

Office of the Federal Commissioners
ACT/ACF River Basin Commissions
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July 1, 2003

Governor Bob Riley
State Capitol
600 Dexter Avenue
Montgomery, Alabama 36130

Governor Sonny Perdue
State Capitol Building
Atlanta, Georgia 30334

Dear Commissioners:

RE: Alabama-Coosa-Tallapoosa (ACT) River Basin Compact

On May 1, 2003, the States of Alabama and Georgia announced tentative agreement on a surface water allocation formula for the Alabama-Coosa-Tallapoosa (ACT) River Basin Compact. At the same time, the States posted the draft formula for the public and the Governors announced a state-level public comment period which extends through July 7, 2003. Immediately upon the posting of this information and the announcement of the state-level comment period, the federal inter-agency team which supports this office began a review of the draft and of the modeling made available.

First, let me say again that I compliment the Governors for the significant effort you have invested in formula development and the movement toward agreement which you have created. It is beyond serious argument that your personal involvement remains critical to the development of a formula. As you will see in the attachment, the federal agencies are of the view that important progress has been made. We want to underscore our recognition of that fact, even where, in this letter, we point to questions or comments on the May 1 ACT draft.

Second, on behalf of the ACT interagency federal team, I want to offer you – during the state-level process – those observations which we have been able to frame on the May 1 draft. These observations are set forth in the enclosure to the letter. Over the past two years, we have, working with the States, hosted a number of valuable public sessions. We have appreciated that partnership and would be glad to work with you to arrange for additional public sessions to explore these initial observations on the May 1 draft as well. In addition, be assured that the interagency team will continue to be an eager participant in technical information exchanges and in technical discussions preparatory to any public sessions.

In developing these observations, we found that our current impressions on an earlier ACT draft provided a useful platform. What you and the public will read here, then, are our impressions to date on the May 1 draft. As a partner with you in pursuing a successful formula, I also have a responsibility under the Compact to make a concurrence or non-concurrence decision later and to do so after various legal and public reviews, including NEPA. The points raised here by the federal agencies are conditioned on what those reviews might later reveal and what new information we might learn. We do not – as noted in our December 13, 2001 ACT meeting – take a formal position on specific flow levels, specific reservoir levels, or specific reservoir operations. Similarly, neither the agencies nor I can take a final position with respect to any element of the May 1 draft nor predict concurrence or non-concurrence. Nor can we speak to

whether current language is consistent with or poses a violation, or potentially a violation, of federal law.

Third, we have some additional observations and questions. Let me mention two topics here. The first topic addresses a point raised by stakeholders and the second seeks to better understand specific language. Your guidance on the latter language issue (and others that might later arise) as well as clarification of the intent behind certain elements of the written proposal will be valuable to our understanding of the details of the draft.

Section 5.3(B) of the May 1 draft speaks to the development of a drought plan after the 255 day period included in the Compact for initial concurrence or non-concurrence. Of course, we respect the desire to proceed as far as possible with a formula as early as is responsibly possible to do so. We also understand the States' views both that development of the drought plan will require additional time and that it is useful, in certain aspects of the formula, to preserve flexibility in options available to the parties to the agreement until after initial formula adoption. Some stakeholders have expressed concern that the role of the Federal Commissioner and the Article VII(a) concurrence process in such post-agreement "actions" be made clear. They have suggested, for instance, that the concurrence process is part of drought plan development and adoption.

By way of response to those stakeholders, earlier federal current impressions on various ACF drafts highlighted the existence of a subsequent concurrence role with regard to the drought plan. The May 1 draft includes other post-agreement actions which preserve state flexibility and which would, similarly, trigger further federal concurrence review. For instance, the draft anticipates that events might arise, after an agreement received initial concurrence, warranting the formula's suspension. See, e.g., Sections 4.1 and 5.1. Section 4.1(C) speaks to the possible suspension of all or part of Sections 2 and 3 of the agreement. The suspension process outlines a dispute resolution procedure under Article XIII of the Compact but also seeks to preserve the option to "suspend the operation of Section 2 and 3 of this Agreement until such time as the Suspension Event has been cured." In addition, Section 5.1 recognizes the possibility of circumstances in which "strict accordance with this Agreement may not be beneficial to any of the Signatory Parties." To further preserve flexibility, the draft provides that the ACT Commission "may unanimously vote to suspend, reduce, or postpone the implementation of any of the obligations imposed upon the [Corps of Engineers] pursuant to this Agreement for such period or periods of time that the ACT Basin Commission deems appropriate." In turn, Section 2.3(B), which identifies a number of requirements for new on-stream or off-stream reservoirs, also preserves the prerogative – by unanimous State action – to authorize exceptions to those requirements. In a somewhat related vein, Section 5.4 provides for the adoption of ACT Committee operating guidelines. In different ways, each of these items speaks to a circumstance which we would like to discuss further with you.

The second matter stems from Section 1.2(C) and arises in the context of congressional reauthorization to implement the agreement. We note that this subsection conditions performance of the agreement on reauthorization necessary to provide for the withdrawals elsewhere detailed in the agreement's terms. The language continues "unless a court of competent jurisdiction has held in a final unappealable decision that such authorization is not required by law." We do not understand this language to suggest that the Congress would be unable to act, or unable to consider acting, with regard to reauthorization. We wonder, instead, if this language is intended to reflect the States' own agreement between themselves that they will not condition their performance obligations with regard to each other on such congressional reauthorization – even though reauthorization might be necessary to implement various terms of the agreement.

In the time available, we have focused our efforts on the hydrological components of the formula. We recognize that further changes in the text of the document may still occur. In that

context, we would like to explore with your staff the language in Sections 1.1, 1.2, 1.6, 1.7, 2.1, 4.1, 4.2, and 5.1.

Finally, with the significant progress made to date and with the prospect of the close of the state-level comment period on July 7, I would like to revisit a point which my office has raised in the past. When the Governors enter an Article VII(a) "agreement," the Compact triggers a 255 day federal review period. Among other tasks, within that 255 day period the ACT federal interagency team must complete a NEPA evaluation, reach recommendations, and provide those recommendations to this office. If that review surfaces any issues that may warrant further discussion in the interest of avoiding non-concurrence or of achieving a more effective formula, a negotiating dialogue may be desirable. By deferring the date on which you actually execute an Article VII(a) "agreement," the States can add a period of time which will help alleviate the tight public comment and federal review burden created by the statute.

I look forward to working further with you on these matters so important to our region.

Sincerely,

A handwritten signature in black ink, appearing to read "Alec L. Poitevint II". The signature is fluid and cursive, with a large initial "A" and "P".

Alec L. Poitevint II
ACT Alternate Federal Commissioner
ACF Federal Commissioner

Enclosure

cc:

Governor Jeb Bush
The Capitol
Tallahassee, Florida 32399-0001

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Current Impressions on the ACT Proposal dated May 1, 2003

The State Commissioners and their staffs have made significant progress in the May 1, 2003, version of the ACT draft formula. The Federal Interagency ACT team (“the Federal team”) shares, with the State teams, the interest in bringing that progress to a successful conclusion, and credits the involvement of the Governors themselves for much of the recent progress. The challenges of a long term formula for the Basin are of immense complexity and draw upon the best that science can offer authorized decision-makers and the public; even then, and as all have agreed, successful implementation of a formula will require mechanisms to gain from experience. The Federal team compliments the ACT States for recent State-level public sessions and the public for its participation in those sessions. In addition, the Federal team reiterates its commitment to work alongside the States toward the implementation of a formula which reasonably addresses all of the complexities of the Basin. The following current impressions are offered in that spirit and update earlier similar comments, focusing on the May 1 draft.

I. Compensation

A. Federal Framework. As written, implementation of the ACT water allocation formula would reduce or limit presently authorized hydropower and flood control purposes at both Carters Lake and Lake Allatoona Federal reservoir projects. These impacts result from the revision of guide curves so that they reduce the magnitude of the flood control pool at certain times of the year, the reallocation of reservoir storage from conservation storage to water supply, the specification of reservoir operational procedures that limit or constrain the amount or timing of hydropower production, the release of water for the purpose of meeting downstream flow targets at times when the value of hydropower is low, or the release of water for the sole purpose of meeting a downstream flow target. Title 16 U.S.C. 825 and Corps of Engineers Regulation 1105-2-100 specify the requirement to compensate the Federal government for the adverse effects of project modifications on hydropower.

By way of backdrop, under the provisions of Section 5 of the Flood Control Act of 1944 (16 U.S.C. 825s) and other Acts, power developed at projects under the jurisdiction of the Chief of Engineers, which is not required in the operation of such projects, shall be delivered to the Department of Energy (Southeastern Power Administration (SEPA)) for marketing. SEPA is, in turn, required by law to transmit and dispose of power and energy so as to encourage the most widespread use at the lowest possible rates to consumers, consistent with sound business principles. Project repayment costs are developed and assigned based on authorized purposes receiving certain benefits from the projects. Repayment of allocated costs is based upon the benefits received by that project purpose in its use of the entire designated conservation pool of a project. Rates for sale of power to recover the allocated costs are established by SEPA and approved by the Federal Energy Regulatory Commission.

Compensation is an important and necessary part of a complete allocation formula. This issue must be addressed to assure that the proper formal process and procedure is followed in identifying all the parties who will be impacted and in

determining the measure of impact and the appropriate level of restitution. These procedures will determine who must pay and how such payment will be determined.

At the same time that the obligation for compensation cannot be overlooked, one must also be aware of the need for appropriate congressional authorizations. Any restriction which does not allow the project purposes to utilize freely the entire conservation pool must be accompanied by a Congressional re-authorization. The costs that were allocated to the hydropower purpose represent a major portion of the construction cost for these projects. It is SEPA's responsibility to ensure the Government expenditures allocated to the hydropower purpose are repaid to the United States Treasury. In addition, SEPA must pay hydropower's allocated portion of each project's annual operating (O&M) costs. It would not be fair or equitable to expect an authorized purpose to pay originally allocated costs or annual O&M if the purpose no longer receives the benefits from the project envisioned when Congress authorized the project.

Compensation issues which are among the most important to SEPA are:

(1) Compensation for Water Withdrawals / Reallocation of Storage

Water withdrawals from a reservoir have a significant impact to the authorized hydropower purpose. They reduce the generating capacity and energy production of a project which, in turn, impacts SEPA's ability to repay allocated costs. It is imperative to account accurately for all withdrawals, and to assure that the proper regulations and procedures are followed when permitting withdrawals, reallocating storage, and collecting revenue for withdrawals and storage.

(2) Compensation for Zones with generation restrictions.

Anything adversely impacting the operation of a project, such as the creation of zones which reserve storage at a project by restricting generation, is a compensation issue.

(3) Compensation for operational restrictions/reductions in capacity and energy.

SEPA considers any restriction a compensation issue when it impacts SEPA's ability to utilize the peaking resource to meet SEPA customers' generation requirements.

It is essential, if the **benefits** to the hydropower purpose are reduced, either through reallocation of storage, creation of zones with generation restrictions, operational restraints, or other reductions to capacity and energy, that the **costs** allocated to hydropower be appropriately reduced.

B. Specific Suggestions. Carters Lake and Lake Allatoona are two Federal projects in the ACT Basin where operational changes could require compensation. In order to provide clearly for full compensation of all adverse effects of the formula on hydropower, a basinwide water allocation would clearly recognize that compensation will be owed the Federal Government for:

- Creation of zones with generation restrictions,
- Changes in amount or timing of hydropower production due to implementation of reservoir operational procedures specified in the formula, and
- Reallocation of storage for water supply or other purpose of the formula such as downstream water supply requirements or for achieving downstream flow targets.

The formula would also recognize that an agreement on compensation will be required prior to implementation of formula provisions.

II. Congressional Federal Project Authorizations.

A. Federal Framework. In the ACT Basin, there are several pieces of authorizing legislation that define the purposes for which the projects were constructed. Section 2 of the River and Harbor Act of 1945 authorized the initial and ultimate development of the Alabama-Coosa River for navigation, flood control, power development, and other purposes. The River and Harbor Act of 1945 was subsequently modified by Public Law 83-436 to authorize private interests (Alabama Power Company) to construct a series of dams on the Coosa River for the purpose of generating hydropower and providing flood control subject to licensing requirements under the Federal Power Act. The authorizing legislation and purposes for Lake Allatoona and Carters Lake are as follows.

- Lake Allatoona. Lake Allatoona was authorized by the Flood Control Act of 1941 (PL 77-228, 55 Stat 638). The authorized project purposes for the reservoir are: flood control; hydroelectric power; and navigation. Other purposes for which the reservoir is operated are: recreation; water quality; water supply; and fish and wildlife.
- Carters Lake. Carters Lake was authorized by the River and Harbor Act of 1945 (PL 79-14, 59 Stat 10). The authorized project purposes for the reservoir are: flood control; hydroelectric power; and navigation. Other purposes for which the reservoir is operated are: recreation; water quality; and water supply.

The Corps of Engineers projects on the Alabama River south of Montgomery, Alabama, include Claiborne Lock and Dam, Millers Ferry Lock and Dam, and Robert F. Henry Lock and Dam, which are operated for the purposes of navigation, hydroelectric power, recreation, and fish and wildlife.

The Corps of Engineers currently operates these projects to satisfy the multiple project purposes by balancing resource use through regulating the project releases to conserve as much water as possible and by maximizing all project functions consistent with the project authorization. Implementation of a basin-wide water allocation formula will require that Congress consider the changed priorities against the backdrop of the project authorizations included in the authorities cited above. Project modifications or changes in project operations would likely serve a different mix of purposes than when the projects were originally authorized.

B. Specific Suggestions. The current ACT formula proposal and the ACT Compact state that Federal agencies have, in implementation of the formula, an obligation to the maximum extent practicable to exercise their powers, authority, and discretion in a manner consistent with the allocation formula so long as the exercise of such powers, authority, and discretion is not in conflict with Federal law. Within existing authorities and discretion there may be some provisions of the formula that the Corps of Engineers may implement to a limited degree immediately after the formula is adopted. Once required implementation studies are complete and Congress has authorized required project modifications, the formula may then be implemented to a greater extent.

Implementation of the water allocation formula will require or may potentially require more detailed analyses, investigations, and report development to address the following:

- Reallocation of storage to water supply;
- Reallocation of storage for meeting downstream flow targets or water withdrawal requirements;
- Reduction in navigation channel depths;
- Mitigation for reduction in flood control storage due to changes in reservoir guide curves; and,
- Compliance with Federal environmental statutes, such as the National Environmental Policy Act, Fish and Wildlife Coordination Act, and Endangered Species Act.

The current ACT draft formula anticipates seeking Congressional authorization, as indicated in Section 1.2 (Performance). Section 1.6 of the proposal could be modified to acknowledge that, if Congress does not authorize reallocation of storage for water supply in response to Georgia's initiative required by Section 1.2, item (b), Georgia will request that the Corps of Engineers conduct appropriate studies in accordance with applicable laws and policies and make recommendations in a report to Congress regarding necessary modifications in project authorization or other actions required to fully implement the formula. In the event that Congressional authorization of reallocation occurs without a report being prepared by the Corps of Engineers, a study and report would still be necessary to define the modifications to the project required to implement the provisions of the formula. The language in Section 1.2 (Performance) could be modified to acknowledge the need for studies prior to implementing the formula. Such a study would be conducted and a report prepared in accordance with Corps of Engineers regulations and policies.

III. Operational Practicability and Flow and Reservoir Levels.

A. Federal Framework. Water allocation proposals can be framed generally in terms of goals and targets or specifically in terms of detailed operating guidelines governing operations at reservoirs. The May 1 draft is less detailed than its predecessors and is, in the Federal team's view, an improvement in that respect.

We continue to suggest further flexibility. The operational feasibility of a proposal is limited by the ability to forecast hydrological implications. In general, the more detailed a water allocation proposal the more it risks the prospect that accuracy and responsiveness of a modeling analysis will be greater than can be achieved in “real time”. Further, in any event, a model cannot accurately reflect the unknown hydrologic conditions of the future. In addition to modeling and predictive limitations, detailed instructions in an allocation formula raise operational demands that may have unintended consequences. Accordingly, the more specific the guidelines contained in the proposal the less flexibility the Corps of Engineers has to operate the projects for the multiple congressionally authorized purposes.

Authorities for allocation of storage and regulation of projects owned and operated by the Corps of Engineers are contained in legislative authorization acts and referenced project documents as cited above in Part II. As stated previously, the current ACT formula proposal and the ACT Compact state that Federal agencies have, in implementation of the formula, an obligation to the maximum extent practicable to exercise their powers, authority, and discretion in a manner consistent with the allocation formula so long as the exercise of such powers, authority, and discretion is not in conflict with Federal law. Within existing authorities and discretion there may be some provisions of the formula that the Corps of Engineers may implement to a limited degree immediately after the formula is adopted. Once required implementation studies are complete and after Congress has authorized required project modifications, the formula may then be implemented to a greater extent.

B. Specific Suggestions. The current ACT proposal is less detailed than its predecessors with regard to operations of the Federal reservoir projects. Several factors, however, continue to be important to the Federal team. For instance, the States have developed HEC-5 models that demonstrate operation of the Federal projects to satisfy the requirements of the allocation formula. The modeled concepts of how the two Federal projects may be operated to meet the state line target may not be possible in “real time.” Useful for modeling purposes, from an operational perspective and considering flow times from the projects to the state line, the “real time” operation might need to be accomplished differently. Alternatively, a formula could specify operational goals such as reallocation of storage to water supply, interbasin transfer limitations, and specified minimum state line flows and allow the Corps of Engineers the flexibility to develop operational procedures to meet these goals, to the greatest extent practicable, while still satisfying all authorized project purposes. Eliminating detailed operational guidelines could also avoid unintended consequences.

With that in mind, and assuming that the language of Section 1.6 has been modified as described above in paragraph IIB, the language of the proposal in section 2.1 could be further simplified as follows: “The Corps of Engineers shall operate Allatoona Reservoir and Dam and Carters Reservoir and Reregulation Dam in the manner necessary to satisfy the water supply and minimum flow requirements specified herein together with the other authorized project purposes. The Corps of Engineers, following Congressional authorization of implementation measures recommended by the report

required by Section 1.6, shall develop and adopt a Water Control Plan, which would include a Drought Contingency Plan as required by ER 1110-2-1941, for the implementation of the terms of this Agreement and for the operation of Federal reservoirs consistent with this Agreement and as authorized by Congress. The Water Control Plan shall be developed in full consultation with the Signatory Parties and the ACT Commission and in accordance with applicable Corps of Engineers regulations and policies. This Water Control Plan may provide for the maximum production of hydropower consistent with meeting the water supply and minimum flow requirements and may be periodically revised to account for changes required to improve compliance with the provisions of this Agreement. The Drought Contingency Plan developed as part of the Water Control Plan will be coordinated with the Drought Plan developed by the ACT Committee to insure consistency. In carrying out the ACT water allocation formula, the Corps of Engineers will periodically modify its Water Control Plan (with appropriate compliance with Corps of Engineers regulations pertaining to obtaining public participation and with all environmental requirements) in consultation with the ACT Commission to meet the allocation formula operating criteria to the extent required by the Compact and consistent with Federal law, including Congressional authorizations of any Federal multi-purpose project.”

IV. Water Quality, Ecology and Biodiversity

A. Framework. As backdrop, several Federal statutes are relevant to the protection of water quality, ecology and biodiversity in the ACT Basin and will be considered in the Federal evaluation of a water allocation formula forwarded by the States to the Federal Commissioner. These statutes and their general purposes include:

Clean Water Act – restore and maintain the chemical, physical and biological integrity of the Nation’s waters.

Endangered Species Act (ESA) – conservation of listed species and the ecosystems upon which they depend.

Fish and Wildlife Coordination Act – equal consideration of fish and wildlife in Federal projects and permits; requires consultation with the U.S. Fish and Wildlife Service (USFWS).

Federal Power Act – equal consideration of fish and wildlife, recreation and other environmental quality aspects of Federal licensing of hydropower facilities.

Water Resource Development Act of 1990 – environmental protection is one of the primary missions of the Corps in planning, designing, constructing, operating and maintaining water resource projects (Sec 306).

ACT Compact – “It is the intent of the parties to this Compact to develop an allocation formula for equitably apportioning the surface waters of the ACT Basin among the States while protecting the water quality, ecology and biodiversity of the ACT as provided in...applicable Federal laws” (Article VII(a)).

Climate-driven flow regimes and reservoir levels define the Basin’s freshwater aquatic habitat conditions. Conversely, the principal means by which people alter flow regimes within the ACT Basin are consumptive uses of the water and reservoir operations. As a result, Federal

review of water quality, ecology and biodiversity issues will necessarily focus on how the formula addresses consumptive uses and reservoir operations. Evaluating the effects of the proposal on water quality, ecology, and biodiversity will involve the use of hydrologic models of the system, and also models that represent the habitat and water quality conditions as a function of hydrology. Development of models by the Federal Interagency Team to represent the current proposal is ongoing.

B. Specific Suggestions

1. Minimum Flows

The May 1 proposal addresses minimum flow rates in the Basin in four different contexts: 1) the state line crossing of the Coosa River near Rome, Georgia, and the operations of Carters and Allatoona reservoirs (Section 2.1); 2) the operations of Alabama Power Company reservoirs (Section 2.2); 3) the operations of any new reservoirs built in the Basin (Section 2.3.B); and 4) the operations of new and expanded withdrawals. Items 1, 3, and 4 in the list above are addressed in the comments below; and, some specific suggestions are offered for each item.

Coosa River State Line Minimum Flow

The flow regime of the Coosa River at the boundary between Alabama and Georgia has historically been highly variable, with flow rates differing by orders of magnitude between months of a given year, and for a given month between years. This is reflected both in the historic observed record of flow, which is influenced by reservoir operations and water uses for various purposes, and in the synthesized “unimpaired” flow data set for the Basin, which attempts to remove those influences from the record. Establishing minimum flow rates in any allocation formula that are too high relative to the hydrologic record could too often impose a burden on upstream portions of the Basin to constrain water use and/or to augment river flow with releases from reservoir storage. Conversely, establishment of minimum flow rates in any allocation formula that are too low relative to the hydrologic record could too often expose downstream portions of the Basin to the stressful effects of the lowest-flow conditions.

From a historic perspective a flow of 1,500 cfs, the proposed minimum flow requirement for the Coosa River at Mayo’s Bar, represents an unprecedented event for some months and a relatively rare event for other months, but a relatively common occurrence during the drier months of the year in the historic flow record. The proposal sets 1,500 cfs as the target flow for the state line when the elevation of Allatoona Reservoir is less than the proposed Intermediate Guide Curve, which is set at relatively high levels in the conservation pool (about 80 percent of conservation storage). A flow of 1,500 cfs is slightly less than 25 percent of the average annual discharge (AAD) of the basin at the state line. It should be noted that 25% AAD is the threshold that the USFWS and the Environmental Protection Agency (EPA) identified for computing annual low-flow duration in the Instream Flow Guidelines provided to the states in October 1999. Flows less than 25 percent AAD generally signal a time of stress for riverine aquatic life

in the ACT and ACF basins, due to reduced velocities, vulnerability to high temperatures, and limited habitat availability.

As the Federal team understands it, although the draft proposal would eliminate weekly average flows less than 1,500 cfs, a combination of increased consumptive demands and the proposed rules that make 1,500 cfs the target flow under certain circumstances could increase the frequency of flows in this low range. The model offered in support of the draft to represent a “conservative” implementation of the proposal (T050103A) seems to show that the incidence of flows less than 1,600 cfs but greater than 1,500 cfs at the state line increases from a historic frequency of about 6 percent of the time to about 18 percent. This seems to result from the combination of both the Intermediate Guide Curve operations and the net withdrawals simulated, which amount to about 500 cfs for the Georgia-portion of the Coosa Basin, compared to about 200 cfs reported for recent years.

An alternative approach could better reflect the historic variability of the flow regime, and perhaps avoid prolonged periods of time at a flow level that USFWS has documented as stressful to riverine aquatic life. Under that approach a set of seasonally variable minimum flow rates for the Coosa River at Rome, Georgia, would substitute for the current language in Section 2.1. A starting point for this idea was presented in the April 17, 2003, Federal Concept for the Apalachicola-Chattahoochee-Flint Basin. That concept paper outlined the use of 10th percentile monthly average flows at the Florida/Georgia state line, switching to lower (but not unprecedented) values not more than 10 percent of the time when climatic indicators would “trigger” the need to do so. The Federal team would be willing to work with the State teams in applying this concept to the ACT by exploring combinations of monthly minimum flows, climatic conditions, and expected maximum depletions that would insure adequate protection of water quality, ecology and biodiversity under the Federal authorities listed above.

New Reservoirs and New or Expanded Withdrawals

The provisions of the draft proposal that deal with new reservoirs and new or expanded withdrawals incorporate the “monthly 7Q10” option that is included in the State of Georgia’s interim instream flow policy. It is noted that in the proposal language new reservoirs must release “*at least the Monthly 7Q10*” and that the States may “impose *stricter* requirements” (italics added) than monthly 7Q10 on withdrawals. This proviso is insightful and appropriate. Scientific data about the effectiveness of a monthly 7Q10 instream flow standard towards protecting aquatic ecology and biodiversity in a regulatory context are not yet available. Including such data as an element of Section 5.3.C, Monitoring and Reporting and as part of an adaptive management process would facilitate a change of this policy/standard, where appropriate.

We note that the draft proposal also addresses new reservoirs and new withdrawals. That, too, is a valuable plank in the Basin-wide formula. In addition to complying with applicable provisions of the formula, the related Federal permits would

need to comply with Federal laws such as the Endangered Species Act. The following example may be of some use.

Section 2.3.B-G of the proposal includes specific rules associated with the potential construction of a water supply reservoir in the Tallapoosa River Basin. This area includes reaches of habitat with high aquatic biodiversity and habitat for the federally threatened fine-line pocketbook (*Lampsilis altilis*), a freshwater mussel. The March 26, 2003, proposal by the USFWS to designate critical habitat for 11 imperiled freshwater mussels currently includes a unit of the Tallapoosa River and its tributaries in Cleburne County, Alabama, and in Haralson and Paulding Counties, Georgia. That unit (unit number 16) encompasses the proposed reservoir and/or pumping sites. The various instream flow measures included in Section 2.3 of the May 1 proposal may not adequately protect the features of this unit considered essential for the conservation of the fine-line pocketbook in the Service's proposed rule, depending on which measures apply (i.e., 2.3.B.3, 2.3.C, D, F, or G) and on other variables. Fine-lined pocketbook reproduction requires fish as hosts for its larval life stage. The process of infecting the fish hosts with larvae and the fish hosts themselves require adequate flow, possibly at rates exceeding the rates specified under Section 2.3. Such issues will be addressed in a programmatic fashion during review of an agreement for Federal concurrence. A specific project for a new reservoir or new withdrawal proposal would be addressed during the Corps of Engineers' permitting process under the Clean Water Act. If reservoir construction and/or pumping operations were likely to modify critical habitat adversely, the USFWS would seek with the Corps and the permit applicant reasonable and prudent alternatives to accomplish project objectives while complying with the Endangered Species Act.

The May 1 draft indicates that monthly 7Q10 would be calculated at the site of each new reservoir or withdrawal at the time each is constructed. As new reservoirs and withdrawals are built over the term of the agreement, each would deplete the flow regime to some degree, and, in turn, decrease monthly 7Q10 values downstream. Including a method for calculating monthly 7Q10 that would avoid a downward creep over time in this instream flow standard would help preserve whatever protective value the standard may have for aquatic ecology and biodiversity.

2. Maximum Depletions

The effects on water quality, ecology, and biodiversity of implementing the May 1, 2003, proposal would depend greatly on the amount of depletions to the waters of the basin for human uses. Depletions due to interbasin transfers are limited in Section 2.4.B. Depletions due to municipal and industrial uses that would be supplied using storage in Allatoona and Carters reservoirs are limited in section 3.1.A. These are important planks. By the same token, this section also indicates that the agreement does not prohibit the State of Georgia from seeking greater amounts of storage in these projects during or after the term of the agreement. Section 2.3.B specifies conditions under which depletions resulting from new reservoirs may occur, but seems not to limit the amount of such depletions. Similarly, Section 2.4.C specifies conditions under which depletions resulting from new and expanded withdrawals may occur, but seems not

to limit the amount of such depletions. In short, although providing some parameters with respect to depletion, these provisions do not collectively provide specific written expressions of the maximum depletion that each State would draw from the shared surface water resource. As a result, Federal agencies and the public will be left to rely upon estimates of depletions that could occur during the term of the agreement in order to evaluate possible effects on the flow regime and water-dependent resources.

In that regard, the States have included estimates of depletions in the hydrologic simulation models that were provided simultaneously with the proposed agreement. The results of these simulations, i.e., flows and reservoir elevations, are strongly influenced by the depletions data used. As we understand it, the States view these data as best estimates regarding water demands 30 years from now when the term of this formula would end. As we also understand it, these demands slightly exceed the year 2050 "high" scenario of demands used in the Corps' draft EIS and seem to represent a more than tripling in net withdrawals for the basin as a whole relative to the recent water use data reported by Alabama and Georgia (the States reported net withdrawals of about 300 cfs for the years 1994 to 2001 and the States' models simulate net withdrawals of about 1,000 cfs). The Federal team appreciates the State team's willingness to provide documentation describing the derivation of the year 2033 depletions estimates used in their models and look forward to receipt of that information. Additionally, to account for formula provisions that allow depletions greater than those associated with 2030 demands, the Federal team will likely develop an alternative HEC-5 model that demonstrates the effects of greater depletions.

Of course, as all the technical teams recognize, depletions to instream flow affect many water-dependent resources. It is for that reason that the Federal concept provided in the ACF formula process suggested quantifying the maximum annual and maximum monthly depletions that each State needs to support reasonable uses of water within each major sub-basin for the duration of the agreement, and including these amounts as terms of the agreement. In the context of the ACT formula, these maximum annual and maximum monthly depletions could be added to Section 2.4. Agreement language about monitoring these depletions is already included in Section 5.3.C.2.f, and would only need modification to account for other forms of depletion, such as evaporative losses from new reservoirs.

In short, quantification of maximum depletions needed by the States from the shared resource as express elements of the formula provides a readily available public statement of those needs. Water is a finite resource important to a variety of users and, as the States' serious and continued efforts in the Compact process reflects, worthy of a careful and public process. A written expression of the maximum depletion budget would not limit the States' flexibility where that budget is adequate to the forecasted needs of each State. Of course, it is also recognized that subsequent events can indicate that estimates need to be revised. If the depletion forecasts for 30 years from now seem too uncertain, i.e., if the risk of reasonable needs exceeding the forecasts seems unacceptable, the states could seek a shorter term agreement, a term for which sufficient

accuracy in forecast water need estimates does exist, and employ adaptive management as outlined later.

3. Reservoir Operations

The Federal team appreciates the States' effort to develop language in the formula that is less prescriptive than previous proposals. That flexibility is a key element in the success of any hydrological management regimen and, thus, key to the formula. That said, Section 2 would, as the Federal team reads it, require the Corps to operate solely for water supply and for the state-line flow requirement as a target when storage in Allatoona Reservoir is still relatively high. That condition would result in higher-than-historic reservoir levels. Generally, higher levels would translate to changes in river flows, and both changes could affect water quality, ecology, and biodiversity. Changes in reservoir retention time are of particular interest in evaluating reservoir water quality characteristics. In particular, prolonged periods of flows at or slightly above 1,500 cfs could increase retention times in Weiss Reservoir, a fairly shallow reservoir, thereby adversely affecting water quality. Water quality and the timing of reservoir level fluctuations strongly influence reservoir fish productivity and shoreline erosion potential. Some changes in the historic patterns of reservoir levels and reservoir release patterns could have both beneficial and detrimental effects on fish and wildlife.

The possibility raised in Part III of these comments regarding unintended consequences resulting from a prescriptive reservoir operations program applies also to water quality, ecology, and biodiversity concerns. For that reason, while the operational guidelines of the current ACT draft are less detailed than its predecessors, the Federal team urges further simplification of Section 2 to provide more operational flexibility. As noted earlier, Section 2 could be restructured as a statement of minimum flow and water supply goals, leaving the operational means of achieving those goals to the Water Control Plan process and Adaptive Management (Part V of these comments).

V. Adaptive Management

A. Federal Framework. "Adaptive Management" like, "market analysis" in business, is a process which enables an agency to make adjustments in its management plans based upon evaluations of monitoring results. In the classic adaptive management program, an agency describes a management goal and impediments to achieving the goal, designs a management plan to address the goal, implements the plan, monitors the effects of the plan, evaluates the information gathered, and makes adjustments to the plan, if needed. Implementation of adaptive management programs is particularly advantageous in the management of natural resources because, typically, so little is known beforehand about the consequences of man's actions on the many components of complex ecosystems. Uncertainties in the ability to predict potential depletions to the system and the effects of a water allocation formula on the ACT basin's water quality, ecology, and biodiversity would seem to favor adoption of an adaptive management process that enables the appropriate parties to adjust how the formula is implemented to meet future conditions and avoid potential issues of controversy.

Although there are no Federal laws explicitly requiring the States to craft an allocation formula that is amenable to adaptive management, there are numerous Federal natural resources programs resting on Federal law that are based upon adaptive management models. For example, the EPA engages in a 5-year review process with respect to its National Pollutant Discharge Elimination System (NPDES) permits, 40 CFR Part 126. Water quality standards under the Clean Water Act are reviewed periodically, 40 CFR 131. In the management of its reservoirs, the Corps of Engineers has operational flexibility to adjust to changing conditions in order to meet authorized purposes. Whenever the Fish and Wildlife Service issues a biological opinion in an endangered species consultation with another Federal agency, it always includes a provision that requires both agencies to reinitiate consultation if either learns of unanticipated impacts or relevant new information, 50 CFR 402.16. Thus, if included in the formula, the monitoring and evaluation components of an adaptive management program would enable the States and Federal government to coordinate their implementation of the formula with pertinent Federal laws and make mid-course adjustments as necessary.

The examples cited above are but a few of the examples of natural resource adaptive management programs executed by various branches of the Federal government. Many of these programs will be implemented in a manner that is parallel to the States' water allocation formula. Thus, it is doubly important that the formula meshes with and is complementary to these Federal programs and the Federal discretion which they involve. A water allocation formula that would preclude or overly constrain adjustments in management could greatly increase the likelihood that Federal agencies will not be able to implement all elements of that formula in order to comply with other applicable Federal laws. A formula that instead defines broad but measurable objectives, and provides for a process of adaptive management to develop the specific means of achieving those objectives consistent with other laws, stands a much better chance of full implementation over the course of the 30-year plus time frame that has been proposed. Thus, adaptive management would not impede the function of the Commission, but would measurably enhance its ability to manage water within the basin.

B. Specific Suggestions. It is noted that the basic format of an adaptive management program is already present within the allocation formula, as contained in the sections on Periodic Review (1.10), State Line Flows and COE Operations (2.1), Water Use (2.4), ACT Committee Structure (5.2), Drought Plan (5.3B), Monitoring and Reporting (5.3C), and the Scientific Advisory Panel (5.5). Under any concept, adaptive management becomes the process of compiling information relevant to goals and of using that information to ensure that the goals are achieved. The relevant information for a water allocation formula includes monitoring and research data on flow rates, climatic conditions, depletion rates, water quality, ecology, and biodiversity. The process would provide for: 1) adjustments to the monitoring program (depending on experience gained and scientific expertise); 2) Commission, Committee, and public access to the monitoring results; and 3) sufficiently frequent mechanisms to revisit formula implementation if indicated by monitoring results or changed circumstance. With adequate attention to

adaptive management, it would be anticipated that Federal and State interests could stand together in support of any needed resources and authorizations to implement the program.

Adaptive management is addressed in the Federal team's April 17, 2003, document "A concept on the possible structural elements of a water allocation formula for the ACF River Basin." Under this concept, the basic goals of the formula are to maintain a schedule of minimum flow rates, which is linked to climatic indices, and to support the States' use of water consistent with a list of maximum depletion rates, while protecting the Basin's water quality, ecology, and biodiversity. The specific means of achieving the goals, e.g., Federal reservoir operating plans, State water use permitting, water conservation programs, water quality improvement projects, stream habitat restoration projects, etc., are not specified in the formula. The specific means of achieving the goals are instead left to implementation and modification over time by the appropriate authorities who are informed by the various monitoring and research data collected under an adaptive management program coordinated by the Commission.

Additional specific suggestions are below in Part VI, Public Participation.

VI. Public Participation During Implementation

A. Federal Framework. There are many Federal programs that have 5 year or shorter review periods to insure that regulated activities are consistent with statutory authorizations and new technology or other factors are considered. In the case of NPDES permits and Water Quality Standards, these must be reviewed and modified in accordance with statutory requirements and implementing regulations.

For example, typical Federal review periods for water resource activities involve up to 5-year cycles:

- NOAA National Marine Sanctuary Management Plans
- NOAA National Estuarine Research Reserve Management Plans
- Clean Water Act NPDES Permits, 33 USC §1342
- EPA/STATE CWA Basin Cycles Continual Planning Process, 33 USC §1313(e), including TMDL development 33 USC §1313(d).
- Clean Water Act Dredge and Fill Permits, 33 USC § 1344

Other programs have shorter review periods:

- Clean Water Act 33 USC §1313(c) Triennial Water Quality Standard reviews

Public participation is, in some instances, required or provided at several decision nodes: the scope of content to define issues to be reviewed; information and data provided during technical evaluation; and, comments on generated reports and findings prior to final publication and or action. Under most statutory provisions, public participation is required to give affected parties the opportunity to review and comment on actions that may affect their interests. It also provides decision makers with important information that is relevant to their regulatory decisions.

Public participation is consistent with the requirements of the ACT Compact.

- Compact language requires that the Commission meet once every year [Section VI(e)].
- Compact language requires all meeting to be open to the public [Section VI(f) & XI].
- Compact language requires the adoption of procedures to ensure public participation in the development, review, and approval of any subsequent modifications to the initial allocation formula [Section XI].

To ensure consistency and allow for the use of information gathered, the ACT Formula could consider providing 5-year review periods.

B. Adaptive Management (V) & Public Participation During Implementation (VI) Specific Suggestions

Based on our current impressions, the following annotations on the May 1, 2003, Draft Allocation Formula Agreement are provided to address issues identified under the concepts of adaptive management and public participation. In italics and prior to each proposed edit, an explanation is provided as background.

1. *There is concern that 10 years is a long time before the first review and for the subsequent reviews of the formula are conducted. As noted, experience in the permitting and other regulatory programs has led the Federal agencies to focus on a 5-year or less review period as a reasonable scope of time (e.g. to review and possibly modify permits, water quality standards (triennial review) or assess compliance with the ESA). This interval will also provide additional information to be used by the States and the Federal government to use in making timely regulatory decisions.*

The other strikeout is tied to changes to the Scientific Advisory Panel discussed below. These changes are consistent with the approach discussed in Subsection 5.5.

1.10 - Periodic Review

On or before the ~~tenth and twentieth anniversaries~~ fifth anniversary of the Effective Date and each subsequent 5-year period thereafter, the ACT Basin Commission, after receiving such reports and recommendations from the ACT Basin Committee and the Scientific Advisory Panel ~~on such matters as have been referred to them by the Commission~~, shall publish a report discussing the implementation and effectiveness of this Agreement. Such report shall be made available to the public. At a minimum, the ACT Basin Commission shall conduct at least one public hearing within each of the States of Alabama and Georgia, soliciting public comments on *each* report and this Agreement. Such public hearings shall be conducted by the ACT Basin Commission or its designated representatives. The ACT Basin Commission shall respond in writing to all

comments regarding ~~the~~ *each* report and shall publish a final report, which shall include the written response to all comments, within 120 days of the conclusion of the public hearings. ~~Thereafter, the~~ The Commission may publish additional reports and provide the public an opportunity to review and comment upon such reports.

2. *The non-voting members of the ACT Committee need to include additional Federal representation to insure that the Federal government can provide full and timely comments on issues raised. The second paragraph could be edited to allow the Federal Commissioner to appoint additional representatives as needed to address issues that are in front of the Committee.*

5.2– ACT Committee Structure

Upon the Effective Date, an ACT Committee shall be established in accordance with this subsection 5.2. The ACT Committee shall be composed of voting and non-voting members. The voting members shall consist of one member and one alternate member appointed by the Governor of the State of Alabama, and one member and one alternate member appointed by the Governor of the State of Georgia. Each State shall have one vote. All decisions and actions of the ACT Committee shall require unanimous approval. In a voting member's absence, the alternate member shall be considered the voting member for that State and shall cast the State's vote and shall otherwise exercise the same power and authority as the voting member representing that State.

The non-voting members shall include a representative of the USGS, a representative of the COE, a representative of the APCO, and ~~a representative~~ other representatives appointed by the Federal Commissioner. The ACT Committee may, by unanimous vote, select other Persons to meet with the ACT Committee from time to time or on a regular basis, but, the invitation to such Person shall not be intended as a recognition of any asserted interest of that Person and may be withdrawn at any time. No actions taken by the ACT Committee or its members shall be construed as actions of the ACT Basin Commission under the ACT Compact, except as expressly delegated to the ACT Committee by this Agreement or by future actions of the ACT Basin Commission.

The ACT Committee shall be chaired by the voting member representing the State whose Governor is then serving as the Chair of the ACT Basin Commission, and the term of the Chair of the ACT Committee shall correspond with the term of the Chair of the ACT Basin Commission.

3. *The drought plan is an integral part of the Compact and the allocation formula. The plan will clearly modify any allocation of water within the Allocation Agreement. It will have to be reviewed under NEPA, most likely as a supplement to the planned EIS for the Allocation Agreement. Under the proposed formula, the Federal Commissioner does not have a review or concur/non-concur role. The edits below acknowledge that the Drought Plan is a critical part of the Formula. They also reflect the record of the comments received during the drought plan as a deliverable to the Basin Commission.*

This will provide a clearer record of the Plan and allow the Federal Commissioner to complete a NEPA analysis and review of the plan in a timely manner.

B. Drought

1. Drought Plan

The ACT Committee shall, within two years of the Effective Date, develop and submit to the ACT Basin Commission for approval a Drought Plan for the ACT Basin including a record of comments received during the development of the Drought Plan. Upon approval, the Commission shall submit the Drought Plan to the Federal Commissioner for review and concurrence/non-concurrence consistent with the review criterion of the Water Compact (Article VII (a)). Until a Drought Plan has been approved by the ACT Basin Commission, with Federal Commissioner concurrence, and becomes effective, the Interim Drought Plan set forth in this Subsection ~~5-2~~ 5.3 shall apply.

The Drought Plan, which may incorporate all or part of the Interim Drought Plan, may include without limitation:

- Procedures for identifying the onset and progression of drought stages, using any appropriate combinations of Flow, rainfall, soil moisture, and Reservoir level indicators;
- A tiered process of notices and mitigating actions; ~~and~~
- Procedures for identifying the recession and termination of drought stages; and
- Procedures for protecting natural resources and public uses

4. *The Federal team agrees that providing an electronic data base for public access is the most efficient means to provide this information in a timely manner. However, the Federal team believes the data base should include all data obtained. Recognizing the inherent costs associated with this type of program, the Federal team has suggested a requirement to seek funding to support the monitoring program. A definition or explanation of “reasonable and practicable” as used in C.2. is needed to better understand the basis for not monitoring and reporting. As part of providing meaningful information to the Committee, the Commission, and the public, the Federal team has recommended sending the monitoring information to the SAP for the development of an annual monitoring report.*

C. Monitoring and Reporting

1. As of the Effective Date, the ACT Committee shall create an electronic database that shall be accessible by the public. The electronic database shall ~~may~~ include data obtained by the ACT Committee pursuant to Paragraph C.2 of this Subsection ~~5-2~~. 5.3.

2. As of the Effective Date, the ACT Committee shall use best efforts to secure funding from governmental or other sources of funding to carry out a program of monitoring

within the ACT Basin. To the extent reasonable and practicable, the ACT Committee shall monitor and report the following:

5. *There should be provisions for a comparison of withdrawals to the 2030 demand assumptions to track how consumption compares with the assumed withdrawals.*

C.2.f. Withdrawal and Return data obtained from each State.

Each State shall provide to the ACT Committee information regarding all Surface Water Withdrawals and Returns within the ACT Basin and all Interbasin Transfers from the ACT to another Basin in accordance with the following schedule, unless otherwise specified by the ACT Basin Commission:

- Quarterly reporting of all Withdrawals and Returns within, and Interbasin Transfers from, the ACT Basin that are equal to or greater than 20MGD and a comparison to the annual 2030 demand assumptions used in the modeling.
- Annual reporting of all other Withdrawals and Returns within the ACT Basin and Interbasin Transfers from the ACT Basin.

Additionally, each State shall provide to the ACT Commission the location (defined by latitude and longitude) of each Withdrawal and Return and shall update this information as necessary. In the event the ACT Basin Commission determines that drought conditions exist anywhere within the ACT Basin, the ACT Commission may require that the States provide the information described in this Paragraph C.2.f of this Subsection 5.3 on a more frequent basis.

6. *Clarifies where the data should be obtained.*

C.2.g. Available wildlife and biota data ~~that may will~~ be obtained from any qualified sources, including USFWS or ~~from any other Federal or State wildlife or environmental resource agencies, to provide information~~ build a database on species and habitats within the ACT Basin and establish long-term trend information on the natural resources of the system.

7. *Adds a data reporting requirement that must be done by the Scientific Advisory Panel and reported to the Committee, or by the Committee itself. This will allow all data collected to be readily available in a report format for Committee and public review. It also includes a public review and comment role for all reports generated by the Scientific Advisory Panel. The Federal team has also included an additional matter for review by the Scientific Advisory Panel. This last requirement tiers off of the data reporting requirement in C.2.g., expanding on the collection and analysis of wildlife and biota data to provide a basis for determining if ecological impacts are occurring as a result of the ACT formula implementation, thus allowing adaptive management.*

5.5 - Scientific Advisory Panel

A Scientific Advisory Panel shall be formed and shall consist of nine experts in the fields of hydrology, water quality, and biology. Three Panel members shall be experts in hydrology, three in water quality, and three in biology. Each member will serve a three-year term. The two Governors and the Federal Commissioner will each select three Panel members, one from each field of expertise. A Chairperson will be elected by the Panel members each year. Panel members will not be entitled to compensation by the ACT Basin Commission.

Within two years of the implementation date of the Compact, the Scientific Advisory Panel [or, alternatively, the Committee] shall develop and submit a report summarizing and including all data collected under subsection 5.3(C)(2). Subsequent to the initial report, annual reports shall be submitted to provide opportunity for review and consideration of data gathered since the previous report. The Scientific Advisory Panel shall review, consider, study, and make recommendations to the ACT Committee on such matters as are referred to the Scientific Advisory Panel by the ACT Basin Commission. Such matters may include:

- developing a list of ACT Basin performance indicators;
- reviewing monitoring data, reports, and status of ACT Basin performance indicators;
- recommending to the ACT Committee modifications to monitoring and reporting requirements; and
- preparing and submitting to the ACT Committee an annual report summarizing the foregoing.

The initial summary report of the Scientific Advisory Panel [or, alternatively, the Committee] shall synthesize Wildlife and Biota data collected under C.2.g above to determine if existing programs are sufficient to identify ecological impacts that result from implementation of the ACT Allocation Formula. If the Scientific Advisory Panel determines that existing monitoring programs are inadequate, the Scientific Advisory Panel shall develop a monitoring program in partnership with any State or Federal agency or any other public or private entity and submit this report to the ACT Basin Commission. All reports prepared by the Scientific Advisory Panel shall include the opportunity for public input. At least every 5 years, the Scientific Advisory Panel shall review the data collection efforts to assess the adequacy of the annual reports.