Georgia Department of Natural Resources
2 Martin Luther King Jr., Drive, Suite 1152 East Tower, Atlanta, Georgia 30334
Chris Clark, Commissioner
F. Allen Barnes, Director
Environmental Protection Division
(404) 656-4713

March 2010

Georgia Water Conservation Implementation Plan
Companion Document

Response to Comments received on the May 2009 WCIP

The 2008 Georgia State-wide Water Management Plan (SWP) calls on the Georgia Department of Natural Resources (DNR) to develop a water conservation implementation plan (WCIP), with assistance from stakeholders from multiple water use sector. The SWP also calls on the WCIP to be subject to public notice, review and comment.

The WCIP has been subject to several periods of public review. This companion document tracks the comments received during the second public review period held June 1 to July 31, 2009. The first public review and comment period was December 18, 2008 to January 31, 2009. All comments received during the public review periods and response to those comments, are available through the website www.ConserveWaterGeorgia.net.

This document and a full copy of the WCIP are available online at www.ConserveWaterGeorgia.net.

Name/Affiliation	Comment	Response
Jenny Hoffner, American Rivers	We are pleased to submit the following comments concerning the latest version of the State Water Conservation Implementation Plan ("WCIP"). American Rivers is a national conservation organization standing up for healthy rivers so communities can thrive. We protect and restore America's rivers for the benefit of people, wildlife, and nature. Founded in 1973, American Rivers has more than 65,000 members and supporters, with offices in Georgia, Washington, DC and nationwide. American Rivers has followed the progress of and participated in the development of Georgia's WCIP. We applaud the Environmental Protection Division and the stakeholder groups for the development of a thorough document outlining efficiency measures for all sectors and unprecedented water conservation plan outlining goals and benchmarks. This document is a useful resource that should guide decision-making on financial and regulatory incentives for conservation and efficiency at the local, regional, and state levels through a variety of avenues including but not limited to ordinances, Water Development and Conservation Plans, rules, and statutes. Given the recent ruling on the Tri-state litigation, it is imperative that Georgia move swiftly to implement the conservation and efficiency practices and meet the sector-specific goals. We focused our previous comments on the landscape and public water supply sectors and appreciate your consideration and incorporation of several of our recommendations. There are still a number of recommendations that we would encourage EPD to consider. These are outlined below: **<u>Landscape Irrigation Sector</u>** **Goal 2** First, we appreciate the removal of the language indicating that the green industry fund operations of the state advisory committee that intended to develop landscape industry standards. We think this will make the advisory committee more effective and help minimize conflicts of interest. **Goal 3 (former Goal 4)** We applaud EPD's inclusion of all utilities in Benchmark 3A requiring all utilities to calculate their peaking factors, rather than limiting this exercise only to utilities with existing peak use issues. By including all utilities in 3A, utilities can identify emerging issues and better plan and prepare for future their water supplies.	No response needed. Chapter 5, Goal 3 Benchmark 3A is not a new requirement for permittees. The WCIP is designed to be a resource that can be used by Georgia business owners, farmers, homeowners, water service providers, and government officials to achieve greater water efficiency and help sustain our state's water resources. The document is not a list of mandatory actions. The May 2009 WCIP, Domestic and Non-industrial Public Uses Chapter (Chapter 7), BP 22 was revised to add language suggesting that water utilities consider adopting ordinances restricting the time of day in which water can be used.

	New Goal 5: We continue to advocate for a time of day (10am – 4pm) restriction to be incorporated into the best management practices required for landscape and irrigation professionals. We understand that these time of day restrictions may be incorporated into EPD rules, but in the absence of these rules it makes sense to include this important best management practice within the certification. **<u>Public sector</u>** **BP7** We applaud the inclusion of the numerical gpcd data as it serves to educate about the potential for water efficiency. Specifically, the WCIP provides useful information on studies demonstrating the effectiveness and potential for water efficiency to reduce average indoor use from 69 to 45 gpcd using existing and readily available technologies. We look forward to working with EPD to ensure that the WCIP recommendations are widely adopted and implemented across the State.	
Sara Barczak, Program Director High Risk Energy Choices Southern Alliance for Clean Energy	Southern Alliance for Clean Energy (SACE) submits the following comments concerning the May 2009 State Water Conservation Implementation Plan (WCIP). We are a non-profit organization that works on energy policy in the Southeast with staff and members in Georgia who are concerned about water quality and other environmental issues. Thank you for providing an opportunity for public comments on the May 2009 WCIP and for considering the WCIP a "living document." Our comments below focus solely on the electricity sector and energy issues where we have in-depth expertise. Regarding other aspects of the WCIP unrelated to electricity and energy, we generally support the comments being submitted by the Georgia Water Coalition of which SACE is a member. Southern Alliance for Clean Energy recognizes and appreciates the extensive effort involved by EPD and others to develop the May 2009 WCIP. We are glad to assist in further development of this plan, particularly in areas related to selection of new energy generation and energy efficiency's contribution to water conservation. We have organized our comments to list our original comments, EPD's response, and then our new response, if needed. We also responded to some comments submitted by others to EPD.	1.) The WCIP, State Agencies Chapter, Goal #1 aligns with the Governor's Executive Order issued on October 31, 2008 and the Governor's energy challenge, which requires agencies to reduce energy usage per square foot by 15% by 2020. This alignment is intended to help streamline information collection and sharing for the overall conservation efforts (as discussed in Chapter 3, which addresses water used for electricity generation). 2.) The WCIP, Introductory Chapter "Creating a Culture of Conservation" foundational goal #6 states that there is an interrelationship between water and energy conservation. The WCIP also acknowledges that the issue is complex, with conservation efforts affecting

	1. Original Comment (SACE): New Goal #4: *Energy Audits and Energy Efficiency Goals: We recommend that State Agencies conduct energy audits by 2011 and that state agencies should match federal agencies' goal of 30% total energy reduction by 2015 in all public buildings using FY2003 as a baseline as outlined in the Energy Policy Act of 2005 and Energy Independence and Security Act of 2007 (see http://www.dsireusa.org/library/includes/incentive2.cfm?Incentive_Code=US02R&State=federal¤tpageid=1&ee=1&re=1).* **EPD Response:** *The December DRAFT WCIP was revised to emphasize the multiple benefits that can come from implementing water conservation and to add a section discussing the relationship between energy and water. Integrating energy and water solutions will become increasingly vital to help sustain resources and support a range of water uses in light of our state's growing population and economy.* **New SACE Comment:** We appreciate the addition to the WCIP addressing the relationship between energy and water. However, implementation plans are more likely to be successful if specific benchmarks are outlined, including for state agencies where taxpayer dollars currently go to pay for excess energy and excess water to generate that excess energy, given the energy-inefficient operation of State of Georgia buildings. For background on supportive policies, please see p. 5 under "Demonstrate leadership with energy efficient public buildings" in the recent report *Water and Watts: Water-Energy Links in the Southeast United States*, April 2009 by the World Resources Institute. We reiterate our comment, the WCIP should be revised to recommend that State Agencies conduct energy audits by 2011 and that state agencies should match federal agencies' goal of 30% total energy reduction by 2015 in all public buildings using FY2003 as a baseline as outlined in the Energy Policy Act of 2005 and Energy Independence and Security Act of 2007. **2. Original Comment (SACE):** ***Goals and Benchmarks – Electric Generation: Move Beyond Focus on Existing Thermoelectric Power Plants and Look Also at Proposed Facilities with Proposed High Water Use and their Alternatives.*** *Please reframe the first sentence of this introductory paragraph and develop goals accordingly that call for more that just improving water efficiency within existing thermoelectric facilities since much of the current threat to Georgia's water resources in the energy sector is from new proposed nuclear and coal facilities.*	different plants in different ways. The goals and benchmarks in the Electric Generation Chapter focus on improving water efficiency within thermoelectric facilities and encouraging conservation by energy customers. Because water conservation can save energy, the first goal is intended to assess the feasibility and benefit of integrating water conservation efforts into utilities' long-term energy management plans. The second and third goals encourage utilities to better understand conservation impacts of their large customers, and then after information is collected work to improve water efficiency at existing facilities. As more information becomes available (regarding the direct impact conservation efforts have on specific utility function and regarding new technologies, etc).the WCIP should be updated to include these and appropriately adjust the goals and benchmarks. 3.) The WCIP is a resource to be used by Georgians to improve water use efficiency. It is not intended to be a list of mandatory practices and actions. Language such as "to the extent practicable" was included to encourage utilities to adopt practices and timeframes appropriate for their operations. This resource document should be used to guide utilities in identifying and implementing practices and timeframes for action that are specific to their facility. This type of information can be valuable to the regional water planning councils developing water development and

	EPD Response: *The December DRAFT WCIP, Electric Generation Chapter was revised to strike a balance by 1) acknowledging that existing information gaps (about the impact water conservation has on energy generation and the impact energy conservation has on water use) impede utilities efforts to implement or encourage customers to implement water conserving practices, and 2) identifying the steps necessary to close information gaps to ensure conservation efforts are effective and that the state and utilities invest in the tools to fully integrate energy and water conservation The December DRAFT WCIP, Electric Generation Chapter, Goal #1 narrative was revised to describe the significant role that electric utilities play in preserving water supplies for both electric generation and for other uses. The December DRAFT WCIP, Electric Generation Chapter was revised to focus Goal #1 and the supporting benchmarks on developing the appropriate tools for assessing the relationship between energy and water use, testing the tools at the plant level, and implementing those practices. The December DRAFT WCIP Electric Generation Chapter Goal #1 was revised to add verbiage relating to the impact of water conservation, the volume of water withdrawn from a source, and the impact water conserved by the customers of electric utilities can impact the energy demands supported by that utility. Changing water needs can impact shared water supplies, thereby the December DRAFT WCIP, Goal #3 narrative was revised to add a statement encouraging electric utilities to consider conducting a comparative analysis of water use requirements as a method to identify those practices that can ensure operations minimize the amount of water needed to be withdrawn from surface and groundwater sources.* **New SACE Comment: Goals and Benchmarks – Electric Generation Must Move Beyond Focusing on Existing Thermoelectric Power Plants and Look Also at Proposed New Facilities and Possible Alternatives/Options that May Be Less Water Intensive -** SACE does not agree with the EPD's response that there exists an "information gap" about the impacts of water on energy use and vice versa that is too great for utilities to aggressively plan for and implement joint energy/water conserving practices. Studies conducted in states throughout the country have repeatedly linked water usage to energy usage, and water use at individual power plants is currently tracked. For example, Plant Vogtle currently loses approximately 43 mgd primarily through	conservation plans throughout the state. Reducing water demands at specific facilities can impact shared water supplies, thereby providing valuable information to regional and state-wide water planning efforts. 4.) No response necessary. 5.) The WCIP was revised to include USGS information on consumptive uses (as reported in the "Water Use in Georgia by County for 2005 and Water Use Trends, 1980-2005" released in January 2009). Because information on consumptive use varies widely based on the type of use within the sector and the location of the use, the USGS report does not include state-wide estimates for each sector addressed in the WCIP. In future iterations of the WCIP, this information gap is likely to be filled using data collected through the regional planning efforts. 6.) To accomplish the implementation actions identified in the WCIP, all sources of information and reference should be used. 7.) No response necessary. 8.) The May 2009 WCIP was revised to reference the news release issued by the Georgia Drought Response Unified

	evaporative cooling losses. Georgia Power and its utility partners are currently proposing to add two additional reactors at the plant. Specifically, the two proposed new Westinghouse AP1000 reactors at Plant Vogtle are estimated to use 55-88 million gallons of water per day from the Savannah River with 50-75% consumptive loss. Water withdrawals for all 4 Vogtle reactors (2 existing and 2 proposed) would range from 110-178 mgd, with less than half being returned to the Savannah River. If energy conservation were implemented such that demand for new power plants decreased, water somewhere would also be conserved as a result. We do not believe that the "information gap" is significant enough to prevent utilities from implementing or encouraging customers to implement joint energy/water conservation practices. While we appreciate EPD's revision stating the impact of water conservation on energy demands, we believe that sufficient information exists to recommend moving forward with implementing energy conservation practices rather than staying only in the information–gathering stage. SACE would appreciate working with EPD more on this issue if future opportunities to do so arise. We continue to believe that the WCIP needs to place at least as much emphasis on the application of electric utility planning tools for advancing water-conserving energy efficiency resources and water-conserving energy supplies (including wind and solar sources) as it does on water conservation impacts on energy demand. **3. Original Comment (SACE)-** ***Goal # 3****- Please revise this goal so that it is framed to address both existing and proposed power plants. This goal needs to evaluate future energy supply options. It is critical that future supply options are required to have cooling technologies to, for example, reduce water use and water impacts, but it is also equally important to identify that some supply side choices are less water intensive than others and that there are portfolio options to bring a combination of supply and demand resources – the entire package of which can be either highly water intensive or highly water conserving or somewhere in the middle, depending on which fuel combinations and technologies are chosen. This goal needs to address the need for comparative analysis of water requirements and water impacts of a variety of electrical generating technologies along with strategies to enable less water intensive energy choices to be readily identified so that regulators can make informed decisions about new power supply options from a water perspective.* *Benchmark 3A: By 2010, identify practices appropriate for reducing the amount of water lost due ton evaporation from cooling, the amount of water needed to replenish*	Response issued on December 11, 2007. 9.) The May 2009 WCIP was revised to add clarification that the water and energy conservation relationship has not been quantified for utilities in Georgia and the Southeastern United States. 10.) The May 2009 WCIP, Electric Generation Chapter, was revised to include a statement regarding the impact of water-intensive energy resources and technologies. 11.) The May 2009 WCIP, Electric Generation Chapter was revised to clarify that the relationship between energy and water conservation has not been quantified in Georgia and the Southeastern United States. 12.) The May 2009 WCIP, Electric Generation Chapter was revised to add Implementation Action 3.5, suggesting a cooperative effort to develop an education campaign to help communicate the benefits of water efficiency as it relates to consumer behavior and technology adoption.

	during blowdown operations, and the amount of water needed for flue gas scrubbing along with conducting a comparative analysis of water use requirements from a variety of electrical generating technologies. Benchmark 3B: Please change the effective date for this action to the end of 2009 as major power supply decisions that will have longstanding impacts on water supplies in Georgia are already in progress. Utilities should have been doing this already as a matter of business. **EPD Response:** *Because water availability is such a critical element of long-term planning (for electric utilities and other water users), the December DRAFT WCIP Introduction Chapter was revised to include a description of the four-step water planning process, and the water quantity management practices identified in the SWP. Also, Benchmark 3B addresses the need for new facilities to employ water efficient practices by stating "By 2015, all new electric generation facilities should be designed and built so as to minimize, to the extent practicable, the amount of water used for electricity generation in Georgia." The December DRAFT WCIP, Electric Generation Chapter was revised to include language encouraging electric utilities to conduct comparison analysis of water use requirements as a method to identify those practices that can ensure operations minimize the amount of water needed to be withdrawn from surface and groundwater sources. The WCIP is designed to be a resource that can be used by Georgians to achieve greater water efficiency and help sustain our state's water resources. The document is not a list of mandatory actions.* **New SACE Comment:** We are pleased to see EPD encourages electric generation facilities to minimize water usage with this revision: "By 2015, all new electric generation facilities should be designed and built so as to minimize, to the extent practicable, the amount of water used for electricity generation in Georgia." However, the phrase "to the extent practicable" is too vague to be useful to the utilities, as it does not make clear any benchmarks that they should try to attain with the possible water conservation measures. For instance, would this include the possibility that new power plants should pursue alternative cooling methods, such as dry cooling, that significantly reduce water use or is this just suggesting that utilities should not water the lawns of the power plants during drought conditions? Obviously the former option would save significantly more water than the latter. We recommend outlining specific goals and conservation tactics in which utilities might use to reach those goals for current and future power generation facilities. Also, an effective date of 2015 does not address the fact that major power supply decisions that will have longstanding impacts on water	

	supplies in Georgia are already in progress and require expedited attention. Nor does the 2015 date appreciate that utilities should have been selecting, designing and building power generation plants, in ways that minimize water usage for electricity generation in Georgia, as a matter of business already. Finally, while we recognize that at the present time the WCIP is not mandatory, we would like to see it become mandatory to ensure the preservation of Georgia's water resources and to facilitate improved water resources management and planning among state agencies. **4. Original Comment (Oglethorpe Power)-** *The WCIP should appropriately balance water conservation goals with the well-being of the Georgia economy.* **EPD Response-** *The December DRAFT WCIP was revised to clarify that the WCIP is designed to be a resource that can be used by Georgians to achieve greater water efficiency and help sustain our state's water resources. Conservation, implemented as a long-term water management practice, is fiscally responsible and can enhance our ability to grow. The ultimate goal of water conservation is to maximize the benefit from each gallon used, while not preventing water use.* **New SACE Comment-** SACE is pleased to see EPD recognize the mutually beneficial relationship between conservation of Georgia's environmental resources and Georgia's economic wellbeing. **5. Original Comment (Georgia Power):** *Water use should reflect consumptive use rates rather than withdrawal rates.* **EPD Response:** *The December DRAFT WCIP was revised to include USGS information on consumptive uses (as reported in the "Water Use in Georgia by County for 2005 and Water Use Trends, 1980-2005" released in January 2009), for some water use categories.* **New SACE Comment:** While there is an important distinction between water withdrawal rates and consumptive use rates, the WCIP should reflect that water withdrawal alone can have harmful effects, such as the thermal plumes created as heated water is released back into the system that threaten wildlife. Further, the water withdrawal rates clearly show how much water a certain electricity generation source needs in order to produce energy and that is an important figure to keep track of as a	

	river basin is being researched to determine how much water is already needed by a variety of users and how much water may or may not be available in the future for additional water needs. For instance, hypothetically speaking, a coal plant may require 100 million gallons of water per day to produce 1000MWh and lose 10 mgd from a particular river basin; though the cumulative loss to the basin is important, it is equally important to identify and track that the river basin has a water user that is withdrawing 100 mgd and relies on having that amount of water available. A power plant is not limited in the amount of electricity it can produce by its consumptive water use; rather, a power plant could be limited in its production of electricity if the amount of water it needs to generate that electricity is not available, hence the need to know and plan accordingly based on the water withdrawal rate. We strongly recommend that water use should reflect both consumptive use rates and withdrawal rates. **6. Original Comment (Oglethorpe Power)-** *The Georgia Public Service Commission (PSC) should spearhead any effort to collect data concerning energy savings due to water conservation, with input and cooperation from electric utilities and water providers.* **EPD Response-** *The December DRAFT WCIP, Electric generation chapter Goal #1, was revised to encourage electric utilities to partner with EPD to evaluate existing tools or develop new tools to assess the relationship between water conservation and energy demands. Both the SWP and the WCIP build upon Georgia's current statutory framework to create a more integrated water management effort (See SWP Section 1: Purpose). Because the PSC actions are guided by a separate statute, and its oversight is limited solely to investor owned utilities, it is beyond the scope of the WCIP to recommend statutory changes that would affect the PSC's water conservation activities.* **New SACE Comment-** SACE certainly supports gathering new data on energy savings due to water conservation, but we encourage EPD and power companies to first look at data that has already been collected on this issue in other states. Then design research accordingly so that new data collection is in fact contributing to the data pool and not simply a stalling mechanism for action on the water-energy connection. Furthermore, we hope that in addition to receiving input and cooperation on this project from electric utilities and water providers, EPD will be open to input from interested non-profits and renewable energy and energy efficiency companies. We support efforts to expand data	

	collection and analysis as needed and done in a way that is effective, comprehensive and addresses all utilities as needed through the appropriate jurisdictional state authorities. **7. Original Comment (Georgia Power)-** *The WCIP proposes that power companies apply risky adjustments to their future demand projections to take credit for customers behavior for which the electricity provider has no control.* **EPD Response-** *The December DRAFT WCIP, Electric Generation Chapter was revised to strike a balance by 1) acknowledging that existing information gaps (about the impact water conservation has on energy generation and the impact energy conservation has on water use) impede utilities efforts to implement or encourage customers to implement water conserving practices, and 2) identifying the steps necessary to close information gaps to ensure conservation efforts are effective and that the state and utilities invest in the tools to fully integrate energy and water conservation. Specifically, the revised chapter focuses on assessing the feasibility and benefit of integrating water conservation efforts into utilities' long-term energy management plans; partnering with energy customers to raise awareness and build an understanding of the impact water conservation practices have on energy demands; and improving water efficiency at existing facilities and evaluating emerging technologies to reduce water use and consumption.* **New SACE Comment-** It is incorrect to state "the electricity provider has no control" over the customer's behavior, when in fact they do. Georgia Power has also commented that the WCIP has wrongly assigned "substantial responsibility" to the electric provider to educate customers about water conservation, yet this is the precise mechanism through which Georgia Power can influence its customers' behavior. The WCIP should continue to propose that power companies make future adjustments based on reduced demand and that these companies take steps through awareness and education campaigns to ensure that demand is in fact reduced. **8. Original Comment (Georgia Power)-** The WCIP continues to wrongly assume that any reductions in electricity use will result in a comparable and direct reduction of water consumed to generate that electricity. **EPD Response-** *The December DRAFT WCIP, Electric Generation chapter, Goal #1*	

	narrative was revised to acknowledge that while water conservation by energy customers impacts energy demands, different water use practices affect energy demands differently. Some water conservation activities can decrease energy demands (such as installing low-flow showerheads and water efficient dishwashers), while others activities may actually increase energy demands of customers (such as retrofitting a commercial facility to use recycled or reused water.) Because of the information gap regarding how energy demand responds to water conservation efforts, it is important that activities begin now to address the shortcomings of our knowledge. **New SACE Comment-** As stated previously, there is an established link between reduction in electricity use and reduction of water consumed. This link is discussed in the May 2009 WCIP with reference to a GEFA study. There is other information available elsewhere. Also, as stated in December 2007 by Georgia's Drought Response Unified Command (DRUC) that highlighted the water-energy connection through its statewide press release: *DRUC encourages Georgians to help save water by conserving electricity. Large amounts of water are required to generate electricity. In Georgia, each kilowatt hour (kWh) of electricity production consumes 1.65 gallons of water according to the National Renewable Energy Laboratory.i To put it in context, the average Georgia household's electricity use is 1,148 kilowatt hours per month, requiring 1,894 gallons of water to generate.ii* Though the actual specifics of how a particular river basin in Georgia may benefit from water savings due to decreased electricity demand, given Georgia's current reliance on water-intensive energy supply options water somewhere will be conserved as energy efficiency and conservation practices are implemented. For instance, if a water-intensive coal fired power plant in Georgia does not have to run at full capacity because there has been a reduction in energy demand, less water will be required to run the plant and thus less water will be withdrawn from a particular resource. We agree with the EPD in identifying that more research should be done to better understand the direct water benefits from reductions in energy demand, but as stated previously, we believe that sufficient information exists to recommend moving forward with implementing energy conservation practices rather than staying only in the information–gathering stage. SACE would appreciate working with EPD more on this issue if future opportunities to do so arise.	

	9. Original Comment (Georgia Power)- *The WCIP wrongly assigns to power companies substantial responsibility for educating customers about water conservation.* **EPD Response-** *The December DRAFT WCIP Introductory Chapter was revised to emphasize that within every sector, integrating energy and water solutions will become increasingly vital to help sustain our finite resources in light of our state's growing population and environmental needs. The activities identified in the WCIP are not a list of mandatory actions, but steps that can help create a culture of conservation within Georgia. The December DRAFT WCIP, Electric Generation chapter was revised to focus on assessing the feasibility and benefit of integrating water conservation efforts into utilities' long-term energy management plans; partnering with energy customers to raise awareness and build an understanding of the impact water conservation practices have on energy demands; and improving water efficiency at existing facilities and evaluating emerging technologies to reduce water use and consumption.* **New SACE Comment-** Please refer to item #7. **10. New SACE Comment:** On page 55 of the May 2009 Draft CWIP, we recommend a clarifying additional sentence to the following sentence (addition is marked as underlined text): "The availability of adequate water supplies has an impact on the availability of energy, and energy generation has an impact on the availability and quality of water. Greater impacts result when more water-intensive energy resources and technologies are used and lesser impacts result when water conserving energy resources and technologies are used." **11. New SACE Comment:** On page 56 of the May 2009 Draft CWIP, we recommend adding clarification to further explain the energy conservation and water conservation relationship involving reductions in water use resulting in reductions in energy demand (addition is marked as underlined text): "The relationship between energy conservation and water conservation is complex. Generally, reductions in water use will result in reductions in energy demand, and although this relationship has been quantified for specific applications (such as water-inefficient toilets replaced with efficient toilets that reduces both water and energy demand), this general relationship has not been quantified for the utility system in Georgia."	

	12. New SACE Comment: Goal #2: The approach to consumer and public education is extremely important to the ultimate success of the WCIP for the electric generation sector. It is clear in reading over some of the electric utility comments submitted to EPD in response to the December 2008 WCIP and from attending some meetings that at least some electric utilities hold the view that education about water efficiency belongs in water bills and energy efficiency information belongs in energy bills. It is understandable that electric utilities may not be the best positioned to educate the public about the water-energy connection. Electric utilities are among the largest water users in the state and are proposing new power plants that will be among the highest water consuming power plants that exist; therefore, the water-energy connection would pose a public relations problem for them. This problem is similar to electric utilities in Georgia being challenged with educating their customers or the general public about air pollution, health problems and coal-fired power plants – a utility public relations dilemma. Therefore, we recommend that there be a coordinated campaign to educate the public. State agencies – EPD and GEFA – should be involved in addition to environmental and consumer groups with utility assistance as needed so that all can help communicate the benefits of water efficiency as it relates to consumer behavior and technology adoption. The U.S. EPA has excellent information on both energy efficiency and water efficiency. Information such as the following, as presented on p. 3 of the "Water and Watts" report by the World Resources Institute referred to previously in our comments, is helpful for utility consumers and the public to know: "Southeast power plants withdraw an average of two full bathtubs of water to generate electricity needed to power a refrigerator for a day, losing about four gallons to evaporation in the process." Again, we greatly appreciate EPD's work on the WCIP and for providing a mechanism to provide further feedback on the latest draft of the WCIP from May 2009. We look forward to work with EPD further on issues related to the electricity sector. If you have any questions or comments on the information SACE has submitted, please do not hesitate to contact me at 912.201.0354 or sara@cleanenergy.org.	
Zippy Duvall, President,	Georgia Farm Bureau appreciates the opportunity to comment on the May 2009 version Georgia's Water Conservation Implementation Plan (WCIP). Georgia Farm Bureau is	

Georgia Farm Bureau	the largest general farm organization in the state with over 400,000 member families. Georgia Farm Bureau has been pleased to be apart of the WCIP process as well as the entire Statewide Water Plan. We are grateful for the work EPD has done to improve this document and there are many positives with regards to the plan. However, there are some concerns we would like to highlight. On page 18 the last sentence of the first paragraph says "By prioritizing efforts to conserve water and maximize water efficiency, we can protect our finite resources without causing harm to the economy or the quality of life that current and future Georgian's enjoy". It is unclear whether we can protect our finite resources through conservation without any water storage avenues. Supply augmentation should be discussed in this document. Georgia Farm Bureau believes storage of water goes hand in hand with water conservation. On page 21 of the plan, it is stated that "water conservation requirements for applicants for non-farm withdrawal permits or permit modifications to demonstrate progress toward water conservation goals". Nevertheless, on page 23 it says the WCIP will be used "informing DNR rule-making regarding conservation requirements in permitted". Page 20 of the Statewide Water Management Plan required this only for non-farm withdrawal permits, and this should be clear throughout the WCIP. Page 44 Goal #3 of the Agriculture Water Use section is especially concerning. It says "farmers should choose appropriate crop varieties, cropping systems and irrigation systems to maximize the efficient use of water on farms." Market forces are the main factor in what crop varieties and cropping systems producers use on their farm. The cost of applying water is also a determination. Therefore, this statement should be eliminated, or at the very least, the goal should include a statement that takes market forces into account. Page 45 Benchmark 3B says "by January 202, farmers should increase the number of acres managed under water conservation tillage systems to 50% of all row-crop land, where such management practices are suitable. It is not clear whether the statement refers to individual farmers or farmers as a whole. Farmers as a while may be able to achieve 50%, however it could be difficult for individual farmers who are dealing with the problem of glyphosate resistant weeds. Some farmers are being forced to go back to	The WCIP, Executive Summary and Introductory Chapter clarify that water conservation, as a demand management practice described in the State-wide Water Management Plan, is one of several water quantity management practices that can be used to manage the consumptive use of Georgia's regional water resources. Water conservation is defined in the SWP as "the beneficial reduction of water use, water waste and water loss," so the WCIP elements are organized to address use, waste and loss. Also, the WCIP only addresses water conservation efforts by design. As described in Governor's Executive Orders from October 2007 and October 2008, "… a water conservation implementation plan that outlines water conservation goals, benchmarks, and practices for Georgia state facilities, and water conservation goals, benchmarks and practices for Georgia's diverse water use sectors, citizens and businesses." The May 2009 WCIP was revised to clarify that DNR Rule making only applies to non-farm water withdrawal permittees. The May 2009 WCIP, Agriculture Irrigation Chapter, Goal #3 was revised to suggest farmers, "…consider crop varieties, cropping systems and irrigation systems to maximize the efficient use of water on farms."

	conventional tillage practices to solve this problem. This should be cleared up in this benchmark. On page 49 Best Practice (B)) 12 says that farmers should plant in pie-shaped segments in order to better utilize irrigation water. Most fields are in a square shape and planting in a pie shape is not an option. This section should be eliminated entirely. Page 50 BP 14 says farmers should "minimize or eliminate the use of high-pressure spray guns on fixed and traveler systems." BP 14 also says that "a substantial portion of the water (often more than 50%) is lost to evaporation and wind drift. EPD should keep in mind that center pivot irrigation cannot be used in every field. In smaller fields it is not always cost effective to use center pivot irrigation. Therefore, traveler systems are better options. This should be reflected in the plan. Regarding water loss on traveler and fixed irrigation often being more than 50% there is no data tied to these numbers. EPD should reference that data in the document. BP 15 on page 50 dealing with nighttime irrigation needs to be addressed. While farmers realize that nighttime irrigation is a better and more efficient time to irrigate due to lower temperatures and wind, it is not always practical to do so. During extremely dry periods, farmers are often required to water day and night in order to produce a quality crop. Thank you for the opportunity to offer comments on this important plan and the opportunity to provide input. If we can assist you in any way, please do not hesitate to contact us.	The May 2009 WCIP, Agricultural Irrigation Chapter, Goal 3, Benchmark 3B was revised to clarify that the benchmark relates to Georgia's collective farming community, not individual farmers. The May 2009 WCIP, Agricultural Irrigation Chapter, BP 14 narrative was revised to correct and cite a source for the data. The practices listed in the menus of options, such as nighttime irrigation, are not mandatory and only presented as part of a comprehensive list of practices for farmers to consider.
Home Builders Association of Georgia	The Home Builders Association of Georgia (HBAG) is an active participant with the Georgia Water Alliance (GWA). HBAG supports the overall comments made by GWA on the Water Conservation Implementation Plan (WCIP), However, HBAG offers the following on some areas in the WCIP that most directly impact the home building industry. Our comments are regarding sections of **Chapter 7 – Conserving Water for Domestic and Non-Industrial Public Uses:** <u>BP7 –Calculating average utility specific per capita residential indoor water</u>	The WCIP, Domestic and Non-Industrial Public Uses Chapter presents per capita information, not as "consensus" but reports the information collected through national research and studies on indoor per capita water use. The information is reported in the WCIP to inform water providers and their customers of the potential impact water conservation can have on indoor residential water use.

	use: HBAG disagrees that the 45 gpcd is a "consensus" figure or even relevant without further detailed research and analysis. HBAG believes that references to 45 gpcd are confusing and that it could be construed as an absolute number that must be achieved. HBAG recommends that commentary related to this benchmark be removed from the WCIP. BP19 – Retrofit and rebate programs and BP20 – Incentive programs: HBAG supports and encourages market driven voluntary programs such as WaterSense and Energy Star. They can be very effective when combined with consumer education BP20 – Building codes and local ordinances: HBAG is a strong supporter of the statewide building code. Most builders operate in multiple jurisdictions. It is very confusing and often ineffective to be dealing with differing requirements from county to county or even with cities within the same county. HBAG does not support a possible proliferation of local ordinances. At minimum, HBAG suggests that it would be best for the Regional Water Councils to make recommendations regarding ordinances if indeed a situation requires more stringent measures that the statewide code.	Sharing this type of information with customers can be a great educational tool. This type of information can also be used to guide water providers in developing benchmarks for their particular water system. The WCIP, Domestic and Non-Industrial Public Use Chapter, Implementation action under Best Practice 8 acknowledges the need for Georgia-specific water use information and calls for EPD and others to conduct a statistical study of Georgia's indoor residential water use and to publish this information for the broader use of Georgia's water providers. The practices listed in the menus of options, such as local ordinances and incentives for efficient plumbing fixtures, are not mandatory and only presented as a part of a comprehensive list of practices for water providers and local governments to consider.
The Georgia Water Alliance	The Georgia Water Alliance (Alliance) is pleased to provide consensus-based comments and recommendations for the Water Conservation Implementation Plan (WCIP) Version 1.0 dated May 2009. The Georgia Water Alliance encompasses many organizations representing the interests of Georgia's diverse business and industry sectors, local government, water providers and agribusiness entities. We are encouraged by the progress the Environmental Protection Division (EPD) has made with the WCIP and appreciate the continued stakeholder involvement in its refinement. The Alliance acknowledges and supports the important role that the WCIP will play in the achievement of the overall objectives of the Statewide Water Management Plan. Of importance, the draft WCIP statement that: ***"the ultimate goal of water conservation is not to discourage water use, but to maximize the benefit from each gallon used,"***	1.) The WCIP is a resource document that can be used to guide many efforts. As stated in the Governor's Executive Orders from October 2007 and October 2008, the WCIP is to be a plan that, "… outlines water conservation goals, benchmarks, and practices for Georgia state facilities, and water conservation goals, benchmarks and practices for Georgia's diverse water use sectors, citizens and businesses." The WCIP is not designed to be a regulatory or a legislative agenda. Where possible, state agency actions are outlined

	emphasizes our priority that the WCIP must support Georgia as being 'open for business'. The Alliance remains committed to assisting the EPD in the development of a fact-based WCIP that is achievable and productive. As EPD requested, these consolidated comments are submitted as constructive, actionable items. It is important to note that any issues specific to an organization that are not contained within these comments may be addressed separately. Sincerely, THE GEORGIA WATER ALLIANCE Members of the Georgia Water Alliance (Alliance) actively participated throughout the Environmental Protection Division's (EPD's) development of Statewide Water Management Plan (SWP) until its adoption in 2008. Integral to the SWP is the development of the Water Conservation Implementation Plan (WCIP) as a "*guidance document*" which articulates conservation objectives and implementation activities aimed at enhancing efficiency in the use and reuse of the State's water resources. The goals and objectives proposed in the WCIP should, if implemented in a coordinated and timely manner, lead to outcomes positive for Georgia's future economic and social growth. Therefore, it is critical that time is taken to reflect on the scope, intent and application of each element of the WCIP to ensure a successful guidance document. Importantly, the Alliance supports the State Water Plan policy, which recognizes that water conservation activities and the need for continued augmentation of water supply sources are not mutually exclusive objectives. Each of these activities, if appropriately planned, prioritized and implemented, will lead to greater supply of high quality, affordable supplies of fresh water for all Georgia water users. <u>They must be progressed simultaneously and in a manner that focuses on the specific requirements and priorities for each region of the State.</u> This submission reiterates many of the points presented in the Alliance's January 31, 2009 submission to the December 2008 Draft WCIP. The Alliance acknowledges and appreciates that a number of the issues raised by its members are reflected in the WCIP Version 1.0 that was released by EPD on May 27, 2009. However, several priority concerns remain and many new concerns have been identified upon review of the WCIP Version 1.0. In addition to these comments, individual Alliance members have	in the "implementation actions" sections of all the sector chapters to present suggested timelines for when activities can be accomplished. The May 2009 WCIP was revised to include a cross references in the Introductory Chapter, linking the sections titled "How the WCIP will be used" and "State-wide water planning: The SWP, Section 8, Implementation action (2) outlines how the WCIP can be used in permitting decisions. 2.) The May 2009 WCIP was revised to present the contents of the WCIP document in a condensed Summary Chart of goals, benchmarks, practices and implementation actions. This Summary Chart and the Executive Summary will be presented as a separate document for those who wish to only see the major elements. To maintain readability and the aspirational aspect of the document goals and benchmarks are listed together, and later followed by the supporting activities to help achieve these aspirational efforts. 3.) The WCIP, Executive Summary and Introductory Chapter clarify that water conservation, as a demand management practice described in the State-wide Water Management Plan, is one of several water quantity management practices that can be used to manage the consumptive use of Georgia's regional water resources.

	been encouraged to submit comments to EPD on issues relevant to their respective memberships. **The Alliance's comments on the May 2009 version of the WCIP are guided by the following core principles:** 1. All conservation and supply augmentation initiatives must be based on accurate, up-to-date and publicly accessible water resource data, relevant to inflows, withdrawals, reuse and returns for each region of the State. 2. Baseline data must be negotiated with water users in each region before the implementation of the WCIP begins and must be based on defined, net use data for each of the seven industry sectors. 3. There must be open, transparent public participation in all stages of the development, management, implementation and review of the WCIP. 4. Conservation principles must encompass the dynamics of adaptive management and provide autonomy to each region to recommend practices best suited to its circumstances. 5. Recognition must be given for all past water conservation investments and achievements when setting implementation outcomes and obligations. 6. Conservation practices are integral to the management of the State's water resources and should be adopted by all water users where proposed practices are necessary, cost effective, reflect better management practices and support the region's Water Development and Conservation Plan objectives. 7. To recognize the need for growth in long-term water supply solutions across Georgia, augmentation of water supply sources must simultaneously complement conservation practices. 8. The State should fully fund all aspects of the development, management and review of the Statewide Water Management Plan and the WCIP.	Water conservation is defined in the SWP as "the beneficial reduction of water use, water waste and water loss," so the WCIP elements are organized to address use, waste and loss. Also, the WCIP only addresses water conservation efforts by design. As described in Governor's Executive Orders from October 2007 and October 2008, The Department of Natural Resources is to lead the development of "… a water conservation implementation plan that outlines water conservation goals, benchmarks, and practices for Georgia state facilities, and water conservation goals, benchmarks and practices for Georgia's diverse water use sectors, citizens and businesses." 4.) The May 2009 WCIP, Domestic and Non-Industrial Public Uses Chapter Introduction section was revised to include more discussion of the importance of cost-effective analysis to determine the best water conservation activities for water providers. The WCIP, Introductory Chapter definition and description of best practices states, "…Each water user should evaluate the practices in the menu to determine those that are cost-effective and beneficial to them. Also, the importance of cost-benefit or cost-effective analysis is emphasized throughout the document. Specifically referenced in Introductory Chapter, Industrial and Commercial Chapter (Introductory section and Goal 2

	ISSUES FOR CONSIDERATION **1. WCIP and Future DNR Rule Making** As stated by EPD and the SWP, the WCIP will be a key document that informs the future development of the Department of Natural Resources (DNR) Rules relating to water resource management and permitting. Thus, EPD should provide commentary on the areas it believes most relevant for future rule development or amendment. Further, Version 1.0 of the WCIP fails to distinguish between voluntary measures and those which "inform" DNR rulemaking for the regulated community. The role of the WCIP as a guidance document must be reinforced at all times to ensure that it is not applied in a de facto regulatory process, or used to raise compliance obligations in an inappropriate manner. <u>The Alliance recommends adding specificity regarding the types of policy changes sought by the WCIP and distinguishing between those policies that will require formal action by the DNR Board and by the Georgia General Assembly. A timeline for development of rules and/or potential legislation should also be included.</u> **2. Condensed Version** Similar to the development of the State Water Plan, the WCIP contains extensive background information and aspirational commentary that are extraneous to a guidance document. A consistent theme voiced by the seven sectors is the need for a concise working document that can be easily referenced and constructively influences decision making and practical application of conservation efforts. <u>The Alliance recommends that EPD create a streamlined document containing the executive summary and each sector section.</u> The information contained in the introduction as well as the acknowledgements should be relocated to the response to comments document prepared by EPD or some other suitable supporting document. Last, each sector section should be reorganized to group Best Practices with the related Goals and Benchmarks. The WCIP will become a beneficial, useful document by simply outlining Goals, Benchmarks and Best	benchmarks), and Domestic and Non-Industrial Public Uses Chapter (Introductory section, and BP 8), State Agency Chapter (BP4 and BP5). The May 2009 WCIP was revised to remove commentary that assumes that all expenses incurred by conservation efforts will be off-set by utility bills. Where examples of reduced utility bills from conservation efforts are available, references are provided. Step-by-step guidance for water utilities implementing water conservation efforts is being developed as part of the implementation of the State-wide Water Management Plan (See section 8: Demand Management Practices.) 5.) The WCIP, Domestic and Non-Industrial Chapter, BP 9 through BP13, BP18 through BP24, and the associated implementation actions describe the partnerships and programs available to help water providers achieve a community goal of more efficient use of water. The practices listed are not mandatory, but should be considered when a water provider faces the need to reduce water use, water waste and/or water loss. Water conservation programs are important to help water utilities provide water services in the face of limited water supplies. In such cases, water providers and/or local governments should attempt to influence the choices available to water customers.

	Practices for each sector without the additional commentary and discussion. **3. Conservation and Augmentation of Storage and Supply** Water conservation is a complement to, not a substitute for, timely development and connection of additional water supplies so that the state can otherwise continue to grow and develop to its full socioeconomic potential. A continuing concern related to the WCIP is the lack of consideration of growth and water supply needs, socioeconomic benefits and quality of life before prescribing conservation practices. In fact, the WCIP continues to advocate a conservation-first message illustrated by the last sentence of the first paragraph on page 18: "by prioritizing efforts to conserve water and maximize water efficiency, we can protect our finite resources without causing harm to the economy or the quality of life that current and future Georgians enjoy." While the Alliance members support the promotion of conservation messages, goals and practices, it is uncertain whether we can protect our resources and provide an ample water supply through conservation without complementary water storage or supply alternatives. Any discussion of conservation efforts should be balanced by an acknowledgement that management of current storage resources and planning for and construction of new or expanded reservoirs should, can and must occur simultaneously with adoption of conservation goals and targets. Conservation is a valuable approach, but it may not and will not always be the most appropriate starting point or priority activity in every circumstance. There must be clear support for the side-by-side articulation of all conservation and storage augmentation options. <u>The Alliance recommends that EPD incorporate a discussion of supply augmentation and alternatives in the background commentary and introduction. Further, the Alliance recommends the development of a "Water Supply Augmentation Plan" that would outline the role of augmentation, existing water supply alternatives and the relationship between conservation and supply.</u> **4. Funding Obligations and Cost/Benefit Analysis**	The WCIP, Domestic and Non-industrial Public Uses Chapter presents information on peer-reviewed research and studies conducted to estimate efficient water use for residential customers. Since the WCIP is to be used as a resource for water users and water use sectors, these studies are referenced. The narrative discussing these studies is followed by the statement, "The degree to which 45 gpcd can be achieved by individual providers in Georgia should be evaluated." Also Implementation action 7.7 in Chapter 7, recommends that EPD conduct a statistical study of Georgia's indoor residential water use and publish this information for the broader use of Georgia's water providers. 6.) The May 2009 WCIP was revised to remove reference to the fact that Georgia faces uncertainty regarding impacts that global climate change may have on our region's climate conditions. 7.) The May 2009 WCIP, Introductory and Electric Generation Chapters were revised to reference research that demonstrates a positive relationship between energy and water conservation efforts. Also, the May 2009 WCIP, Electric Generation Chapter, Benchmarks 1A and 1B, and Implementation Actions 3.1 and 3.2 were revised to emphasize the need for a cooperative effort to 1) identify information gaps regarding the relationship between energy conservation and water conservation and 2) begin a process for filling information gaps. It is

	The WCIP proposes many actions by numerous industry participants that are prescriptive, not supported by cost/benefit analysis and unfunded. In many instances, the WCIP places the onus for delivery to groups without influence or responsibility for the water use. In all cases, the WCIP must clearly state that there are no obligations imposed on any water user or group that will result in penalties or other detrimental action if they are not carried out. Further, while some conservation practices do have the potential to save money by deferring capital investments and streamlining operations in specific situations, this is not a universal outcome and needs to be qualified throughout the WCIP where the costs and benefits of conservation are noted. For example, for many water utilities, the effect of the recent drought and water use restrictions has reduced water use by customers adopting conservation practices, resulting in less revenue and increased cost per gallon for water provided. Many water providers have found themselves in the difficult position where rates must be increased to make up for the revenue lost as a result of decreased water use. A very common complaint is that utilities have forced their customers to reduce water use and then charged them more for it. The WCIP should also acknowledge that the first step in a feasibility study may be a pro forma cost-benefit analysis to determine if the projected cost savings are commensurate with the projected total cost of implementation. Then, only cost-effective opportunities for conservation, reuse and recycling merit further consideration. At this point, each facility should be given the flexibility to "opt out" if the projected costs to a facility for implementing the WCIP-envisioned program exceed the projected benefits. Again, the WCIP should not continue to make the assumption that expenses incurred to implement conservation will be off-set by reduced utility bills. <u>The Georgia Water Alliance recommends that any commentary offering this assumption be removed or reworded appropriately. As the WCIP will guide investment and management decisions for the foreseeable future, the Alliance also recommends that the WCIP contain guidance to water users so that only those practices that have a demonstrated positive cost/benefit outcome and that will positively contribute to the goals of the WCIP are promoted.</u>	important for water and electric utilities and other experts work together with Georgia research institutions and agencies to progress toward energy and water conservation efforts. 8.) Where possible, the acronyms and definitions in the WCIP align with those used by professional associations, organizations and experts in the field. The sources are referenced in parentheses after the term. For example, as presented in the Acronyms and Definitions section, the term "cost-benefit analysis" is presented as, "<u>Cost-benefit analysis</u> (EPA) – a comparison of total benefits to total costs, usually expressed in monetary terms, used to measure efficiency and evaluate alternatives." Because the definition was found in EPA's Water Conservation Plan Guidelines (1998). Future iterations of the WCIP will be subject to the public review process, as were the May 2009 and the December 2008 iterations. Updates should entail thorough cross-check of terminology and references. 9.) The WCIP generally defines baseline as, an established value or trend used for comparison when conditions are altered, as in the introduction of water-efficiency measures. The WCIP does not attempt to determine the time frame under which a baseline should be established, except for sectors that have already begun to broadly develop baselines (such as the State

	5. Supply Side Demand Management The WCIP proposes a role for some supply-side entities to influence or force demand side improvements in consumer behavior. This is particularly evident in the chapters that apply to water utilities and electrical utilities. For example, the WCIP's continued focus on 45 gpcd as a "consensus" level of indoor water for most areas is a one-sized fits all approach that does not account for the specific dynamics of each region. Alliance members continue to contest the suggestion that this is a consensus figure, or even relevant without further detailed research and analysis. In fact, the majority of water use data nationwide would indicate that 45 gpcd is an idealized figure for a new home with all water-saving devices and zero leakage. <u>The Georgia Water Alliance recommends again that programs aimed at influencing consumers' water use behavior be developed by EPD and/or other appropriate state agency and supported where appropriate by relevant utilities and industry and community organizations. The Alliance also recommends commentary related to the 45 gallon per capita benchmark be removed from the WCIP.</u> <u>Comments expressed in the Oglethorpe Power Corporation, Georgia Electric Membership Corporation and Georgia Power submissions relating to the role of these entities to influence consumer behavior is supported by GWA members.</u> These practices require further clarification and specific targeting to apply to only those areas that organizations have any ability and economic imperative to influence. In many instances, it is not practical or relevant for these organizations to be expected to undertake these activities as they extend well beyond the service areas and areas of direct interface with their customer base. **6. Climate Change** The Alliance believes that it is premature to include discussion on the potential for climate change to impact Georgia's future water supply until the policy and legislative discussions surrounding the treatment of this issue are resolved. Significant discussion remains surrounding the ultimate obligations and benefits	Agencies mandate issued through Executive Order – see State Agency Chapter, Goal #1.) Establishing a specific baseline for water use was a common theme for each major water use sector and is address in nearly each chapter of the WCIP. The WCIP is a resource for all Georgians and water users, and recognizes that each water use sector is unique, as each water user is unique. It is beyond the scope of the WCIP to suggest the process by which each individual, permitted entity can determine their appropriate baseline year. 10) The May 2009 WCIP, Acknowledgement Section was revised to state, "The content of the WCIP is the sole responsibility of the Environmental Protection Division, yet many individuals volunteered their time, experience, information and expertise to the development of this plan. While their participation is not an endorsement of the elements of the WCIP, without their help and cooperation, Georgians would not have such a comprehensive implementation plan"

	that may be assigned to different practices and, likewise, there is no firm agreement on the impacts, or benefits that might accrue to Georgia or the southeastern States, or the timing of these influences. The Alliance recommends that references to climate change be removed in the current version of the WCIP and considered during future reviews of the WCIP once policy and legislative discussion have concluded. **7. Energy Water Nexus** While the relationship between water and energy is becoming better understood, the same comment cannot be applied to the impacts on energy production and consumption from any or all water conservation practices. The WCIP should not promote the assumption that expenses incurred to implement water conservation will create energy savings. Further, electricity customers should not subsidize water customers' water conservation practices. The impact of conservation practices on electricity rates will eventually be realized to the extent those practices actually affect costs of providing electricity. Finally, it is important that the WCIP remain separate from any facility energy management plans. Until better quality data and more robust research has been conducted and a correlation established, the Georgia Water Alliance recommends the removal of assertions that implementation of water saving measures will create energy savings. This applies to commentary as well as benchmarks, goals and best practices contained throughout the document. **8. Data and Definitions** The Georgia Water Alliance is pleased to see an improvement in the data set used within the context of the WCIP compared to the initial draft. However, there remains a need to ensure that all goals, benchmarks and outcomes are focused on the use of data from the most appropriate source and that all definitions used are consistent with those incorporated into the SWP. For example, agricultural water use data needs to be consistent with the Georgia Soil & Water Conservation Commission data taken from actual flow meters. In	

	addition, the definition of water waste and the water waste chart are inconsistent and confusing. In addition to the noted examples above, the Alliance recommends continued peer review of data utilized in the WCIP as well as cross-checking the document with the Statewide Water Management Plan and other regulatory and statutory documents for consistent use of definitions. **9. Prior Investment in Water Conservation** While much improved from the initial draft, it is foremost important that the WCIP reiterate and explicitly recognize prior investments in conservation and the leadership of many Georgia businesses in water conservation efforts. These businesses have already spent capital and or operating funds and made changes to achieve measurable reductions in water use. Throughout the SWP development and the WCIP process, stakeholders were assured these achievements would be recognized, yet the WCIP seems to start the baseline from the inception of the WCIP document versus a facility's demonstrated track record and recent history. The Alliance recommends that the WCIP clearly states how a baseline year will be developed with each individual, permitted entity. **10. Acknowledgments** The Alliance members recommend that the preamble to the list of organizations and individual's named on the acknowledgement page more accurately reflect their position by addition the following: "that while these parties volunteered their time, experience, information and expertise to the development of this plan, their participation should, in no way, be seen as endorsement for any of the final form of the WCIP."	

Terry D. Snell, Board Chair and Gregory L. Jones, Water Resources Workgroup Chair, Georgia Industry Environmental Coalition	The Georgia Industry Environmental Coalition (GIEC) is a consensus-based technical organization representing a diverse group of industries throughout the State of Georgia. GIEC has been closely following implementation of Georgia's Comprehensive Statewide Water Management Plan (SWMP) and has member company representatives actively engaged in the Georgia Water Alliance. We are submitting this letter in the spirit of constructive engagement to provide comments on Georgia's Water Conservation Implementation Plan (WCIP), which was released by EPD on May 27, 2009. As you may know, GIEC had provided extensive comments on the draft released for public comment in December 2008. Many of our previous concerns remain. In articulating these concerns, we are trying to follow the vision statement contained in the 2004 Comprehensive Statewide Water Management Planning Act: *Georgia manages water resources in a sustainable manner to support the state's economy, to protect public health, and natural systems, and to enhance the quality of life for all citizens OCGA 12-5-522(a)* General Comments **GIEC is concerned that not enough attention has been given to meeting the economic and water supply needs of the State.** The WCIP appears to drive an aggressive conservation strategy, regardless of need, as the demand management tool to "eliminate the need for costly new or expanded supplies" (p 18), while simultaneously driving up the cost-benefit ratio for evaluating conservation measures by inflating the projected cost of providing such costly additional supplies. As alternative supply becomes more expensive, conservation becomes more attractive on a cost-benefit analysis such that even very costly conservation investments may be made to look attractive on a cost-benefit basis. The net effect may also make it more difficult to meet the formal demonstrated need federal threshold criterion for new supply (reservoir) development. **GIEC maintains its belief that a better understanding of the regional and basin needs vs. supply is crucial in determining the extent of the actual need for water conservation.** Further, to implement the WCIP as envisioned will take a great deal of labor at facility and water-provider levels (e.g., expected surveys, measuring, monitoring, compiling, documentation, planning, updating, reporting, training, education, outreach).	The WCIP is designed to be a resource for water users and regional water planners. The WCIP is not a substitute for the regional water planning as called for in the SWP. As discussed in the Introductory Chapter, the WCIP can be used as a resource to inform the regional planning efforts.

	Water conservation is a complement, not a substitute, for timely development and connection of ample robust water supplies so that the state can otherwise continue to grow and develop to its full socioeconomic potential. Given the subtropical climate and abundant average annual rainfall Georgia enjoys along with proper and timely planning, expansion, and development of ample storage capacity, transfer infrastructure and supply sources, the Georgia economy need not become water-limited. **Given GIEC's comments as summarized here, we are concerned about any future rulemaking resulting from the May 27, 2009 version of the WCIP.** <u>Specific Comments - Chapter 5: Industrial and Commercial Facilities</u> The WCIP seems to expect a kind of bureaucratized water conservation program at industrial and commercial (IC) facilities in the form of formal plans, auditing, monitoring, documenting, compiling, reporting, inspecting, updating, training, researching, sharing, informing, outreach, etc. This is particularly troubling with regard to concepts such as "water audits". Such audits in the simplest form (e.g., periodic assessment of total water use divided by total production) can provide useful information at low cost, but when the intent is to require repetitive audits that "document all water using practices and technologies, including documenting tasks that require water, major points of use and volume used at each point, and associate that use with units of production", the audit can quickly become a very expensive, cumbersome tool, well out of proportion to any benefit gained. This coupled with the requirement for a reduction target based on what the facility "could" achieve, without consideration of cost, leads to significant concern. These WCIP expectations or aspirations will no doubt add another layer of regulatory and administrative costs to the water-using IC operations that are subject to these expectations, irrespective of how much water is actually used or conserved at a particular facility. We submit that adding to IC operating costs without commensurate assured cost savings in a highly competitive economic environment is not a very good starting point toward the goal of creating a water conservation culture or gaining willing acceptance of that goal within the IC community. A much more streamlined and cost-effective WCIP approach is needed for IC facilities; one that adds only minimal administrative costs with no additional "paperwork" or reporting expectations and one that will have a favorable cost-benefit to the IC facility. The cost-benefit of initiating a water conservation program as envisioned and detailed in the WCIP should be examined at the outset by each individual IC facility with each facility given the flexibility to "opt out" if the projected added costs to the IC facility for implementing the WCIP-envisioned program exceed the projected cost savings. This is particularly the case	The WCIP is designed to be a resource that can be used by Georgia business owners, commercial and industrial facilities to help them achieve greater water efficiency and help sustain our state's water resources. The document is not a list of mandatory actions. The WCIP Industrial and Commercial Chapter identifies many best practices, such as conducting water audits, in a menu of options. The practices can be implemented at an IC facility interested in becoming more water efficient, but are not mandatory. The WCIP Introductory Chapter discusses the importance of conducting analysis to determine which water conservation practices are cost-effective or cost-beneficial for individual water users. Specifically, the WCIP defines best practices as, "…practices that those within the water use sector ***can*** implement to achieve benchmarks and reach goals. The water conservation practices included in the menus are considered to be generally cost-effective and applicable for Georgia water users. Inclusion of practices in the WCIP, however, does not imply that all users within a sector should implement each practice. *Water users should evaluate the practices in the menu to determine those that are cost-effective and beneficial to them."* (emphasis added)

	for smaller IC facilities or IC facilities using less than some threshold amount of water, say, 100,000 gallons per day. A much more streamlined and cost-effective WCIP approach is needed for IC facilities; one that adds only minimal administrative costs with no additional "paperwork" or reporting expectations and one that will have a favorable cost-benefit to the IC facility. The cost-benefit of initiating a water conservation program as envisioned and detailed in the WCIP should be examined at the outset by each individual IC facility with each facility given the flexibility to "opt out" if the projected added costs to the IC facility for implementing the WCIP-envisioned program exceed the projected cost savings. This is particularly the case for smaller IC facilities or IC facilities using less than some threshold amount of water, say, 100,000 gallons per day. Page 77 – The WCIP should not continue to make the assumption that expenses incurred to implement conservation will be off-set by reduced utility bills. This assumption furthers the idea that utility rates will remain constant while demand decreases and may be inaccurate. In fact, some water providers are already seeing negative revenue impacts due to customer conservation efforts and must raise rates to meet their fundamental operation and capital costs. Page 79 - 80 – The WCIP needs to recognize prior investments in conservation. Many IC facilities have been very proactive in conservation efforts. These facilities have already spent capital and/or operating funds and made changes to achieve measurable reductions in water use. Throughout the SWMP development and the WCIP process, stakeholders were assured these achievements would be recognized, yet the WCIP seems to start the baseline from its inception vs. a facility's track record over recent history. Page 79, 91 – The WCIP needs to recognize that some ongoing industrial processes may already be optimized (for water, energy, and labor) and are, therefore, not a practical or cost-effective candidate for further water conservation improvements; such optimized processes should not be subject to further water conservation expectations under the WCIP Page 79 - 83 – The WCIP needs to recognize that some candidate IC water conservation practices may increase energy use and acknowledge that there is no intent or expectation under the WCIP to seek improved water conservation at the expense of increased energy use. Page 83, 92 - The WCIP goal of integrating water and energy conservation practices and plans should be left entirely to individual IC facilities as this asserted "close linkage" may be only speculative or anecdotal for some industrial processes. Page 85 - 86 – The WCIP should recognize that many industrial or trade associations are not structured, nor equipped, to provide technical support.	Because of the unique nature of industrial and commercial businesses, the Industrial and Commercial Chapter, emphasizes the importance of conducting cost-benefit analyses when an IC facility begins or continues to implement conservation efforts. Specifically in the IC Chapter introduction, it states, "IC facilities can conduct a cost-benefit analysis to identify the water conservation practices that offer the best opportunities for significant water savings… Water efficient practices should be compared to the cost of the alternatives to conserving water, including the costs of purchasing more water or the cost of developing new supplies. The analysis can help facilities select the practices that are best suited to their circumstances. When performing a cost benefit analysis, facilities should consider the practices listed in this chapter, practices used by similar facilities in their sub-sector and practices promoted by relevant trade and professional associations." The May 2009 WCIP, IC Chapter, Goal #4 was revised to acknowledge that some water conservation efforts may increase energy demands.

	Page 85 -86 – The WCIP needs to recognize that adding sub metering, even when temporary, in some IC facilities may not be cost effective given the total cost to retrofit/install, operate, report, calibrate, and maintain/replace meters; sub metering decisions should be subject to cost-benefit considerations at the discretion of the IC facility. This is particularly true where there are several water use sub-cycles and/or where there is a high degree of internal water recycling. Spot checks and reasoned estimates can often suffice in instances where sub metering is not cost effective. Any requirement for "accuracy verification" of meters should be based on the manufactures' recommendations and not an annual requirement of the WCIP, and should include techniques such as basic water balances as an acceptable means for accuracy validation, where appropriate. Page 87 – The WCIP should not expect IC facilities to make information available to outside parties regarding water conservation practices or technologies that might otherwise be a competitive advantage to the IC facility Page 88 – The WCIP should acknowledge that the first step (screening) in the conduct of a feasibility study may be a pro forma cost-benefit analysis to determine if the projected cost savings is commensurate with the projected total cost of implementation and only cost-effective opportunities for reuse and recycling need merit further consideration. The long-term operation and maintenance costs should be included in consideration of potential reuse and recycle feasibility screening. The WCIP should note that certain IC reuse water applications may be further subject to EPD's requirements (guidelines) for "urban reuse" systems. Page 88 – The WCIP should acknowledge that storm water capture, if practiced on a large scale may reduce instream flows. Page 89 – The WCIP should acknowledge that using water for dust suppression at mines, quarries, construction sites, etc may be the only practical means available and that there is no expectation for water conservation expectations to take precedence over such practices to control fugitive or point source air emissions. Page 89 – The WCIP should acknowledge that relatively minor leak repairs at large water using manufacturing facilities such as paper mills may not be cost effective considering the disruption such repair work might mean to continuous facility operations. Again, these are cost-benefit decisions that should be left to the discretion of the IC facility management as to if and when such minor repairs need be made. Page 90 – Change "processing" to "producing" in footnote #92. Page 92 – The WCIP should remain separate from any facility energy management plans and should not assume water conservation practices will create energy savings.	The WCIP is designed to recognize prior investments in water conservation. The framework of establishing goals toward which our state can aspire describes those goals as, "…not one-size-fits-all targets for reductions in water use; they were designed to be flexible, so that they are applicable for users with differing circumstances and recognize prior investments in conservation." The May 2009 WCIP was revised to add references to case studies in which water conservation efforts have reduced utility bills. In an effort to protect competitive advantage of some facilities, the WCIP IC Chapter, Goals and Benchmarks introduction states, "…acknowledging that information regarding water use intensity may be proprietary; provisions should be made to maintain confidentiality, where necessary." The WCIP defines implementation actions as, "actions that, when resources are available, can be taken by state agencies, associations, organizations and other groups to support the implementation of practices." The practices listed in the Chapter 5 menu of options, such as conducting water audits, can be implemented at an IC facility interested in becoming more water efficient, but the practices are not a list of mandatory activities.

	In addition to specific comments regarding Chapter 5 outlined above, we recommend that the excessive background, general discussion, opinions and additional commentary now found throughout the WCIP be removed. Thank you for the opportunity to submit these comments. We look forward to further discussions on the May 2009 version of the WCIP and other vital issues pertaining to implementation of the Statewide Water Management Plan.	The May 2009 WCIP was revised to include a statement that some IC reuse water applications may be subject to EPD's guidelines for "urban reuses" system. Although the information on the relationship between energy and water is limited, the WCIP and the Georgia Energy Strategy attempt to integrate water and energy issues. The May 2009 WCIP, Electric Generation Chapter, Benchmarks 1A, and Implementation Actions 3.1 and 3.2 were revised to emphasize the need for a cooperative effort to 1) identify information gaps regarding the relationship between energy conservation and water conservation and 2) recommend a process and resources for filling information gaps. It is important for water and electric utilities and other experts work together with Georgia research institutions and agencies to progress toward energy and water conservation efforts. The May 2009 WCIP was revised to include a Summary Chart of the sector-specific water conservation goals, benchmarks, best practices and implementation actions. Because the WCIP is designed as resource to help educate all Georgians about water conservation efforts, the information introducing the concept of conservation, and the introductory chapter and information regarding each sector, goal,

		practice, etc remains in the WCIP. Those individuals interested only in the summary of goals, benchmarks, practices and implementation actions can access the chart as a separate PDF document available through the ConseveWaterGeorgia.net website.
The Georgia Water Coalition	The Georgia Water Coalition ("GWC" or "the Coalition") submits the following comments concerning the State Water Conservation Implementation Plan ("WCIP"). The GWC is composed of 175 conservation, recreation, evangelical, civic and business organizations and represents hundreds of thousands of Georgians. The Coalition is dedicated to the protection of water quality and water resources throughout the state. We applaud the State for its efforts to finalize the WCIP because it is a groundbreaking document that for the first time in Georgia represents a model framework of water conservation and efficiency goals, benchmarks, best practices, and implementation actions for all sectors of water usage in Georgia. We commend EPD for embracing an adaptive management approach to the WCIP by allowing frequent updates as more information becomes available. We see this document as a resource that should guide decision-making on financial and regulatory incentives for conservation and efficiency at the local, regional, and state levels through a variety of avenues including but not limited to ordinances, Water Development and Conservation Plans, rules, and statutes. Given the recent ruling on the Tristate litigation, it is imperative that Georgia move swiftly to implement the conservation and efficiency practices and meet the sector-specific goals. Where known, we recommend that EPD include specific data on the economic stimulus returns on investments in water conservation and efficiency programs because the economic benefit, in addition to the benefit to the environment, cannot be ignored. Below are examples of conservation programs and the returns on investment based on a study by the Alliance for Water Efficiency ("AWE"). 1 $1 million of investment in restaurant surveys and direct install equipment retrofits program can return of $2.79 million back to the economy, $1.26 million in gross domestic product, $0.82 million in labor income, and 14.6 new jobs. $1 million of investment in a water system loss control program can return $2.82	The May 2009 WCIP was revised to include some examples of economic benefits water conservation practices can present to communities who invest in their implementation, as reported in the referenced study published by the Alliance for Water Efficiency. The WCIP, Introductory Chapter "Creating a Culture of Conservation" foundational goal #6 states that there is an interrelationship between water and energy conservation. The WCIP also acknowledges that the issue is complex, with conservation efforts affecting different plants in different ways. The goals and benchmarks in the Electric Generation Chapter focus collecting information to quantify the relationship, improving water efficiency within thermoelectric facilities, and encouraging conservation by energy customers. In addition to the general discussion of funding to implement water conservation, the WCIP also identifies a variety of funding sources and professional assistance programs available to help water users, agencies, and organizations

	million dollars to the economy, $1.44 in gross domestic product, and $1.05 in labor income, and 21.6 new jobs. $1 million of investment in a high efficiency ("HE") toilet rebate program can provide $2.54 million dollars on the return, $1.47 million in gross domestic product, $.96 million in labor income, and 18jobs. $1 million of investment in an HE toilet direct install program provides $2.46 million dollars on the return, $1.38million in gross domestic product, $.87 million in labor income, and 17.2 jobs. $1 million of investment in industrial water/energy survey and retrofit programs can have a return of $2.78 million, $1.31 million in gross domestic product, $0.89 million in labor income, and 15.4 jobs. $1 million of investment to retrofit cooling towers with conductivity and pH controllers can have a return of $2.47 million, $1.26 million in gross domestic product, $0.82 million in labor income, and 14.6 jobs. $1 million of investment in evapotranspiration irrigation controller rebates/direct install program can provide $2.55 million dollars on the return, $1.31 million in gross domestic product, $0.85 million in labor income, and 20.4 jobs. Included below are specific comments on the WCIP introduction and the following sector sections: state agencies, industrial and commercial facilities, landscape irrigation, domestic and non-industrial use, and electric generation and use. **Introduction** We fully agree with the statement that conservation is "a highly cost effective water management practice when compared to major structural practices such as building reservoirs, transferring water, and boring new wells" and brings additional benefits, not least being the promotion of equity across the region and the preservation of instream and downstream uses. We commend the inclusion of section 6 entitled "Integrating water conservation and energy conservation "under "Creating a culture of conservation" heading. However, in addition to demand planning, the WCIP must also explicitly address the need for ***energy efficiency*** and ***energy demand reduction***.	implement water conservation practices. Most of these funding sources are sector-specific and are therefore identified in the appropriate chapters (and listed as under appropriate actions.) The State Agencies' chapter, Goal #1 aligns with the Governor's energy challenge, which requires agencies to reduce energy usage per square foot by 15% by 2020. This alignment is intended to help streamline information collection and sharing for the overall conservation efforts (as discussed in Chapter 3, which addresses water used for electricity generation). The timeframes developed for the WCIP were developed considering a variety of options from diverse stakeholders. The dates identified are considered practicable, but are not mandatory. Agencies and organizations can adopt alternative timeframes if appropriate for their operations and resource conditions and if resources are available The practices listed in the Landscape Irrigation Chapter menu of options are not a list of mandatory activities. The May 2009 WCIP, Domestic and Non-Industrial Chapter, BP 22 was revised to include the following statement, "In compliance with relevant state codes and regulations, local governments can consider adopting ordinances restricting the time of day during which water can be used for outdoor purposes. Researchers recommend irrigating between 9:00 pm

	We also commend the inclusion of section 7 entitled "Secure funding to implement water conservation" because we agree that funding is a critical and necessary component of a robust water conservation program. Given the critical importance of funding water conservation and efficiency programs, and given that the WCIP is meant to be a resource for the regional planning councils, it would be most useful to have specific funding opportunities in a separate section under each of the sector chapters. Although we agree that there are multiple avenues for funding, Georgia must make water conservation and efficiency apriority by including funding for these programs as a line item in the general budget. **State agencies** We reiterate our comments that the WCIP should be revised to recommend that State Agencies conduct energy audits by 2011, and that state agencies should match federal agencies' goal of 30% total energy reduction by 2015 in all public buildings using FY2003 as a baseline, as outlined in the Energy Policy Act of 2005 and Energy Independence and Security Act of 2007. **Industrial and commercial facilities** **Goal 2** Given the importance of this goal, it is important to have different target dates for each of the benchmarks so that all three are not left to the last minute to implement. We recommend that benchmark 2A be completed within 12 months, 2B within 18 months, and 2C within 24 months. **Goal 3:** This goal is lacking benchmarks. We recommend that an education program be developed within 6months and implemented within 12 months. **Goal 4** We recommend that IC facilities complete the updates to the energy management plans within 30 months. **Landscape irrigation** **Goal 2**	and 9:00 am to conserve moisture and help prevent disease problems." The May 2009 WCIP, Electric Generation Chapter was revised to clarify that the relationship between energy and water conservation has not been quantified in Georgia and the Southeastern United States. As new information regarding the link between water conservation activities and energy demands becomes available, the WCIP should be updated. The WCIP is a resource to be used by Georgians to improve water use efficiency. It is not intended to be a list of mandatory practices and/or actions to be performed by specific entities. Language such as "to the extent practicable" was included to encourage utilities to adopt practices and timeframes appropriate for their operations. This resource document encourages utilities to identify and implement practices and timeframes for action that are specific to their facility. Such information will be valuable for utilities to provide to the regional water planning councils developing water development and conservation plans throughout the state. Changing water needs can impact shared water supplies, thereby providing valuable information to regional and state-wide water planning efforts.

	First, we appreciate the removal of the language indicating that the green industry would fund operations of the state advisory committee that intended to develop landscape industry standards. We think this will make the advisory committee more effective and help minimize conflicts of interest. We continue to recommend that the advisory committee develop peak water use and application efficiencies for landscape irrigation. **Goal 3 (former Goal 4)** We applaud EPD's inclusion of all utilities in Benchmark 3A requiring calculation of peaking factors, rather than limiting this exercise only to utilities with existing peak use issues. This will help all utilities to identify emerging issues and better plan and prepare for their future water supplies. **New Goal 5:** We continue to advocate for a time of day (10am – 4pm) restriction to be incorporated into the best management practices required for landscape and irrigation professionals. We understand that the time of day restrictions may be incorporated into EPD rules, but in the absence of these rules it makes sense to include this important best management practice within the certification. **Domestic and non-industrial use** **Goal 3** Again, we contend that conservation-oriented rate structures should be implemented by 2012 and that the rate structure must be designed to send a price signal for each jurisdiction. **BP7** We applaud the inclusion of the numerical gallons per capita per day (gpcd) data as it serves to educate the public about the potential for water efficiency. Specifically, the WCIP provides useful information on studies demonstrating the effectiveness and potential for water efficiency to reduce average indoor use from 69 to 45 gpcd using existing and readily available technologies. **Electric generation and use** We appreciate the addition to the WCIP addressing the important relationship between	

	energy and water. However, implementation plans are more likely to be successful if specific benchmarks are outlined. We do not agree with the EPD's response that there exists an “information gap” about the impacts of water on energy use and vice versa that is too great to allow utilities to encourage or implement energy conserving practices. Studies conducted in states throughout the country have repeatedly linked water usage to energy usage, and water use at individual power plants is currently tracked. For example, Plant Vogtle currently loses approximately 43 mgd primarily through evaporative cooling losses. Georgia Power and its utility partners are currently planning to add two additional reactors at that plant. Specifically, the two proposed new Westinghouse AP1000 reactors at Plant Vogtle are estimated to use 55-88 million gallons of water per day from the Savannah River with 50-75% consumptive loss. Water withdrawals for all 4 Vogtle reactors (2 existing and 2 proposed) would range from 110-178 mgd. If energy conservation were implemented such that demand for new power plants decreased, it is clear that water would also be conserved as a result. We do not believe that the supposed “information gap” is significant enough to prevent utilities from implementing or encouraging their customers to implement energy conservation practices. While we appreciate EPD’s revision stating the impact of water conservation on energy demands, we believe that sufficient information exists to recommend moving forward with implementing specific energy conservation practices rather than staying in the information–gathering stage. We would appreciate working with EPD more on this issue. **Goal 3:** We are pleased to see EPD encourage electric generation facilities to minimize water usage with this revision: “By 2015, all new electric generation facilities should be designed and built so as to minimize, to the extent practicable, the amount of water used for electricity generation in Georgia.” However, the phrase “to the extent practicable” is too vague to be useful to the utilities, as it does not make clear any benchmarks that they should try to attain with the possible water conservation measures. For instance, would this include the possibility that new power plants should pursue alternative cooling methods, such as dry cooling, that significantly reduce water use, or is this just suggesting that utilities should not water the lawns of the power plants during drought conditions? Obviously the former option would save significantly more water than the latter. We recommend outlining specific goals and conservation	

	tactics which utilities might use to reach those goals for current and future power generation facilities. **Conclusion** We support EPD in finalizing the WCIP and we continue to offer our assistance as the state moves to ensure that financial and regulatory incentives are in place to maximize conservation and efficiency programs at the local, regional, and state levels. The Coalition encourages a swift adoption of this plan so that all sectors can immediately begin to implement the conservation and efficiency practices and meet the sector-specific goals.	
Bradley Spooner, Manager of Environmental Affairs MEAG Power	MEAG Power[1] is providing comments on Georgia's Water Conservation Implementation Plan (WCIP), Chapter 3: Conserving Water Used for Electric Generation and Use, as released on May 27, 2009. As a stakeholder, we appreciate the continued opportunity to participate in the process to improve and refine the plan. Improving the Organization of the WCIP The text of the WCIP would be easier to follow if common topics were grouped together. For example, the Best Practice points could be included with the respective Goals and Benchmarks that address the same topics, instead of grouping the Best Practices at the end. Electric Utility Structural and Organizational Differences The WCIP should recognize the structural and organizational differences among electric utilities in Georgia – and distinguish the applicable Goals, Benchmarks, and Best Practices accordingly. For example, there are electric utilities that both generate electricity (from electric generating facilities they own) and deliver the electricity to their retail customers (as electric distribution utilities). Other electric utilities may own generating facilities but do not serve retail electric customers. Still others may serve retail electric customers while owning no generating facilities. [1] The Municipal Electric Authority of Georgia (MEAG Power) is chartered by the Georgia General Assembly as a public corporation to generate and transmit wholesale power to 49 communities ("Participants") in Georgia. MEAG Power is a co-owner of four coal and four nuclear generating units, sole owner of a natural gas combined cycle facility, and owns over 1,300 miles of high-voltage transmission lines and nearly 200 substations. Municipal Electric Authority of Georgia 1470 Riveredge Parkway NW Atlanta, Georgia 30328-4686 1-800-333-MEAG 770-563-0300	The May 2009 WCIP was revised to include a summary chart of the sector-specific water conservation goals, benchmarks, best practices and implementation actions. The May 2009 WCIP, Electric Generation Chapter introduction was revised to acknowledge the different structure and function of the many electric utilities in the state.

	MEAG Power is a wholesale utility that generates electricity via owned electric generating facilities. We deliver that energy at wholesale to 49 Georgia municipal electric utilities ("Participants"). MEAG Power is not an electric distribution utility. The 49 Participants are all electric distribution utilities. Most of the 49 Participants do not own generation facilities. The 49 MEAG Participants each provide retail electric service under the governance of their respective City Council, Board or Commission. Schedules for Achieving Benchmarks The WCIP identifies research and planning requirements with deadlines that are too short to achieve the stated comprehensive objectives. There are research efforts at the Department of Energy (DOE) and the Electric Power Research Institute (EPRI), and at other utilities and universities, some of which have deadlines that could be noted in the WCIP or as part of the electric utility research needs noted in the WCIP. There are active ongoing efforts to use less water for electricity generation that may be beneficial to note. The WCIP deadlines need to be extended allowing for time to document and evaluate current and planned research. Responsibility for Conservation Efforts Conservation efforts are best managed with (1) electric distribution utilities promoting cost-effective retail electric conservation and (2) water distribution utilities promoting cost-effective water conservation. Generation utilities should be only responsible for water and energy conservation at their electric generating facilities, and when the conservation can be achieved in a cost-effective manner while maintaining the high degree of electric supply reliability expected by the public. MEAG Power appreciates this opportunity to comment on the WCIP and looks forward to continued cooperative work with the Environmental Protection Division and other stakeholders on this activity. Please contact us if you have any questions.	The timeframes developed for the WCIP were developed considering a variety of options from diverse stakeholders. The timeline in this chapter's benchmarks are considered practicable, but are not mandatory. Water users within the sector or organizations wishing to begin implementation actions can adopt alternative timeframes, if appropriate for their operations and resource conditions. The May 2009 WCIP, Electric Generation Chapter, BP 5 was revised to 1) encourage water and energy utilities to work together to establish and implement programs that have mutual benefits, and 2) refer to more general assistance programs that can support customers' efforts to conserve.
Tanya D. Blaylock Environmental Manager, Water and Waste Programs	Georgia Power appreciates the efforts of the Georgia Environmental Protection Division (EPD) in developing the Water Conservation Implementation Plan (WCIP). We are providing comments to Chapter 2 of the May 27, 2009, version of the WCIP. We are also providing a marked up document of Chapter 3 with revisions that reflect these comments. Georgia Power supports the comments concurrently submitted by the Georgia Water Alliance and other electricity providers in Georgia. We suggest restructuring the chapters to group Best Practices with the related Goals	The May 2009 WCIP was revised to include a summary chart of the sector-specific water conservation goals, benchmarks, best practices and implementation actions. Because the WCIP is designed as resource to help educate all Georgians about water conservation efforts, the information introducing the concept of conservation,

	and Benchmarks. The grouping of the Best Practices at the end of the chapter makes it cumbersome to refer back and forth between the related parts. The Chapter 3 introduction is overly burdened with background general discussion and opinions. Just as Federal Regulations position this sort of information in the preamble rather than with the regulations themselves, this material could be relocated to EPD's "response to comments" document, or some other suitable supporting documents. While we believe this material should be removed from Chapter 3, we have marked up the attached version to clarify the discussion and remove statements that may be misleading to persons unfamiliar with electric utility industry. In fact, the entire Water Conservation Implementation Plan would benefit by simply outlining Goals, Benchmarks, and Best Practices for each sector without additional commentary and discussion. The introduction should clearly distinguish the differences between the various utilities that make up the Electric Generation and Use sector. While Georgia Power generates, markets and distributes energy to customers, other members of this sector focus on one or another role but not necessarily all. It is also important to note that the Georgia Public Service Commission (PSC) does not have authority to regulate the activities of all electricity providers in the state. The Goals focus on three distinctive activities: 1) integration of conservation efforts into long-term generation plans; 2) customer education of water and energy conservation relationships; and 3) conservation measures at power generating plants. Confusion crossover of content amount the three should be removed such that each Goal, Benchmark and Best Practice retains the intended focus of that activity. We appreciate the opportunity to comment on this version of the plan. If you have any questions regarding these comments, please call me at 404-506-7026 or Bill Evans at 404-506-7031. Sincerely, Tanya D. Blaylock Environmental Manager, Water and Waste Programs Attachment: suggested edits to WCIP, version May 27, 2009.	and the introductory chapter and information regarding each sector, goal, practice, etc remains in the WCIP. Those individuals interested only in the summary of goals, benchmarks, practices and implementation actions can access the summary chart as a separate PDF document available through the ConseveWaterGeorgia.net website. The May 2009 WCIP, Electric Generation Chapter introduction was revised to acknowledge the different structure and function of the many electric utilities in the state. The May 2009 WCIP, Electric Generation Chapter goals and benchmarks were revised to minimize confusion of areas of shared focus. Regarding the changes submitted in the revised WCIP Chapter 3, the majority of the suggested changes were incorporated into the revised WCIP. Those that were not are responded to below: - Information regarding the impact Georgia's water users have on our states economy is included in every chapter. This aspect of water use is important and should remain to remind readers of the link between water resources and economic vitality. - The May 2009 WCIP, Electric Generation Chapter, Benchmarks 1A and 1B, and Implementation Actions 3.1 and 3.2 were revised to emphasize the need for a cooperative effort to 1) identify information gaps regarding the

		relationship between energy conservation and water conservation and 2) begin a process for filling information gaps. It is important for water and electric utilities and other experts work together with Georgia research institutions and agencies to progress toward energy and water conservation efforts.
Douglas J. Fulle Vice President, Environmental Affairs Oglethorpe Power Corporation And William H. Verner Vice President, Governmental Relations & Communications Georgia Electric Membership Corporation	These are the comments of Oglethorpe Power Corporation ("Oglethorpe Power") and the Georgia Electric Membership Corporation ("GEMC") on the Water Conservation Implementation Plan ("WCIP" or "Plan") which was publicly noticed by the Georgia Environmental Protection Division ("EPD") in May of 2009. Oglethorpe Power and GEMC have participated as stakeholders in the WCIP process and appreciate the opportunity to present these comments on EPD's May 2009 version.[1] **I. Introduction** Oglethorpe Power and GEMC commend EPD on the May 2009 WCIP, and on the opportunities provided for stakeholder input during its development. The Plan represents significant progress toward developing a cost-effective and technically sound strategy for improving water conservation in Georgia. To help EPD further improve upon this version, Oglethorpe Power and GEMC wish to point out the following areas for further consideration or clarification: **II. Some of the Recommendations in Chapter 3 Do Not Apply to All "Electric Utilities" in the State.** Chapter 3 of the WCIP refers to "electric utilities" and their "customers" when describing Goals, Benchmarks and Best Practices for the electric generation sector. Although there is no [1] Oglethorpe Power is a not-for-profit, generation cooperative that supplies wholesale electric service to 38 of the 42 Electric Membership Corporations (EMCs) in Georgia. The EMCs, in turn, distribute electricity to Georgia homes and businesses on a retail basis. GEMC is a statewide trade association representing all of the state's 42 distribution EMCs, as well as Oglethorpe Power, Georgia Transmission Corporation and Georgia System Operations Corporation.	I. No response necessary. II. The May 2009 WCIP, Electric Generation Chapter applicability section was revised to acknowledge the different types of electricity providers in the state. The May 2009 WCIP, Electric Generation Chapter applicability section was revised to include the footnoted description of EMCs in Georgia presented in this comment. The May 2009 WCIP, Electric Generation Chapter, Implementation Action 3.2 (now Impl. Action 3.4) was revised to suggest that local water providers and wholesale distributors of electric services should assist EMCs and MEAG Power facilities in the development of local water and energy conservation tools. III. & IV. The May 2009 WCIP, Electric Generation Chapter, Benchmarks 1A and 1B, and Implementation Actions 3.1 and 3.2 were revised to emphasize the need for a cooperative effort to 1) identify information gaps regarding the

	definition of "electric utilities" in the WCIP, the first paragraph of Chapter 3 states that the chapter applies broadly to all "thermodynamic power plants and individuals and businesses that use energy."[2] The Plan makes no distinction between different types of "electric utilities" or their different types of "customers." Oglethorpe Power serves other electric utilities—its 38 member EMCs—on a wholesale basis. While those EMCs provide retail electricity to many types of residential, industrial and commercial customers in Georgia, Oglethorpe Power serves only the EMCs. As such, some of the recommendations in Chapter 3 are not relevant to Oglethorpe Power. Goal No. 1, for example, urges electric utilities to "evaluate the impact that water conservation efforts by their customers can have on reducing energy demands." Goal No. 2 urges electric utilities to "educate their customers about the energy savings from water conservation and, where practicable, the water savings from energy conservation . . . ." Benchmark 2A encourages electric utilities to "partner with their large customers" to determine energy savings resulting from water conservation measures. These recommendations have no meaning for a wholesale supplier, like Oglethorpe Power, that serves other distribution "electric utilities." EPD should revise the WCIP to account for this distinction. Additionally, EPD should recognize that the Public Service Commission ("PSC"), referred to in Implementation Action 3.2, does not regulate Oglethorpe Power or the EMCs. The Demand Side Management ("DSM") Work Group, mentioned in Benchmark 1B and Implementation Action 3.1, also does not coordinate its activities with Oglethorpe Power, the EMCs or GEMC. The PSC established the DSM Work Group as part of an Integrated Resource Planning process for Georgia Power Company. Oglethorpe Power, the EMCs and GEMC have no role in that process. Instead, Georgia's EMCs conduct their own, independent demand-side management programs, and GEMC periodically collects data about those programs.[3] There is no current process by which the EMCs could collaborate with the PSC or the DSM Work Group as described in the WCIP. **III. Electric Utilities Should Not Be Responsible for Helping to Reduce Water Use in Other Sectors.** In describing Goal No. 1, the May 2009 WCIP seems to hold electric utilities responsible for reducing water usage in other sectors. It states that "electric utilities should partner with other water use sectors, particularly industrial and commercial water users and water providers, to help minimize large or increasing water demands that may limit supplies available for energy generation."[4] Electric utilities, however, have no control over the amount of water used in other industrial or commercial sectors. They also do not have information that would assist other water users in reducing their own, specific water needs. The only role for electric utilities in this context would be to help identify those entities, if any, whose water use has a negative impact on [2] May 2009 WCIP at 54. [3] *See, e.g.*, 2009 EMC Demand Side Management, Energy Conservation and Energy Efficiency Report, *available at* http://www.sawnee.com/pdf/emcdemand.pdf. [4] May 2009 WCIP at 57.	relationship between energy conservation and water conservation and 2) begin a process for filling information gaps. It is important for water and electric utilities and other experts work together with Georgia research institutions and agencies to progress toward energy and water conservation efforts.

energy generation, and to cooperate when the opportunity exists to significantly mitigate increasing water demands. As currently drafted, however, the WCIP would require electric utilities to actually "help minimize large or increasing water demands" in other sectors. It is not clear how electric utilities, with no authority to implement reduction measures in other sectors, could accomplish this goal. This sentence should be removed from the Plan or revised accordingly.

IV. EPD Should Develop an Energy-Water Conservation Model, with Cooperation and Assistance from Electric Utilities, Water Providers, and Other Large Industrial or Commercial Water Users in the State.

Goal No. 1 of the May 2009 WCIP states that "[e]lectric utilities should assess the feasibility and benefit of integrating water conservation efforts into utilities' long-term plans for meeting energy demands."[5] Oglethorpe Power and GEMC support the goal of adjusting their long-term plans, whenever possible, to account for known reductions in energy demand that result from water conservation practices.

Oglethorpe Power and GEMC also support efforts to quantify the relationship between water and energy conservation in general. That relationship, however, involves many complex variables and will be difficult to quantify. In many cases, reductions in energy demand may not reduce water use during electricity generation, because decreases in energy demand typically only affect the operating hours of peak generating facilities that rely on simple-cycle combustion turbines, which use very little water. On the other hand, base-loaded coal and nuclear units that use greater amounts of water may need to continue operating at traditional levels, notwithstanding reduced energy demand. Thus, energy conservation often may not lead to significant water savings.

With respect to energy savings from water conservation, electric utilities have no modeling techniques that would allow them to estimate reductions in energy demand from water conservation measures implemented by other water users. Developing a model for this relationship will be a costly and time-consuming venture. It will not be possible to develop a model by 2010, per Benchmark 1A. Moreover, assuming that an appropriate model can be developed, the model is likely to be useful primarily for broad estimates and not for entity-specific calculations. It is not clear how such a model could ever be applied or tested "at the power plant level," as suggested in the May 2009 WCIP.[6]

Oglethorpe Power and GEMC also are concerned that the May 2009 WCIP places undue burden on individual electric utilities to develop a model of the energy-water conservation relationship. Electric utilities alone do not have the information or authority needed to quantify this relationship. Nor is it fair to require electric utilities (or their customers through higher energy costs) to bear the full expense of developing such a model. Instead, this type of broad-

---

[5] *Id.*
[6] *Id.* at 58.

based research in the public interest should be conducted by a research institution or public agency, like the PSC or EPD itself, with public research funds and cooperation from key water users in the state, including water providers, and not just electric utilities.

In the December 2008 Draft WCIP, Benchmark 1A referred to "electric utilities, in consultation with water providers." In the May 2009 WCIP, EPD has revised Benchmark 1A to refer to "electric utilities and EPD."[7] The inclusion of EPD (a public agency) in this Benchmark is a positive change. Benchmark 1A should be further revised to clarify that EPD will develop the model, with cooperation and assistance from electric utilities, water providers, and any other large industrial or commercial water users in the state whose cooperation is needed to develop the model.

EPD should remove all statements in the May 2009 WCIP suggesting that electric utilities should bear sole or primary responsibility for quantifying energy savings from water conservation in Georgia. For example, the WCIP currently states that "electric utilities should . . . evaluate the impact that water conservation efforts by their customers can have on reducing energy demands."[8] It also directs electric utilities to "initiate efforts to evaluate the impact that water conservation by customers with the greatest demands[] may have on energy demands."[9] These statements should be removed or revised to acknowledge that electric utilities should participate in a broader effort that will be coordinated by EPD and will necessarily involve several other types of entities in the state.

In evaluating the need to revise Goal No. 1, EPD should consider that the "Water to Air Models" cited as examples in the current WCIP were developed by public research institutions with assistance from representatives of the California Air Resources Board, the California Energy Commission, and several municipal service districts and water authorities.[10] The User Manual for the Models states that they "allow water managers to quantify the energy and air quality impacts of their management decisions."[11] The Models are provided to water managers free-of-charge under a grant from the California Energy Commission's Public Interest Energy Research program. If the WCIP's goal is to develop a similar model for Georgia, then it should create a similarly fair and broad-based process, in lieu of requiring individual electric utilities to bear the burden alone.

---

[7] *Id.*
[8] *Id.*
[9] *Id.* at 57-58.
[10] *See From Watts to Water*, Santa Clara Valley Water District (June 2007) at 12, available at http://www.valleywater.org/conservation/media/Documents/WUE%20Water%20Energy%20Report.pdf (attributing the Models to Bob Wilkinson from the University of California, Santa Barbara, for the California Institute for Energy Efficiency and Gary Wolff of the Pacific Institute); *see also* User Manual for the Pacific Institute Water to Air Models 2 (Oct. 2004) (listing entities that helped develop the Models), available at http://www.pacinst.org/reports/energy_and_water/water_to_air_manual.pdf.
[11] User Manual for the Pacific Institute Water to Air Models 2 (Oct. 2004).

	V. EPD Should Remove or Revise Benchmarks 1B and 1C to Avoid Confusing Overlap With Goals No. 2 and 3. Benchmarks 1B and 1C contain confusing and ambiguous references to "beneficial water conservation practices" that are to be assessed, and possibly implemented, by electric utilities.[12] Given that the rest of Goal No. 1 is focused on identifying energy savings from water conservation practices implemented by *other water users* in the state, these Benchmarks seem to recommend that electric utilities assess and encourage the use of water conservation practices by other water users. In that sense, Benchmarks 1B and 1C overlap with Goal No. 2 and should be removed from Goal No. 1. Moreover, electric utilities should not be responsible for "assess[ing] the feasibility of implementing beneficial water conservation practices" at facilities owned or operated by other water users, as described in Benchmark 1B. Alternatively, if the "beneficial water conservation practices" in Benchmarks 1B and 1C are meant to refer to practices that reduce the amount of water used by electric utilities, then those Benchmarks overlap with Goal No. 3 for the electric generation sector and do not support Goal No. 1. The stated focus of Goal No. 1 is to develop a model of the energy-water relationship in Georgia and to incorporate the use of that model into electric utilities' long-range planning. EPD should remove or revise Benchmarks 1B and 1C to be consistent with the stated scope of Goal No. 1. **VI. Electric Utilities Should Not Be Responsible for Applying an Energy-Water Conservation Model at the Facility-Level in Other Water User Sectors.** Benchmark 2A provides that, by 2010, electric utilities should partner with their large customers, like water utilities, industrial facilities, and commercial customers, in "determining the energy savings resulting from water conservation measures that the customers are implementing at their facility."[13] Similarly, Best Practice 3 calls for electric utilities to "assist their customers to identify energy savings benefits of water conservation measures they implement."[14] EPD should consider limiting Benchmark 2A and Best Practice 3 to the task of *educating* customers about the existence of an energy-water relationship and/or the availability of any model that may be developed pursuant to Goal No. 1. After electric utilities have helped EPD develop such a model, they should not bear the additional responsibility of actually applying the model to calculate energy savings from water conservation practices at individual facilities in other water use sectors. Assuming that any such model can be used successfully by individual facilities across the state, it should be accompanied by a user's manual similar to the one offered for the Pacific Institute's Water to Air Models, to allow individual facilities to determine their anticipated savings. [12] May 2009 WCIP at 58. [13] *Id.* at 59. [14] *Id.* at 62.	V. The May 2009 WCIP, Electric Generation Chapter, Goal 2 and discussion was revised to clarify the intent of focusing on improving current understanding of the impact large scale water conservation efforts are industrial and commercial facilities may have on the electric utilities that provide them with electricity. The May 2009 WCIP, Electric Generation Chapter, Benchmarks 1A and 1B were revised to emphasize the need for a cooperative effort to 1) identify information gaps regarding the relationship between energy conservation and water conservation and 2) begin a process for filling information gaps. VI. The May 2009 WCIP, Electric Generation Chapter, Goal #2 was revised to clarify an educational focus. Also, Best Practice 3 was revised to suggest electric utilities can offer educational material, technical information and case studies to their customers, specifically referencing the model and supporting material discussed in Goal #1. Implementation Action 3.2 was added to encourage research institutions to publish scientific reports documenting the results of the efforts to bridge the information gap between energy conservation and water conservation.

	VII. Benchmark 3A May Set an Unrealistic Goal for the Evaluation of New Water-Efficient Technologies and Practices at Electric Utilities. Benchmark 3A encourages electric utilities and research institutions, by 2012, to "evaluate the practices appropriate for reducing water loss due to evaporative cooling and the amount of water needed for flue gas scrubbing."[15] To accomplish this goal, Benchmark 3A refers to Best Practices 6 through 9. Two of those Best Practices do more than simply call for the evaluation of existing technologies. Best Practices 6 and 7 also urge electric utilities and research institutions to participate in the development and/or testing of *new* technologies to minimize water needed for flue gas scrubbing and water loss due to evaporation from cooling. Given that Best Practices 6 and 7 focus on new technologies, it is not clear whether Benchmark 3A also anticipates that electric utilities will be able to evaluate and recommend appropriate *new* technologies, as well as existing ones, by 2012. If this is not the intent of Benchmark 3A, then EPD should revise the Benchmark to clarify that electric utilities should strive to evaluate technologies that are currently feasible and commercially available by 2012, and thereafter should continue research and development efforts diligently but with no specific timeframe pursuant to Best Practices 6 and 7. Alternatively, if EPD expects electric utilities to evaluate and identify appropriate new technologies in connection with Benchmark 3A, then the timeframe for this Benchmark should be revised. Oglethorpe Power and GEMC urge EPD to consult with the Electric Power Research Institute ("EPRI") to coordinate the timeframe for Benchmark 3A with the anticipated timeframe for completion of EPRI's research on water-efficient technologies and practices. Although the May 2009 WCIP acknowledges that EPRI conducts much of the current research into these technologies and practices,[16] it is not clear how EPD selected 2012 as the new timeframe for Benchmark 3A. In any event, that timeframe is inconsistent with EPRI's schedule for completing its review of new technologies and decision support tools to reduce the demand for fresh water resources during electric generation. EPRI and the Department of Energy have recently called for a 10-year program to conduct this type of research.[17] For consistency, EPD should either clarify that there is no specific timeframe for the development of new technologies pursuant to Goal No. 3, or it should replace the 2012 timeframe with a more realistic schedule that coincides with EPRI's progress. **VIII. Individual Water Users Should Be Able to Choose Whatever Water Conservation Practices or Measures are Most Efficient for Their Facilities.** During the public comment period for the December 2008 Draft WCIP, Oglethorpe Power, GEMC and several other entities in Georgia expressed concerns over the role that the WCIP will play in the regional water planning process and future rulemaking(s) by the [15] *Id.* at 60. [16] *Id.* at 60. [17] *See* Witness Testimony of Bryan J. Hannegan, Vice President, Environment and Generation, EPRI (July 9, 2009), *available at* http://science.house.gov/publications/Testimony.aspx?TID=15152.	VII. The May 2009 WCIP, Electric Generation Chapter, was revised to add Implementation Action 3.3, under BP2, encouraging state agencies to work in cooperation and with assistance from research institutions, electric utilities, the DSM work group, and others should develop a users manual to assist individual facilities in determining the impact conservation efforts have on energy and water demands. The May 2009 WCIP, Electric Generation Chapter was revised to clarify the intent of Benchmarks supporting Goal #3. Benchmark 3A was revised to focus on evaluating the potential of existing technologies; and (new) Benchmark 3B was added to encourage utilities and state agencies to cooperatively work with research institutions, such as EPRI, in developing and testing new technologies for enhancing the efficiency of electricity generation.

	Department of Natural Resources ("DNR") for water permitting decisions. Some commenters expressed confusion and simply asked EPD to provide a more detailed explanation of the WCIP's role. Other commenters, including Oglethorpe Power and GEMC, cautioned against any use of the WCIP as a *de facto* set of regulatory requirements for non-farm water permit holders. In response to these comments, EPD has added a new sentence clarifying that the WCIP itself "will not be incorporated into DNR rules and regulations."[18] The May 2009 WCIP also explains "[h]ow the WCIP will be used" in the context of the larger State Water Plan ("SWP") process.[19] The WCIP, according to the May 2009 version, will inform the development of regional water demand forecasts and serve as a list of demand management practices or investments that can be incorporated into regional Water Development and Conservation Plans ("WDCPs"). The DNR Board will amend its rules and regulations for water permitting decisions to require some as-yet unspecified showing of compliance with the goals, standards and/or demand management practices or investments initially identified in the final WCIP and later refined in regional WDCPs.[20] EPD's assurance that the WCIP will not be incorporated into the DNR rules is helpful for stakeholders in understanding the role of the WCIP. However, it does not fully reflect the concerns expressed by Oglethorpe Power, GEMC and other commenters. Those concerns were not limited to whether the DNR Board would simply incorporate the WCIP by reference into its rules for water permitting decisions. The larger point is that any current or future action that would effectively require water permit holders to comply with certain practices in the WCIP would be inappropriate, regardless of whether those practices are separately spelled out in the DNR rules or simply incorporated from the WCIP (or the regional WDCPs). To avoid problems during the regional planning or DNR rulemaking processes, Oglethorpe Power and GEMC wish to reiterate a crucial point: Under no circumstances should specific elements in the WCIP be used as regulatory requirements for water permit holders. The May 2009 WCIP appropriately recognizes that the inclusion of Best Practices in the WCIP "does not imply that all users within a sector should implement each practice."[21] Instead, "each water user should [be able to] evaluate the practices in the [WCIP] to determine those that are cost-effective and beneficial to them."[22] Electric utilities, in particular, should be able to "choose a mix of practices that are best suited to the specific conditions facing their facilities."[23] During later regional planning and the DNR rulemaking, regional planning councils and the DNR Board should preserve this flexibility, thereby allowing individual water users to achieve progress toward water conservation in the most cost-effective manner possible. Under the SWP, regional planning councils should make "*recommendations* for appropriate [18] May 2009 WCIP at 25. [19] *Id.* at 23. [20] *Id.* at 25. [21] *Id.* at 23. [22] *Id.* [23] *Id.* at 57.	VII. The WCIP is designed to be a resource for Georgia's water users and regional water planning councils; it is not a list of mandatory practices. The May 2009 WCIP states that the rule-making process called for in the SWP Section 8, implementation action (2) will be coordinated by EPD and will follow the public involvement protocol outlined by the DNR Board Public Involvement Task Force. Details related to the water management practices to be included in the regional Water Development and Conservation Plans (WDCPs) can be found in the SWP, section 14: Regional Water Planning and in the DNR Rules and Regulations Chapter 391-3-32: Regional Water Planning. For a summary of the WDCP planning process and for a copy of the guidance document developed to support that process, visit http://www.georgiawaterplanning.org

	management practices for . . . water supply [and] water conservation,"[24] but they should not purport to *require* that water users implement specific practices or measures. Moreover, DNR's later rulemaking may require applicants for non-farm water withdrawal permits to generally "demonstrate progress toward water conservation goals or water efficiency standards initially identified in the [WCIP] and further refined in regional [WDCPs]."[25] However, the DNR Board should not require applicants to use specific practices or standards simply because they are included in either the WCIP or regional WDCPs. **IX. The Best Practices for Chapter 3 Should Be Listed with Their Corresponding Goals and Benchmarks.** In the May 2009 WCIP, the Best Practices for the electric generation sector are listed together in a "Menu of Options" on page 61, even though each Best Practice corresponds with specific Benchmarks. The Best Practices would be easier to read and understand if they were listed with their corresponding Benchmarks, rather than in a separate menu. **X. EPD Should Ensure that the Benchmarks and Best Practices of Chapter 3 Are Cost-Effective.** As noted in the May 2009 WCIP, there is no general pool of funding to assist Georgia water users in implementing the Plan.[26] Therefore, the Benchmarks and Best Practices in Chapter 3, and the WCIP in general, should stand or fall based on whether they are cost-effective. EPD is correct that the WCIP will require some spending by all water users in the state.[27] However, EPD also should recognize that water users must prioritize their resources, especially in these uncertain economic times, and can more readily accept measures that are known to produce significant water savings at relatively low costs. Measures that require significant financial outlays in exchange for uncertain results should be avoided. In particular, EPD should remove electric utilities from the list of entities in Best Practice 5 that should consider establishing financial assistance programs to encourage water conservation practices that produce "significant energy savings." There is almost no information at this time about what relationship exists between water conservation and energy savings in Georgia. It is unclear whether Best Practice 5, when applied to electric utilities, would create any progress toward the stated goal (energy savings). Until a water-energy relationship has been established and financial assistance programs are shown to be cost-effective options, EPD should not include them in the WCIP. Oglethorpe Power and GEMC appreciate the opportunity to provide these comments and look forward to the opportunity to continue to participate in the process. [24] SWP at 38 (emphasis added). [25] *Id.* at 20. [26] May 2009 WCIP at 29-30. [27] *Id.* at 29.	The May 2009 WCIP was revised to include a Summary Chart of all the goals, benchmarks, best practices and implementation actions. The Summary Chart, with Executive Summary will be made available as a separate PDF document available through the ConseveWaterGeorgia.net website. The May 2009 WCIP, Electric Generation BP 5 was revised to refer to more general assistance programs that can support customers' efforts to conserve.