

# Encouraging Voluntary Water Conservation and Enhancing the State's Water Supply

## Annual Report on State Agency Activities December 2010

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Environmental Protection Division  
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Georgia Department of Community Affairs

Georgia Forestry Commission

Georgia Department of Community Health  
Division of Public Health

Georgia Department of Agriculture

Georgia Soil & Water Conservation Commission

## Table of Contents

<b>OVERVIEW</b>	<b>3</b>
<b>2010 ACTIVITIES</b>	<b>7</b>
ENCOURAGING WATER CONSERVATION	
ENHANCING WATER SUPPLY	
<b>2011 GOALS</b>	<b>9</b>
ENCOURAGING WATER CONSERVATION	
ENHANCING WATER SUPPLY	

## List of Acronyms

DNR	Department of Natural Resources
EPD	Environmental Protection Division
Parks	Parks, Recreation and Historic Sites Division
SD	Sustainability Division
GEFA	Georgia Environmental Finance Authority
DCA	Department of Community Affairs
GFC	Georgia Forestry Commission
DCH-DPH	Department of Community Health, Division of Public Health
GDA	Department of Agriculture
GSWCC	Georgia Soil & Water Conservation Commission
NRCS	Natural Resources Conservation Service (U.S. Department of Agriculture)
SRF	State Revolving Funds
GFA	Georgia Forestry Association
UGA	University of Georgia
USFS	United States Forest Service
EPA	Environmental Protection Agency

## Overview

Senate Bill 370 (SB 370), enacted in the 2010 session of the Georgia General Assembly and signed by Governor Perdue on June 1, is commonly referred to as the Water Stewardship Act. The bill has ten sections, with the first section recognizing the need to create a culture of water conservation in Georgia and to plan for water supply enhancement.

The Department of Natural Resources is directed to coordinate with its Environmental Protection Division, the Georgia Environmental Finance Authority, the Georgia Department of Community Affairs, the Georgia Forestry Commission, the Georgia Department of Community Health, including its Division of Public Health, the Georgia Department of Agriculture, and the Georgia Soil and Water Conservation Commission to work together, as appropriate, to develop programs for water conservation and water supply.

Section 2 of SB 370 calls on these agencies to review practices, programs, policies, rules, and regulations to identify opportunities to accomplish the following:

- Provide enhanced programming and incentives for voluntary water conservation.
- Enhance the state's water supply.

Comprehensive results of this review were presented in an August 2010 inventory of agency activities titled *Water Stewardship Act: Final Report on Agency Activities* (available at [www.gaepd.org/Documents/index\\_water.html](http://www.gaepd.org/Documents/index_water.html)). The August 2010 report establishes a baseline for reports to be submitted annually from 2011 to 2015 (due January 1 of each year). As the first of the annual reports, this report summarizes changes to encourage water conservation and enhance water supply that were implemented during 2010. It also outlines agency goals for 2011.

As shown in Table 1 and described in detail in the August 2010 report, a number of activities are underway to meet the goals of SB 370. Ongoing activities include broad, statewide public outreach campaigns supported by multiple agencies; targeted outreach to specific audiences, including homeowners, agricultural water users, and forest managers; technical assistance to promote efficiency in outdoor water use, use of rainwater, and retrofits of water efficient fixtures; and provision of some funding for water supply enhancement, among others. Agencies also offer the means to access a number of state and federal incentive programs to promote water conservation and enhance water supply, described in Table 2.

These activities continued during 2010. Programmatic changes implemented in 2010 included guidance for inclusion of water conservation in regional planning, training to increase expertise in water audits for public water systems, and targeting of funds available through GEFA. Agencies also began implementing SB 370 provisions, including requirements for local government reporting on water conservation in their comprehensive planning process and requirements for categorization of agricultural water use permits.

Agency goals for 2011 start with continuation and refinement of the on-going activities described in the August 2010 report. Other goals include revisions in rules and regulations for drought management, outdoor water use,

and water use in tourist accommodations and related facilities. Minimum standards for local comprehensive planning will also be revised. Revisions in rules and minimum standards are targeted toward increasing water conservation, including use of gray water in lieu of potable water. Agencies also plan outreach on new water conservation requirements as well as development of mechanisms to track specific water conservation activities implemented under SB 370 and other state programs.

A summary of agency activities in 2010, including changes adopted to encourage water conservation and enhance water supply, are summarized on pages 7 to 10. Agency goals for 2011 follow, starting on page 10.

**Table 1. Agency activities to encourage water conservation and enhance water supply**

Activities to encourage water conservation	DNR	GEFA	DCA	GFC	DCH	GDA	GSWCC
Local comprehensive planning			X				
Water loss abatement: Local governments, public water systems	X	X	X				
State-wide water campaigns and public outreach programs	X	X	X	X	X	X	X
Water efficient fixtures and equipment: Residential and commercial retrofits	X	X	X		X		
Water efficient landscaping and irrigation: Installation and retrofits in residential and commercial settings	X	X	X				
Rain water and gray water use	X	X	X		X		X
Submetering of existing multifamily and multiunit complexes	X		X				
Incentives for conservation pricing	X	X	X				
Water conservation guidelines in permit applications	X						
Public water systems' financial management: Full cost accounting and rate management		X					
Activities to enhance the state's water supply							
Funding	X	X	X	X			X
Feasibility studies on reservoir dredging and other measures							X

**Table 2. Incentives to encourage water conservation and enhance water supply.**

	<i>Contact agency</i>
State Revolving Fund (SRF) low-interest loans with principal forgiveness will be provided to local governments for priority green projects that are environmentally innovative, increase water efficiency, increase energy efficiency (at water facilities) and promote green infrastructure. Specific eligible projects are listed in Georgia’s FY2010 Intended Use Plan.	<i>GEFA</i>
Scoring and selection criteria for the Drinking Water and Clean Water SRFs reward water conservation efforts by utilities. Additional points are awarded to applications for communities that: (a) have a low infrastructure leakage index; (b) have received WaterFirst designation; (c) have implemented a high-efficiency retrofit or rebate program; (d) use increasing block rate pricing for residential customers to encourage conservation; and/or (e) have a water reuse system in place or planned.	<i>GEFA</i>
Federal low-interest financing for eligible water supply projects (wells and interconnection projects) is available.	<i>GEFA</i>
Flexible state funding to finance a broad range of water supply projects is provided as available. There are potential limitations on the availability of these state funds, however, as GEFA relies on state appropriations for funds.	<i>GEFA</i>
The WaterFirst Program rewards communities that have adopted comprehensive local water management, by providing financial incentives, recognition, and technical assistance.	<i>DCA</i>
<ul style="list-style-type: none"> <li>○ WaterFirst designated borrowers are eligible for a one percent interest rate reduction on all state-funded loans. (Eligible communities may receive this discount on a total of \$10 million of financing over the lifetime of the fund).</li> </ul>	<i>GEFA</i>
<ul style="list-style-type: none"> <li>○ The Drinking Water SRF project selection and scoring system provides extra points for utilities that have received WaterFirst designation.</li> </ul>	<i>GEFA</i>
<ul style="list-style-type: none"> <li>○ The 319(h) grant application scoring system provides extra points for utilities that have received WaterFirst designation.</li> </ul>	<i>EPD</i>
<ul style="list-style-type: none"> <li>○ Public water suppliers in WaterFirst Communities can receive assistance with retrofit or rebate programs for water efficient fixtures and equipment.</li> </ul>	<i>DCA</i>
The Section 319(h) Program, authorized by the federal Clean Water Act, provides grant funding for projects to prevent, control or abate nonpoint source pollution. These projects protect sources of water and thereby enhance the state’s water supply.	<i>EPD</i>
<ul style="list-style-type: none"> <li>○ Cost-share funding for agricultural producers to install best management practices to protect water quality and improve water use efficiency is provided using Section 319(h) grant funds.</li> </ul>	<i>GSWCC</i>
Cost-share funding for local entities to expanding existing flood control reservoirs for water supply use and for permitting of new reservoirs may be available, as provided by the 2008 Water Conservation and Drought Relief Act. However, implementation has been slowed due to lack of state and federal funding.	<i>GSWCC</i>
NRCS Rapid Watershed Assessment or USFS Competitive Grant funds may be available to 1) support assessments in designated watersheds and 2) provide cost-share assistance for conservation practices on	<i>GFC,</i>

farming operations to improve and protect water quality and promote water conservation.	<i>GSWCC</i>
Through the NRCS Environmental Quality Incentives Program, cost-share and incentive payments may be available for landowners who implement water conservation programs.	<i>GFC, GSWCC</i>
The Urban and Community Forestry Grant Program provides funds to support urban tree planning and management to limit watering needs, prevent stormwater runoff, and protect water quality, among other benefits.	<i>GFC</i>
Federal grants provide funds to local governments for construction and rehabilitation of recreation facilities. Additional points are awarded for those employing energy- and water-conservation measures as well as environmentally-sensitive designs.	<i>Parks</i>
Recognition, awards and networking opportunities are offered as incentives for water conservation and loss reduction programs at Georgia businesses, institutions, and government agencies.	<i>SD</i>

## Activities in 2010

### Encouraging Water Conservation

#### MULTIPLE AGENCIES

- Continued ongoing programs to encourage voluntary water conservation as described in August 2010 *Water Stewardship Act: Final Report on State Agency Activities*. [All agencies]
  - Public outreach and campaigns are important components of agency activities to encourage voluntary water conservation. Statewide outreach initiatives include, among others, Conserve Georgia, a statewide marketing and outreach campaign conducted by state agencies and nonprofit partners, and Keep Georgia Beautiful, a public-private partnership working to build and sustain community environmental activities and behaviors. See Table 3 for 2010 outreach activities provided through these two statewide initiatives. [All agencies]

#### ENVIRONMENTAL PROTECTION DIVISION

- As part of regional water planning, EPD provided guidance on evaluation of water demand management practices. The evaluation processes will serve as one of the criteria used to determine if the recommended regional plans are complete and consistent with the State Water Plan and rules for Regional Water Planning. The guidance has three purposes:
  - Establish a common starting point for all Water Planning Councils as they review and consider water demand management practices;
  - Ensure that management practices reflect current rules and regulations as well as amended rules and regulations expected following the State Water Plan and the Water Stewardship Act; and
  - Provide flexibility for Councils to adapt practices to the specifics of water resources and water use in their region.
- EPD staff participated in trainings to develop expertise in use of the International Water Association's water audit method/standards. This expertise will be applied to assist public water systems with improving their water use efficiency and water loss abatement activities in order to support compliance with the requirements of SB 370 Section 3.
- EPD's principal water conservation expert has been integrated into the Watershed Protection Branch to assist with programmatic changes to encourage water conservation activities, including water loss prevention.
- Coordinated preparation of guidance to implement amendment of the State Plumbing Code allowing use of reclaimed water for toilet and urinal flushing.

#### GEORGIA ENVIRONMENTAL FINANCE AUTHORITY

- GEFA allocated increased "additional subsidization" (principal forgiveness) to projects that qualify under the federal State Revolving Fund (SRF) Green Project Reserve. GEFA is providing 50 percent principal forgiveness to qualifying Green Project Reserve projects, exceeding the additional subsidization requirements implemented by Congress. Numerous water conservation projects qualify under the Green Project Reserve.
- GEFA received approval from the U.S. Environmental Protection Agency for use of Drinking Water SRF Two Percent Small System Technical Assistance Set-Aside to provide water audit and leak detection assistance to small water systems.

- GEFA revised the project selection / scoring system that it uses to select projects for low-interest financing through the Drinking Water (DWSRF) and Clean Water SRF (CWSRF) programs. The revised DWSRF scoring system provides additional points for communities that (a) have a low infrastructure leakage index; (b) have received WaterFirst designation; (c) have implemented a high-efficiency retrofit or rebate program; (d) use increasing block rate pricing for residential customers to encourage conservation, and (e) have a water reuse system in place or planned. The revised CWSRF scoring system provides additional points for communities that (a) use increasing block rate pricing for residential customers to encourage conservation, and (b) have a water reuse system in place or planned.

**Table 3. Outreach activities in 2010.**

Conserve Georgia Outreach Activities*	Number
Volunteer events (includes clean-ups and other water quality improvement volunteer events)	2,327
Educational events (includes workshops, field days, educational sessions, etc. that include topics related to water conservation)	2,082
Promotional exhibits (includes exhibits and booths at conferences and other events where water conservation information was promoted)	95
Speaking engagements (includes conferences and other events where water conservation was covered by the speaker)	119
Related brochures (includes number of unique designs of current water conservation related brochures and other handouts in stock)	56,066
Media outreach (includes press releases, newsletter articles, etc.)	386
Social media outreach (includes number of Facebook fans, Twitter followers, and other social media outlets where water conservation information is regularly provided)	1,775
Visits to water conservation education websites (includes total visits to websites that provide water conservation information)	435,591
<b>DCA/Keep Georgia Beautiful Activities</b>	
Large events using the Children’s Water Festival trailer and its water education and conservation materials (see <a href="http://www.winningwater.com">www.winningwater.com</a> )	6
Water education backpacks distributed	450

\* Numbers for Conserve Georgia’s outreach activities are estimates. A goal for 2011 will be to formalize a reporting process to accurately track these activities.

**DEPARTMENT OF COMMUNITY AFFAIRS**

- By policy, DCA’s Office of Sustainable Development is now requiring local governments to report on their planned water conservation activities when they update their local comprehensive plans.
- Seven new communities were introduced to the WaterFirst Program, which promotes water conservation through its application requirements. There are now 12 communities in the WaterFirst Class, working toward designation as WaterFirst communities. Five communities were designated in 2010, making a total of 21 WaterFirst Communities.



- The WaterFirst Community Program has created a database of water professionals in the communities that deal with water conservation, which is used to distribute new information and events. DCA also promoted WaterFirst and other water activities statewide in its monthly “Partners Connection” electronic newsletter and in its monthly Keep Georgia Beautiful (KGB) Affiliate Update.
- Amended the Georgia Plumbing Code, 2006 International Plumbing Code: Reclaimed Water Systems for Buildings Appendix J, to allow reclaimed water to be used for toilet and urinal flushing, effective January 1, 2011.

#### DEPARTMENT OF COMMUNITY HEALTH – DIVISION OF PUBLIC HEALTH

- Revised Food Service Establishment Rules and Regulations to recognize current plumbing code and revised the *Food Service Establishment Plan Review Manual* to recognize gray water usage in urinals and toilets.
- Revised On-Site Sewage Management System Rules and Regulations to allow the use of sub-surface gray water irrigation systems. Revised the *Manual for On-Site Sewage Management Systems* to include gray water irrigation guidelines, to reference utilization of water conservation fixtures as a repair option, and to add approval criteria for nitrogen reduction technology.

#### GEORGIA SOIL & WATER CONSERVATION COMMISSION

- Supplied farmers participating in the Agricultural Metering Program with yearly water usage reports to help agricultural managers improve on-farm water-use efficiency and promote water conservation.
- Worked with soil and water conservation districts across Georgia to promote state conservation grant opportunities through best management practice field days, aiding in agricultural water conservation at the local level.
- Demonstrated efficient irrigation water use through public events encouraging irrigation scheduling and pivot retrofits through GSWCC’s Ponds Program and Mobile Irrigation Lab to promote water conservation in crop irrigation.

## Enhancing the State’s Water Supply

#### MULTIPLE AGENCIES

- Continued ongoing programs to provide technical assistance, permit, and fund water supply projects and to protect or improve water quality, thereby enhancing the state’s water supply, as described in August 2010 *Water Stewardship Act: Final Report on State Agency Activities*. [All agencies]
- Offered the Water Supply Technical Assistance Team to provide guidance for local governments developing water supply projects, particularly new reservoirs or existing reservoirs being modified for water supply purposes. This service aims to streamline the process for developing new water supply projects and shorten the timeline for communities to complete water supply projects. [EPD, GEFA, DCA, GSWCC]

#### ENVIRONMENTAL PROTECTION DIVISION

- Issued 258 new and 510 revised water supply permits, provided direct technical assistance to approximately 1,450 water systems, and contracted for technical assistance to roughly 2,500 water systems. EPD maintains permits for 780 withdrawals for non-farm uses, 21,520 withdrawals for farm uses, and 2,536 public water supply systems.
- Began classification of agricultural water withdrawal permits as active, inactive or unused, as required by SB370 Sections 5 and 6.

#### GEORGIA ENVIRONMENTAL FINANCE AUTHORITY

- GEFA made numerous low-interest loans for new wells, well rehabilitation, water system interconnections, water storage tanks and water distribution system improvements.

#### DEPARTMENT OF COMMUNITY HEALTH – DIVISION OF PUBLIC HEALTH

- Developed an individual well water assessment tool to ensure protection of individual water supplies.
- Worked with county health departments and/or county governments to improve performance and repair of on-site sewage management systems by implementing a data system to track malfunctioning on-site sewage management systems; distributing educational DVDs on maintenance requirements; and development and adoption of a model ordinance for maintenance of advanced treatment on-site sewage management systems.

#### GEORGIA SOIL & WATER CONSERVATION COMMISSION

- Worked with NRCS-USDA to provide farmers with cost-share opportunities to install agricultural best management practices to implement water quality improvement programs to reduce nutrient loading from animal operations and improve water quality in impaired streams.
- Performed study of NRCS flood control reservoirs in order to identify dams with the highest potential for water supply. Prepared detailed watershed assessments of 28 Georgia dams estimating yield, environmental data and potential cost. Organized local meetings to share data with counties housing watershed structures, pending county participation in water supply planning.

## Goals for 2011

### Encouraging Water Conservation

#### MULTIPLE AGENCIES

- Continue ongoing programs to encourage voluntary water conservation as described in August 2010 *Water Stewardship Act: Final Report on State Agency Activities*. [All agencies]
- Conserve Georgia will continue public outreach to encourage water conservation through media, websites, and awards and formalize a reporting process to track outreach activities. [DNR, EPD, GEFA, DCA, GFC, GSWCC, GDA]

#### ENVIRONMENTAL PROTECTION DIVISION

- Replace DNR's current Drought Management Plan and Rules for Outdoor Water Use, Chapter 391-3-30 with new Rules for Drought Management as provided by HB 1281 passed in 2008. Amendments are expected to address requirements of SB370 passed in 2010, adopt drought indicators and triggers, incorporate pre-drought mitigation strategies, define the roles and responsibilities of the Director and the drought response committee with respect to declaring drought response actions, provide flexibility for water systems to base drought responses on the conditions of their water resources, and allow systems to demonstrate increasing reductions in water use with increasing levels of drought severity. Draft amended rules are being prepared for DNR Board consideration and stakeholder input in 2011.
- Amend DNR water conservation rule as provided by SB370 passed in 2010, and the State Water Plan adopted in 2008. Amendments are expected to address procedures for public water systems to reduce the amount of water lost to leaks. For new or increased water withdrawals for non-farm use, amendments are also expected to establish

options for applicants to demonstrate progress toward water conservation goals or standards. Draft amended rules are being prepared for DNR Board consideration early in 2011.

- Partner with the Alliance for Water Efficiency to develop a water conservation tracking tool specific to Georgia. The tool will be designed to support permitting of water withdrawal for non-farm uses by 1) encouraging permittees to implement conservation activities specific to their systems, 2) aiding EPD staff in evaluation of permit applications, and 3) assisting permittees with compliance with amendments to DNR's water conservation rule.
- Partner with the Georgia Association of Water Professionals to provide technical assistance to utilities on conducting water loss audits and implementing best practices for water loss control.
- Continue to train staff in water loss auditing and water conservation tracking, in order to assist public water systems with improving their water use efficiency and water loss abatement activities to meet the requirements of SB 370 and DNR's amended water conservation rule.
- Establish a system to obtain, collect, review and approve water audits required by SB 370 Section 3. Track compliance with audit requirements and results of audits.
- Co-host workshops and/or training sessions around the state related to new water conservation requirements, water loss control, and water conservation tracking.

#### DEPARTMENT OF NATURAL RESOURCES

- DNR's Sustainability Division will coordinate water conservation efforts, tracking and reporting within DNR.
- Convert Coastal Regional Headquarters Campus to native and drought tolerant landscaping and continue to irrigate with non-potable water.
- Install gutters on renovated Coastal Regional Headquarters office building and Marine Services Building to capture rainwater for use.
- DNR's Parks, Recreation, and Historic Sites Division will continue to maintain water conservation measures and standards instituted in 2008 and 2009.

#### GEORGIA ENVIRONMENTAL FINANCE AUTHORITY

- Launch Drinking Water SRF Two Percent Small System Technical Assistance Leak Abatement Technical Assistance Program.
- Further refine policies and project scoring criteria to reward good water conservation practices and programs.

#### DEPARTMENT OF COMMUNITY AFFAIRS

- DCA'S Minimum Standards for Local Comprehensive Planning will be updated in November 2011 to require local governments to report on their planned water conservation activities when they update their local comprehensive plans.
- Draft amendments to the Georgia Plumbing Code to require high efficiency plumbing fixtures in all new construction permitted on or after July 1, 2010, as specified in SB 370 Section 8.

#### DEPARTMENT OF COMMUNITY HEALTH – DIVISION OF PUBLIC HEALTH

- Revise the rules and regulations for Tourist Accommodations and Public Swimming Pools, Spas & Recreational Water Parks to allow gray water use in toilets, urinals and commercial washing machines.

#### GEORGIA SOIL & WATER CONSERVATION COMMISSION

- Seek funding to support Georgia's farmers by improving agricultural irrigation water conservation efforts through the GSWCC Ponds Program and Mobile Irrigation Lab.
- Partner with soil and water conservation districts to provide local education concerning cost-share funding opportunities that improve water conservation on agricultural operations.
- Provide state leaders with up-to-date water-use data from installed agricultural irrigation meters to aid state-wide water conservation decisions.
- Contract with USGS to analyze agricultural water-use data and provide access to state-wide telemetry data tools to increase public water conservation awareness.

## Enhancing the State's Water Supply

#### MULTIPLE AGENCIES

- Continue ongoing programs to provide technical assistance, permit, and fund water supply projects and to protect or improve water quality, thereby enhancing the state's water supply, as described in August 2010 *Water Stewardship Act: Final Report on State Agency Activities*. [All agencies]

#### ENVIRONMENTAL PROTECTION DIVISION

- Continue direct technical assistance and permitting to support use of new or expanded water supplies and to assist public water systems.
- Continue classification of agricultural water withdrawal permits as active, inactive or unused. Prioritize unused permits for revocation following the process established by SB370 Sections 5 and 6.

#### GEORGIA ENVIRONMENTAL FINANCE AUTHORITY

- Continue to commit funds in the Georgia Reservoir and Water Supply Fund to critical water supply projects around the state.

#### GEORGIA SOIL & WATER CONSERVATION COMMISSION

- Work with local communities through Georgia's soil and water conservation districts to recognize water supply options related to flood control structures.
- Provide education and certification to individuals across the state involved in land disturbing activities to reduce sediment transport into water bodies through erosion and sediment control.
- Seek federal funding through USDA to support the expansion of existing federal watershed structures for water supply purposes.