# WATER CONSERVATION EDUCATION PROGRAMS

# *EPD Guidance Document* August 2007

# TABLE OF CONTENTS

Part 1: Making the Case for Water Conservation Education	3
Part 2: Education Programs for Water System Employees   Steps to build conservation awareness among employees.	<b>4</b> 4
Part 3: Public Education and School Programs	5
Goals of a Public Education Program	5
Building Public Awareness and Understanding	6
Specific Tools for Building Public Awareness and Understanding for Conservation	7
School Programs: Building Knowledge and Understanding	11
Specific Tools for Students	11
Part 4: Conservation Education Program Checklist	14
For Public Awareness and Understanding for Conservation	14
For Student Education	15

# Georgia Environmental Protection Division Watershed Protection Branch

# Guidance Document Water Conservation Education Programs

## Developed by the Georgia Environmental Protection Division (EPD) To support the "Coastal Georgia Water and Wastewater Permitting Plan for Managing Saltwater Intrusion"

#### August 2007

This guidance document is intended for entities in the 24-county area of Georgia's coast addressed in the "Coastal Georgia Water and Wastewater Permitting Plan for Managing Saltwater Intrusion", located in Sub-Regions 1, 2 and 3. It applies to municipal groundwater users, and the following categories of public/private drinking water suppliers:

- Public Community Water Systems (CWS) with Water Withdrawal and/or Operating Permits;
- Governmentally Owned or Operated Public Drinking Water Systems with an Operating Permit; or
- Governmentally Owned or Operated Transient Non-Community (TNCWS) or Non-Transient Non-Community Public Water Systems (NTNCWS) with either an Operating Permit and/or a Withdrawal Permit.
- Privately Owned or Operated Public Community Drinking Water Systems with ONLY an Operating Permit;

It is designed to guide the development and implementation of a water conservation education program including water system employee training, public information programs, and school programs.

When to use this guidance document: For most Upper Floridan aquifer groundwater withdrawal permittees in the coastal counties of Georgia, a special condition of all new or modified withdrawal permits will be development and implementation of a water conservation education program. This program must be conducted in accordance with these guidelines and reported to the Division's District Office for concurrence <u>no later than 12 months from the permit issue date.</u>

**How to use this guidance document:** The guidance is organized in three parts: Part 1 – Making the Case for Water Conservation Education – provides the rationale for developing and implementing water conservation education programs; Part 2 – Developing a Training Program for Water System Employees – presents a general process to educate and train your employees on how to minimize the loss and waste of water within the distribution and treatment systems. Part 3 – Developing a Public Education Program – presents a general process for developing and implementing the most appropriate conservation public education approach for your area. Part 4 – Checklists – contains checklists to identify the conservation education programs you have implemented. After implementing the items you have checked as part of a comprehensive education program, submit this checklist along with any supporting documentation to the appropriate EPD District Office within 12 months of the permit issuance date.

Most of the methods described in this Guidance Document will only apply to Governmentally Owned Community Water Systems. However, other methods can be used effectively by small, privately owned or operated Community Water Systems. Those methods will be indicated in the text of the document.

**EPD contact:** If you have any questions, or require additional information, please contact the EPD Water Withdrawal Program, at 404-675-1680. As the July 2006 Coastal Permitting Plan is implemented, EPD will welcome feedback from permittees regarding this guidance document.

# Part 1: Making the Case for Water Conservation Education

Water is a limited resource. With Georgia's populations growing in our urban centers, threatened species being further endangered, and the cost of new water sources rising steadily we must learn to use water more efficiently and conserve where possible. Water conservation is a critical element of any future water management strategy.

Water conservation can help you and your customers save water, save time, and save money throughout the year, not just in the summer. It is defined as the "beneficial reduction in water use, waste and loss" and is proven to be the most economical and environmentally protective management tool for meeting water supply challenges

Virtually all water conservation efforts depend on public awareness and understanding of the need for conservation. Conservation efforts are only considered successful if results can be measured and results are targeted to the particular type of water user (e.g. commercial, residential, industrial and agricultural). Minimizing water use, waste, and loss over time is heavily dependant on continually evaluating and adopting new technologies and practices. Education and technical assistance programs are important to inform people about the impact of improved water efficiency and water conservation. Without adequate knowledge, water users lack the ability to put conservation measures and practices into place, however motivated they may be.

Water professionals around the country note that successful water conservation programs are comprised of multiple components. Individually, each component of a water conservation program can get results, but the most reliable results are obtained by the integration of all components.

One of the most critical components of a program is a robust education and outreach program that reaches water provider employees, school children, and adults. Furthermore, investments in public and targeted education have high water conservation returns, and public awareness tends to build political support and participation.

The responsibility for ensuring a sustainable water future lies with the community as a whole; everyone has a role to play to make sure that all water (rainwater, stormwater, public water supply, etc.) is treated responsibly and planned for properly. Education of the public at large, municipal officials and water suppliers is crucial to generating an understanding of the issues, and creating acceptance to the implementation of water conservation efforts. It is important to provide to the public the basic understanding of sound water resources management and planning and to explain the associated economic and environmental benefits. Public education and outreach can be an essential prerequisite to the successful adoption and implementation of conservation practices.

The next two parts of this guidance address two major categories of an educational effort that are critical to building an understanding of water conservation and the impact it can have on businesses, individuals, homeowners, and the environment. Both of these categories should be pursued in order to see the full spectrum of benefits a water conservation program can offer.

# Part 2: Education Programs for Water System Employees

When implementing a water conservation education program, building understanding among your employees and other professionals with which you interact is important. Building water conservation awareness and education among employees can not only save water, but can also save money on operational and production costs. Educated employees will be able to identify problems before they become serious and can help think innovatively about ways to conserve or reuse water within the facility.

In Georgia, several professional associations offer training and workshops on water conservation. The Georgia Association of Water Professionals, the Georgia Water-Wise Council (a section of the Georgia Association of Water Professionals), and the Georgia Rural Water Association often target water conservation through conferences, meetings, trainings and workshops.

#### Steps to build conservation awareness among employees.

# **1.**) Adopt a water conservation policy or incorporate water conservation practices into the official standard operating procedures for your water system facility.

An important step in educating and engaging your business leaders and employees in water conservation is the development of a clear policy or procedures that the utility or local government can implement to achieve results. This commitment can come in the form of: policy statements, positions, statements of commitment, or the adoption of regular conservation practices into the facility standard operating procedure.

• Georgia EPD with assistance from the Georgia WaterWise Council has developed several model ordinances that can help guide the development of your own water conservation ordinance(s). (Go to <u>www.ConserveWaterGeorgia.net</u>, or contact the Georgia EPD at 404-675-6232 for more information.)

**2.)** Conduct regular water audits. Water audits may be included in a water conservation policy or Standard Operating Procedures (as discussed above), but due to their importance, water audits deserve a step of their own. Audits conducted regularly can inform water providers and end users of systematic ways to improve or eliminate water lost to leaks and aging appliances, equipment, and infrastructure. For more information, please see the Pollution Prevention Assistance Division's Guidance Document on Water Audits at <u>www.p2ad.org</u> or. Water audits should be conducted by all permitted water systems, including small, privately owned Community Water Systems. Recently several documents have been developed to help residential customers learn more about their use and audit their own homes.

- See the EPD Guidance Document on Conducting Water Audits at <u>http://www.gadnr.org/cws/</u>
- The Georgia Pollution Prevention Assistance Division offers assistance to businesses and industries interested in water conservation and energy conservation. They offer a variety of services to businesses, including conducting a water audit, assisting with retrofitting high-water use devices and machinery, and helping train staff to conduct regular audits of operations. For more information about their services, go to their website at <u>www.p2ad.org</u> or contact them directly at (404) 651-5120 or (800) 685-2443.

• Both Cobb County, Georgia, and the North Georgia Metropolitan Water Planning Districts have developed water audit guides to help homeowners save water. Links to these guidance documents are available online at <a href="http://www.conservewatergeorgia.net/Documents/indoor\_tips.html">http://www.conservewatergeorgia.net/Documents/indoor\_tips.html</a>

**3.) Offer educational material and advanced training opportunities for facility managers and staff leaders.** Water conservation is addressed in the Georgia Rules and Regulations (Chapters 391-3-6-.07(4) and 391-3-2-.04(11)) In particular, a water conservation plan must be developed and presented with any new or expanded application to withdraw over 100,000 gallons of water per day. These plans require the permit applicant to address a number of issues, including water pricing structure; leak detection and elimination; availability of accurate maps of the water system; meter maintenance, testing, replacement, calibration; prevention of unauthorized water use – fire hydrants, fire lines, etc; a list of unmetered service connections including publicly owned facilities, churches, etc.; and five year updates and progress reports.

If your facility has a water conservation plan on file or is in the process of developing one, it is important to inform employees of these plans and their elements. Educating staff about the elements of your own conservation plan can help them understand the importance of conservation and encourage innovative ideas about new ways to save water and money.

- The American Water Works Association offers advanced training in water conservation efforts at least once a year. You can request discounted rates or scholarships to help staff members attend. <a href="http://www.awwa.org/">www.awwa.org/</a>
- The Georgia Association of Water Professionals annual meetings and semi-annual workshops regularly have entire sessions devoted to water conservation information and education. <u>www.gawponline.org</u>
- The Georgia Department of Community Affairs, Association County Commissioners of Georgia and Georgia Municipal Association have developed an online Water Resources Toolkit for Local Governments that has various items that may be useful to water providers, particularly those just getting active in the water conservation arena. The Toolkit offers a presentation about the importance of water conservation. Go to <a href="https://www.georgiaplanning.com/watertoolkit">www.georgiaplanning.com/watertoolkit</a> for more information
- The Georgia Department of Natural Resources has detailed information for water providers on the website <u>www.ConserveWaterGeorgia.net</u>. The site provides a link to many pages of information devoted to water providers and innovative ideas on ways providers can encourage conservation, track results, and share success and failures with other providers.

# **Part 3: Public Education and School Programs**

## **Goals of a Public Education Program**

Those who participate in the water conservation-related education program should understand :

- 1. The environmental benefits of keeping water local, reducing water demands, and minimizing water withdrawals. This should include education regarding the connection between ground water and surface water; the potential impacts of withdrawals on stream flow and instream uses such as fish and wildlife habitats, recreation, and pollution dilution; and the relationship between groundwater pumping and salt water intrusion for coastal areas.
- 2. *Water conservation helps water quality as well.* Conservation helps septic systems work better and last longer, and helps wastewater treatment plants function better. Water conservation also enables more water to be retained in the natural environment where it helps dilute pathogens and other pollutant concentrations, and buffers waterways from excessive heating that can harm aquatic life.
- 3. Investments in efficiency and conservation will provide water users with long-term savings compared to the cost of developing and treating new water supply sources and wastewater treatment facilities. For example, through a domestic retrofit program, including publicity, follow-up visits or mailings, water suppliers can make customers aware that making a few simple changes can provide tangible savings.
- 4. *The costs involved in providing water.* These costs include planning, engineering, construction, operation, maintenance, treatment, wastewater facilities costs, piping, metering, leak detection, compliance costs, salaries, protection costs, pensions, health care, staff training, and public education.
- 5. *Water-smart landscaping, gardening, efficient irrigation, and lawn care practices.* Up to 50 % of water used for landscape irrigation can be lost due to over-watering, evaporation, or bad irrigation system design or maintenance. For a family of four over the course of just one year, the amount of water wasted is equivalent to letting the shower run continuously for almost a week! (EPA 2006).
- 6. Why it is equally important for self-supplied water users (e.g., home or businesses on their own private wells) to conserve water, especially when their water source might dry up an aquatic habitat or deplete the water available for public use (e.g., if their withdrawal point taps the same aquifer as a nearby public wellfield).
- 7. Ways to share information about the importance of conservation and how to stay up to date on new technologies, ideas, programs and incentives. Information sharing is very important to maintain efficient use of water and minimize waste. Individuals can be empowered to engage neighbors, elected officials, businesses, and others when adequate information and materials are easily accessible.

## **Building Public Awareness and Understanding**

The best way to begin a public education program around water conservation is to identify and target the largest water users in your service area to receive the bulk of the educational efforts (distribution of material, assistance, messaging, etc...) This way you may be able to realize the greatest potential savings and to demonstrate the benefits early in the life of a conservation program. Three critical elements for generating public understanding of issues related to water conservation are:

1. Create a process to inform, involve, and educate the public on issues related to water management and the importance of water conservation

*Public Involvement Strategies: A Manager's Handbook*, published by the American Water Works Association Research Foundation (<u>www.awwa.org</u>) describes ten general steps to designing and implementing an effective public involvement program. In this context, these ten steps should be catered to water conservation efforts.

- 1. Frame the problem
- 2. Identify constraints
- 3. Identify and describe decision steps and project milestones
- 4. Identify and understand potentially affected stakeholders
- 5. Determine vulnerability and must-resolve issues
- 6. Determine the appropriate level of public involvement
- 7. Select processes and techniques appropriate to achieve the first six steps
- 8. Develop a public involvement plan using information from step 7
- 9. Implement and monitor the work plan
- 10. Manage change

#### 2. Build government involvement

Consider approaching your local governing body (county commission, city council, etc.) and encourage them to adopt a general water conservation ordinance. Such local ordinances can 1) describe the local government and/or the utility's efforts to save water in their own operations, 2) describe ways the local government is conserving water and helping community members save water, 3) reflect the state outdoor watering schedule rules/regulations or any altered schedule your jurisdiction has adopted. Water conservation ordinances can also be targeted toward a particular water-use activity or management effort. Examples include, but are not limited to, landscaping or xeriscaping ordinances, ordinances for out-door water use, and ordinances for implementing conservation-oriented rate structures. It is important to note that the effectiveness of theses tools will be highly dependant on your local situation and your customer base; therefore communication and coordination with your outreach and communication staff as well as your billing department is critical to target the appropriate customers.

## Specific Tools for Building Public Awareness and Understanding for Conservation

#### **<u>Public Tool #1:</u>** Create a local or regional staff position.

Designate one individual or office as a go-to person/place for the public to contact with questions and concerns. This staff position could be supported by and offer services to only one water provider, or the position could be a joint position, supported by and offer services to many providers in a particular region. Responsibilities could include:

- developing, administering and evaluating conservation activities targeted to customers;
- managing any internal programs to conserve water;
- organizing external efforts to promote the efficient use of the area's water supply;
- coordinating activities related to conservation-oriented grant writing; and
- managing and supervising any staff engaged in conservation program implementation.

#### **<u>Public Tool #2:</u>** Create an interactive and informative website.

Most water customers have access to the Internet, and many use it as a primary source of information. If you have your own website and can add a water conservation page, include at a minimum:

1) information about your rate structure and how customers are charged for water services;

- 2) general information about your local water resources;
- 3) the importance of water conservation and the general environmental, economic and regulatory benefits associated with conservation practices; and
- 4) information about the current outdoor watering schedule, and where customers can go to get more information.
- If your utility or local government does not have its own website in which you can include conservation information, the Georgia Department of Natural Resources has a website dedicated to water conservation. Feel free to reference your customers to www.ConserveWaterGeorgia.net

#### **<u>Public Tool #3:</u>** Use the water bill as the first-line educational tool.

- Many water professionals agree that the most effective way to reach customers is through their pocketbooks. The water bill, when coupled with a water conservation-oriented rate structure (See Guidance Document on Developing Conservation-Oriented Rate Structures at <a href="http://www.gadnr.org/cws">http://www.gadnr.org/cws</a> ), can be a powerful educational tool and encourage water users to get involved with their water providers and decision makers. Bills should include:
  - 1) Water use for which the customer is being billed in a volumetric way. Include a conversion table if customers are charged per hundred cubic feet (ccf) or per 1000 gallons. One hundred cubic feet (ccf the most common measurement unit of water) is equivalent to about 748 gallons.
  - 2) A comparison of each customer's water use to previous years and a graph showing use on a monthly basis for the current year.
  - 3) If conservation-oriented rates are employed, include the volume of water in each tier of use or the volume of water for which a sur-charge was billed.
  - 4) Consider providing a table enabling the recipient to estimate the household gallons per capita per day compared with statewide water use averages.
  - Georgia WaterWise Council has developed an example water bill that may be helpful to use as a starting point. Go to <u>www.ConserveWaterGeorgia.net</u> or contact EPD at 404-675-6232 for details.
  - **Example**: Cobb County Marietta Water Authority adopted a detailed water bill in 2006. Go to <u>http://water.cobbcountyga.gov/billing.htm</u> for more information.

**Public Tool #4:** Offer retrofit and rebate programs for high-water devices. Retrofit programs are a way to enable customers to make permanent changes that can impact the amount of water they use for particular purposes. The most popular retrofit or rebate programs are focused on toilets. Toilets can use nearly 30 percent of the water in an average home. Retrofit programs should be targeted to older neighborhoods with older homes and businesses. Replacing high-flush toilets (those that use 3.5 gallons or more per flush) with ultra-low flow toilets (those that use 1.6 gallons per flush) an average family of four can save 13,800 gallons of water per toilet per year. High Efficiency Technology toilets (include dual flush toilets that use .8 or 1.6 gallons per flush, as chosen by the user) can save an average family of four 18,500 gallons of water per toilet per year.

Other retrofit and rebate programs offer replacements for other high water using devices such as clothes washing machines, dishwashers, showerheads and faucets. The least expensive to implement and the one providing significant results are the showerheads and faucet aerators.

- The US Environmental Protection Agency has a program called Water Sense that identifies technologies and devices that are water efficient and field-tested. Visit their website <a href="http://www.epa.gov/watersense">www.epa.gov/watersense</a>
- **Example**: City of Savannah toilet retrofit program has been in place since 1998 and has reduced water withdrawals 3.8 million gallons a day through a toilet retrofit and educational program.

<u>Public Tool #5:</u> Provide educationalbill stuffers. These may be the most cost-effective method for small, privately owned CWS.

- The Georgia Department of Community Affairs has a very informative educational brochure entitled "Every Drop Counts" and a water conservation tips bookmark. Both are downloadable from their website and the bookmark fits into standard envelopes, Go to www.georgiaplanning.com/watertoolkit
- The Georgia Extension Service and the Georgia WaterWise Council have produced a series of educational brochures on minimizing water use in the landscape. These brochures are downloadable from the Internet, easily fit into standard envelopes and include a place for the user/distributor to include their own logo before printing. Go to www.ConserveWaterGeorgia.net to access these brochures.
- The renowned "*Water-Use It Wisely*" national water conservation campaign has been very successful in many parts of the country, in part, due to the recognizable and attractive brochures created for its purpose. If you are interested in this material feel free to contact *Water-Use It Wisely* directly or visit their website at <u>www.wuiw.com</u>

<u>Public Tool #6:</u> Offer or suggest speakers for community organizations. Leadership lies in a variety of places in different communities. Often civic organizations have requirements for environmental or conservation oriented service projects or workshops.

- The Georgia WaterWise Council has organized a speakers bureau to help communities and organizations identify the appropriate individual and organization to address a particular issue related to water conservation. Go to <u>www.gwwc.org</u> for a list of contacts associated with the speaker's bureau.
- If you choose to send speakers out from your utility or local government, the Georgia Department of Community Affairs has developed a PowerPoint presentation and accompanying script that covers the basic principles of water conservation. To access this presentation, go to: <a href="https://www.georgiaplanning.com/watertoolkit">www.georgiaplanning.com/watertoolkit</a>.

<u>Public Tool #7:</u> Organize and promote special events such as Conservation Fairs or Workshops. If initial educational efforts are successful, customers will request additional information regarding practices and devices they can use to help them save water and save money. Conservation-specific fairs and workshops are one way to address this need for more information. You can also piggy-back on county fairs or events by just setting up a conservation booth to give away water-saving devices and/or educational material.

• The Georgia WaterWise Council has a table-top display that is available for use at a variety of events and affairs. If you are interested in having a WWC member bring the display board

to an event, contact the WaterWise president through the Georgia Association of Water Professionals website <u>www.gawponline.org</u>

- All the material listed under the educational bill stuffers can be printed and used as handouts at fairs or conservation-focused events.
- **Example**: In 2003 the Georgia Department of Community Affairs and various educational organizations partnered to host the first *Winning Water Children's Water Festival*. This educational festival was open to all 4th grade teachers and their classes located in the Apalachicola, Chattahoochee, and Flint River Basins (ACF). The ACF festival explored all aspects of water through interactive and dynamic activities including water conservation material and activities. The Winning Water Festival has been moved to different river basins around the state each year since 2003 and is designed to encourage other organizations in these river basins to continue hosting their own festivals.

#### **<u>Public Tool #8</u>**: Offer free self-retrofit water conservation kits to water users.

In an effort to encourage more efficient use of water for household purposes, a relatively inexpensive method is to provide water conservation retrofit kits. Many communities offer a limited number of these kits to those communities demanding the most water services and limit citizens to one kit per household.

Many companies now offer water conservation kits and will help manage a retrofit program (coordinating distribution and calculating water savings and costs.) Such programs and supporting companies can be easily found with an Internet search.

#### Public Tool #9: Offer public service announcements; radio/T.V./audio-visual presentations.

The Georgia Department of Community Affairs offers a free opportunity for city and county officials to create water conservation and other public service announcements at the annual meetings of the Georgia Municipal Association and the Association County Commissioners of Georgia. Members of these organizations are provided with suggested messages to record into public service announcements for their communities.

• The National Environmental Education and Training Foundation has a program called "Earth Gauge" which provides information on water quality and conservation, recycling and other environmental issues to radio and TV meteorologist for insertion into their daily broadcasts. Participating organizations may also provide notices of their events and websites. For more information, see the Earth Gauge web site for meteorologists at <a href="http://www.earthgauge.net/">http://www.earthgauge.net/</a> for ways to contribute information to the program.

#### **Other suggested tools for Effective Conservation Education Programs:**

- Public-space advertising to highlight stories on successes (and failures).
- Create and distribute joint advertising with hardware stores to promote conservation devices.

- Build partnerships with garden clubs, Keep Georgia Beautiful Programs, environmental organizations and others on campaigns to promote "WaterSmart" landscape practices and other water conservation efforts.
- Promote contests and offer recognition for innovation in the conservation field.
- Offer multi-lingual materials to communities, as needed.

## School Programs: Building Knowledge and Understanding

This section of Part III of the guidance is designed to provide suggestions as to the best way to develop school programs that emphasize the importance of water conservation in the home, in school and in the community at large. Each bold statement below, can stand alone, but is most effective if implemented in concert with the others.

Water issues are key to environmental education – both formal and non-formal. Many water providers have embraced the potential of younger citizens, school aged children to be the champions and the leaders in environmental conservation. Building a strong and positive relationship with the local school board or the educational administrators in your area is important and can lead to significant savings in water and costs of operation – for the water provider, for the educational institutions, and for the student's family/home.

Strong relationships between water provider and educational institutions do not occur naturally. They must be developed and nurtured if the conservation ethic is to be built into traditional and non-traditional education efforts. The following tools may help you develop a new relationship or to strengthen an existing relationship with the educational institutions in your service area.

## **Specific Tools for Students**

<u>School Tool #1:</u> Form partnerships with public education institutions such as K-12 schools, universities, museums, nature centers, science centers, aquariums, zoos, and other government programs to accomplish your goals.

The Environmental Education Alliance of Georgia is a nonprofit organization with the mission "to strengthen the quality and availability of environmental education in Georgia." Environmental Education Alliance is a state affiliate of the North American Association for Environmental Education and represents 400+ members. Members include classroom teachers and non-formal educators from state agencies, botanical gardens, corporations, zoos, universities, local governments, nature centers and schools throughout the state. Environmental Education Alliance provides members with a quarterly newsletter, The Link, an annual symposium for classroom teachers, an annual conference, and other learning opportunities.

• Visit <u>www.eealliance.org</u> for more information.

## **<u>School Tool #2:</u>** Offer water conservation education workshops for teachers.

Georgia has several programs already designed to offer support for teachers interested in learning more about water related issues. Project WET (Water Education for Teachers) is a public service offered by the Georgia Department of Natural Resources. Project WET workshops can target water conservation with the CONSERVE WATER curriculum. By participating in a 6-10 hour workshop, teachers will receive the Project WET Curriculum and Activity Guide, over 90 K-12 activities developed, field-tested and reviewed by 600 educators and resource managers working with 34,000 students nationwide. By participating in a 10-16 hour workshop, a representative from your organization can become a certified facilitator and provide these workshops for teachers in your community.

The Georgia Conservancy has developed *Georgia's Native Waters*, an environmental education curriculum developed around Georgia-specific issues, habitats, and animals. After building a knowledge base about the important habitats and uses of water in Georgia the final chapter entitled "The Future of Georgia's Water" is targeted at building a water conservation ethic in students and teaching them practical ways to reduce water use, waste and loss.

Another helpful source of material and information for teachers is currently being developed. The initiative known as the "Education Roundtable" is developing a series of water conservation educational kits or toolboxes that can be loaned to schools, teachers or non-formal education centers. These kits are available to anyone with an interest in teaching about drought, water use, and water conservation.

- Project WET Visit <u>www.gaprojectwet.org</u> for more information
- Georgia Conservancy Water Curriculum <u>www.gaconservancy.org</u>
- Education Roundtable <u>www.eeingeorgia.org</u>

#### School Tool #3: Offer water conservation field experiences and in class programs for K-12 students.

The North American Association for Environmental Education has developed the publication, *Excellence in Environmental Education—Guidelines for Learning (Pre K–12)*, which can be useful in the development of programs for K-12 students. It describes a level of skill or knowledge appropriate for each of three grade levels: fourth, eighth, and twelfth.

• Visit <u>http://www.naaee.org/programs-and-initiatives/guidelines-for-excellence/materials-guidelines/learner-guidelines</u> for more information.

#### <u>School Tool #4</u>: Promote your school programs.

One of the greatest ways to influence students and encourage more participation is through promotion of a program and/or achievements of that program. The Online Guide to Environmental Education in Georgia, <u>www.EEinGeorgia.org</u>, is a public service offered by the Georgia Department of Natural Resources. This web site provides standards-based environmental education lesson plans for all grade levels and subject areas, a searchable directory of the state's over 200 environmental education organizations, an environmental education resource database, a calendar of environmental education events, facts about Georgia's environment, and current environmental education news. A monthly electronic newsletter notifies over 2,000 subscribers about the latest environmental education grants, contests, awards, events, etc. added to the web site. The primary target audience is classroom teachers and other educators. Any organization that meets the following criteria can be added to the organization directory:

1. Presents fair and accurate information

- 2. Uses constructive techniques to empower people to draw and act on their own conclusions
- 3. Provides educational resources that contain concepts, language, and activities that are developmentally appropriate for the intended audience

Every year the Georgia WaterWise Council, a section of the Georgia Association of Water Professionals, offers awards for water conservation-related projects and initiatives. The emphasis is on a rotating basis – one year the water conservation award will be given to a business or industrial water user and the next year to a water provider. If you are actively promoting or supporting water conservation education in your school system, through funding, training or other types of support, you should consider nominating the program for the WaterWise Council award. Recognition for a job well done is always appreciated.

- Go to <u>www.GAWP.org</u> for more information about the conservation-oriented awards and for instructions on how you can nominate your program.
- Visit <u>www.eeingeorgia.org</u> for the Online Guide to Environmental Education, listings of important educational events, and other information.

# Part 4: Conservation Education Program Checklist

Use the following checklist to help you develop a comprehensive conservation education program for your water system employees, customers, or community. <u>After implementing the program incorporating the items you have checked, submit this checklist along with any supporting documentation (such as bill stuffers, documentation of school programs, etc.) to the appropriate EPD District Office within 12 months of the permit issuance date.</u>

## For Water System Employees

Did you:

- \_\_\_\_1. Adopt a water conservation policy or incorporate water conservation practices into the official standard operating procedures for your facility.
- \_\_\_\_2. Incorporate water conservation practices into the official standard operating procedures for your facility.

\_\_\_\_3. Conduct regular water audits.

\_\_\_\_4. Offer educational material and advanced training opportunities for facility managers and staff leaders.

\_\_\_\_5. Other (please describe)

## For Public Awareness and Understanding for Conservation

Did you:

- \_\_\_\_1. Create a local or regional staff position.
- \_\_\_\_2. Create an interactive and informative website. If so, what is the web address?
- \_\_\_\_3. Use the water bill as the first-line educational tool
- \_\_\_\_4. Offer retrofit and rebate programs for high-water devices.
- \_\_\_\_5. Provide educational bill stuffers.
- \_\_\_\_6. Offer or suggest speakers for community organizations.
- \_\_\_\_7. Organize and promote special events such as Conservation Fairs or Workshops.
- \_\_\_\_8. Offer free self-retrofit water conservation kits to water users.

- \_\_\_\_9. Offer public service announcements; radio/T.V./audio-visual presentations.
- \_\_\_\_10. Public-space advertising to highlight stories on successes (and failures).
- \_\_\_\_11. Create joint advertising with hardware stores to promote conservation devices.
- \_\_\_\_12. Build partnerships with garden clubs, Keep Georgia Beautiful Programs, environmental organizations and others on campaigns to promote "WaterSmart" landscape practices and other water conservation efforts.
- \_\_\_\_13. Promote contests and offer recognition for innovation in the conservation field.
- \_\_\_\_14. Offer multi-lingual materials to communities, as needed.
- \_\_\_\_15. Other (please describe)

## **For Student Education**

Did you:

- \_\_\_\_1. Form partnerships with public education institutions such as K-12 schools, universities, museums, nature centers, science centers, aquariums, zoos, and other government programs to accomplish your goals.
- \_\_\_\_2. Offer water conservation education workshops for teachers.
- \_\_\_\_3. Offer water conservation field experiences and in class programs for K-12.
- \_\_\_\_4. Promote your school programs.
- \_\_\_\_5. Other (please describe)

# **Resources and Reference Cited**

AWWA 1990. American Water Works Association. *Water Audits and Leak Detection*. Denver, CO.

- North American Association for Environmental Education, 2004. *Nonformal Environmental Education Programs: Guidelines for Excellence*. North American Association for Environmental Education. 36 ppg.
- U.S. EPA 2006. WaterSense Efficiency Made Easy. "For your Yard or Landscape." Available online at <u>http://epa.gov/watersense/pp/irrigate/index.htm</u>