Reopened Scoping Period—2009***

No comments were received.

### ***4.3 State Agencies***

#### **4.3.1 Alabama Office of Water Resources**

##### ***4.3.1.1 Initial Scoping Period—2008***

Mr. Brian Atkins, director of the AOWR, on behalf of the State of Alabama, submitted comments by email November 21, 2008. The comments included the following:

- To satisfy the Corps’ obligations under federal law, including NEPA, the Corps must focus on the authorized purposes of Lake Lanier (hydropower, navigation, and flood control) and establish a scope for the manual update that addresses five objectives:
  1. The Corps should determine the critical yield of each reservoir using the most current hydrologic and climatic conditions.
  2. The Corps should establish the baseline for any proposed changes to the water control or master manuals, and the baseline should be based on authorized project purposes.
  3. The Corps should use the agreed-upon *HEC-5* model developed during the Comprehensive Study or develop a new model that is agreed upon by the Corps and the states.
  4. The Corps should assess whether any changes in the baseline conditions are necessary to comply with existing laws and regulations, including those designed to protect the environment.



5. The Corps should analyze any proposed modifications to the baseline and other legal requirements to develop the proposed operations for Lake Lanier, West Point Lake, and Lake Walter F. George.

- Each objective is critical to the update process, and the order in which the steps are completed is significant. It is impossible to evaluate and assess proposed changes to the water control plans unless the critical yields have been calculated and the baseline is established. Refusing to undertake a complete review and assessment of these objectives will ensure that valid water control plans will never be developed and that additional conflicts over the Corps' operations of the federal reservoirs in the ACF River Basin will follow.

#### **4.3.1.2 Reopened Scoping Period—2009**

Mr. Brian Atkins, Director of the AOWR, on behalf of the State of Alabama, submitted additional comments on December 31, 2009. These comments are summarized below:

- Alabama agrees with the Corps' decision to reopen the EIS scoping process for the Master Manual update in the ACF River Basin in light of the July 17, 2009, federal court order. The Corps should strictly adhere to the operational directives contained in the order in revising the Master Manual.
- Per the court order, the Corps should focus on the authorized purposes of Lake Lanier—(hydropower, navigation, and flood control. The scope for the manual update should address the following objectives: Determine the critical yield of each reservoir using the most current hydrologic and climatic conditions; adhere to the operational baseline as set forth in the July 17, 2009, order; use the agreed-upon HEC-5 model developed during the Comprehensive Study and used in the negotiations under the ACF River Basin Compact or develop a new model that is agreed upon by the Corps and the states; assess whether any changes in the baseline conditions are necessary to comply with existing laws and regulations, including those to protect the environment; and analyze any proposed modifications against the baseline set forth in the court order and other legal requirements to develop the proposed operational updates.
- Thorough and accurate revised critical yield analyses are essential to determine the amount of water that is available to address competing demands for water and water storage in the driest of conditions and to develop water control plans that satisfy the authorized project purposes. The Corps should use the existing droughts of record to calculate the critical yields, including the most recent drought of record. Critical yield calculations should consider all water withdrawals and returns, as well as downstream minimum flow requirements.
- The critical yield should be determined in an open and public process that includes input from stakeholders throughout the ACF River Basin. Before the critical yields are finalized, the Corps should provide opportunities for public input, particularly any modeling or operating assumptions used to make such calculations.

- 1 • After critical yields of the federal reservoirs are determined, the Corps must  
2 evaluate proposed modifications to the water control plans against an appropriate  
3 baseline, which is operation as outlined in the July 17, 2009, order. Proposed  
4 modifications to the baseline condition must address whether, and to what extent,  
5 such modifications would prevent the Corps from fully satisfying the authorized  
6 project purposes.
- 7 • The scoping notice states that the Corps will “evaluate present circumstances as  
8 part of its EIS, while acknowledging that it currently lacks authority to continue to  
9 accommodate present levels of water supply at Lake Lanier beyond July 17,  
10 2012.” The Corps should not evaluate operations that have been found to exceed  
11 its legal authority. The Corps should not make any assumptions in the manual  
12 update process regarding possible future congressional action that might expand  
13 its current authority.
- 14 • The manual update process should evaluate the Corps’ compliance with existing  
15 environmental laws. The Corps should ensure that, even under drought  
16 conditions, sufficient flow is maintained below each dam, so that water quality  
17 standards are met and endangered species are protected.
- 18 • The Corps and the states should agree upon the computer model that will be used  
19 to evaluate the impact of any changes to the baseline operations. The State of  
20 Alabama understands from previous scoping efforts that revisions to the Master  
21 Manual will be evaluated using the *ResSim* model. The *HEC - ResSim* model  
22 should replace the *HEC - 5* model only after the technical staffs of the three states  
23 and the Corps agree that it is a better tool to evaluate the ACF system. The Corps  
24 should not use the *HEC - ResSim* model without input from the states on the  
25 assumptions underlying the model and sufficient time for each of the states to  
26 develop the experience and expertise required to evaluate the model results.
- 27 • The Corps must assess any potential reservoir construction within the ACF River  
28 Basin that might affect inflows into those federal reservoirs. The Corps should  
29 evaluate whether the potential efforts in Georgia to increase the amount of water  
30 storage available for water supply would require reallocation of storage in federal  
31 reservoirs.
- 32 • Some proposed reservoir projects in Georgia might affect inflows into the federal  
33 reservoirs in the ACF River Basin, including inflows from the Flint River. A  
34 detailed assessment of the environmental and operational impacts of such  
35 proposed projects on future operations of federal and non-federal projects in the  
36 basin is needed. Both the individual and cumulative effects of such projects, along  
37 with other foreseeable projects, should be addressed. Losses due to inter-basin  
38 transfers and consumptive uses and appropriate limitations on any such losses,  
39 particularly under drought conditions, should be considered.
- 40 • The updated manuals should establish some degree of certainty in drought  
41 conditions. The update should recognize that releases from conservation storage  
42 at Lake Lanier for protection of downstream flows and water quality are  
43 necessary and expected and that impacts on recreation and recreation facilities are  
44 temporary but unavoidable during dry conditions.

- The Corps should not base any operational decisions in the ACF on projections of economic impacts related to reductions in water supply or recreation opportunities.

#### **4.3.2 Florida Department of Environmental Protection**

##### **4.3.2.1 Initial Scoping Period—2008**

FDEP submitted a letter received November 20, 2008, signed by Ms. Janet Llewellyn. The comments are summarized below:

- Florida contends that the Corps' current process is inconsistent with federal laws and inadequate for both NEPA and the WRDA.
- The ongoing litigation, and subsequent judicial determinations, between the Corps and the States of Florida, Alabama, and Georgia and various stakeholders, must be incorporated into the manual revision process.
- For NEPA analysis the Corps must use the appropriate environmental baseline, which is the 1958 Master Manual prepared for the ACF, not the 1989 draft water control plan or existing conditions. The draft manual established Action Zones and the 5,000 cfs flow "requirement" to the Apalachicola River, both of which the Corps unilaterally adopted without compliance with the Flood Control Act, its own regulations, NEPA, or the ESA. NEPA does not allow the Corps to "grandfather" changes in water control operations that have not been subject to final NEPA review. All changes in reservoir operations since that time and their environmental impacts must be analyzed under NEPA as part of the proposed action.
- Effective scoping requires a more detailed proposal from the Corps.
- The Corps must provide a meaningful opportunity to obtain informed public comments. The scoping meetings did not provide meaningful participation or the ability to answer direct questions. The current process does not meet the general guidelines for scoping under NEPA. The Corps has failed to provide fundamental information that is critical to the scoping process. For example, the Corps must include a Drought Contingency Plan.
- Effective scoping requires a revised scope for the proposed action. The Master Manual must clearly describe all decisions so all parties can easily understand the proposed action, and it must be evaluated under NEPA.
- Alternatives that should be considered include an alternative based on true basin inflow, an alternative that uses the entire conservation pool in Lake Lanier, a strong conservation alternative, and a recovery-based alternative.
- Impacts that should be analyzed include effects on Apalachicola Bay salinity and nutrient composition, and the corresponding economic impact on Apalachicola Bay and surrounding region; effects on Apalachicola River floodplain habitats; effects on the Apalachicola River's channel morphology due to altered flows and changes in operation; and relevant cumulative impacts.

- Potential mitigation measures to be explored must include measures within and outside the Corps' jurisdiction. The key mitigation measures must include conservation and water transfers.
- With respect to compliance with the *Coastal Zone Management Act*, Corps actions that affect the Apalachicola River and Bay must be consistent to the maximum extent practicable with the Florida Coastal Management Plan. The *Coastal Zone Management Act* further obligates the Corps to provide Florida with a consistency determination before undertaking activities that affect the state's coastal resources, including implementation of the new Master Manual.

#### 4.3.2.2 Reopened Scoping Period—2009

FDEP provided additional comments in a letter on January 4, 2010. The comments focused on the scope and elements of the Corps' EIS review for the Master Manual updates and revisions, including the calculation of an updated critical yield for each reservoir in the ACF River Basin and a broad review of alternatives and impacts of the proposed action. In particular, FDEP encouraged the Corps to carefully evaluate the impact of the Corps' operation of its ACF reservoirs on the citizens, ecology, and economy of Florida, especially on the unique and extraordinary Apalachicola River and Bay.

FDEP expressed the following concerns and comments:

- *Scope of the Corps' EIS Review.* Florida agrees with the Corps that the Water Control Manual for the ACF River Basin and the water control plans for each of the five federal reservoirs on the Chattahoochee River must be consistent with the Court's legal rulings in the Phase 1 Order. The Corps' operation of the ACF reservoirs significantly affects the citizens and environment of Florida. In addition, Florida has always maintained that the Corps must review and revise its operations and water Control plans to be consistent with federal law, including NEPA, the *Water Supply Act of 1958*, the *Flood Control Act*, the ESA, and the *Coastal Zone Management Act*. Irrespective of the Phase 1 Order, NEPA has always required a broad review of alternatives, impacts and mitigation measures.
- *Elements of the EIS.* The EIS for the Water Control Manual revision should include an accurate and updated critical yield based on the actual drought of record; should use an appropriate and agreed-upon modeling approach; should analyze a full range of alternatives; and should carefully consider associated impacts and mitigation measures, as well as appropriate state and federal environmental laws.
  1. *Critical Yield.* An important element of the WCM revision, and its NEPA review, is an accurate critical yield for the ACF River Basin and each of the Corps' reservoirs. Currently, the Corps is in the process of analyzing and updating the critical yield for the ACF River Basin and must complete this analysis by the end of February 2010, as mandated by Congress in the FY 2010 Senate energy and water development appropriations bills.

The Corps should reopen the scoping process or otherwise seek public comment before finalizing its new critical yield analysis.

2. *Modeling.* Modeling is a crucial component of both the NEPA review process and the development of a new WCM. The 2009 Final Scoping Report indicated the Corps' intent to evaluate revisions to the Master Manual using the *HEC-ResSim* model. Previous analyses, such as the 1998 draft EIS on the ACF Compact, have used the *HEC-5* model, and the technical staffs of each of the three states are familiar with the *HEC-5* model. Development and use of a new model, such as *HEC-ResSim*, should occur only with input and approval from all three states. The Corps should afford the states' technical staff adequate opportunity to review, become acquainted with, comment on, and endorse the assumptions underlying a new model.

3. *Review of Alternatives.* NEPA requires the Corps to study, develop, and describe appropriate alternatives to recommended courses of action in any proposal that involves unresolved conflicts concerning alternative uses of available resources. The evaluation of alternatives is "the heart of the environmental impact statement." The Corps must rigorously explore and objectively evaluate all reasonable alternatives and, for alternatives that were eliminated from detailed study, briefly discuss the reasons for their having been eliminated.

- The Corps should review and consider a full range of alternatives, including operating plans or action zones, that differ from current operations.

- The Corps should evaluate all available means to maximize likelihood that endangered and threatened species in the Apalachicola River will recover to the point of de-listing.

- The Corps must include cumulative impacts from other water supply options that the State of Georgia will develop.

4. *Review of Impacts.* The Corps at a minimum should evaluate the following impacts:

- The Corps must evaluate impacts to Apalachicola River and Bay ecosystem.

- An analysis that compares proposed WCM revisions to anything other than a baseline that does not include water supply withdrawals and releases from Lake Lanier would be inappropriate, unlawful and in direct contravention of the Phase I court order.

- The Corps must evaluate incremental changes that have occurred since the 1970s.

➤ The Corps should evaluate its WCM revision in conjunction with proposed new sources for water supply or diversion.

➤ The Corps should evaluate the impacts of growth induced by providing new sources of water supply in the ACF Basin.

5. *Consideration of Mitigation.* The Corps should consider additional system-wide mitigation with regard to water quantity and flows in the ACF Basin.

### 4.3.3 Georgia Department of Natural Resources, Environmental Protection Division

#### 4.3.3.1 Initial Scoping Period—2008

Comments from GAEPD were received November 21, 2008, in a letter signed by Dr. Carol Couch. The letter noted the following:

- GAEPD recommended strongly that the Corps not make the IOP, including the RIOP, the proposed action. The Corps should analyze a range of reasonable and feasible alternatives.
- Issuing water withdrawal permits is a state and local action, and therefore it should not be addressed within the scope of connected, cumulative, and similar actions. The Corps has no authority to make decisions on water supply and must defer to the State of Georgia on such issues. Water supply withdrawals should be examined as an impact of the proposed federal action.
- The Corps is required only to examine reasonable and feasible alternatives.
- The No Action Alternative should be interpreted to mean no change from current management operations. Operating according to water supply needs in the past would require a new action and thus would not constitute “no action.”
- The Corps should coordinate with state and local interests to analyze water demands at Lake Lanier over the past several years for current water supply.
- The RIOP is interim until the Master Manual is updated, and it is not the appropriate choice for the No Action Alternative. The Corps must conduct a detailed study on the RIOP’s long-term effects.
- Limiting the scope of the Master Manual and EIS because of budget constraints will be in direct conflict with NEPA and the regulations in the Master Manual.
- The Corps should not limit alternatives to only its own authorities.
- The Corps should obtain the necessary authority to operate with the best use of resources. Georgia believes the Corps has the authority to operate Lake Lanier to meet the 2030 projected municipal and industrial needs.
- The RIOP is not the only alternative. Georgia provides several possible alternative options to be considered: reallocation of storage for water supply, rule curve changes at all projects in the ACF (different configurations), different methods for

1 optimizing the system, and optimal operations for meeting endangered species'  
2 needs.

- 3 • The *HEC-ResSim* model is inconsistent with the established *HEC-5 Existing*  
4 *Conditions* model. The Corps must explain the discrepancies and correct apparent  
5 errors. For example, Atlanta's water intake is upstream of Peachtree Creek, but  
6 the model has it downstream; Cobb County/Marietta Water Authority has two  
7 wastewater returns below Peachtree Creek, but the model has them upstream.  
8 Consequently, *ResSim*'s prediction of flow at Peachtree Creek is greater than what  
9 would actually occur; the Lake Lanier levels would actually be lower than those  
10 predicted by the model. There are also discrepancies between *HEC-5* and *HEC-*  
11 *ResSim* regarding certain physical characteristics of some of the projects in the  
12 ACF River Basin.

#### 13 4.3.3.2 Reopened Scoping Period—2009

14 GAEPD provided comments in a letter from Mr. Allen Barnes on December 31, 2009.  
15 The comments are summarized below.

- 16 • The Corps must consider alternatives beyond its current authority. Georgia has  
17 appealed the holding in the July 17, 2009, ruling. Even if the July 17, 2009, ruling  
18 is affirmed on appeal, however, the Corps can and should study as alternatives  
19 reservoir operations that allocate storage to meet existing and future municipal  
20 and industrial water supply needs.
- 21 • The Corps must consider the impact on the human environment of water supply  
22 alternatives to Lake Lanier. If the Corps intends to include within the scope of the  
23 EIS for the WCM [Master Manual] a scenario in which Lake Lanier would not be  
24 used meet water supply needs, it must fully consider the effects on the human  
25 environment of operating Lake Lanier in that manner. That would include  
26 consideration of the effects of the alternative means by which the approximately 3  
27 million people that previously relied upon Lake Lanier as their sole source of  
28 water supply would then be supplied with water. The EIS must consider the  
29 cumulative impact of the no action alternative and other reasonable alternatives.  
30 "Cumulative impact" is defined to include the effects of not only the agency's  
31 actions but also the actions of third parties that will result from the agency's  
32 actions.
- 33 • Failing to consider water supply in the current EIS process would result in a waste  
34 of Corps resources and taxpayer dollars. Although by no means assured, it is at  
35 least a reasonably plausible scenario that, either by reversal of the July 17, 2009,  
36 ruling or an act of Congress with or without a prior agreement among the three  
37 states, the current legal impediments to the Corps' authority to operate Lake  
38 Lanier for water supply will be removed prior to July 17, 2012. In that event, if  
39 the Corps has not studied water supply as an alternative, it will have to redo the  
40 EIS.

## 4.4 Local Agencies

### 4.4.1 Metropolitan North Georgia Water Planning District

#### 4.4.1.1 Initial Scoping Period—2008

Ms. Kathryn Dunlap of the MNGWPD submitted comments in a letter received October 28, 2008. She stated that she hopes the Corps will truly update the Master Manual and not just replicate existing operations that have caused concern over the sustainability of Lake Lanier. She also noted the following:

- The Corps must consider alternative operating plans to balance water supply needs and economic impact with downstream needs before adopting a new Master Manual.
- The Corps should consider the water supply needs of the region as identified in the MNGWPD's long-range plans.
- The net amount of water withdrawn for water supply (in Lake Lanier and the river downstream) is 1 percent of the flows at the Florida line in normal years and 2 percent in drought years.
- Lake Lanier's recreational value should also be an important consideration. The lake receives 8 million visitors a year, resulting in \$5.5 billion annually.

#### 4.4.1.2 Reopened Scoping Period—2009

Ms. Dunlap submitted additional comments on December 29, 2009. In the comment letter, MNGWPD recommended the following items for inclusion in the EIS:

- The Corps should provide a full assessment of the environmental, social, and economic impacts of the proposed revision. The Corps needs to consider the impacts of cutting off the water supply to 3 million people and 600,000 businesses, along with the flows used to assimilate the 325 million gallons per day of wastewater.
- The Corps should provide an assessment of all reasonable alternatives to the proposed action. The Corps should consider (1) continued operation at current water supply levels and (2) operation at the 2035 water supply levels contained in the Water Supply and Water Conservation Plan [copy was enclosed] adopted by the MNGWPD.
- The Corps should consider mitigation measures that are not already included in the proposed action or alternative. The Corps needs to consider mitigation measures such as increasing the level of Lake Lanier to offset the lake withdrawals and alternative operations that provide peaking power coincidental with water supply needs downstream of Buford Dam.



## 4.4.2 Atlanta Regional Commission

### 4.4.2.1 Initial Scoping Period—2008

Mr. Charles Krautler of the ARC submitted comments in a letter received November 21, 2008. He noted the following:

- *Proposed action and alternatives.* The Corps has not adequately defined the proposed action or alternatives. It must consider all reasonable alternatives. The new water control plan must be based on facts and sound science. Historical operations are not realistic or reasonable alternatives. The alternatives must include water supply for Metro Atlanta; Metro Atlanta relies on Lake Lanier, and there are no alternative sources. The alternatives should not be constrained by perceived limits on the Corps' authority.
- *Flow requirements.* Flow requirements should be optimized, flexible, and tied to actual needs, and operating plans should recognize Lake Lanier's unique character.
- *Curve rule changes.* The Corps should consider and analyze potential rule curve changes to maximize the available storage and optimize operations for all purposes.
- *Head limits.* The Corps frequently cites head limits as the controlling reason for excess releases from Woodruff Dam. Ramp-down restrictions compound this problem by requiring releases from storage to artificially slow the Apalachicola River's rate following these excess releases. In combination, these factors often result in releases greater than 1,000 cfs—more than Georgia's entire average consumptive water use in the ACF River Basin.
- *Hydropower scheduling.* The Corps should also consider alternative mechanisms for developing hydropower generation schedules. Currently, it uses relatively rigid power generation schedules that assume a certain number of hours of generation when a project is in a certain zone. By incorporating into its operating plans more flexible, forecast-based mechanisms that anticipate energy spot market prices, the Corps could maximize the value of the hydropower produced while making storage available to serve other project purposes. This approach has had great success in other projects and is employed in the Sustainable Release Rule.
- *Sikes Cut.* The Corps should consider alternatives that mitigate the salinity increases in other ways. The Corps should consider alternatives that reduce or eliminate saltwater inflow through Sikes Cut, a major salinity contributor.
- *Channel degradation.* The Corps should be concerned about the areal extent of flooding or the inundation and connectivity of certain habitat. It must acknowledge that the real causes of these problems have more to do with channel degradation than with the quantity of flow in the river.
- *Hydrological forecasting.* A large body of literature on forecasting techniques has been developed. The USGS has been using such methods for decades. The Corps should consider alternative operating plans that use these tools, with appropriate margins of error, to optimize reservoir operations.

#### 4.4.2.2 Reopened Scoping Period—2009

A letter was submitted on December 30, 2009 by Ms. Patricia Barmeyer at King & Spalding on behalf of the ARC; the City of Atlanta, Georgia; the Cobb County Marietta Water Authority; Fulton County; DeKalb County; and the City of Gainesville, Georgia (collectively, the “Water Supply Providers”). The major points of the letter follow:

- The Water Supply Providers are deeply concerned that the scope of the new Water Control Plan and the new EIS have been drawn so narrowly as to render them meaningless. The stakeholders need and deserve a full and fair study of all alternatives to the current operating plans for the ACF River Basin. Therefore the EIS should not be limited to alternatives consistent with the Corps’ existing authority. To the contrary, the decisionmakers in Congress and within the Corps need to know that much better alternatives exist.
- The tragedy of this controversy is that there is plenty of water in the ACF River Basin to meet the reasonable needs of all stakeholders, but only if the reservoirs are operated properly. Lake Lanier provides ample storage to meet future water supply needs for metropolitan Atlanta and North Georgia at minimal cost to the environment or downstream stakeholders. Indeed, the Water Supply Providers have proposed an alternative operating plan for the ACF Reservoir system that meets future water demands while also performing at least as well or better for all other stakeholders. The Water Supply Providers’ plan would be to meet future water supply needs while also producing more valuable hydropower, and it would also be better for the species in the Apalachicola River based on the metrics developed by the Fish and Wildlife Service in the Biological Opinion. These and other alternatives to the current operations should be included in the EIS: The Corps is required by NEPA to study all reasonable alternatives, including alternatives that exceed the Corps’ current authority; the EIS should assist decisionmakers in determining whether to seek additional authority for water supply operations at Lake Lanier; the Corps must also consider alternatives to accommodate water supply within the confines of Judge Magnuson’s order; the Corps must consider the indirect and cumulative effects of its operations; and the Corps should consider alternatives to address problems created by channel degradation and other issues.
- “In conclusion, the Water Supply Providers have long supported the Corps’ efforts to update the Water Control Manuals [water control plans] for the ACF River Basin. We support this effort because we firmly believe that any objective analysis will show that there is enough water in the ACF River Basin to meet the reasonable needs of all stake holders if the reservoirs are operated properly. Therefore, we urge you to embrace the NEPA process as an opportunity, finally, to insert facts into a discussion that for years has been dominated by misinformation and political posturing.”

#### **4.4.3 Franklin County, Florida, Board of County Commissioners**

##### ***4.4.3.1 Initial Scoping Period—2008***

Mr. Noah Lockley of the Franklin County Board of County Commissioners submitted comments in a letter received October 17, 2008. The Board believes that the Master Manual is fundamentally flawed because it does not adequately take into account the freshwater needs of Apalachicola Bay. The Board requests that the EIS include the ecosystem of the bay. Specifically:

- The EIS should include the harvestable resources, including shrimp, blue crab, mullet, and oysters. All of these resources have seen their landings plummet over the past few years because of the lack of freshwater reaching the bay.
- The state has spent millions of dollars protecting the bay, and now the Master Manual needs to be expanded to protect this environmental resource.

##### ***4.4.3.2 Reopened Scoping Period—2009***

No comments were received.

#### **4.4.4 Hall County, Georgia, Board of Commissioners**

##### ***4.4.4.1 Initial Scoping Period—2008***

Mr. Tom Oliver, Mr. Billy Powell, Mr. Deborah Mack, Mr. Bobby Banks, and Mr. Steve Gailey of the Hall County Government Board of Commissioners submitted comments in a letter received November 14, 2008. They noted the following:

- Lake Lanier will be at an all-time record low in the coming months.
- The Board is confident that the river system can be managed such that all needs are met. The Board believes there is sufficient water for both upstream and downstream environmental, economic, and human needs.
- Sound science and engineering study must prevail to determine how best to operate the river system. The system operations cannot use an antiquated management plan with simple documentation of existing trends. Updated conditions should be considered.
- Alternative methods of creating water quality in downstream basins should be considered (that is, not taking Lake Lanier flows to enhance downstream estuaries).

##### ***4.4.4.2 Reopened Scoping Period—2009***

No comments were received.

#### 4.4.5 Troup County, Georgia, Board of Commissioners

##### 4.4.5.1 Initial Scoping Period—2009

Mr. Richard Wolfe, Mr. Richard English, Jr., Mr. Buck Davis, Mr. Kenneth Smith, Sr., Mr. Julian Morris Jones III of the Troup County Board of Commissioners submitted comments in a letter received November 24, 2008. Noting that their past requests had seemingly “been ignored,” they asked the Corps to consider the following:

- Consider six critical issues, identified through study groups, that are vital to West Point Lake: Maintain a minimum lake level of 633–635 feet msl, maximize positive economic impact, return to managing the Lake consistent with congressionally authorized purposes, restore and maintain recreational facilities, ensure recreational access for low-income and minority families, and protect water quality.
- Low lake levels adversely affect economic opportunities.
- The Action Zones established by the Corps are not in keeping with and were not part of the original authorization by Congress.
- The Corps should fill and stabilize West Point Lake as a “run of the river lake” with flows that mirror a more natural flow during drought and flood conditions.
- The Corps has not funded or maintained many of the recreational areas paid for or established by Congress.
- Action Zones are much worse than other Corps projects and make recreational use quite difficult, if not impossible, to achieve.
- Rapid and frequent fluctuations in lake levels cause issues of compliance with the *Clean Water Act*, which affect the quality of recreation.

##### 4.4.5.2 Reopened Scoping Period—2009

No comments were received.

#### 4.4.6 City of LaGrange and Troup County, Georgia

##### 4.4.6.1 Initial Scoping Period—2008

Mr. Jeff Brown of Troup County and Mr. Jeff Luken, Mayor of the City of LaGrange, submitted comments in identical letters received October 28, 2008, and October 30, 2008, respectively. A summary of the comments follows:

- Congress established five specific primary authorized uses for this project: hydropower, sportfishing and wildlife development, general recreation, navigation, and flood control.
- New influences have taken over and control the environmental and socioeconomic factors related to utilization of the lake. Many factors have not

1        been addressed or have been ignored by the Corps in its operations. These include  
2        massive urbanization and growth of the area and counties surrounding the lake,  
3        industrial development, and growth of the Fort Benning complex and its  
4        contingent of citizens and soldiers, who often rely on West Point Lake's facilities  
5        for recreation and sportfishing and wildlife.

- 6        • The Corps operates the lake and the system in its own way, which ignores the  
7        original *primary* congressional authorizations. Recreation and sportfishing and  
8        wildlife development are sacrificed—almost in their entirety—to meet the  
9        purpose of a lower winter pool of 625–628 feet msl.
- 10       • The Corps arbitrarily assigned to the lake Action Zones that were not set up in the  
11       enabling legislation. This needs to be corrected, and a maximum drawdown level  
12       of 633 feet msl for winter pool and a stable 635-foot summer pool must be  
13       established.
- 14       • It is the responsibility of the downstream wastewater treatment discharge permit  
15       holders to design and operate their discharge systems in a manner that ensures  
16       compliance with water quality standards without using the limited waters  
17       available.
- 18       • Raise the lake levels and stabilize them at the 633–635-foot level. The low lake  
19       levels and aesthetic damage caused by winter drawdowns have a *direct*  
20       correlation with the low number of visitors. The lake level should never be lower  
21       than 633 feet msl, except in dire emergencies.
- 22       • Stakeholders in the area have observed massive kills of native mussels in the  
23       project boundaries when the Corps operates the dam to provide massive rapid  
24       drawdowns for downstream flows.
- 25       • The Corps' compliance with the *Clean Water Act* under current operations is at  
26       best highly questionable, if in fact it is being achieved. The chlorophyll level is set  
27       at an artificially high level of 27 milligrams per liter. Total nitrogen south of the  
28       Franklin exceeds the standards with a reading of 6 milligrams per liter.
- 29       • “Demographics, development patterns, climate changes, and other factors have  
30       brought forth an entirely new reality the Corps must contemplate and address in a  
31       new Master Manual for the basin.”

#### 32    4.4.6.2    *Reopened Scoping Period—2009*

33    Mr. James Emery, Jr. provided comments during the 2009 reopened scoping period on  
34    behalf of Troup County. The comments included the following points:

- 35       • West Point Lake's elevation is intentionally managed at a level that is too low  
36       during the winter. The current guide curves provide disproportionately large  
37       amounts of flood storage during the winter as compared to all other federal  
38       projects on the basin. The 628-foot MSL zone 1 winter pool elevation does not  
39       allow adequate utilization of the lake for other congressionally authorized  
40       purposes such as “recreation” and “sport fishing and wildlife development.” The  
41       low elevation also has tremendous negative economic impacts on the region. The  
42       low lake levels also cause over 500 miles of shoreline to become exposed, causing

erosion and extremely high turbidity during rain events. During this time of re-assessment of the Corps of Engineers' operations manuals, this error can (and should) be corrected.

- There are two primary reasons for West Point Lake's lower-than-necessary elevations: (1) The "flood control" authorized use of West Point Lake has been overemphasized in the current operations manuals as compared to the other authorized uses, and the necessary winter flood storage capacity has been overestimated. (2) Water is being supplied to downstream interests at a flow rate that is higher than what would occur naturally and is higher than these downstream interests have any "right" to.
- There is no question that the Corps has done a tremendous job of providing "flood control" and "hydropower," as authorized by Congress, but there needs to be a better balance of other authorized uses such as "recreation" and "sport fishing and wildlife development." The management of the lake seems severely weighted toward some uses with little regard for the others.

#### **4.4.7 Gwinnett County, Georgia, Board of Commissioners and Department of Water Resources**

##### **4.4.7.1 Initial Scoping Period—2008**

Mr. Charles Bannister of the Gwinnett County Board of Commissioners submitted comments in a letter received October 20, 2008. In his letter he states:

- The IOP and modifications have not resulted in the most efficient operation of the system to serve its designated use and the public interest. The Board believes that a more conservative and equally effective operation of the ACF system could have saved millions of gallons of storage in Lake Lanier and still met the downstream requirements throughout this prolonged drought.
- The Corps' EM 1110-2-3600, Section 3-3 b.(I), states, "Furthermore, for many projects that have been operational for a number of years, the water control plans and water control manual are out-of-date, and there is a need for revising them to make them applicable to current conditions."
- The water control plans and the Master Manual need to address the current conditions, in which some 3 million people in the Metropolitan Atlanta area rely on the ACF River Basin for drinking water for their health and safety.
- The droughts of 1988 and 2001 and the present drought should surely suggest that the Corps should make every effort to conserve storage in the uppermost lake in the system to the maximum extent to enable the system to meet its downstream requirements in times of severe drought. Composite storage for the entire system should not be used to justify releases from Lake Lanier; Lake Lanier represents almost half of the storage for this basin as its uppermost reservoir, but that reservoir has only 6 percent of the basin's drainage area and controls only 9 percent of the flow in the basin.

- 1       • The Board highly recommends that the Corps use the methods of hydrological  
2       forecasting developed by USGS and recommended to the Corps by the ARC.
- 3       • An ARC letter titled “Proposed Modifications to Interim Operations Plan for ACF  
4       Reservoirs” is attached. The Board suggests that keeping Lake Lanier as full as  
5       possible meets these goals and helps protect the environment and the economy of  
6       north Georgia. It does not believe that the Mobile District’s IOP and its  
7       modifications meet these goals as required by the Corps’ rules. Had the rules been  
8       followed in developing the IOP, the Corps could have met the downstream needs  
9       and preserved the storage in lake Lanier to a much greater extent than has been  
10      done in the last two years.
- 11      • The Board believes that the technical expertise exists to enable the Mobile District  
12      to craft a water control plan that meets all the needs of the basin and allows the  
13      reservoirs to be full or near full each spring in order to allow the system to be able  
14      to provide drought sustainability when needed. Such conservation of storage  
15      serves the public interest and sustains the environment and population dependent  
16      on this vital resource.
- 17      • The Board strongly urges the Mobile District to seriously consider the  
18      methodologies suggested by the ARC and its consultant, Hydrologics, Inc., for  
19      alternative methods of operating the system. Hydrologics has shown that  
20      alternative operating scenarios can meet all downstream requirements and at the  
21      same time maximize reservoir storage during the wet season to ensure the  
22      maximum storage in the spring of each year, particularly in Lake Lanier, to  
23      provide for water conservation, drought contingency, and the needs of fish and  
24      wildlife, recreation, and environmental improvement/protection of Lake Lanier  
25      and the downstream basin.

#### 26   **4.4.7.2   Reopened Scoping Period—2009**

27   Ms. Lynn Smarr, acting Director for Gwinnett County Department of Water Resources,  
28   provided comments on December 21, 2009. In her letter she states:

- 29      • We believe that preparing an Environmental Impact Statement (EIS) for a Water  
30      Control Manual for the Apalachicola-Chattahoochee-Flint River ("ACF") Basin  
31      must include water supply analysis and that failure to consider alternatives for  
32      water supply, at several levels, is unwise and a waste of limited public funds. The  
33      U.S. Army Corps of Engineers’ (the "Corps") EIS consideration must include  
34      alternatives, such as operations for water supply, even if they are deemed to  
35      exceed the agency’s jurisdiction. 40 C.F.R. § 1502.14(c). The EIS is required to  
36      include alternatives that exceed the Corps’ current authority because this  
37      information may be useful to the President, to Congress, and to the public in  
38      shaping policy on a larger scale. See *Natural Res. Defense Council, Inc. v.*  
39      *Morton*, 458 F.2d 827, 836-37 (D.C. Cir. 1972). We set forth in this comment  
40      various alternatives which require study by the Corps deemed necessary for  
41      compliance with the National Environmental Policy Act ("NEPA"). In addition, to  
42      the extent that the Corps anticipates obtaining a Biological Opinion from the U.S.

- 1 Fish and Wildlife Service ("FWS") in connection with its analysis, we offer  
2 comment relative to that process as well.
- 3 • *Scope of NEPA.* The regulation at 40 C.F.R. § 1502 (c), properly applied, requires  
4 the Corps to include water supply at and above current uses in its EIS, particularly  
5 since the historical practice has been to support this water supply use.
  - 6 • *Alternatives Required.* Many alternatives not presently presented in the EIS  
7 process, or purposefully omitted such as water supply, deserve and demand study  
8 by the Corps if it is to fulfill its NEPA responsibilities.
  - 9 • *Selection of an Appropriate Environmental Baseline.* In two prior Biological  
10 Opinions issued in conjunction with ACF River Basin operations, the FWS  
11 utilized an improper baseline for purposes of its analysis. In its prior analysis,  
12 FWS used hydrological modeling to compare flows produced by the existing  
13 RIOP to what it called a "baseline" consisting of the actual flows produced by  
14 reservoir operations from 1975 to 2007 (the "Regulated Condition"). The decision  
15 to use the Regulated Condition from 1975 to 2007 as the baseline for this  
16 comparison is unlawful and arbitrary, however. The Regulated Condition cannot  
17 be used as the baseline because the Regulated Condition is the result of numerous  
18 discretionary actions by the Corps related to historic reservoir operations. Another  
19 reason that the Regulated Condition cannot be used to measure the effects of the  
20 RIOP is that it is impossible to associate the Regulated Condition from 1975 to  
21 2007 with anyone operating plan. The Corps modified its operations many times,  
22 in many ways, during those years.

#### 23 **4.4.8 City of Cumming, Georgia**

##### 24 **4.4.8.1 Initial Scoping Period—2008**

25 No comments were received.

##### 26 **4.4.8.2 Reopened Scoping Period—2009**

27 Mr. Ford Gravitt, Mayor of the City of Cumming, provided comments in a letter dated  
28 December 15, 2009. The comments included the following points:

- 29 • City of Cumming has an advanced water intake facility on Lake Lanier and  
30 provides raw water to potable water treatment facilities in both the City of  
31 Cumming and unincorporated Forsyth County.
- 32 • To consider only the Gainesville and Buford combined 10-mgd withdrawal is  
33 reckless and will "turn the spigot off" for hundreds of thousands of people.
- 34 • The City of Cumming withdrew water from Dobbs Creek, a tributary to Sawnee  
35 Creek, just as Gainesville and Buford received their water from Lanier tributaries  
36 prior to the construction of Buford Dam.
- 37 • Importantly, all notices were given, permits obtained, and laws and regulations  
38 complied with in the construction of the City's state-of-the-art intake facility and  
39 in conjunction with the expansion and upgrade of the City's wastewater treatment



1 facility. This is true whether the requirements are from the Corps, EPA, federal  
2 statutes, state statutes, GAEPD, or any other regulatory entity involved in the  
3 process.

- 4 • From the description of the City's utility system and its evolution, two things are  
5 clear: (1) Nothing about the development of the City of Cumming's utility was a  
6 rash or quick decision—everything was well thought out and planned to meet the  
7 needs of this growing area; and (2) all told, it is perfectly evident that the federal  
8 government, including the Corps of Engineers, was aware of and approved the  
9 City of Cumming's actions, including the investment of millions upon millions of  
10 dollars into what is now an infrastructure system worth in the billions of dollars.  
11 And now the City of Cumming is told, with the investment complete and the  
12 infrastructure in place to provide water to the citizens of the City of Cumming and  
13 Forsyth County, the Corps proposes to turn off the water, which would turn the  
14 billion-dollar utility into a massive set of empty pipes and thirsty people.
- 15 • The City of Cumming is vehemently opposed to the revisions to the Master Water  
16 Control Manual, especially as disclosed in subsection (b) on the Notice received  
17 on November 24, 2009. To propose to end all withdrawals by the City of  
18 Cumming in July 2012, thus cutting off water to hundreds of thousands of people  
19 in Forsyth County alone, is callous, reckless, and a threat to human life and safety.  
20 Moreover, given that the Corps and federal government permitted and allowed the  
21 City of Cumming's expansions and investments to occur, the Corps should be  
22 stopped from now taking that expansion and investment away by turning off the  
23 water.
- 24 • Finally, considering that the Corps' proposal would take a billion-dollar asset and  
25 make it worthless, turning off the water, if carried out, would be the epitome of a  
26 taking without just and adequate compensation. To be blunt, when Lake Lanier  
27 was built the federal government compensated people so little—\$6.00 and \$7.00  
28 an acre in some cases—that many people accused the government of stealing the  
29 land. Now, it appears that the government will do so again by rendering over 50  
30 years of planning, investment, acquisition, and building worthless.

## 31 **4.5 Tribal Response**

### 32 **4.5.1 Initial Scoping Period—2008**

33 The tribal response indicated an interest in being informed about the updated Master  
34 Manual and Draft EIS as more information becomes available. After the development of  
35 the alternatives and proposed action, tribal leaders should be contacted and provided  
36 another opportunity for government-to-government consultation.

### 37 **4.5.2 Reopened Scoping Period—2009**

38 No comments were received.

## 4.6 Federal Interagency Response

The pre-meeting planning agenda tool allowed the Corps to focus discussions on topics of interest to the federal agencies represented on the call—drought operations, water quality, biological resources, and water management. Additional issues identified for discussion included minimum base flows, agricultural water use, reservoir flows, buoy tender and use of channel survey data, water quality impacts, alternative analysis, rule curve alternatives, and a timeline for decisions. These areas can be better defined by (1) those related to the Master Manual update and (2) those related to the NEPA process.

- *Master Manual update.* Agencies questioned whether substantial changes would be considered in the Master Manual. The USACE is currently authorized only to update the Master Manual to current operations; additional authorizations would require congressional authority. The Corps did confirm that the evaluations of alternatives will look at impacts throughout the ACF River Basin. For example, the evaluations will consider how releases at Lake Lanier affect the Apalachicola River and Estuary. Questions were asked regarding changes to minimum flows. States would have to modify their procedures for these types of changes to occur, as has been considered in the RIOP.
- *NEPA process.* The selection of baseline conditions and alternatives was a concern for the USFWS. The Corps let the agencies know that the scoping process is being used to determine which alternatives will be considered in the EIS, including different levels of water withdrawal.

## 5.0 Summary of Public Scoping

The Corps has completed the first phase of the scoping process for the EIS regarding implementation of an updated Master Manual in Alabama, Florida, and Georgia. The Corps, however, will continue to give due consideration to all relevant input received throughout the development of the EIS because scoping is an ongoing process. Coordination with regulatory agencies and the public will continue. Following finalization and publication of this scoping report, the draft EIS will be completed. The Draft EIS is scheduled to be made available for review and comment in 2011.

The objective of this preliminary scoping phase was to notify regulatory agencies and the public of the proposed action. This phase provided an opportunity for the Corps to learn as much as possible about all concerns, issues, and other significant actions completed, under way, or proposed in the region that could be affected by implementing the proposed action. It also provided an opportunity to gather available information and tools to assist in developing and evaluating the proposed action and alternatives. Such information is essential to ensure that the EIS adequately addresses the effects of the proposed action and alternatives.

Specific requirements of scoping include the following:

- Determining the scope (40 CFR 1508.25) and the significant issues to be analyzed in depth in the EIS.
- Identifying and eliminating from detailed study the issues that are not significant or that have been covered by prior environmental review (40 CFR 1506.3), narrowing the discussion of these issues in the EIS to a brief presentation of why they would not have a significant effect on the human environment or providing a reference to their coverage elsewhere.
- Indicating any public environmental assessments and other EISs that are being or will be prepared and are related to but are not part of the scope of the impact statement under consideration.
- Identifying other environmental review and consultation requirements so the USACE can prepare other required analyses and studies concurrently with, and integrated with, the EIS as provided in 40 CFR 1502.25.
- Considering how the proposed action might affect resource areas cumulatively; that is, whether the resources, ecosystems, and human communities of concern have already been affected by past or present activities and whether other agencies or the public has plans that could affect the resources in the future.

During the initial 2008 scoping period and the reopened 2009 scoping period, the Corps received 2,503 comments from 643 individuals, organizations, and agencies. The agencies included federal, state, and local governments. Federal agencies that submitted comments were EPA Region 4, the SEPA, and the USFWS. Members of the U.S. House of Representatives from Georgia and Florida submitted comments, as did members of the Georgia House of Representatives. The three states—Alabama, Georgia, and Florida—

submitted comments from their associated state agencies. Other local governmental agencies, including the MNGWPD; the ARC; Franklin County, Florida; Hall County, Georgia; Troup County, Georgia; Gwinnett County, Georgia; and the City of LaGrange, Georgia, submitted comments as well.

All the comments were reviewed and organized into 12 categories, as discussed in Section 3 of this report. The categories and the percentage of the comments falling into each category follow:

- Water Management Recommendations: 37 percent
- Socioeconomics and Recreation: 17 percent
- Biological Resources: 13 percent
- Drought Operations: 8 percent
- Water Quality: 7 percent
- NEPA: 6 percent
- Water Supply: 5 percent
- Data, Studies, and Analytical Tools: 2 percent
- Other Resources: 2 percent
- Navigation: 1 percent
- Hydropower: 1 percent
- Flood Risk Management: less than 1 percent

The majority (70 percent) of the comments were related to water management recommendations, socioeconomics, and biological resources.

## **5.1 Recommendations**

In January 2008 Secretary of the Army Pete Geren directed the Corps to update the Master Manual. The current Master Manual was completed in 1958, and consequently it does not include water control plans for West Point Dam, Walter F. George Lock and Dam, and George W. Andrews Lock and Dam. An updated Master Manual that includes water control plans for all the projects in the ACF River Basin is required by ER 1110-2-240. The Master Manual must prescribe plans of operation for congressionally authorized and general statutory project purposes in the basin, while taking into account private, community, social, and economic needs and sound environmental stewardship. The purpose of the proposed action is to update the water control plans and manuals for the ACF Basin to conform operations to “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.” 33 C.F.R. § 222.5(f)(3). In the ACF Basin, such factors include changes in basin hydrology and water usage, new or rehabilitated structural features, and environmental issues.

On the basis of the stakeholder comments received during scoping, it is clear that the issues of greatest concern are the potential for significant impacts on socioeconomics, water resources, and biological resources. These three topics should be emphasized in the

1 EIS and should be considered in development of the recommended alternative in the  
2 Master Manual.

3 Stakeholders also recommended a number of alternative scenarios for various projects in  
4 the ACF River Basin that do not fall under the current authority of this proposed action  
5 (including the Corps' authority as it has recently been interpreted by the Court)..  
6 However, all the actions taken by the Corps in updating the Master Manual must meet the  
7 congressionally authorized project purposes at all the reservoirs except where doing so is  
8 legally or physically impracticable.

9 However, the Corps' actions must also be consistent with the Court's July 17, 2009 order  
10 in the case *In re Tri-State Water Rights Litigation*, which will require a reduction in water  
11 supply withdrawals "[a]t the end of three years, absent Congressional authorization or  
12 some other resolution of this dispute,"<sup>2</sup> or unless the order is overruled on appeal or  
13 otherwise modified. While that order is currently on appeal, the Corps is revising the  
14 scope of the EIS and Master Manual updates in the following respects to address the  
15 Court's order:

- 16 • The Court held that the Corps lacks the authority to continue to support the  
17 present levels of water supply withdrawals at Lake Lanier or to reallocate storage  
18 to accommodate those or additional withdrawals. Based on that ruling, the Court  
19 has ordered that such operations and most withdrawals from Lake Lanier must  
20 cease in July 2012. Thus, while the Corps had previously announced its intention  
21 to update the plans and manuals "to reflect current operations," the Corps must  
22 now also prepare to update its plans and manuals to implement the operations  
23 necessary to comply with the Court's order (in the event that the order is not  
24 overruled on appeal or otherwise modified, and in the absence of further action by  
25 Congress).
- 26 • To conform with the Court's order, the updated manuals would reflect, as of July  
27 17, 2012, water supply withdrawals from Lake Lanier limited to the amounts  
28 authorized by relocation agreements with the Cities of Gainesville and Buford,  
29 Georgia. Those agreements, which were executed at the time of the reservoir's  
30 construction, authorize withdrawals of 8 million gallons per day (mgd) for  
31 Gainesville and 2 mgd for Buford, a combined 10 mgd.
- 32 • The Court's order would also require the updated manuals, as of July 17, 2012, to  
33 reflect that "the required off-peak flow [at Buford Dam] will be 600 cfs."  
34 Currently, peak hydropower demand at Buford Dam typically occurs on  
35 weekdays from 5:00 a.m. to 9:00 a.m. and 3:00 p.m. to 10:00 p.m. between  
36 October 1 and March 31, and on weekdays from 1:00 p.m. to 7:00 p.m. between  
37 April 1 and September 30. Thus, under the revisions to the manuals necessary to  
38 comply with the Court's order, the Corps will not release more than 600 cfs from  
39 Buford Dam to support water supply withdrawals when it is not generating  
40 hydropower to meet this peak demand.

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<sup>2</sup> *In re Tri-State Water Rights Litigation*, No. 07-md-01, slip op. at 93 (M.D. Fla. July 17, 2009)

- If the Court's order stands, the Corps will be required to update its plans and manuals to conform with the Court's order (as described above) and will begin implementing those operations in July 2012. The Corps will continue to consider its present operations as an alternative during this process, however, because the Court's order states that "current water-supply withdrawal levels" may continue for three years after July 17, 2009; because current operations provide an environmental baseline as the no-action alternative under NEPA; and because the Court's order may be overruled on appeal or otherwise modified. Should the states and other interested parties to *In re Tri-State Water Rights Litigation* reach an agreement that involves reallocation of storage for water supply, the Corps would be prepared to submit that agreement to the Army and higher executive branch authorities for consideration and possible referral to Congress. Should Congress enact legislation authorizing additional water supply at Lake Lanier, the Corps would update its operations, plans, and manuals accordingly.

## 5.2 EIS Schedule

Completing the EIS and updating the Master Manual will take approximately three years. The Corps will publish a Notice of Availability in the *Federal Register* when the Draft EIS is available for public review (currently expected to be spring 2011). Public meetings will also be held following publication of the Notice of Availability to solicit comments on the Draft EIS. Each comment and the corresponding response will be incorporated into the EIS. The Corps expects to publish the Final EIS and Record of Decision in late 2011.

The scoping report is posted at [www.acf-wcm.com](http://www.acf-wcm.com), and it can be downloaded with or without the appendixes.

## 6.0 Literature Cited

- Atlanta Regional Commission. 2008. Proposed Modifications to Interim Operations Plan for ACF Reservoirs. [Letter to Flakes (USACE) and Carmody (USFWS)]. Atlanta Regional Commission, Atlanta, Georgia.
- Basile Baumann Prost Cole & Associates, Inc. 2007. Economic Impact of West Point Lake at Various Lake Water Levels. Prepared for City of LaGrange, Georgia.
- Metropolitan North Georgia Water Planning District. 2009. Water Supply and Water Conservation Management Plan. <http://www.northgeorgiawater.com/html/88.htm>.
- Richter, B.D., and G.A. Thomas. 2007. Restoring environmental flows by modifying dam operations. *Ecology and Society* 12(1): 12. <http://www.ecologyandsociety.org/vol12/iss1/art12>.
- U.S. Army Corps of Engineers. 2008. Preliminary Bibliography of ACT/ACF Comprehensive Study Documents. Mobile District. Alabama. <http://www.sam.usace.army.mil/pd/actacfeis/bibliog.htm>.
- U.S. Army Corps of Engineers. 1989. Draft Apalachicola-Chattahoochee-Flint Basin Water Control Plan. Mobile District. Alabama.
- U.S. Army Corps of Engineers. 1959. Apalachicola River Basin Reservoir Regulation Manual. Mobile District. Alabama.
- U.S. Fish and Wildlife Service. 2006. Biological Opinion and Conference Report on the U.S. Army Corps of Engineers, Mobile District Interim Operations Plan for Jim Woodruff Dam and the Associated Releases to the Apalachicola River. Panama City Field Office, Florida. September.

## 7.0 Acronyms and Abbreviations

ACCG	Association of County Governments of Georgia
ACF	Apalachicola-Chattahoochee-Flint [River Basin]
ACT	Alabama-Coosa-Tallapoosa [River Basin]
ADCNR	Alabama Department of Conservation and Natural Resources
AOWR	Alabama Office of Water Resources
ARC	Atlanta Regional Commission
CEQ	Council on Environmental Quality
CFR	<i>Code of Federal Regulations</i>
cfs	cubic feet per second
Corps	U.S. Army Corps of Engineers
CRNRA	Chattahoochee River National Recreation Area
D.C. Court	Federal District Court for the District of Columbia
EIS	Environmental Impact Statement
EPA	U.S. Environmental Protection Agency
ER	Engineer Regulation
ESA	Endangered Species Act
FDEP	Florida Department of Environmental Protection
FERC	Federal Energy Regulatory Commission
GAEPD	Georgia Environmental Protection Division
HEC	Hydrologic Engineering Center
IOP	Interim Operating Plan
Master Manual	<i>Master Water Control Manual for the Apalachicola-Chattahoochee-Flint River Basin</i>
mgd	million gallons per day
MNGWPD	Metropolitan North Georgia Water Planning District
MOA	Memorandum of Agreement
msl	mean sea level
MW	Megawatts
NEPA	<i>National Environmental Policy Act</i>
NGVD	National Geodetic Vertical Datum
NOI	Notice of Intent
NPS	National Park Service
P.L.	Public Law
RIOP	Revised Interim Operating Plan
SeFPC	Southeast Federal Power Customers, Inc.
SEPA	Southeastern Power Administration
USACE	U.S. Army Corps of Engineers
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey
WCM	Water Control Manual
WRDA	<i>Water Resources Development Act</i>