

# ESSENTIAL ELEMENTS FOR AN EFFECTIVE GEORGIA WATER POLICY

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**Abstract.** The single most important issue for the State of Georgia in the 21<sup>st</sup> Century is how to manage the state's surface and ground water resources to satisfy the need for adequate supplies of clean water by the different, often competing, users. Georgia's water problems can be solved through public-private partnerships of government leaders, business leaders, professionals and the citizens of Georgia. Eight essential elements for effective Georgia water policy planning are discussed. Georgia must develop comprehensive water policy based on a combination of water science, water engineering, water technology, water law and water economics.

## INTRODUCTION

The goal of water policy, water planning and water management in Georgia should be to maintain and enhance the quality of life and livable communities for every Georgian. Quality of life requires a strong economy, good public health, good recreational opportunities; and well-managed natural resources. All of these depend on adequate supplies of clean water. Georgia needs a basic State Water Policy Plan that will permit the achievement of the objective of ensuring access to adequate supplies of clean water.

## GEORGIA'S CRITICAL SURFACE & GROUND WATER ISSUES: 2001

Georgia's surface and ground waters include 14 major river basins, 6 aquifers, as reservoirs, lakes, and wetlands. Each water source has unique challenges. In traveling throughout Georgia's four geographic regions as Governor Barnes' Water Policy Advisor and Water Policy Ambassador and holding almost 300 meetings with Georgia water stakeholders, the author identified a number of critical water issues and suggested solutions in Georgia. Four critical water issues are common to all of Georgia's four geographic regions, yet each of the regions has additional unique water issues that must be individually addressed.

The five policy water issues common to all Georgia's geographic regions are: (1) The goal of

Georgia water policy must be to assure adequate supplies of clean water are available to all Georgians; (2) Georgia water policy must recognize that wastewater management and water supply management are interrelated; (3) Georgia water policy must recognize that substantial vegetative riparian buffers offer an extremely cost-effective way to clean water and ameliorate the effects of flooding as well as provide wildlife habitat that are symptoms of the health of river systems; (4) In Georgia, a primary issue is interbasin transfer and the associated need for basin-of-origin protection; and (5) Georgia water conservation measures, through voluntary best management practices, must be practiced, with the burden equally shared by all. These five issues listed above are common to all of Georgia's four regions.

In North Georgia and, more pointedly, the greater Atlanta Metro Region, the critical water issues include: (1) water quality strategies that must consider non-point source pollution as well as point-source pollution, (2) the Tri-State Water Compact, (3) water scarcity, and (4) the loss of vegetated riparian buffers and groundcover.

In Southwest Georgia, stakeholders see a number of critical water issues. These include: (1) drought and flood management plans, (2) the legal status of groundwater withdrawal permits, (3) the need for irrigation efficiency research, (4) the Tri-State Water Compacts and (5) aquifer recharge area protection

In Southeast Georgia, at least five issues are specific to the region. These include: (1) the legal status of groundwater withdrawal permits, (2) the Savannah Harbor Deepening Project, (3) aquifer storage and recovery, (4) protection of the recharge areas for the Floridan Aquifer on the coast, and (5) saltwater intrusion into the aquifer.

In Middle Georgia, the most significant issue other than basin-of-origin protection is protection of aquifer recharge areas.

These are the water problems specific to each of Georgia's four regions. They illustrate the importance of water policy planning at the statewide and regional levels with equal attention given to each geographic region.

## EIGHT ESSENTIAL ELEMENTS FOR EFFECTIVE GEORGIA WATER POLICY

The solution to many, perhaps most, of Georgia's regional water issues is a state water policy framework that will require a change in the way Georgians and their governmental leaders think about water and its role in their quality of life. There are eight essential elements to effective Georgia water policy.

1. The first essential element to effective water policy planning is to *establish a philosophical foundation*. *Is Georgia water a public resource or is Georgia water a private resource?* A philosophical foundation for Georgia's water policy must be formulated. The philosophical question is how will this state and its people view the ownership of water. There are two choices: Is Georgia surface and groundwater water a marketable commodity? Or Is Georgia water a public trust, a public resource? Water markets would view Georgia's surface and ground water as a commodity, much like underground minerals, that can be bought and sold in bulk for profit in private transactions, in private in-state and out-of-state markets, simply by applying for Georgia water withdrawal permits. The other philosophical choice views water as an essential public resource that is essential to life itself. This choice is that water can be viewed as a public trust, managed by the State for the public good, for both the present and for future generations. The public trust for Water currently applies to Georgia's navigable rivers and tidal marshlands. The compelling question is ... what is the legal status of Georgia's groundwater aquifers? Will the public trust cover Georgia's underground aquifer water and support Georgia's economic growth, by protecting Georgia's water for use by Georgia business, industry, agriculture, counties and municipalities? Or will Georgia's waters be used to support the economic growth of other states or foreign countries, through sales by for-profit Water marketers who hold water withdrawal permits? This water sold in bulk could be pipelined to other states and/or shipped to foreign countries.

2. The second essential element of effective water policy planning is a to *establish a multi-disciplinary approach to water policy planning*. Water policy planning can be based on economic considerations alone or water policy can be based on multiple objectives. Effective water policy planning requires multidisciplinary planning with all disciplines included in the process. Clearly, effective water policy, planning and management must include the integration

of water science, water engineering and technology, and water law as well as water economics.

3. The third essential element of effective water policy planning is to *establish management by watershed*. Planning and management on a watershed or river basin basis, not solely according to artificial political boundaries, must be another foundation of Georgia's water policy. The reality of political boundaries and the desire for local control must be respected, but water planning and management by watershed is essential. Components of watershed planning and management should include three essentials. The first essential is maintaining hydrologic integrity within a regional framework. The second essential is developing multi-jurisdictional management structure that coordinates water planning and landuse planning. The third essential is the use of federal-state-regional-local partnerships as well as private-public partnerships.

4. The fourth essential element of effective water policy planning is the need for *establishment of a comprehensive Georgia water data base*. Sound water policy requires a statewide, centralized, coordinated and reliable comprehensive source for water-related data and current reliable information.

5. The fifth essential element of effective water policy planning is the *development of a Georgia state water plan*. This state water plan should have, at the very least, seven components. The Plan should include (a) coordinated regional planning, (b) comprehensive drought and flood management, (c) coordination of state and federal activities, (d) inter-regional, interbasin water transfer with basin-of-origin protection, (e) a review the existing water withdrawal permit system to better reflect Georgia's water needs, and (f) sufficient resources for its implementation.

6. The sixth essential element of effective water policy planning is *establishment of adequate financing*. Adequate financing of regional and local water plans is essential. As suggested by the Association of County Commissioners of Georgia and the Georgia Municipal Association, Georgia's water policy should include provisions for state grants, loans and permits that would provide substantive incentives for regional solutions. Federal assistance to water projects, especially through the Bureau of Land Management, has and still plays a pivotal role in economic progress in the West. At our stage in history, the eastern states must demand equal access to federal funding for water projects. Georgia should call upon its federal officeholders in the Senate and House to lead an initiative for fair-share funds for Georgia.

7. The seventh essential element of effective water policy planning is *implementation of Georgia's existing laws and regulations*. A careful review of the Official Code of Georgia will note that Georgia has existing, effective laws pertaining to water. The laws should be enforced and the agencies that enforce them must be given appropriate resources to do so. It should be no surprise that the Southwest Florida Water Management District, alone has more people than our entire Georgia Environmental Protection Division. Georgia's agencies need financial support adequate to the task.

8. The final essential element of effective water policy planning is *public education on Georgia's water issues*. The state must emphasize public education about the critical role of water in Georgia's prosperity. This education should include law and policy makers, the private sector and the public. Public education should be a clear communication of water policy, regulatory requirements, and other directives that are consistent, comprehensive, coordinated and adaptive.

#### GEORGIA WATER POLICY PLANNING IN THE YEARS 2001-2002

Georgia water policy planning should proceed keeping the following six precepts in mind. First, local, regional and state coordination in water policy planning is necessary to solve most of Georgia's water issues and should begin this year. Solutions to future predicted water quality and water quantity issues cannot be accomplished without comprehensive planning. Water science, water engineering and technology, water law and water economics should drive the planning.

Second, Georgia's planning solutions to water issues in each of Georgia's four major regions should begin immediately; coordination between geographic regions is essential. Water issues in each of Georgia's regions are, or will soon become, as critical as Metro Atlanta's water issues are now. Finding solutions to water issues in *all* of Georgia's regions must begin now before they become critical.

Third, Georgia's water policy planning formulation should utilize Georgia's own governmental, academic, organizational and private sector expertise. Research in water policy at institutions within Georgia's public universities provides the academic resources and expertise necessary for development of a cost-effective Georgia water policy. Georgia needs to utilize its own experts

before reaching out to experts from other states. At least five universities in Georgia are involved in research of water issues. A number of private Georgia organizations offer expert knowledge of water resources as well.

At least 10 separate water policy planning initiatives are on-going in Georgia. They range from the Clean Water Initiative of the Metro Atlanta Chamber of Commerce that focuses on wastewater and non-point source pollution in Metro Atlanta, to the initiative of the Association of County Commissioners of Georgia (ACCG) and the Georgia Municipal Association (GMA) concerned with comprehensive, statewide water policy. At least nine other initiatives, with various regional or statewide focuses, exist in Georgia. Other water policy initiatives in specific areas exist in local governments such as the Griffin Stormwater Utility.

Fourth, Georgia's water policy planning should begin utilizing the experience and data from federal agencies to supplement Georgia's own water-related sources of water expertise. These include the U.S. Fish and Wildlife Service, the Environmental Protection Agency, and the Corps of Engineers.

Fifth, Georgia's water policy formulation should include a review of the experiences of other U.S. states to supplement Georgia's own water-related expertise. Examples include the states of Oregon, Washington and New Jersey that have state-funded Watershed Protection Councils. Arizona provides a model for a Comprehensive State Water Plan as well as for a plan to respond to water scarcity. South Carolina provides lessons learned concerning containing animal waste through the use of voluntary Best Management Practices. Pennsylvania, Maryland, Virginia, the District of Columbia and the U.S. Environmental Protection Agency have joined together in the Chesapeake Bay Initiative that has resulted in effective abatement of nitrates and phosphorous utilizing Best Management Practices and Vegetated Riparian Buffers.

Lastly, Georgia's water policy planning should begin utilizing the experience and data from other nations that offer profound lessons on effective water policy. A prime example is Israel and its water saving methodologies.

#### CONCLUSION

Georgia water policy planning depends on a commitment and a partnership. For effective water policy planning, the state needs a governmental commitment to water policy planning that equals the state's commitment to transportation, healthcare, and

education. Georgia built a comprehensive air and ground transportation system, a healthcare system and education system. Surely Georgia can make an equal commitment to comprehensive water policy planning.

As professionals, we know what the problems are. We know the solutions to the problems. We know how to plan for the future. Only one question remains. Does this state have the political will to do what must be done?

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