

October 25, 2012

Mr. Lance LeFleur  
Alabama Department of Environmental Management  
Alabama Water Agencies Working Group  
P.O. Box 301463  
Montgomery, AL 36130-1463

Board of Trustees  
2011-2012

Officers  
Steven V. Graham  
Chairman  
James W. Hodo  
Vice-Chairman  
Richard D. Horsley  
Treasurer  
Elizabeth Downing  
Secretary  
Lynne Berry  
Past Chair

Trustees  
Stephanie Hill Alexander  
Shapard D. Ashley  
Charles Ball  
Ben T. Barnett  
Edward V. Colvin  
David H. Drenning  
Patricia G. Edington  
Ann D. Florie  
Art Forward  
James W. Gewin  
Braxton C. Goodrich  
Kathryn D. Harbert  
J. Milton Harris  
Walter A. Hill  
Richard D. Holland  
William R. Ireland, Jr.  
Cindy Martin  
D.D. Martin  
James "Jimbo" P. Meador, Sr.  
William W. Oppenheimer  
B. Greer Radcliff  
Beverly "Becky" H. Smith  
John E. Steiner  
William A. Terry  
Samuel E. Upchurch, Jr.  
Cameron McDonald Vowell  
James D. Wadsworth  
J. Carter Wells  
George E. Wilbanks

State Director  
Chris Oberholster

Re: AAWWG Report on Water Management Issues in Alabama

Dear Mr. LeFleur,

I would like to commend you on the Report on Water Management Issues in Alabama provided to Governor Bentley in August 2012. This concise, yet informative paper provides a comprehensive and thoughtful discussion on the state's water issues and a framework for the development of a statewide water management plan. Equally important is the recognition that legislation and regulatory policies will be required to adequately address these water-related issues which include Permitting, Economic Development, Surface Water and Groundwater Availability, Drought Planning, Water Conservation and Water Reuse, Interbasin Transfers, Instream Flows, Water Resources Data, and Education and Outreach. The consideration summaries for each of the Water Issue Areas, along with the respective list of potential 'Policy Options', provide a great first step to begin to address these priority issues.

The Nature Conservancy (TNC) has experience across the United States developing water management plans and policies and has the following comments on the plan to consider as this process moves forward:

- The report identifies both "Surface Water and Groundwater Availability" as an Issue Area, the data collection, modeling, considerations and policy options are excellent, but almost entirely focused on groundwater. Surface water elements need to be added, particularly approaches to: 1) account for current seasonal and annual water use within a GIS-based decision support system and 2) model surface water availability (i.e. unregulated flows) statewide on a daily or monthly basis. Ecological or instream flows are not mentioned in the findings on water availability and should be considered along with the other uses included. Modeling of unregulated surface water conditions for water management has been demonstrated in other states, including Pennsylvania, Massachusetts, North Carolina, Georgia and Michigan, and could be used to guide models for Alabama. TNC encourages AAWWG to glean information from these states and we are willing to assist as needed.

- The Instream Flows Resource Protection goal and the Policy Option to “adopt instream flows as a required component of any water allocation process” are well stated. The report incorporates good understanding of current environmental flow science, including protecting inter- and intra-annual flow regimes, and appropriate policy options are outlined. The actual commitment to determine the instream flows needs to be made and could be completed using the data available in-state and with the assistance of organizations like the Southern Instream Flow Network (SIFN) and at a scale that is meaningful for statewide water management. Implementation of these flows through a water allocation process, however, would likely require rigorous hydrologic modeling. This modeling should be identified in the report along with the funding source to assure this critical step is not missed.
- The Economic Development Issue Area seems to have an exclusive focus on new water supply infrastructure construction. This section includes several references to the potential value of “off-stream storage” for water supply needs. However, the stated goal is to “minimize impacts to major rivers and streams”. The term “off-stream storage” generally means putting dams and impoundments on smaller, sometimes pristine, rivers and streams. These rivers and streams can be important for recreation and hold much of the state’s freshwater biodiversity. Since these waterbodies could be irreparably harmed by construction of off-stream storage, any new dam or reservoir siting should be pursued through a science-based and transparent watershed approach.
- Water conservation is identified as a water management strategy, but it lacks a prominent place in the document. Water conservation and efficiency should be an integral, if not primary, component of the plan and policy development. It should not be a site-specific reaction to drought, but a consideration for all users, including economic development, water utilities and the public. Standards and incentives must be put into policy because voluntary participation will not likely yield adequate results, especially given the funding structure of public drinking water utilities that is noted in the report. Gleick et al found in 2003 that “the largest, least expensive and most environmentally sound source of water to meet California’s future needs is the water currently being wasted in every sector of our economy. Despite the progress California has already made in improving water efficiency, up to one-third of California’s current urban water use -- more than 2.3 million acre-feet -- can be saved using existing technology. And at least 85% of this savings (over 2 million acre-feet) can be saved at costs below what it will cost to tap into new sources of supply and without the social, environmental, and economic impacts that any major water project will bring.”<sup>1</sup> Alabama can, through this water management plan and supporting policies, proactively free up water for new uses through conservation, a better and cheaper alternative to other water management strategies, as well as begin researching the legal opportunities and constraints for water trading in Alabama.

---

<sup>1</sup> Gleick, P. H., D. Haasz, C. Henges-Jeck, V. Srinivasan, G. Wolff, K. K. Cushing, and A. Mann. 2003. Waste not, want not: the potential for urban water conservation in California. Pacific Institute, Oakland, Calif, 165 p. [http://www.pacinst.org/reports/urban\\_usage/](http://www.pacinst.org/reports/urban_usage/).

- The report clearly recognizes insufficiencies in its current management regime in the Enhanced Certificates of Use/Permitting Issue Area, especially that drought planning needs a statutory basis. The report connects land use with water availability, but needs to develop Policy Options to address this. The discussion in the Issue Area section provides an excellent explanation of the benefits of permitting water withdrawals, which could also incorporate the costs of inadequate water management in the Economic Development Issue Area for further justification.
- One addition to the report that may prove helpful is the inclusion of an Issue Area focused on decision-support tools for water management, and a review of tools used in other states. The addition of hydrologic modeling of surface and ground water as a necessary component of the plan will lay the foundation for the decision support system (DSS). The steps for developing a water management plan should include building a DSS that can integrate all the relevant information to support not just planning, but also the water allocation program.

This AWAAG report is an excellent start to the statewide water management plan and policy process. As a key stakeholder, the Conservancy is excited to provide assistance in any way we can to not only plan, but to assure the policies are developed to support implementation of the recommendations.

Sincerely,



Chris Oberholster  
State Director