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DATA, STUDIES, AND ANALYTICAL TOOLS

DATA, STUDIES, AND ANALYTICAL TOOLS

Specific Operations Model (General-Tools)

Comment ID: 37
Author Name: Carol A. Couch
Organization: GA EPD

C. Modeling Representatives from the Corps have indicated that the Corps intends to use the HEC-ResSim modeling platform to evaluate operations and alternatives for its projects in the ACF River Basin as part of the WCM update process. The HEC-ResSim model will replace the use of the HEC-5 model for the ACF system. The Corps developed the HEC-5 model as part of the now-defunct ACF Compact negotiations between the States of Georgia, Florida, and Alabama. During the Compact process, stakeholders within the three states worked with the Corps and reached agreement on the inherent assumptions within the HEC-5 Existing Conditions Model. Modeling experts with the Georgia Environmental Protection Division ("EPD") have reviewed the HEC-ResSim model for the ACF Basins and noted several instances in which the HEC-ResSim model is inconsistent with the established and agreed upon assumptions of the HEC-5 Existing Conditions Model. There are also examples of apparent errors in the HEC-ResSim model. Prior to employing the HEC-ResSim model to evaluate operations to the WCM, the Corps should first provide an explanation for these discrepancies and correct
apparent errors, which are discussed briefly below. The most significant issue related to the Corps' HEC-ResSim model for the ACF Basin is that the HEC-ResSim model places certain water withdrawal and wastewater discharge points in the wrong location along the Chattahoochee River. As a result, the HEC-ResSim model underestimates the release from Lake Lanier necessary to meet the 750 cfs minimum flow requirement on the Chattahoochee River at Peachtree Creek. The current HEC-ResSim model has the City of Atlanta's water intake located below Peachtree Creek, when that intake is actually just above Peachtree Creek. Similarly, the model indicates that two wastewater returns from the Cobb County/Marietta Water Authority are above Peachtree Creek when they are actually below that point. Because of these errors, the HEC-ResSim model's predicted flow in the Chattahoochee River at Peachtree Creek is
greater than what would actually occur. Therefore, the predicted release from Lake Lanier necessary to meet the 750 cfs flow requirement at Peachtree Creek is less that what is actually needed. Because the Corps will need to release more water from Lake Lanier than what is predicted by the model, the actual elevation of Lake Lanier under a given set of conditions will be lower than what is predicted by the HEC-ResSim model. There also appear to be discrepancies between the HEC-5 and HEC-ResSim models regarding certain physical characteristics of some of the projects in the ACF Basin that are operated by Georgia Power. As an example, for the Barletts Ferry project, there is a discrepancy between the amount of storage available in the project at particular elevations. At an elevation of 510 feet, the storage used in the HEC-5 model is 3,500 acre-feet less that the storage used in the HEC-ResSim model. At the Morgan Falls, Walter F. George, and Jim Woodruff projects, the two models differ as to what tailwater elevation will result from a given release. The tailwater elevation determines the generation head available at that project.

Comment ID: 45
Author Name: Gail Carmody
Organization: Fish and Wildlife Service

Apalachicola Bay Habitats and Fisheries – The biological organization of Apalachicola Bay is controlled largely by riverine influences on its salinity, turbidity, and sedimentation rates (Livingston 1991). We encourage the Corps to apply a spatially-explicit hydrodynamic model of the 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 bars in the bay.

Comment ID: 66
Author Name: Wilton Rooks
Organization:

1. Result in increased storage in the reservoirs when water is available rather than release so much of it into the Gulf of Mexico. I believe there are operating rules that will achieve this as well as meet the minimum required flow into Apalachicola River. The new ResSim modeling software should be used to maximum advantage to develop these new operating rules. The rules developed under the HEC-5 model are inadequate to do the job that is required. Other modeling software such as OASIS have developed these rules for the ACF. They should either be accepted or rejected for sound reasons rather than ignored.

Comment ID: 567
Author Name: Charles Bannister
Organization: Gwinnett County

We believe that the technical expertise exists, if properly utilized, that would enable the Mobile District to craft a Water Control Plan that meets all of the needs of the basin and allow the reservoirs to be full or near full each spring in order to allow the system to be able to provide drought sustainability when needed as required by the COE Engineer Regulation II 10-2-1941. Such conservation of storage serves the public interest and sustains the environment and population dependent on this vital resource. In summary we strongly urge the Mobile District to seriously consider the methodologies suggested by the Atlanta Regional Commission and its consultant, Hydrologics, Inc. for alternate methods of operating the system. Hydrologics has shown that alternate operating scenarios can meet all downstream requirements and at the same time maximize reservoir storage during the wet season to ensure that we have the maximum storage on hand in the spring of each year, particularly in lake Lanier, to provide for water conservation, drought contingency and the needs of fish and wildlife, recreation and environmental improvement/protection of lake Lanier and the downstream basin.

Request for Studies (General-Tools)

Comment ID: 321
Author Name: Sam Olens
Organization: Cobb County

It is my request that the NRC be permitted to do a study of all basins throughout the three states so that science can dictate appropriate water policy, rather than politics. To the extent additional funds are necessary, other than those proffered by the three states, I will tell you now that the water providers of the Atlanta region would be pleased to write a check to assist such an impartial scientific study, and I believe the Lake Lanier Association and other stakeholders in Georgia would similarly be willing to write a check for a full NRC study that covers not just Apalachicola but the entire basin structure of our three states.

Impact Analyses & Studies (General-NEPA)

Comment ID: 6
Author Name: Heinz J. Mueller
Organization: EPA

The Mobile District should fully document that no unacceptable adverse cumulative or secondary impacts will result from the implementation of the proposed action(s).

EPA Region 4's Water Protection Division offers the following scoping comments on the proposed WCM Update and the EIS:
EPA encourages the inclusion in the EIS of a discussion that connects management plans to reallocation of water storage. Of special interest are the effects of management plan changes on discharge rates (including velocities) and river elevations (including volume).

Comment ID: 20
Author Name: Janet G. Llewellyn
Organization: Florida Department of Environmental Protection

Impacts to Be Analyzed An EIS must include a discussion of "the environmental impacts of the alternatives including the proposed action, [and] any adverse environmental effects which cannot be avoided should the proposal be implemented." 40 CF.R. § 1502.16. The relevant

impacts include direct, indirect and cumulative impacts. The Corps should evaluate the following at a minimum: A. Effects on Apalachicola Bay salinity and nutrient composition, and corresponding economic impact on the Apalachicola Bay region and Franklin County's long-established seafood industry. B. Effects on Apalachicola River floodplain habitats. C Effects on the Apalachicola River's channel morphology due to altered flows and changes in operation, including bank-erosion. D. All relevant cumulative impacts, including depletions from irrigation pumping in the Flint River Basin and growth in the Metro Atlanta region; construction of new federal and non-federal reservoirs; and possible extended droughts due to long-term climate change.

Comment ID: 30
Author Name: Joseph Parrish
Organization:

My name is Joseph Parrish, Franklin County Commissioner. I would like to enter some comments in this scoping process. I would like to see a true assessment, environmental impact statement and an assessment done of the Apalachicola Bay and the detrimental effects that the low flows have caused during the years 2006-2007. There are statistical data available through the Florida Fish and Wildlife Service that shows the reduced landings of the crab, shrimp, oysters, pinfish, all of these things, and it's very well documented as to how the low flows have impacted the Apalachicola Bay, but I do not think that they are being taken into consideration. I would like that done during your time, during your Environmental Impact Statement, and your water control plans.

We understand that we are in a drought, but we also understand that this is a federal system of reservoir that we're paying for by everybody in the United States, and it should be operated as such. To operate it as such you should take into account everything that has happened from top to bottom and how the economies and the natural environment is being impacted as to terms of how you operate the systems that you are currently operating.

Comment ID: 37
Author Name: Carol A. Couch
Organization: GA EPD

It should be noted that the issuance of water withdrawal permits from Lake Lanier and the withdrawal and consumption of water from the ACF Basin are state
and local actions, not federal actions, and therefore should not be addressed within the scope of connected, cumulative, and similar federal actions. The Corps has no authority to make decisions on matters of water supply planning and must defer to the State of Georgia on such issues. Water supply withdrawals (or the lack thereof) and the consequences of them should be examined, however, as impacts of the proposed federal action.

B. Alternatives Analysis The three types of alternatives for the Corps to consider in the scoping process "include: (1) No action alternative. (2) Other reasonable courses of actions. (3) Mitigation measures (not in the proposed action)." 40 C.F.R. § 1528.25(b)(2008). During the scoping the process, the Corps is only required to examine alternatives that are both reasonable and feasible. Vermont Yankee Nuclear Power Corp. v. National Resources Defense Council, 435 U.S. 519,551 (1978). Thus, alternatives to be considered are those that a) meet the purpose and need of the proposed action, b) address regulatory concerns, c) are available and capable of being implemented, and d) are prudent and feasible. The federal projects in the ACF Basin were authorized to fulfill a variety of important purposes. On top of this, the Corps has obligations to comply with the Endangered Species Act, the Clean Water Act, and other federal environmental laws. The Corps is thus presented with a multitude of potential alternatives for how to operate the system. Below is a discussion of particular issues that the Corps should take into account in developing its alternatives analysis. 1. No Action Alternative CEQ guidelines indicate that in situations involving potential changes to ongoing federal actions, as would be the case here, the "no-action" alternative is interpreted to mean "no change" from the current management direction or level of management intensity. 46 Fed. Reg. 18026, 18027 (March 23, 1981). Where a natural resource has been altered by construction or operation of a project over time, it would be "a useless academic exercise" to consider as the no-action alternative returning the resource to its earlier unaltered state. See id.; see also American Rivers v. Federal Energy Regulatory Commission, 201 F.3d 1186, 1200 (9th Cir. 2000). For decades, the Corps has operated Lake Lanier to meet evolving industrial and municipal water supply needs. The Corps has not finalized any action to

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Reallocate storage to water supply. From the standpoint of operations for water supply, this state of affairs would be the no-action alternative. To operate according to water supply needs that existed at some time in the past would require new action on the part of the Corps and thus would not constitute "no action." Doing so also would not represent a reasonable or feasible alternative, thus, it should not be considered as any alternative, including the "no-action" alternative. The Corps should coordinate with state and local interests to analyze water demands at Lake Lanier over the past several years and determine the most accurate and appropriate measure for current water supply requirements. Although the Corps is currently making releases from the Woodruff project pursuant to the RIOP, the RIOP is not likely the most appropriate choice for the no-action alternative for the entire ACF system due to its interim nature. Because the Corps has consistently described the RIOP as a plan for operations that would only continue until the WCM update process was complete, and because the Corps has also maintained the position that the RIOP was not itself a change to the existing water control manual, the Corps has never conducted a careful study of the RIOP's long-term impact on the ACF system as a whole. Therefore, even if the RIOP is used as the no-action alternative, the Corps must conduct a detailed study on the RIOP's long-term effects.

Comment ID: 38
Author Name: Carl Von Epps
Organization: House of Representatives

It also anticipated that potentially affected communities would be "meaningfully involved in the decisions that affect their environment and health." It has been observed that many of the environmental assessments undertaken by your office thus far that incorporate consideration of actions relative to operations at the West Point project have acknowledged the responsibility of USACE Mobile to comply with E.O .12898. What we question is the magnitude of study, and the management of the project in such a manner that would assure a minimal impact on populations as a result of decisions made by USACE Mobile. West Point Lake is a prime recreational fish and fishery resource for all segments of the population surrounding the reservoir. However, due to its proximity and use of access, the lake provides substantial and in most cases the only opportunity for outdoor recreation such as picnicking, swimming, fishing, hiking and camping to the segment of the society surrounding West Point Lake that falls within a definition of minority and low income
populations. You are also aware that West Point Lake was assigned a cost allocation of 44.3 %of its allocated investment to recreation and sport fishing and wildlife development. This represents the highest cost allocated to any of the Congressional purposes authorized for the lake. But at the same time, the Corps of Engineers has consistently utilized West Point Lake "as it's workhorse" to provide for other demands throughout the river basin, while ignoring the original authorized purpose of recreation, and the needs and expectations of minority
and lower income households in west Georgia and east Alabama area. Our non-profit has a lease on 31 acres with a one an one/half mile of shoreline on Lake West Point with anticipation of providing camping, day and night retreat activities for our inner city youth to achieve our mission. Although, we are still in the planning stage, our potential is hampered by the uncertainty of lake level. The Corps of Engineers is required to identify disproportionately high and adverse human health and environmental affects on minority and low income populations, to coordinate research and data collection, to conduct public meetings, and to develop inter-agency model projects with regards to the matter of environmental justice. We ask that the Corps reconsider and more fully address the impacts that have resulted thus far under the Interim Operating Plan (IOP) established for the ACF basin that has so detrimentally impacted water elevations especially during late summer (2006 and 2007) on West Point Lake. We further ask that the project be managed in such a way to assure a viable and usable winter and summer pool elevation that more closely approximates and assures use of the lake at the initial recreational impact level of 632.5 MSL. As your office begins its processes associated with conducting in a new Environment Impact Statement for the new Water Control Plan for the ACF basin, we respectfully request that your office engage far more intensely and with a great deal more thoroughness in addressing Environmental Justice issues at West Point Lake than it has in the past.

Comment ID: 40
Author Name: Paul M. Flood
Organization:

Develop an economic study on the impact of various water levels on each region of the ACF

within the next eighteen (18) months.

Comment ID: 43
Author Name: Students of River Basin Management
Organization:

7) Address the potential impact of increased municipal and agricultural withdrawals for the future management of the reservoirs.

Comment ID: 45
Author Name: Gail Carmody
Organization: Fish and Wildlife Service

Winter Drawdown -- After the localized impact of hydropower peaking on project tailwaters, probably the most significant hydrologic alteration induced by ACF reservoir operations is the annual autumn drawdown and spring refill for flood control purposes. This practice vacates about 288,000 acre feet of combined storage in Lanier, West Point, and George starting October 1 and completed by mid December causing a significant rise in river flows. Refilling this storage from mid February through May 31 to meet summer recreational demand causes a daily average depletion of about 1,400 cfs per day to the flows that would otherwise issue from W.F. George Dam. The spring refill period extends into the principal spawning season for many native fish species, including most sport fishes, and because many of these rely upon floodplain habitats for spawning and rearing, less flow in the spring means less habitat. To reduce the hydrologic alteration caused by flood control operations, we urge the Corps to consider the potential risks and benefits of reducing the magnitude of the autumn drawdown and/or of beginning the spring refill earlier, especially during dry climatic periods. Also, other alternatives to achieving flood protection should be considered.

Climate Change -- We recommend that the Corps consider how climate change may 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 (TOC) pool to the long-term hydrology of the basin and the essential purposes the projects serve. In a scenario with greater variability between annual high flows and low flows, for example, it may not be feasible for these projects to simultaneously serve their existing levels of flood control protection and minimum flow support without adapting TOC levels to prevailing weather conditions. The Corps already practices this concept with occasional variances from the rule curves to store water above the TOC elevation during dry periods. We recommend that the Corps explicitly address climate-based operational flexibility in the WCM update and in the analyses of the EIS.

Consumptive Water Demands -- Similarly, the Corps should consider the impacts of increasing consumptive water demands in the basin. This is not an alternative, per se, but is a variable that an analysis of operational alternatives should incorporate along with climate-driven hydrologic variability. The EIS should quantify the relationship between increasing consumptive demands in the ACF Basin and the benefits from various project purposes. For example, what is the highest sustainable minimum release from Woodruff Dam if consumptive demands increase by 25, 50 or 100 percent? To consolidate and report important data about the basin, the EIS should document the volume of storage that has been either contracted for water supply or has been proposed in each project and any limitations due to hydrologic conditions of meeting the contracts.

The scoping process is an opportunity to inform the formulation and analysis of alternatives that could result in a new and improved set of rules and policies for operating the ACF federal projects. We strongly support the idea of organizing interagency technical workgroups that would assist the Corps in compiling the information that is necessary to craft a balanced set of alternatives and to analyze their effects on resources. The Service is willing to participate in such workgroups relative to fish and wildlife resources affected by river flows and reservoir levels. Our Panama City Field Office will have the lead for the Service's participation in the WCM update and in the EIS. We thank you for the opportunity to comment. Sincerely, Gail A. Carmody Field Supervisor Literature Cited Darst M.R. and H.M.

Comment ID: 48
Author Name: Tanya Blalock

Organization: Georgia Power

A robust direct and indirect effects analysis should also consider the overall effects on the environment, including human, natural and socioeconomic effects resulting from any subsequent COE actions.

Comment ID: 54
Author Name: Dan Tonsmeire
Organization: Apalachicola River Keepers

A thorough and comprehensive assessment of impacts to this area from the alternative proposed actions should be accomplished in order to assure these functions and natural services provided within the Apalachicola Basin are sustained. Define Lead and Cooperating Agencies with Appropriate Authority and Perspective The proposed update of the Corps Water Control Manuals for the ACF Basin is the focus of the EIS, but its actions cannot be accurately assessed in isolation of other water management activities in the basin. A clear discussion and delineation of the pertinent water management responsibilities of federal and state agencies should be included as a part of the EIS process. Because the proposed action is one of a number of water management functions that impact the ACF Basin water management, it would be prudent that alternatives be assessed in terms of the cumulative impacts from a basinwide perspective as part of this Environment Impact Study (EIS).

Define and Use an Accurate and Historically Healthy Baseline The baseline for the EIS must be comprehensive and complete, including actions initiated and undertaken since previous EIS(s) were accomplished. This would require using pre-dam flows as a baseline (See ATTACHMENT 1) for comparison to the proposed alternatives. The unimpaired flow data set should be calibrated to achieve a comparable representation of the pre-dam flows in ATTACHMENT 1 to ensure that it accurately reflects what would occur under natural conditions. It would also require the best possible scientific assessment of the ecological flow needs of the Apalachicola River and Bay to establish the flow regimes which would best mimic and protect the biological, physical and chemical integrity of the waterbody that were sustained and supported by these pre-dam flows. The divergence from the baseline described above has resulted in significant impacts to Apalachicola River and Bay. The USGS has issued reports which established impacts that have and are occurring to the Apalachicola River due to the Corps' actions and actions by the states of Florida, Georgia and Alabama, some of which were undertaken under the guidance of the EPA. The separate and cumulative downstream impacts of all these actions must be assessed in a comprehensive fashion if the total impacts to downstream, and in particular the Apalachicola River and Bay, are to be accurately measured from baseline.

Comment ID: 55
Author Name: Brian Atkins
Organization:

Corps must also assess whether the proposed operations under the revised water control plan will be consistent with applicable
federal laws, including, but not limited to, the Water Supply Act and the Flood Control Act. This step requires an assessment of other proposed reallocations of water storage in the federal storage projects to water supply and potential reservoir construction within the ACF Basin. The State of Georgia has developed a water supply plan that includes various assumptions and projections regarding the use of federal reservoirs for water supply purposes over the next several years. To date, the Corps has not reviewed any of the potential efforts within the State of Georgia to increase the amount of water storage available for water supply at Lake Lanier. Failure to consider the impact of these assumptions and projections upon the potential future operations of Lake Lanier would violate the Corps' obligations to consider the cumulative impacts of known and foreseeable future actions. The Corps should consider these potential reallocations of storage in the environmental impact statement under NEPA, but should also consider the extent to which these reallocations may require Congressional approval prior to implementation.

The State of Alabama is also concerned 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. Whether such projects impact the amount of water flowing into the federal reservoirs or the demands placed upon the federal reservoirs by

downstream interests, a detailed assessment of the environmental and operational impacts of such proposed projects is critical to future operations of the federal and non-federal projects in the ACF Basin. Again, the review of such projects should include an assessment of each project individually as well as cumulative impacts with other potential and foreseeable projects. 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 interbasin transfers and consumptive uses and should consider appropriate limitations on any such losses, particularly under drought conditions.

Comment ID: 67
Author Name: Jeff Lukken
Organization: Mayor of LaGrange

The use of West Point Lake to support downstream navigation should not be considered in any alternative in operation plans without adequate study of the ecological and other environmental damages caused by tile likely lake fluctuations to support that activity. Water Quality will likely be impacted under such use that results in rapid lake elevation fluctuation .In addition the damage to the recreational use, and sport fishing and wildlife component of the lake must be assessed before giving any consideration of such alternative operations. Heretofore such operations were made whenever water was thought to be adequate, without any consideration of environmental or economic damages at WestPoint.

In summary we no longer live in the 1940's 50'60's70' or 80's. The ACF system operates in a new millennium. Demographics, development patterns, climate changes and other factors have brought forth an entirely new reality tile Corps must contemplate and address in a new water Control manual for the basin.

Comment ID: 69
Author Name: Jeff Brown
Organization: Troup County Chamber of Commerce

In summary, we no longer live in the 1940's, 50', 60's, 70' or 80's. The ACF system operates in a new millennium. Demographics, development patterns, climate changes and other factors have brought forth an entirely new reality the Corps must contemplate and address in a new water Control manual for the basin.

Comment ID: 70
Author Name: David McLain
Organization: Riparian County Stakeholder Coalition

The Corps has responsibility to consider carefully the impact of the proposed action, the update of the master Water Control Plans (WCP) on the Congressionally approved project uses. We would assert you also have under NEPA the responsibility to consider carefully the broader impact on the social and economic fabric of the communities throughout the ACF Basin, and indeed on the survival, health and productivity of the waters that comprise this eco-system. If the waters of that eco-system are depleted below the minimum required to sustain that system, all users lose. The on-going EIS assessment must have, and be seen to have, a direct input into the shape and content of the WCM. A flowchart or some other form of audit trace should be constructed to demonstrate the influence of the stakeholder concerns on the WCM. A fair and equitable distribution of and public access to these waters must be an explicit aim of the proposed WCP. Therefore the scope of your EIS/WCP assessment should have a historically and scientifically-verifiable baseline for impact comparison. We understand the Commander of the Corps' South Atlantic Division will meet with the National Research Council soon; he should discuss with them the NRC's active involvement in the WCM/EIS process. The credibility of the process would be greatly enhanced.

Comment ID: 71
Author Name: Steven J. Herrington
Organization: The Nature Conservancy

The challenges presented by several years of drought underscore the necessity to update the manual to balance the long-term economic and environmental needs in this important

watershed. The Conservancy is a recognized global leader in environmental flow science for managed rivers and has extensive experience working collaboratively with the Corps and other water managers on revising reservoir operations. We respectfully offer the following recommendations as well as our expertise to assist the Corps efforts to define comprehensive, science-based environmental flow requirements as the agency develops the EIS and updates the water control manual:

The Conservancy has long provided objective, scientific expertise for water management in the ACF River Basin. We have had staff dedicated to working on river issues in the basin for nearly a decade, and our knowledge of the tri-state water issues, expertise in international water planning, and pioneering process for helping define environmental flow needs make the Conservancy uniquely qualified to assist in the development of the EIS and the Water Control Manual for the basin. Please visit us at www.nature.org/freshwater or feel free to contact me for more information.

Comment ID: 76
Author Name: Allen Boyd
Organization: U.S. Congress

update of the Water Control Manual for the Apalachicola-Chattahoochee-Flint (ACF) River System by the U.S. Army Corps of Engineers presents a significant opportunity for more responsible management of the ACF basin. One of the first and most critical aspects of this update is setting the appropriate scope for the development of the Environmental Impact Statement (EIS). In order for the Corps to develop the most equitable water control manual for the ACF, we believe the EIS must be truly comprehensive in scope and must have a considerable impact on the updated ACF Water Control Manual. Therefore, we offer the following recommendations on the scoping process and the development of an appropriate document under the National Environmental Policy Act (NEPA). The Council on Environmental Quality's (CEQ's) NEPA regulations (found generally at 40 C.F.R. Parts 1500-1508) state that "there shall be an early and open process for determining the scope of issues to be addressed" which "shall be termed scoping." According to CEQ's guidance, "scoping helps insure that real problems are identified early and properly studied," and that appropriate related analyses are identified and considered. In light of this guidance, it is critical that this scoping process consider all aspects of the "affected environment" in the ACF river system. Chronic drought conditions in the southeastern U.S. have led to dramatic decreases in the quantity of water entering the ACF system. Both these natural fluctuations in water supply and human-related uses have led to unprecedented reductions in freshwater inflow entering Apalachicola Bay. The water and nutrients that the Apalachicola River delivers to the bay are critical to the health and productivity of the estuary and adjacent coastal waters of the Gulf of Mexico. This area supports significant recreational and commercial fisheries, including oysters (90 percent of Florida's fishery), shrimp, grouper, and other high-value species. As such, the baseline for scoping should include an analysis of all impacts not only to the Apalachicola River, but to the Apalachicola Bay ecosystem that depends on the fresh water flows from the river. We encourage the development of a baseline for the EIS that is comprehensive, complete, and includes actions initiated and undertaken since previous environmental assessments of the ACF System. The impact of these actions should be broadly assessed if the total effects to the ACF System, particularly downstream, are to be determined.

Chronic drought conditions in the southeastern U.S. have led to dramatic decreases in the quantity of water entering the ACF system. Both these natural fluctuations in water supply and human-related uses have led to unprecedented reductions in freshwater inflow entering Apalachicola Bay. The water and nutrients that the Apalachicola River delivers to the bay are critical to the health and productivity of the estuary and adjacent coastal waters of the Gulf of Mexico. This area supports significant recreational and commercial fisheries, including oysters (90 percent of Florida's fishery), shrimp, grouper, and other high-value species. As such, the baseline for scoping should include an analysis of all impacts not only to the Apalachicola River, but to the Apalachicola Bay ecosystem that depends on the fresh water flows from the river.

We encourage the development of a baseline for the EIS that is comprehensive, complete, and includes actions initiated and undertaken since previous environmental assessments of the ACF System. The impact of these actions should be broadly assessed if the total effects to the ACF System, particularly downstream, are to be determined.

We recommend that the Corps' EIS scoping address the following specific items: • The

accumulation of scientifically-based data on the available water and current water withdrawals along the ACF System.

An assessment of the impact of variations of freshwater flow on the ecology of the Apalachicola River and downstream coastal ecosystems, to include comparing the unimpaired flow regime, the historical flow records, and the flows imposed in the current Revised Interim Operations Plan (RIOP) for exceptional drought conditions.

An assessment of water availability, supply options, demand-management alternatives, and socioeconomic factors that influence uses in the ACF System.

Comment ID: 77
Author Name: Richard C. Wolfe
Organization: Troup County Board of Commissioners

We implore you to take the needs of the people and communities surrounding West Point Lake into strong consideration as you reflect on the present use of the Lake. We need for the Corps to help us to all better utilize this great investment made by the Taxpayers and Citizens of the United States. Thank you for your thoughtful and careful consideration of our request. Sincerely, Richard C. Wolfe, Chairman

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Comment ID: 97
Author Name: John Richards
Organization:

also interested in shoreline management and impact analysis

Comment ID: 120
Author Name: Karen Cox-Dennis
Organization:

We have the great fortune of a Presidential Candidate promising to follow through and oversee the scientific studies that are long overdue and guide a productive plan. Let's end the red tape that the US Army Corps of Engineers seems to be so encumbered by and restore the health of our systems with the most efficient and productive means possible.

Comment ID: 274
Author Name: Michael Halicki
Organization:

From my perspective, there are three needs that make sense to me regardless to one's vantage point within the basin. First, there is a need to develop a solid base of facts. Presently, facts are widely disputed throughout the basin. An ACF basinwide study could provide the facts and sound science needed for good policymaking moving forward.

Comment ID: 318
Author Name: Kim Sak
Organization:

And how far out are we looking at this issue?

Comment ID: 387
Author Name: F T Davis Jr
Organization: Atlanta Regional Commission

The first responsibility of government at all levels with respect to any inland river is to make water available to support human life in the rivers' basin.

It is entirely reasonable to require proper conservation of the resources for other uses also, including health of other species, farming, hydro generation, navigation, and other purposes. But it is not reasonable for the first priority not to be water for use by humans along the waterways, especially in drought conditions.

I would personally support a prompt, independent study to take off the political heat and

homecooking, so that the Corps could adopt a plan which would be in the nation's interest.

All options should be on the table, from mandatory conservation to new reservoirs along all three of the rivers.

This is a personal comment by a life-long Georgia resident concerned with the quality of life of all citizens, our environment, and the excess of heat over light being generated, and does not represent the position of ARC or of any other organization.

Comment ID: 607
Author Name: William Carrol
Organization:

Lake Sidney Lanier lies just north of Metropolitan Atlanta and serves as the primary drinking water source of this City of 5-millionpeople. The normal full pool level of this lake is 1071 feet above sea level. However poor management, politics, endangered species scare tactics, and a prolonged drought have caused the water level of this most valuable and essential drinking water and recreational resource to be drawn down to the current extremely low water level of 1053 feet above sea level. Corps of Engineers releases from Lake Lanier are continuing to lower the level of Lake Lanier by a foot every two weeks which will lower Lake Lanier even below this extremely low level of 1053. The watershed area for Lake Sidney Lanier is relatively small, and this area has been in a prolonged drought. This small watershed area combined with the fact that Lake Sidney Lanier is the primary source of drinking water for Metropolitan Atlanta makes it imperative that a minimum level of1060 above sea level must be retained within this lake for the health, safety, and welfare of its citizens. Other lakes downstream of Lake Lanier should bear the burden of trying to maintain the flow of water to Florida and Alabama to meet their needs, while relieving Lake Lanier of this burden. The demands upon Lake Lanier for drinking water, flood control, recreational needs, and other similar needs from Metropolitan Atlanta already exceed the capacity of Lake Lanier. Surely the health, safety, and welfare of the people of Atlanta outweigh any effects that lower releases from Lake Lanier may have upon some clams and sturgeons. Releases from Lake Lanier must be reduced immediately and the lake allowed to refill back to its normal elevation. Serious studies must be undertaken to evaluate the benefits of raising the normal full pool level of Lake Lanier to 1073,building other dams for water storage north of Atlanta ,and implementing conservation measures. All of these measures must be undertaken. Thank you for your consideration.

Comment ID: 613
Author Name: David Herndon
Organization:

Effective water management of Lake Lanier is critically important to the water consumption needs of Atlanta and cities further downstream. Similarly, water management policy must take into account the environmental impacts of restricting or increasing the flow of water in the Chattahoochee basin.

Comment ID: 763
Author Name: James H. Phillips
Organization: Middle Chattahoochee Water Coalition

What if analysis needs to be conducted on the river basin should all storage be depleted.

Comprehensive Re-Analysis (General - Manual)

Comment ID: 45
Author Name: Gail Carmody
Organization: Fish and Wildlife Service

The Service encourages the Corps to facilitate a comprehensive process for determining how ecological and social benefits could be increased by modifying the operations of the ACF federal dams. We recommend folding into the WCM update a thorough evaluation of project-related flow regime alterations and the potential benefits of restoring features of the pre-project flow regimes. The approach described by Richter and Thomas (2007) would be very useful for

this WCM update.

Comment ID: 133
Author Name: Randy Nix
Organization:

I encourage the Corps to invest in the appropriate studies to develop a plan that will serve the basin for many years and will be fair to all concerned.

Comment ID: 163
Author Name:
Organization:

PLEASE GO BACK AND TOSS OUT LAWS THAT ARE OBSOLETE, SOME EVEN INJURIOUS TO WATER QUALITY. I SHOULD THINK VERY FEW BUSINESS NAVIGATION WOULD BE NEEDED AND RECREATIONAL WOULD BE MORE THE PLAN IN 2008.

Comment ID: 387
Author Name: F T Davis Jr
Organization: Atlanta Regional Commission

The first responsibility of government at all levels with respect to any inland river is to make water available to support human life in the rivers' basin.

It is entirely reasonable to require proper conservation of the resources for other uses also, including health of other species, farming, hydro generation, navigation, and other purposes. But it is not reasonable for the first priority not to be water for use by humans along the waterways, especially in drought conditions.

I would personally support a prompt, independent study to take off the political heat and homecooking, so that the Corps could adopt a plan which would be in the nation's interest.

All options should be on the table, from mandatory conservation to new reservoirs along all three of the rivers.

This is a personal comment by a life-long Georgia resident concerned with the quality of life of all citizens, our environment, and the excess of heat over light being generated, and does not represent the position of ARC or of any other organization.

Comment ID: 717
Author Name: Mr. and Mrs. John McCarthy
Organization:

Just saying what everyone else is saying that is impacted by the lack of a current manual for Lake Lanier. Shoreline erosion, economic impact, water supply - the whole basin needs to be re-manacled. The manual should be a total plan, not just for the lake. Water usage all the way to Apalachicola needs to be included.

Comment ID: 759
Author Name: Billy R. Mayes
Organization: Dothan Utilities

We have concerns about the equitable and optimal use of the Chattahoochee River and good stewardship of the water resources of the region. We have several comments we would like to have considered and implemented during the update to the subject water control plan as follows:

1. Fresh looks at the entire process to be accomplished to ensure all needs of the river basin are considered. If we only look at a couple of the issues, the major issues will not be addressed and conflicts will continue to worsen.

Use Good Science (General-Tools)

Comment ID: 81
Author Name: Bill Shilling
Organization:

Please use more up to date science to maintain this lake. Try to stay out of the political issues, and focus on what sound science can provide as guidelines for this lake.

Comment ID: 102
Author Name: Dan Rothwell
Organization:

The new operations manual should include source volume sharing based on hydrological and environmental models and needs assessments. There should be scientific data to support Corps recommendations.

Comment ID: 295
Author Name: Kathy Nguyen
Organization:

The Water Control Plan should be based on facts and sound science.

Comment ID: 296
Author Name: Kathy Nguyen
Organization:

The decisions about the management of the ACF basin should be based upon sound science.

Comment ID: 371
Author Name: Jonathon Heard
Organization: City of Cumming

* The Water Control Plan should be based on facts and sound science.

Comment ID: 502
Author Name: Grier Todd
Organization: 1071 Coalition of Lake Lanier

1) Facts and sound science should be the basis for the water control plans,

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Comment ID: 570
Author Name: Bradley Curry, Jr.
Organization:

Facts, data and scientific analysis are badly needed and should be welcomed by all parties to the litigation and in the economies of each of the states.

Comment ID: 588
Author Name: Jay Fager
Organization:

As the multi-year drought continues, the Corp cannot continue to manage water resources using outdated information governing the Chattahoochee River basin. Common sense solutions can be achieved if accurate river data is available.

Comment ID: 606
Author Name: William A. Cooper
Organization: Cobb Chamber of Commerce

Facts and sound science should be the basis for the water control plans.

New Methods for Forecasting (General-Tools)

Comment ID: 412
Author Name: Jerry Griffin
Organization: Association County Commissioners of Georgia

Updating the plan should include new methods of forecasting runoff and modeling to ensure that the Corps ACF reservoirs, particularly Lake Lanier, are allowed to reach full pool no later than June 1st of each year and are as full as practical during drought conditions while still meeting downstream, legally-required flows.

Comment ID: 620
Author Name: Jerry Griffin
Organization: Association of County Commissioners of GA

Updating the plan should include new methods of forecasting runoff and modeling to ensure that the Corps' ACF reservoirs, particularly Lake Lanier, are allowed to reach full pool no later than June 151 of each year

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Coordination (General-Tools)

Comment ID: 71
Author Name: Steven J. Herrington
Organization: The Nature Conservancy

The Conservancy has developed this process through work with many partners in important river systems in the U.S. and elsewhere in the world. We have worked with the USACE for nearly ten years through the Sustainable Rivers Program, a partnership to find new ways of conserving and protecting freshwater habitats while meeting human needs for water. As of 2008, this program has helped improve management of eight river basins involving 36 USACE river projects across the country. Further, the process has been used in several Federal Energy Regulatory Commission dam re-licensing projects which resulted in ecologically improved river flows while maintaining the viability of dams for electric power generation and other uses. This process has also been adopted by other agencies, such as the National Park Service in South Carolina, to apply to their own water management issues.

The Savannah River is an example of how we facilitate scientific consensus to approach water management problems. Under contract with the Savannah District of the USACE, we facilitated a meeting of over 50 leading scientists from the Georgia and South Carolina state agencies, federal agencies, academic institutions, and other non-governmental organizations to develop environmental flow recommendations for the Lower Savannah River ecosystem. The outcome of the workshop was a report authored by the participants that conveyed the flow recommendations to the District in terms of flow releases from Thurmond Dam. The Conservancy and partners continue to work with the USACE to incorporate the environmental flow recommendations into their water control plans and improve the ecological health of the river downstream. We offer our expertise in facilitating science-based environmental flow consensus for the foundation needed to develop a meaningful EIS and Water Control Manual for the ACF River Basin.

Modeling - General (General-Tools)

Comment ID: 44
Author Name: Steve Leitman
Organization:

It is my expectation that alternative approaches in the Water Control Manual updates will be evaluated using existing water modeling platforms such as HEC-RESSIM. In running such water management models I would suggest a careful revisiting and scrutinizing of input data used in these models. Specifically I am speaking to the demand data set. For example, there are multiple sets of agricultural demands effects on streamflow in the Flint River ranging from the demand set developed during the Comprehensive Study and the development of the unimpaired flow data set to more recently developed data sets for the USGS groundwater modeling effort. There has also been considerable work done in defining the acreage and use

rates for agricultural irrigation. Effort must be expended to assure that the most accurate and current data is used in modeling associated with the
Water Control Manual updates rather than assuming than past data is accurate or that the accurate data can be obtained simply by asking the three states for data sets. Finally, considering the contentiousness of the water management situation in the ACF basin I would suggest that the Corps involve an outside technical peer review group to assure that the best data, information and approach are fed into the process and that an aura of objectivity is cast over the process. I would recommend consideration of using the National Research Council in this role.
I appreciate this opportunity to comment on the scope and look forward to working with the Corps on the updating of the ACF Water Control Manuals. This action is long overdue. Steve Leitman

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Comment ID: 141
Author Name: Kent Bennett
Organization:

Very interesting new software for modeling. The gentleman at the water control booth explained how it is uses historical data to help with management plan.

Comment ID: 147
Author Name: Kent Bennett
Organization:

Great demonstration on the lake levels with the plastic water containers explaining the relationship between drainage area and lake size. This should be shown on TV so many more can understand.

Comment ID: 603
Author Name: Wm T Schwendler Jr
Organization: part-time resident, boater

I come out of the aerospace industry where engineering and math models are commonplace. However, we learned that models are not perfect. Using models to predict flows and levels is beneficial in anticipating corrective actions, but data should be based on reality. Report the levels based on actual levels at bridges, or as some wags have said, put a post in the water with water levels marked on it. Reliance on models got you in trouble once before; let's not do so again.

Data - General (General-Tools)

Comment ID: 43
Author Name: Students of River Basin Management
Organization:

US Army Corps of Engineers: Respectfully submitted are suggestions contributed by Florida State University's River Basin Management class to the updated Water Management Plan Manual. The intent of this letter is to constructively contribute to the process. Our effort is aggregate and represents the interests of all the students. The River Basin Management course provides extensive training in river basin management and planning through providing a foundation of understanding of river basins as a system from a biological, hydrological and geopolitical basis. A special emphasis of this course is focused on the Apalachicola-Chattahoochee-Flint basin. We are knowledgeable of the technical tools and concepts used to understand and manage river basins from a system wide context including negotiation and math simulation tools. It is our understanding that the balance between human use and ecosystem protection is
difficult to achieve, but this must be of primary consideration.

Comment ID: 44
Author Name: Steve Leitman
Organization:

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over the process. I would recommend consideration of using the National Research Council in this role.

Comment ID: 660
Author Name:
Organization:

The continued assumption that human consumption of water from the Lanier portion of the ACF basin adversely affects all users and uses of the remainder of the ACF basin continues to retard and interfere with objective debate and discourse on this subject, particularly with adjacent states. If the Corps has additional data that can shed light on the composite inflow number that is recorded daily for Lake Lanier then please bring it to light.

Infrastructure Data (General-Tools)

Comment ID: 312
Author Name: Brant Meadows
Organization:

My concern is that the raw data input -- for instance, the diameter pipe size -- was originally measured utilizing slide rules and tape measures. And I would like to see them re-measured utilizing modern technology such as GPS, global satellite positioning, to give us all of the raw data input all over again so the pipe diameter size, for instance, wouldn't be measured with a tape measure. We would measure it with a digital tape measure.