



GEORGIA'S WATER CHALLENGE 2010

**A Mid-Year Status Report
and
Update on Georgia Chamber Activities**

GEORGIA'S WATER CHALLENGE 2010

A message from Governor Sonny Perdue



Recently, it was my pleasure to join Lt. Governor Cagle, Speaker Ralston, Senator Ross Tolleson, and Representative Lynn Smith along with Water Contingency Planning Task Force Co-Chairs Tim Lowe and John Brock for a signing ceremony for Senate Bill 370 – the Water Stewardship Act of 2010.

Because of the outstanding work and cooperative efforts of so many folks including the Task Force, key environmental groups, the business, agricultural and conservation community, hard-working legislators, and the finest example of give-and-take coordination on a very tough issue, I consider passage and signing of this legislation to be truly momentous.

The Water Stewardship Act is the next step forward as we continue building a statewide culture of conservation. This legislation helps secure our water supplies by preparing for future growth, protecting our water-sensitive industries, and equipping us to navigate future droughts that are sure to come.

The legislation includes incentives for increasing water stewardship and new conservation requirements such as the requirement that efficient water fixtures be installed in all new residential and commercial construction statewide beginning in July 2012. It also includes sub-metering for all new residential and commercial multi-unit projects so that each unit will have incentive to practice conservation measures.

I want to give a special word of thanks to Georgia's Regional Water Councils for their special involvement in this process. From the very beginning of this effort our goal was not to pre-empt in any way the work of the councils. Rather, it is our hope that with the passage of this legislation the Regional Water Councils will press onward with even more determination to fulfill their mission.

On behalf of the legislative leadership, hundreds of involved individuals, organizations, conservationists, environmentalists, business leaders, farmers and just plain, ordinary citizens who support water stewardship, I express thanks for a job extremely well done.

Sincerely,

Sonny Perdue
Governor

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A message from Suzanne Sitherwood, 2010 Chair Georgia Chamber



While the drought may have broken across all of Georgia, our state's water challenges remain a key priority for the Georgia Chamber.

Aside from the state budget, water was no question the most talked-about issue going into this year's legislative session. The Georgia Chamber applauded the General Assembly's quick passage of the Water Stewardship Act of 2010 and the timely signing by Governor Perdue.

The Water Stewardship Act incorporates many of the recommendations made by the Governor's Water Contingency Planning Task Force and institutes measures to conserve, capture and control this precious resource. It will enhance the work of the Regional Water Councils and will help to ensure the state's water needs are met long into the future. In summary, it recognizes the imperative to create a 'culture of conservation' across all of Georgia.

The Georgia Chamber, through its Environment and Energy Committee, continues to actively participate in numerous water planning activities and hopes to play an active and supportive role in identifying solutions to Georgia's water challenge.

As the final report of the Governor's Task Force revealed, there are few quick fixes and no cheap solutions to the myriad challenges we face. This makes the role that the state's ten Regional Water Planning Councils and the Metropolitan North Georgia Water Planning District will play in evaluating and recommending a suite of regional solutions even more critical for our future.

The Georgia Chamber recognized at the outset the importance of ensuring that experienced business leaders were selected to participate on each of the Regional Councils. This was vital to achieve balanced outcomes that are the best economic, social and environmental solutions to local challenges. We are confident that the involvement of these business leaders will help their local Regional Councils achieve this goal.

Between now and the end of 2010 there is much work to do to assess and apply where relevant the initiatives outlined in the *Water Stewardship Act of 2010*, the recommendations outlined in the Task Force's final report, the data contained in the various water resource assessments, and the statewide population projections.

We hope that the information provided in this document will be a valuable resource as you continue your efforts and that you will let us know what our organization can do to further assist with this effort.

I applaud your ongoing service and commitment to the valuable processes you are undertaking and reiterate the Chamber's support for your activities.

Sincerely,

Suzanne Sitherwood

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Where We Stand Today

The past 12 to 18 months have seen an extraordinary amount of water planning activity around the state, including:

- final passage of the Comprehensive Statewide Water Management Plan
- publication of the first Water Conservation Implementation Plan and a subsequent revision
- continuation of the Regional Water Planning Council's planning activities
- critical assessments finalized for surface water, ground water, surface water quality, and statewide population projections
- Judge Magnuson's ruling that from July 17, 2012, Georgia will longer be able to rely on the waters of Lake Lanier for water supply purposes
- Governor Perdue's implementation of a four prong strategy in response to the ruling that focused on:
 - ♦ prioritizing negotiations with Florida and Alabama;
 - ♦ seeking Congressional support to amend the purposes of Lake Lanier to include water supply;
 - ♦ preparing an appeal; and,
 - ♦ establishing a Water Contingency Planning Task Force to identify and evaluate options to mitigate the Judge's ruling.
- presentation of the recommendations of the Governor's Water Contingency Planning Task Force in December 2009
- passage of the Governor's Water Stewardship Bill in January 2010

Each of the initiatives outlined above underscore the importance of innovative water resource management and coordination across the entire state of Georgia.

The unpredictable nature of the planning process was also on display during this time as both droughts and flooding rains confronted many areas of Georgia including the prolonged drought of 2007-09, which ultimately culminated in the adoption of the Comprehensive Statewide Water Management Plan.

The implementation of this long-term plan had barely commenced when Judge Magnuson's ruling created a serious short-term challenge that required and will continue to need considerable attention from all

involved in water resource management across the state.

While the Judge's ruling will primarily impact the Metropolitan North Georgia Water Planning District, the economic and social fallout will be felt statewide if the ruling is upheld.

The recommendations made by the Governor's Water Contingency Task Force, together with other initiatives reflected in the *Water Stewardship Act of 2010* will generate much activity in the coming months.

Work to be undertaken by the state agencies with leading responsibility will complement the efforts of the Regional Water Planning Councils and other organizations involved in the water resource sector across Georgia.

The Georgia Chamber has been an active participant in the development of water policy and program recommendations in the past and will continue to provide leadership on behalf of its business membership.

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Overview of the Water Stewardship Act 2010

Purpose of the Act:

To enable Georgia to proceed in a culture of conservation designed to address the long-term water needs of its citizens and to provide the framework for the conservation, capture and control of this precious resource.

To ensure that Georgia continues to manage its water resources in a sustainable manner to support the state's economy, protect public health and natural systems, and enhance the quality of life for all citizens.

Key Features of the Act:

- promotes a state-wide culture of water conservation.
- directs state agencies to work together to develop programs for water conservation and water supply.
- establishes a number of reporting and action deadlines for agencies including:
 - ♦ on or before July 1, 2010, report, at a minimum, the programmatic changes and proposed changes being implemented to encourage water conservation and to enhance the state's water supply
 - ♦ on or before August 1, 2010, various state agencies shall examine their practices, programs, policies, rules, and regulations to identify opportunities to provide enhanced programming and incentives for voluntary water conservation
 - ♦ on or before January 1 of 2011, 2012, 2013, 2014, and 2015, submit a report to the General Assembly on the programmatic changes encouraging water conservation and to enhance the state's water supply that were implemented during the immediately preceding calendar year, outlining the agency's goals for the next calendar year, and identifying the rules, regulations, and policies that were adopted to support those programmatic changes
 - ♦ a January 1, 2011, deadline and a mandate to the DNR Board to adopt rules governing minimum standards and best practices for public water systems to improve water conservation, focusing on water loss detection and audit best practices
 - ♦ a January 1, 2012, deadline by which time all public water systems serving 10,000 or more customers shall conduct water loss audits. All other public water systems must meet a deadline of January 1, 2013.
 - ♦ installation of high-efficiency plumbing fixtures in all new construction permitted on or after July

1, 2012. Those fixtures include shower heads, faucets, and 1.28 gallons-per-flush toilets.

- outlines how local governments or political authorities may impose more stringent restrictions on outdoor watering during non-drought or state declared periods than those imposed by the state.
- establishes the time period of 4 p.m.-10:00 a.m. as the hours during which outdoor watering is permitted.
- requires local governments to adopt ordinances implementing the outdoor watering hours by January 1, 2011.
- addresses withdrawal, diversion or impoundment of surface water and groundwater withdrawal permits for agriculture, and creates 3 categories of permits – active, inactive and unused.
- outlines when and how owners and operators of new multi-unit residential, retail and light industrial properties permitted or constructed on or after July 1, 2012, can determine water usage and seek reimbursement from tenants.
- includes a limitation of liability for owners or operators when billing or meter-reading errors result from an unaffiliated third-party billing or meter-reading companies.
- requires high efficiency cooling devices in industrial buildings newly constructed after July 1, 2012.
- creates the Joint Committee on Water Supply to conduct a comprehensive analysis of the state's strategic needs for additional water supply and the status of current and future supply needs, including water reservoirs and other opportunities for water supply enhancement. This analysis is to be completed no later than December 31, 2010.

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Overview of the Water Stewardship Act 2010 (cont.)

Opportunities for Water Conservation:

The Act identifies: Georgia Department of Natural Resources and Environmental Protection Division, the Georgia Environmental Facilities Authority, the Georgia Department of Community Affairs, the Georgia Forestry Commission, the Georgia Department of Community Health (including the Division of Public Health), the Georgia Department of Agriculture, and the Georgia Soil and Water Conservation Commission as the state agencies with leading roles in the implementation of the Act.

Section 2 of the Act states that these agencies shall, by August 1, 2010, without limitation, identify and provide for rules, regulations, incentives, or opportunities to:

- (1) include water conservation measures in the comprehensive plans submitted to the Department of Community Affairs by local governments;
- (2) provide technical assistance to local governments and public water systems for water loss abatement activities;
- (3) support state-wide water campaigns and public outreach programs, such as Conserve Georgia and WaterFirst programs;
- (4) encourage residential and commercial retrofits for water efficient fixtures and equipment;
- (5) encourage residential and commercial retrofits for water efficient landscaping irrigation systems;
- (6) encourage the installation of landscapes in commercial and residential settings utilizing best management practices such as soil preparation, plant selection, and water use efficiency;
- (7) encourage the use of rain water and gray water, where appropriate, in lieu of potable water;
- (8) encourage the installation of submeters on existing nonsubmetered multifamily complexes and multiunit commercial and industrial complexes;
- (9) encourage public water systems to develop and improve water loss abatement programs;
- (10) encourage public water systems to implement the industry's best management practices for controlling water loss and achieve the recommended standards;
- (11) provide incentives for residential and commercial water conservation pricing by public water systems;
- (12) provide incentives for public water systems to use full cost accounting;
- (13) encourage voluntary inclusion of water conservation guidelines in applications for new ground-water withdrawal permits and surface-water withdrawal permits; and
- (14) examine the effect that water conservation has on water rates and consider policies to mitigate the

financial impact that rate increases or reductions in water use have on water utilities and water users.

Outdoor Watering Restrictions

Outdoor watering restrictions shall not create any limitation upon the following outdoor water uses:

1. commercial agricultural operations as defined in Code Section 1-3-3;
2. capture and reuse of cooling system condensate or storm water in compliance with applicable local ordinances and state guidelines;
3. reuse of gray water in compliance with Code Section 31-3-5.2 and applicable local board of health regulations adopted pursuant thereto;
4. use of reclaimed waste water by a designated user from a system permitted by the Environmental Protection Division of the department to provide reclaimed waste water;
5. irrigation of personal food gardens;
6. irrigation of new and replanted plant, seed, or turf in landscapes, golf courses, or sports turf fields during installation and for a period of 30 days immediately following the date of installation;
7. drip irrigation or irrigation using soaker hoses;
8. hand watering with a hose with automatic cutoff or handheld container;
9. use of water withdrawn from private water wells or surface water by an owner or operator of property if such well or surface water is on said property;
10. irrigation of horticultural crops held for sale, resale, or installation;
11. irrigation of athletic fields, golf courses, or public turf grass recreational areas;
12. installation, maintenance, or calibration of irrigation systems; or
13. hydroseeding.

Best Practices and Minimum Standards for Public Water Systems

The best practices program shall include without limitation:

1. the establishment of an infrastructure leakage index;
2. the establishment of categories of public water systems based on geographical size and service population;
3. a phased-in approach requiring public water systems to conduct standardized annual water loss audits according to the International Water Association water audit method/standard and to submit those audits to the division;
4. a phased-in approach requiring public water systems to implement water loss detection programs; and
5. the development of a technical assistance program to provide guidance to public water systems for water loss detection programs, to include without limitation metering techniques, utilization of portable and permanent water loss detection devices, and funding when available.

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Additional Legislative Action in 2010

SB 380 - Water System Interconnection, Redundancy, and Reliability Act

This Act, which the Governor has signed into law, requires that:

1. by September 1, 2010, the Georgia Environmental Facilities Authority (GEFA) issue a request for proposal for an engineering study to develop a district-wide emergency plan covering every qualified system that identifies interconnections and redundancies so as to achieve district-wide interconnection within the Metropolitan North Georgia Water Planning District.

This study is to identify sufficient emergency water supply sources and detailed steps required to modify a qualified system's operations to accept or share water with adjacent water providers within the district during emergencies to supply essential water needs.

The emergency plan should evaluate risks and, where feasible, plan for a district-wide interconnection reliability target for immediate implementation of approximately 35 percent of the annual average daily demand and a long-range district-wide interconnection reliability planning goal of approximately 65 percent of the annual average daily demand.

GEFA is required to ensure completion of the emergency plan not later than September 1, 2011

2. GEFA's water supply division may make loans and grants to a local government to pay all or any part of the cost of expanding and increasing the capacity of existing reservoirs.

The criteria used in consideration for requests for assistance shall include, but not be limited to:

- (1) the effect of recurring drought on the region;
- (2) interconnectivity of the requesting entity's water supply system with one or more surrounding local governments; and
- (3) unique regional conditions.

HB 406 - Water Service Delivery Strategies

This Act amends Code Section 36-70-27 of the Official Code of Georgia Annotated, relating to limitation of funding for projects inconsistent with service delivery strategies, so as to provide an exception for certain drinking water projects. Actions and timelines associated with this Act are specific to Fannin County.

Code Section 36-70-27 is amended to not apply to any drinking water project of the Georgia Environmental Facilities Authority or of any local government or authority if such project is a proposed drinking water supply reservoir or any water withdrawal, treatment, distribution, or other potable water facility associated with such reservoir and the project shall furnish potable water to wholesale users in incorporated areas in one or more counties.

SB 462 - River Basin Protection Act

While this Act did not pass the General Assembly, it did garner significant support and generate a lot of vigorous debate and discussion.

The purpose of the Act was stated as: *Georgia's river systems and aquifers support communities, local and regional economies, and diverse ecosystems. Maintaining natural flows throughout Georgia to the maximum extent practicable, while ensuring a safe yield is essential for the overall health of its water resources and the economies that depend on them. The Act proposed that the policy of the State of Georgia should approximate natural flow levels and rates in all waters of the state to the maximum extent practicable, to protect against over-allocations and under-allocations of water in all river systems and aquifers or portions thereof in the state to the maximum extent practicable, and to minimize consumptive uses of water to the maximum extent practicable.*

A clear intent of the Act was to introduce more stringent requirements for new and existing interbasin transfers and any modifications or renewals of existing water withdrawal or discharge permits that include an interbasin transfer.

The introduction of the Act illustrates that the issue of interbasin transfers, both existing and proposed will continue to generate much debate and discussion. It is an issue that Regional Water Councils will need to be cognizant of as Regional Water Development and Conservation Plans are developed.

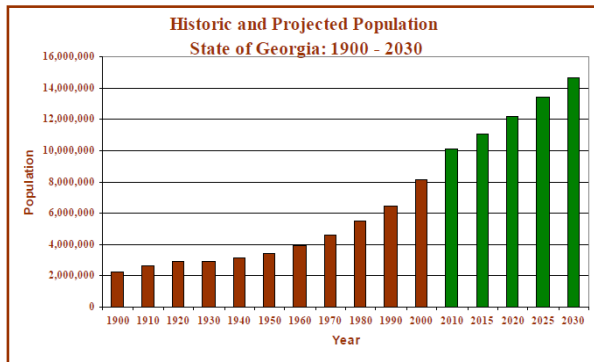
SB 321 - Public Water Supply-Private Initiative Act

While it failed to pass, this Act proposed that GEFA or any county, municipality, or local water authority could enter into a reservoir use or water supply agreement with the owner of any private water facility.

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Facts & Figures

Table 2. Georgia's Population Growth 1900- 2030



Source: *Georgia 2030, Population Projections*, Georgia Office of Planning & Budget, March 12, 2010

When County-by-County projections are reviewed, the Atlanta metropolitan area is forecast to remain the most densely populated portion of the state; with two out of five (43%) Georgians projected to be living in the ten county Atlanta Regional Commission area by 2030.

While Atlanta may lead future new development, however, all of Georgia has and continues to contribute to and benefit from the metro region's growth.

Many of Georgia's detractors malign this growth and it will be necessary to address these sentiments to move forward with lasting solutions to our current water management challenges.

One of the key ingredients to growth has been Georgia's natural resources, including access to water. Not only is water an essential requirement for many urban businesses, it is also the lifeblood of our agricultural communities.

Georgia has always vigorously defended its access to and management of water resources including through numerous legal challenges and appeals to actions taken by both Florida and Alabama and various environmental groups, as well as management and operational decisions implemented or proposed by the U.S. Army Corps of Engineers.

Recognizing the imperative for proactive leadership, Georgia embarked on a statewide water planning process in 2003 to address the sustainability of water sources, both surface and groundwater and review the uses and reuses of these resources.

This planning process resulted in the adoption by the Georgia's General Assembly, in January 2008, of the state's first Comprehensive Statewide Water Management Plan. Implementation to date has included:

- drafting of the Water Conservation Implementation Plan;
- establishment of ten Regional Water Planning Councils; and
- commissioning of statewide resource and population assessments.

These planning and management initiatives are far more extensive than those implemented by neighboring states and are an essential feature of Georgia's integrated water planning processes.

Judge Magnuson's ruling contains a detailed review of the historical context for the construction of Buford Dam and the creation of Lake Lanier as well as the U.S. Army Corps of Engineers subsequent management.

Congress authorized the U. S. Army Corps of Engineers to begin construction of a dam and reservoir on the Chattahoochee River north of Atlanta in the *Rivers and Harbors Acts of 1945 and 1946* (RHA). Construction on the project finished in approximately 1960.

The RHA detailed the authorized purposes of Lake Lanier as generation of hydro-power, flood mitigation and navigation.

The original cost of the "Buford project" was \$43,601,500. With allocation to the authorized purposes as follows:

Authorized Purpose	Allocation of Construction Costs	
▪ navigation	\$1,518,200	3.48%
▪ flood control	\$3,402,600	7.80%
▪ hydro power	\$38,680,100	88.71%
Total	\$43,601,500	

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Facts & Figures

Other key facts in the Ruling include:

Authorized Base of Operations of Buford Dam:

- 600 cfs¹ of flow past Atlanta

Authorized Lake Lanier withdrawals:

- Buford: 2 mgd²
- Gainesville: 8 mgd

Use of the Chattahoochee River

1975 withdrawals allowed Atlanta an average annual downstream withdrawal of 230 million gallons per day.

In 1979 this was increased to an annual average of 266 million gallons per day from flows that occur incidentally as a result of project operations.

In 1986, the Corps revised this number to the 327 mgd figure it uses today.

The Chattahoochee River below Lake Lanier and Buford Dam is used to supply more municipal water than any body of water in metro Atlanta.

Permits allow for withdrawals from both the Chattahoochee River and Lake Lanier itself. Lake Allatoona and the Etowah River also contribute to the region's water supply.

Other municipalities withdrawing from Lake Lanier, totaling 182 million gallons per day, include:

- Gwinnett County Public Utilities
- the City of Cumming
- Forsyth County Water Resources

Buford and Gainesville are also permitted to withdraw from Lake Lanier. These two withdrawals are authorized by Congress and are not under threat by Judge Magnuson's ruling.

Construction Costs of Buford Dam:

Atlanta did not contribute to the construction cost of the Buford Dam.

Size of Lake Lanier

The total storage of the Lake Lanier reservoir is 2,554,000 acre-feet.

Water usage numbers

Metro Atlanta water use from the Chattahoochee River has grown over time:

1960	117 mgd
1968	160 mgd
2009	370 mgd (maximum monthly withdrawal since 2000)

Water Supply & Demand Projections

Metropolitan North Georgia Water Planning District (MNGWPD) projections, presented in the *Water Supply and Water Conservation Management Plan* (May 2009), reveal the current permitted water supply at almost 888 average annual day-million gallons per day (AAD-MGD).

Table 4. MNGWPD Available Water Supply by Basin

Percent Permitted Monthly Available Water Supply	
CHATTAHOOCHEE	72.6%
COOSA	14.0%
FLINT	5.0%
OCMULGEE	8.1%
OCONEE	0.2%
TALLAPOOSA	0.1%

Source: MNGWPD, *Water Supply and Water Conservation Management Plan, Table ES-1, May 2009*

Growth projections to 2035 indicate that the anticipated permitted water supply need will be 1,140 AAD-MGD, a shortfall of 252 AAD-MGD from the current level of 888 AAD-MGD.

¹ (cfs) Cubic feet per second

² (mgd) Million gallon per day

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Next Steps for the Georgia Chamber of Commerce

Judge Magnuson has given the states three years to either resolve the issues outlined in his ruling or achieve Congressional approval for a change of purpose for the use of Lake Lanier to include water supply. **This deadline expires on July 17, 2012.**

This is a short time frame considering the:

- past history of negotiations between the states
- complexity and tensions associated with the range of issues to be resolved
- timetables and processes involved in obtaining Congressional approval
- the fact that 2010 will see the completion of the terms for all three Governors who are leading the negotiations
- the fact that construction of any significant new or expanded storage will not be possible within that window of time

Over the weeks and months ahead, a number of actions will be taken including:

- continued negotiations between the Governors of Georgia, Alabama and Florida
- an appeal by the state of Georgia to aspects of Judge Magnuson's ruling
- discussions with Georgia's Congressional Delegation to develop strategies to add water supply to the list of authorized purposes for the waters of Lake Lanier

The Georgia Chamber will be providing input on behalf of its statewide business membership, ensuring that business interests, concerns and priorities are reflected in any final agreements reached.

The Chamber supports the strategy of simultaneously pursuing multiple responses to Judge Magnuson's ruling as well as the continued implementation of the Comprehensive Statewide Water Plan and the *Water Stewardship Act of 2010*. This will maximize both time and available resources.

The Chamber's engagement will be led through its Environment and Energy Policy Committee. This Committee will review all options that may contribute to finding lasting, equitable solutions to the sharing of the waters of Lake Lanier, the ACF and other relevant watersheds, and that provide certainty and security, not only for existing users

and uses, but for anticipated future growth requirements.

Issues that the Georgia Chamber will continue to review include but are not limited to:

- sustainable yield assessments for the ACF/ACT watersheds
- data collection and management
- existing users and uses, across all three states
- consumption and conservation options
- pricing and charging regimes
- investment priorities and sources of funds, including consideration of public/private partnerships
- permitting and property rights
- aquifer storage and recharge
- construction of new reservoirs
- expansion of existing storages
- recycling and reuse of water
- desalination
- land planning and business development processes
- environmental values across the watersheds
- the role of inter-basin transfers
- new sources of water supplies such as the Tennessee River

Almost all of these issues have been previously considered, either during the development of the statewide water plan or during the various planning processes of the Metropolitan North Georgia Water Planning District or the Governor's Water Contingency Planning Taskforce. That said, the Chamber believes all must be critically reviewed to ensure that all previous considerations have delivered the most appropriate outcome when placed against the scope of the challenge presented by Judge Magnuson's ruling.