

# CONSERVATION ADVOCACY IN THE APALACHICOLA-CHATTAHOOCHEE-FLINT (ACF) WATER ALLOCATION PROCESS

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**Abstract.** For the better part of a decade, the states of Georgia, Alabama, and Florida have disputed how to equitably apportion the waters of the Apalachicola-Chattahoochee-Flint (ACF) River Basin. The significant ecological implications of the ACF water allocation process have compelled the conservation community to advocate on this issue, despite its highly complex nature and lack of formal public leverage. In this paper, I trace the evolution of the conservation community's role in the interstate water allocation process, present recommendations intended to protect environmental quality in an ACF allocation agreement, and conclude with a discussion of lessons learned from this process.

## INTRODUCTION

Since the end of the Second World War, population growth, coupled with record droughts in the 1950s and 1980s, has dramatically altered the southeastern United States' perception of itself as a "water rich" region. Despite a 52" average annual precipitation rate, rapid increases in municipal, industrial, and agricultural water demand have placed unprecedented pressures on regional water resources. In the Apalachicola-Chattahoochee-Flint (ACF) River Basin, these pressures are at the root of a bitter conflict among the riparian states of Georgia, Alabama, and Florida. Known colloquially as the "Tristate Water Wars," the dispute began in 1990 when the State of Alabama and Florida sued to block reallocation of storage in federal reservoirs in the Georgia portion of the ACF and the Alabama-Coosa-Tallapoosa (ACT) River Basin to water supply for municipalities in metropolitan Atlanta. The suit was stayed in 1992 after the states and the U.S. Army Corps of Engineers agreed to conduct a comprehensive study of the Basin to develop the data necessary to create a basinwide management plan for the ACF. The study also fostered a mechanism by

which to resolve water allocation issues: the ACF River Basin Compact (Compact), which was adopted by the states and the federal government in 1997. A primary component of the Compact is a requirement for the states to establish an allocation formula to equitably apportion the surface waters of the ACF. Formal negotiation of the allocation formula began in June 1998 and after more than two years remain inconclusive. If the states fail to reach agreement on a formula, the Compacts will dissolve, and some type of litigation will likely ensue. At the center of this contest is nearly 20,000 square miles of river basin, the waters of which provide drinking water and assimilate wastewater for millions of people, generate hydropower, irrigate crops, and float barges. The ACF is also home to some of the most biodiverse freshwater ecosystems in North America, offers numerous recreational opportunities, and supports a highly productive commercial fishery.

## ENVIRONMENTAL CONCERNS

The states' prescription for how to divide the waters of the ACF holds significant implications for environmental quality in the Basin. Yet the ACF Compact contains but one slim reference to the impacts of apportionment on the natural environment. Article VII (a) of the Compact states that any allocation formula must be protective of the "water quality, ecology and biodiversity of the ACF," pursuant to applicable federal environmental statutes, such as the Endangered Species Act, the Clean Water Act, and the National Environmental Policy Act. If the states develop a formula inconsistent with any of these laws, the Federal Commissioner for the Compact, appointed by President Clinton in 1998 to represent federal interests in the allocation process, may render a decision of "nonconcurrence" following completion of an environmental impact statement. The Federal

Commissioner's declaration of a formula as invalid could, in turn, trigger a collapse of the process, dissolution of the Compact, and a potential resumption of litigation. The specific environmental aspects of the allocation fall into three general categories:

1. Water quality – Many surface waters in the ACF, particularly those reaches downstream of major urban centers such as Atlanta are impacted by both point source and non-point source pollution and are impaired for various parameters, such as dissolved oxygen, fecal coliform, and “legacy” contaminants, e.g., polychlorinated biphenyls and chlordane (Georgia Environmental Protection Division, 1998).
2. Biodiversity - The ACF River Basin is one the most biodiverse temperate freshwater ecosystems in North America. Despite impacts caused by habitat fragmentation, hydrologic regulation, the introduction of non-native species, and point and nonpoint source pollution, the aquatic communities (including many endemic species) that persist in these systems constitute a globally significant resource. The ACF Basin, for example, is home to 122 species of native fishes and 30 species of native crayfish (Mathews, 1999). A significant number of species in this Basin, ranging from bivalves such as the Shiny-rayed pocketbook (*Lampsilis subangulata*) to the Gulf sturgeon (*Acipenser oxyrinchus desotoi*) are listed by the Federal government as threatened or endangered (Ziewitz, *et al.*, 1997).
3. Recreation – The ACF has a number of important recreational resources such as the cold water fishery below Buford Dam (the southernmost extent of trout habitat east of the Mississippi River) and warm water sport fisheries at COE reservoirs in the middle and lower Chattahoochee River. These resources play an integral role in local and regional economies (U.S. Army Corps of Engineers, 1998).

#### EVOLUTION OF CONSERVATION ADVOCACY IN THE ALLOCATION PROCESS

Historically, the very nature of the ACF water allocations – a highly complex, time consuming process controlled by the states – has limited public participation. Further, the ACF Compact's public involvement requirements are minimal, and provide only for public access to meetings of the ACF

Commission (the administrative body governing the process) and an opportunity to review and comment on any final allocation agreement. While some of the states have convened stakeholder groups, such as the State of Georgia's Governor's Advisory Council on Tristate Water Issues, such bodies have had little, if any, real influence. Effectively, the public has been relegated to observer status in the process. Given the high ecological stakes of the ACF allocations and the basic fact that the resource in question is held in public trust by the states, this lack of formal public leverage in the allocation has long frustrated the conservation community. State assertions that a final allocation formula will comply with federal environmental laws have not assuaged this frustration, largely because the applicable statutes are “backstops” to be invoked only when a population has been so depleted that it requires federal action to ensure its very survival. The conservation community has increasingly viewed the allocation process as more than a simple apportionment, but rather a vehicle to restore and maintain ecological integrity in the ACF. To promote this perspective, and ensure that environmental concerns are considered in the allocation, Upper Chattahoochee Riverkeeper (Riverkeeper), a nonprofit advocacy organization based in Atlanta, in 1999 collaborated with the Southern Environmental Law Center and the Alabama Rivers Alliance to create the Tristate Conservation Coalition (Coalition). The Coalition, a network of nongovernmental conservation organizations with interests in the ACF and ACT Basins, has within eighteen months of its inception grown to include 37 local, statewide, and national organizations with diverse constituencies ranging from paddlers to anglers to home owners. The Coalition's ensuing campaign to promote water quality, biodiversity, and recreation interests in the allocation negotiations represents the first and only cohesive advocacy initiative associated with the ACF allocations to date.

#### CONSERVATION RECOMMENDATIONS

At the core of the Coalition's approach to the allocation are six basic principles, which have been translated in recommendations and presented to the states and the federal government:

##### **Natural Flow Regimes**

Maintenance of the ecological characteristics of the Basin is in large part dependent on flows that are

variable in terms of timing, frequency, magnitude, predictability, and rate-of-change (Poff, *et al.*, 1997). Divergence from the flow regimes to which natural systems in the Basin have adapted could adversely impact the biotic composition of the ACF. In addition to compromising ecological integrity, alteration of the natural flow regime could affect the economic viability of communities in the Basins that rely upon riverine resources, e.g., for water-dependent recreation or commercial fishing. To avoid degradation of riverine resources in the Basins, flows should conform to the instream flow guidelines recently developed by the U.S. Fish and Wildlife Service (FWS). These guidelines function essentially as performance measures for any allocation formula by quantitatively describing the parameters within which an ecologically protective flow regime will fall at various river reaches and at various temporal periods. Conversely, the guidelines illuminate those flows that will likely pose a threat to the ecological integrity of the ACF (U.S. Fish and Wildlife Service, 1999). This method offers a far more comprehensive approach to flow management than simply delivering a minimum flow at the downstream state line (as has been proposed by the State of Georgia). Consumptive demand limitations, where consumptive demands = withdrawals-returns, should also be specified in the allocation formula and combined with daily inflows to reservoirs, as well as downstream water quality requirements (e.g., 750 cfs minimum instantaneous flow at Peachtree Creek) to structure reservoir operations, i.e., releases. By specifying consumptive demand limitations in the allocation formula, and informing flow regimes with the FWS guidelines, it then becomes possible to develop reservoir operations that are protective of the natural flow regime and satisfy human water demands.

### **Adaptive Management**

The highly complex nature of the Basin, coupled with the uncertainties created by geographic trends (e.g., demographic and climatic change), necessitates an adaptive, iterative approach to basin management that will enable managers to react to fluctuations in the system. Specifically, adaptive management is needed to further assess the accuracy of the FWS guidelines, the effectiveness of reservoir operations, and the feasibility of additional water allocation for various human demands in the Basins. A 50-year management plan intended to provide certainty for instrumental purposes (e.g., development of water/wastewater infrastructure) does not allow for sufficient flexibility in responding to trends in the system. The ACF should be

managed using a phased process that includes ongoing analysis of relevant aspects of the systems (e.g., groundwater-surface water interactions in the lower portion of the Flint River Basin), and establishes an institutional mechanism to implement the allocation formula in twenty year increments, with specific performance measures and water demands corresponding to each phase. For example, if monitoring indicates that flows in the Basins do not violate the guidelines set forth in the FWS standards, and no negative impacts to water quality and/or biodiversity are apparent, the states would then be allocated additional water for human demand.

### **Water Conservation**

Pressure on the water resources of the ACF Basin will increase in the future due to growing demand for drinking water, assimilative capacity, and irrigation (U.S. Army Corps of Engineers, 1998). Opportunities for maximizing the potential of existing water resources must be fully explored before developing additional sources that have potentially harmful consequences for the natural environment (e.g., dam/reservoir projects, increased water withdrawals, interbasin transfers). Comprehensive, realistic and enforceable water conservation measures must be an integral component of each state's respective management responsibilities in the ACF. The success to which each state institutes aggressive water conservation measures should be a criterion on which allocation of additional water supplies is conditioned.

### **Interbasin Transfer Control**

Moving water between adjacent basins will likely become an increasingly attractive management option in the ACF (particularly in the sub basins) as concentrations of growth create a need for supplementary water supplies. No allocation formula that requires or encourages the interbasin transfer of water should be adopted for the ACF so as to discourage development that exceeds the carrying capacity of the regional resource base and presents an effective constraint to urban sprawl. This principle applies directly to the intent by the State of Georgia to divert up to 150 mgd from the ACT to the ACF in the metropolitan Atlanta region. Interbasin transfers should also not be permitted in order to avoid the potential migration of exotic species, translocation of pathogens, and detrimental changes in water chemistry (e.g., temperature, pH) and flow regimes, especially in the receiving basin. Alternately, technologies and practices that "stretch" existing water resources (e.g., potable

reuse, water conservation) should be considered and employed wherever possible to meet increased demands on waters in the Basin, especially in highly urbanized areas (e.g., metropolitan Atlanta).

### **Monitoring**

The ability to gauge and understand the physical impacts of the allocation formula on the Basin is critical for ensuring long-term viability of the resources in the ACF. Provisions for basin-wide monitoring plans for water quantity and quality, as well as the status of biotic assemblages must be explicitly described in any allocation formula for the Basin, and will require a dedicated source of funding from both Federal and state entities. Basin-wide monitoring in this context includes aspect and site-specific monitoring (e.g., dissolved oxygen concentrations in the Chattahoochee mainstem below the City of Atlanta)

### **Public Participation**

The public has entrusted the states, as well as the Federal government, with the management of resources in the ACF Basin. Therefore, any decision affecting the status of these resources, whether in the context of the allocation negotiations and/or the implementation of any subsequent agreement between the states and the Federal government, must provide for meaningful public participation as part of the decision making process. The states should establish working bodies that offer a real and substantive opportunity for interested parties to participate in the management of the Basin, as well as the power to approve or reject the Governor's choice of Alternate [state] Compact Commissioner. Additionally, Federal agencies should proactively make available to the public any information, including monitoring data, relevant to management of the Basins.

new dialogues, including those surrounding adaptive management, monitoring, and interbasin transfers, have emerged as a bi-product of the allocation. Lastly, public awareness of the significance and status of the natural resources of the ACF has been elevated to a new level, suggesting that the public will increasingly demand access to, and a voice in, key water management decisions.

### **LITERATURE CITED**

- Georgia Environmental Protection Division. 1998. Water Quality in Georgia. Atlanta, GA.
- Mathews, Ruth. 1999. Rationale for the natural flow regime in the Apalachicola-Chattahoochee-Flint River Basin. Final Report to the U.S. Fish Wildlife Service. The Nature Conservancy. Apalachicola, FL.
- Poff, N.L., J.D. Allan, M.B. Bain, J.R. Karr, K.L. Prestegard, B.D. Richter, R.E. Sparks and J.C. Stromberg. 1997. The natural flow regime: a paradigm for river conservation and restoration. *Bioscience* 47:11. 769-776.
- U.S. Army Corps of Engineers. 1998. Water Allocation for the Apalachicola-Chattahoochee Flint River Basin Draft Environmental Impact Statement, Main Report. Mobile, AL.
- U.S. Fish and Wildlife Service and U.S. Environmental Protection Agency. 1999. Instream Flow Guidelines for the ACF and ACT Basins Interstate Water Allocation Formula. Atlanta, GA.

### **LESSONS LEARNED**

At present, the final outcome of the ACF allocation negotiations is unclear. Regardless of that outcome, this process has provided the regional conservation community, water managers, and the general public with several invaluable lessons that if applied to future inter- or intrastate water allocation disputes, will expedite and enhance resolution of such disputes. Specifically, the allocation process has led to the development of new tools, such as the US FWS Instream Flow Guidelines mentioned above, for operationalizing natural flow regimes. Additionally,