

# ENVIRONMENTAL IMPACT STATEMENTS WATER ALLOCATION FOR THE ALABAMA-COOSA-TALLAPOOSA (ACT) RIVER BASIN AND APALACHICOLA-CHATTAHOOCHEE-FLINT (ACF) RIVER BASIN

## BACKGROUND AND APPROACH FOR PREPARATION OF ENVIRONMENTAL IMPACT STATEMENTS: A PROGRAMMATIC EVALUATION APPROACH

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*REFERENCES:* *Proceedings of the 1999 Georgia Water Resources Conference*, held March 30-31, 1999, at The University of Georgia. Kathryn J. Hatcher, editor, Institute of Ecology, The University of Georgia, Athens, Georgia.

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**Abstract.** This paper describes the programmatic evaluation approach being used by a team of Federal agencies in preparation of environmental impact statements (EISs), which address the range of potential environmental and socio-economic impacts for the future allocation of water resources within the Alabama-Coosa-Tallapoosa (ACT) and Apalachicola-Chattahoochee-Flint (ACF) River Basins. The programmatic approach includes hydrologic modeling to produce a range of flow conditions, which are anticipated to bracket the range of flow conditions that would result from any allocation of water resources. The environmental impacts for the modeled range of flows are then presented in the EISs, which will form a basis for decisions by the Federal Commissioner to the River Basin Compact Commissions on whether to proceed with implementation of allocation formulas currently being negotiated by the States of Alabama, Florida and Georgia.

### INTRODUCTION

The National Environmental Policy Act (NEPA) requires all Federal agencies to conduct an environmental assessment to consider the environmental and socioeconomic impacts prior to a decision related to a major Federal action. A decision to implement an alternative allocation of water resources within the respective river basin could result in implementing actions with significant impacts on the environment or the regional economies. These environmental impact statements (EISs) will assist the Federal Commissioner to the ACT and ACF River Basin Compact Commissions in a decision on whether to concur or nonconcur with allocation formulas to be developed by the State

Commissioners. The EISs are being prepared by a team of cooperation Federal agencies, with the U.S. Army Corps of Engineers acting as the lead agency for preparation of the documents.

The ACT and ACF River Basin Compacts contain stringent legal requirements related to the Federal Commissioner's decision on the proposed allocation formulas. Language in the compacts clearly state that the development of the formulas will be undertaken by the State Commissioners (represented by the Governor of each State: Alabama and Georgia for the ACT Commission; and Alabama, Florida and Georgia for the ACF Commission.) The Federal Commissioner is a non-voting member of the Commission, but may attend all meetings, participate in negotiation discussions, and serve in an advisory role. Federal Commissioner must reach a decision on concurrence or non-concurrence with the formula within 255 days of agreement by the State Commissioners (if the Federal does not reach a concurrence or non-concurrence decision within this timeframe, the State-proposed allocation formula will go into effect and become binding on all parties). A Federal Commissioner decision to non-concur must be based on a conflict with Federal law. Once a formula is agreed to by the State Commissioners and concurred with by the Federal Commissioner, the Federal agencies must implement the formula to the maximum extent practicable, provided it does not conflict with Federal law. The Federal agency team is closely following the negotiations of the Compact Commissioners and prepared to provide technical expertise when needed. In addition, the States have been included in coordination related to development of the EISs, so that information on potential environmental and socioeconomic impacts can be shared.

## NEPA PROCESS AND SCHEDULE

NEPA guidance prescribes a well-defined process for conducting environmental assessments and providing adequate public review. The NEPA process normally takes a minimum of one year to complete, and often much longer. Due to the complexities related to evaluation of impacts within the large river basin areas, the mandatory coordination and public review requirements under NEPA, and the time constraints included in the Compacts, it was necessary to begin preparation and coordination of the EISs for the river basin allocations before the proposed allocation formulas were known. Data and modeling tools developed under the ACT and ACF Comprehensive Basin Study were used to the maximum extent possible. Scoping and agency coordination meetings began in the fall of 1997; agency efforts to collect additional data and develop additional modeling tools began at that time; and tools for keeping the public informed were developed in the form of an Allocation EIS Web Page and "Share the Water" newsletters. The original schedule was based on the target date for agreement by the States on an allocation formula by December 1998 (included in the Compact language). Draft EISs were published in October 1998 and a Final EIS was scheduled to be published by late spring of 1999, prior to the completion of the mandated 255 review period for the Federal Commissioner's decision.

## PROGRAMMATIC EVALUATION FRAMEWORK

Because the actual allocation formula was not yet known, the Draft EISs used a programmatic approach to assess a potential range of impacts. There could be many combinations of operations schemes within the complex basin that may result from any one allocation formula. The Draft EISs describe a range of alternative flow and reservoir elevation scenarios within which any number of proposed allocations would fall. The range of alternative flow scenarios was produced using hydrological models developed for the ACT and ACF River Basins under the Comprehensive Basin Study (HEC-5 model). The range of potential flow conditions are represented by a High Flow condition (which maximizes flows on the rivers during low flow periods by means of releases from upstream storage reservoirs); a Low Flow condition (which keeps reservoirs full and minimizes releases from the storage reservoirs to the downstream tailwater areas);

and a Moderate Flow condition (which results in releases and a flow condition mid-range between the High and Low flow conditions). Impacts of these flow conditions are evaluated for specific control points located throughout the basin. It is important to note that these alternative flow conditions do not represent any one operation scenario, but are used primarily to estimate the range of flow conditions that are possible, given the physical constraints of the storage reservoirs. Impact analyses are focused on water availability during low flow periods. Impacts of the alternative flow conditions are compared with the impacts of the "No Action" alternative flow condition, which closely approximates the continuation of the Existing Operations conditions. This range of flow conditions and identification of a range of impacts for the various flow conditions is meant to provide an evaluation framework, against which any future allocation formula can be measured. The range of flow conditions and associated impacts evaluated in the Draft EIS are therefore expected to bracket the flows associated with the negotiated allocation formulas.

Once an allocation formula is identified, it will be modeled using the hydrological and impact assessment models used in the programmatic evaluation framework. The resultant impacts can then be compared against the High, Moderate and Low Flow Scenarios and "No Action" Alternative impacts. The impacts of the negotiated allocation formula will then be presented in a Final EIS, which will provide a basis for the Federal Commissioner's decision.

## CURRENT STATUS

In December of 1998, the State Commissioner to both the ACT and ACF River Basin Commissions granted themselves an additional year (until December 1999) to complete the difficult negotiations to reach agreement on allocation formulas for the two basins. This extension has also resulted in an extension of the schedule for the EIS by approximately one year. The extension does not affect the 255 days within which the Federal Commissioner must reach his decision once the State Commissioner agrees on a proposed formula.

The Draft EISs were published and distributed to the public for review in October 1998. The original schedule provided for over 60 days of public review, extending through December 18, 1998. Once the State Commissioners agreed to an extension of the negotiation period, the public comment period was extended for more

than an additional 60 days, extending through February 26, 1999. Comments are currently being reviewed, and responses to all comments will be presented in the Final EISs. The Federal agency team is currently reviewing additional methods or refinement of impact assessment tools, which may be undertaken this spring or summer, pending identification of an allocation formula which will be presented and evaluated in the Final EISs. In the event an allocation formula is presented to the Federal Commissioner in December 1999, the revised schedule would result in publication of the Final EIS in the spring of 2000.

### IMPLEMENTATION PHASE

Federal agencies must still comply with Federal law in order to implement an agreed to allocation formula, and these implementation actions may take some time to complete. It is likely that additional NEPA evaluations (environmental assessments or supplemental EISs) would be required prior to implementation of the allocation formulas. These follow-on or tiered assessments would be prepared to describe in more detail the actual implementation actions. Follow-on implementation

actions could include: completion of studies for reallocation of water from Corps reservoirs, Section 216 studies for reauthorization of project purposes; development of mitigation plans required to compensate for induced impacts; revisions of water control plans for the various reservoirs; or changes to other Federal water resource management plans or programs. Such actions may be necessary prior to implementation of portions of a new allocation formula in order to comply with requirements of Federal law.

### REFERENCES

- U.S. Army Corps of Engineers (Corps). 1998a. Draft Environmental Impact Statement, Water Allocation for the Alabama-Coosa-Tallapoosa (ACT) River Basin. Main Report and Appendices. September 1998.
- U.S. Army Corps of Engineers (Corps). 1998b. Draft Environmental Impact Statement, Water Allocation for the Apalachicola-Chattahoochee-Flint (ACF) River Basin. Main Report and Appendices. September 1998.

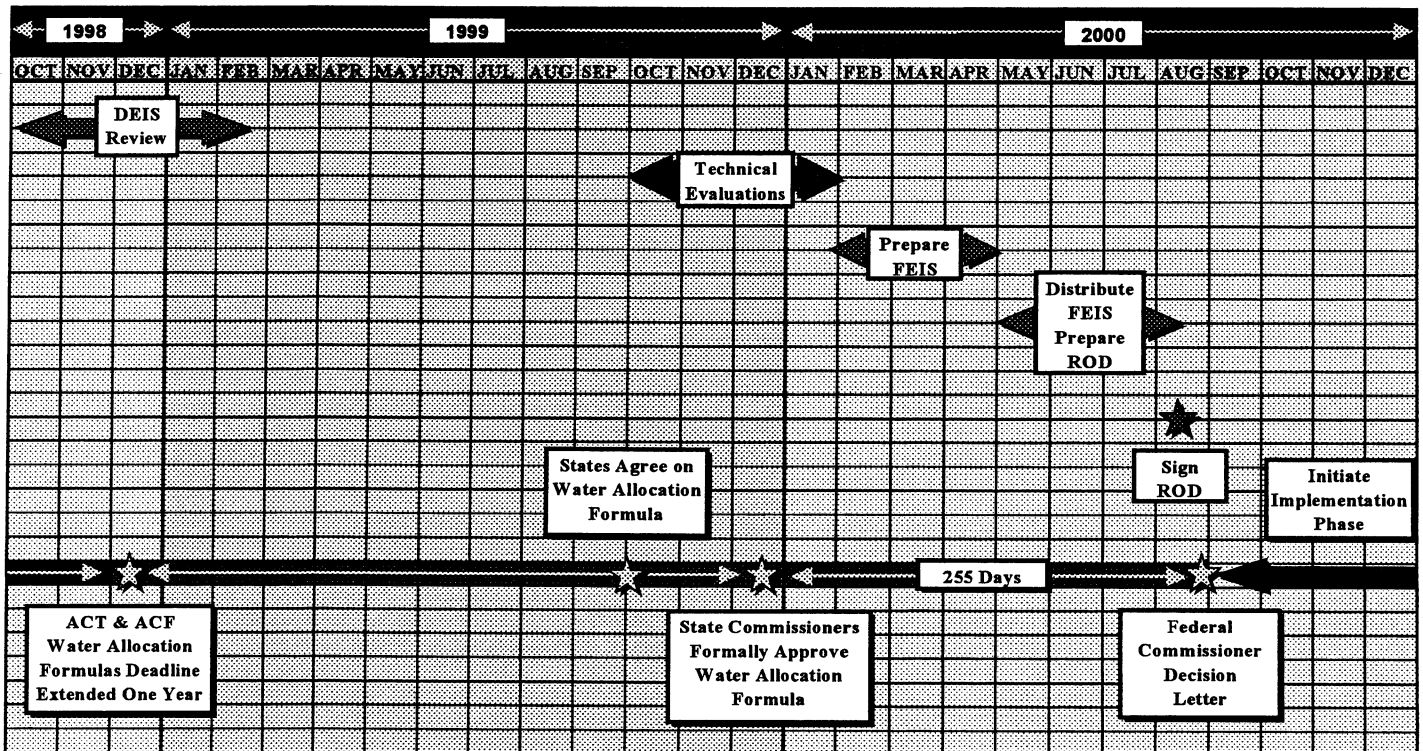


Figure 1. Current schedule for ACT and ACF Allocation Environmental Impact Statements.