WATER CONTINGENCY PLANNING TASK FORCE

COMMENTS RECEIVED

FROM

TASK FORCE MEMBERS

AND

OTHER INTERESTED PARTIES

October-December 2009

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Water Contingency Task Force:
Comments received from Task Force members and other interested parties
(the comments below are listed in the order they were received)

Brad Shaw – Home Depot

As I mentioned to Tim yesterday and to Sam Williams today at the APC lunch, The Home Depot is anxious to help develop solutions on the domestic conservation front. I've already alerted our relevant merchants here, and we're ready to engage as needed.

Larry Gellerstedt - Cousins Properties Incorporated

I think the technical solutions are fairly clear. The key issue is educating the legislature, and the congressional delegation that this is a critical issue for the State of Georgia, not Atlanta. This is an opportunity for the leaders to be real leaders on the old reality of two Georgia's.

Kit Dunlap - President / CEO - Greater Hall Chamber of Commerce

Water Conservation:
Business

1. Raise money from business community for water conservation education / pr campaign. Metro Water District is working with adv/pr firm and have the basics, but we have no money. With plenty of rain right now and full reservoirs, our attention to water conservation will fade.
2. Coca Cola – Provide and distribute low flow pre-rinse spray valves to restaurants and food service establishments.
3. Electric Companies – Provide rebates for residential dishwashers and washing machines that are both Energy Star rated and have a water factor of 4.0 or less.
4. Gas & Electric Companies – Provide rebates for hot water on demand systems.
5. Real Estate Community – Retrofit on resale for both residential and commercial buildings (includes office and hotels).

State

l. ax credits for: retrofitting large office buildings and hotels; high efficiency commercial dishwashers and clothes washers with a water factor of 4.0 or less; digital x-ray machines; adding conductivity meters on cooling towers; dental vacuum pumps; steam sterilizer retrofits; air-cooled ice machines, connectionless steamers
2. Update state plumbing code: Require high efficiency fixtures; prohibit once through cooling and require water meters on cooling towers
3. Increase state financial support grants / low interest loans for water and wastewater infrastructure.

Water Supply

1. Move forward with an actual plan for bringing already identified reservoirs / and new reservoirs.. on line: speed-up permitting process; actively seek public/private partnerships; incentives for governments to work together with counties and across county-lines.
2. Identify reservoirs that could be dredged with least bureaucratic hoops.
3. The right person ./ actively seek an agreement to withdraw water from Tennessee River.
4. Identify the right place for a desalinization plant/ with cost for future.

Other

1. Task Force needs minority representation. Suggestions: Robert Brown, Birdell Jackson
2. In the next year, create a Water Executive position (please don't call them a czar), that will be the permanent person / position that will work on these issues everyday. Needs to be

high profile that can work with state and federal government, business community... and hopefully carry-on with transitional changes in Governor / Congress, etc....
3. Educate, Educate, Educate.....the State Legislature
4. Continue education / pr of downstream, upstream..of Metro Atlanta....plan of action for the next 3 years....from Governor and others.

Senator Judson Hill

Two ideas:
1. A land swap with a quarry or two. The state could research land that could be used for a rock quarry, purchase the land and expedite permitting for quarry use; then allow an existing aging quarry to donate their quarry to the state for a deduction. The state can use the old quarry for a reservoir. At that point the quarry could enter into a 100 year lease for the new land and the state would receive the revenues. This could shorten the permitting timeline substantially. There may be 2 to 4 quarries like this.
2. We also discussed the Tennessee border matter. I believe we should actively pursue this issue - the legal case as well as purchasing water from the TVA, etc. Keeping this issue on the table may help inspire the other state delegations to meet to discuss these matters.

Sally Bethea – Upper Chattahoochee Riverkeepers

As you probably know, the leadership of the GA Water Coalition is meeting with members of the task force/staff today and I will be mentioning the issue you and I discussed - the 750 cfs flow requirement in the Chattahoochee at Peachtree Creek (PTC); however, this flow issue is by no means the only "absolute" on our list of concerns/recommendations regarding the work of your water task force.

Regarding the 750 cfs flow, this instantaneous requirement has been in state law since the 1970s; it was adopted to protect designated uses for downstream waters, including water quality. On several occasions in the past two years, the state has asked the Corps to use a target flow of 650 cfs at PTC, instead of 750 cfs, to allow more water to be kept in Lake Lanier; yet, the state has not provided adequate water quality and flow monitoring at the compliance point or downstream to ensure that designated uses are met. Neither has an appropriate review of impacts been conducted under NEPA to allow this flow reduction.

We believe that the state should undertake a comprehensive study, working with federal resources agencies, to determine if the 750 cfs flow is sufficiently protective now, and will be sufficiently protective in the future given growth projections, to ensure that designated downstream uses will be met at all times. Until such time as this independent, peer-reviewed study is completed and a new regulation is adopted by the state, the 750 cfs flow at PTC must be met at all times, even during droughts; in addition, the state must establish sufficient flow and water quality monitoring stations and the data collected must be made easily available to the public.

Thank you for asking for more detail about this issue. As mentioned above, I will provide you with other key issues for UCR and the GA Water Coalition after today's meeting.

Todd Pealock, CEO of the Habersham EMC

Mr. Pealock waned to provided to us with some information on a potential reservoir in Habersham, which he estimated could provide 30,000 acre-feet of water storage capacity.

Diane Minick, Director, The Upper Etowah River Alliancewww.etowahriver.org

I respectfully suggest that Atlanta also focus on retrofitting buildings in Atlanta to collect the free rain water using cisterns. This water can be used as grey water to flush Atlanta's toilets or can be filtered to be used for drinking. Five Season's Brewing Company is leading the way by collecting all of that free water, filtering it and using it to make their beer. Why can't Atlanta collect it on as many buildings as possible to use. It will solve several problems:

1. It won't be as costly as taking water from other river basins and piping it to Atlanta;
2. It can be done immediately;
3. It will save money since the need for water from the City will be reduced so peoples water bills will go down and the water plants cost of energy to clean the water will go down;
4. It will reduce the stormwater volume entering the City's stormdrain system significantly which will cut down or even eliminate the flooding issues on Atlanta's streets and will reduce the impact on the storm drain system.

This will also save energy at the waste water treatment plants and possibly eliminate the release of partially treated sewage to the river. Just think, a 1,000 sq.ft roof in a 1-inch rain will generate 600 gallons of water. According to the Texas Water Harvesting Manual, 0.62 gallons of water can be collected per square foot of roof per inch of rain. If a roof is 10,000 square feet, in a 1-inch rain it will generate 6,200 gallons of water. We are getting between 3 and 4 inches of rain today.

That would mean for the 3" rain, 18,000 gallons of water would be available to be used. Think of how much water is being lost that could be used to solve our water needs.

Bruce Jackson, Partner, Arnall, Golden Gregory www.agg.com

Summary: The South Fulton Municipal Water & Sewer Authority has proposed to build the Bear Creek reservoir on Bear Creek in South Fulton for the cities of Palmetto, Fairburn and Union City. The City of Atlanta opposes the project. In the past the Metropolitan North Georgia Water Planning District has sided with Atlanta. Construction of the Bear Creek reservoir would reduce the water purchases by the three cities from Atlanta. Of course Atlanta does not want to lose the revenue from the three cities and by controlling the regions withdrawal and treatment of water, the three cities will remain dependent on Atlanta for water. Florida and Alabama have also objected claiming that it might reduce the flow of water into the Chattahoochee from Bear Creek.

Friday's court hearing is a TRO hearing and is an attempt by Atlanta to enjoin further work on the reservoir application process. The matter relates to Atlanta's contention that the loss of revenue will make it impossible for Atlanta to comply with the consent decree in the Upper Chattahoochee Riverkeeper sewage discharge case. This matter is an excellent example of the impediments to efforts to capture of water and marks the very issues the Task Force is charged with addressing. Someone from the technical advisory board might want to interview Brad Sears of Newnan (770-253-3880) counsel to the City of Fairburn, who is very technically knowledgeable about this matter. He also relates that Atlanta wants to expand its water supply infrastructure into South Fulton to capture more water revenue, which begs the question of where such water is going to come from given the ACF case. Brad would have more details on that matter as well.

Dargan Scott Cole, Carlton Fields Attorneys at Law

Attached for your review is one plan for meeting the immediate needs of the counties affected by Judge Magnuson's July 2009 ruling in the Tri-State Water Rights Litigation. The plan uses an average of each county's actual water use in January for 2007-2009 as baseline demand and the average water use in August 2007-2009 as peak month demand. It then illustrates one scenario for meeting those immediate needs.

The plan recognizes that some jurisdictions will have water available in 2012 that will not be available in later years. Therefore, it looks for additional mid-term and long-term solutions. In many cases the short-term solutions rely on moving large amounts of water from point to point and an increased reliance on indirect reuse of water. Both situations call for quick action if they are to be implemented before the July 1012 deadline.

Alec Poitevint – Former Federal Commissioner – ACF & ACT Water Compacts – Member Ga Water Task Force

The immediate drilling of more wells across Georgia must be part of our "Water Plan." It is a process that should have never been 'slowed' - All obstacles should be evaluated –and within reason removed.

Bob Gravlee, Production Coordinator/Graphic Designer, Site Selection Magazine

Dear sirs or to whom it may concern:

Okay, this may sound a bit crazy – and I certainly haven't researched this – but I've heard somewhere before that drier westerns states such as Arizona and Nevada and have actually used underground reservoirs (whether man-made or natural I do not know) to store water for their growing populations – albeit as a back-up to a drought or deficit in water access. What if Georgia did the same thing across the state? Albany, Tifton, Valdosta, Columbus, Commerce, Athens, Augusta, Peachtree City, Douglas, West point, La Grange, Columbus, etc. ... all with their own reservoirs.

In Georgia it seems to me that geologically we have an abundance of red clay and quartz granite. Could these natural resources be used to help facilitate the construction of such reservoirs? Perhaps the more localized education SPLOST could be replaced by a state-wide penny sales tax to accomplish this end. Federal stimulus dollars could also be used towards this end (if they're not completely earmarked already) and the construction of these reservoirs, I'm thinking, would create more than a few jobs.

It would take intentionality and prolonged commitment by politicians and citizens alike. Just a thought. Also I would seriously urge legislators to remember Governor Perdue's public prayer for rain last summer when we were experiencing a severe drought. Some may argue it was purely coincidental that following that gesture of faith on his part, and of others who joined him in prayer, we experienced what is being called now a once in a millennium downpour (i.e., specifically the rainfall of the past couple of months) – and this all within a year. And he's still our governor, that is to say this happened during his tenure. Just plain 'ol dumb luck? I for one don't think so.

Thanks for your consideration.

David Sargent, PhD, Director, Community & Economic Development, Georgia Mountains Regional Commission

I agree with the three areas of focus and the order of priority.

Conservation – begin the marketing campaign at the grammar school level and keep it in front of every adult. BP Oil has some good commercials on TV right now as well as IMB regarding the limited supply, and use, of our water sources.

Capture rain and ground water – a conservative way of saying build the "reservoirs" to replace the ones that should have been build when the dam was constructed in the 50s- the one below the dam (now Alpharetta), the one on the Chattahoochee, and the one on the Chestatee! I think this is the most critical of the three due to population growth and weather, two uncontrollable variables.

Reviewing current controls and management policies. This requires a course on "common sense" which the US Government is evidently not interested in requiring of any of their Corps employees. The retired Corps engineer hired to rewrite the current plan explained in his opening remarks recently at a meeting at Lake Lanier Islands that it would take every bit of the 3 year contract to rewrite the document because he had so many dignitaries to meet with before he could begin! Why? I thought he was hired because of his knowledge of the operation not his ability to apiece elected officials. He confirmed his inability to understand the need with the first slide he posted showing that every reservoir below Buford Dam was full and water was having to be released. This was at the time Lake Lanier was about 15 feet below full pool.

So, my recommendation is to begin with an aggressive conservation campaign followed by an immediate construction plan for new reservoirs since the Corps has proven its inability to regulate water resources based on existing conditions, no matter what the level of the lake.

David Horger

Conservation:
Mandate implementation of dual flush for all new residential/commercial building in impacted areas. Offer rebate for dual flush retrofit to consumers in impacted areas.

Resources:
This is a stretch - however, if the surveyed northern border of GA is incorrect, get it right and start the move to tap the Tennessee River to supply metro ATL.

Current Mgt/Control:
A collaborative compromise with the bordering states must be somehow reached on the amount of downstream waterflow.

Brad Currey

These are reactions to the Water Contingency Task Force comments dated 11/13/2009 received from task force members and other interested parties.

Completely absent from this paper is the issue of data. The state, the cities and counties, and the water utilities need to be collecting, recording and reporting reliable data in a consistent and comparable manner. This means that we need to meter every use everywhere. We need to

measure in gallons, not cubic feet. The data keeper needs to be a disinterested party who can be relied upon for accurate, dependable analysis of the data and of the forecasts of the utilities and political subdivisions.

Before decisions are made about measures to be taken by the legislature and the state government, there needs to be some realistic, reliable cost/benefit analysis so that we spend our money where we get the most bang for the buck. In this connection, the state needs to provide for substantial funding and incentives to make certain that the policies implemented by the utilities and local governments are the most efficient and appropriate rather than those that are politically driven.

Consideration should be given to regional water authorities that can coordinate such matters as tiered water rates, conservation standards and oversee the location and management of reservoirs where appropriate.

In the task force comments dated 11/13/2009, on page 5 under numbered paragraph 7, Georgia Water Coalition, it is stated that "the existing ban on interbasin transfers within the Metropolitan North Georgia Water Planning District must remain inviolate." I believe that statement is incorrect and that under current state law interbasin transfers within the District are permitted, but not from outside the District into the District. On page 6, numbered paragraph 10, there is a call for immediate drilling of more wells. Elsewhere in this paper, there is mention of limitations on the use of septic tanks.

These are two contentious issues where the facts are apparently still unclear. We need to know whether drilling wells makes any sense in North Georgia because it is said to rest on solid granite. We also need to have some agreement on whether septic tanks represent a consumptive use or provide a consistent flow of clean water into streams especially during droughts. The data on these matters appears to me to be very sketchy, suggesting that more detailed research needs to be a high priority before we make some foolish mistakes.

The radioactive issue of interbasin transfers must be addressed. Common sense suggests that during periods of heavy rainfall, storage of water in reservoirs near major creeks and rivers where some of the water in the reservoir will end up in a different river basin should not be prohibited. A perfect example is the Dawson County location currently belonging to the City of Atlanta.

Also missing from this document is any reference to a leadership role to be played by the State of Georgia in planning, funding, overseeing and/or managing the development of reservoirs, decisions about consistent conservation practices, oversight of rate structures, building standards, and other related water supply functions.

The comments on page 4 about a "water executive position" points in this direction but needs to be fleshed out. What is going on right now is that everybody is stumbling around attempting to avoid the issue of vigorous leadership, consistent management and the use of a centralized authority that can be held accountable. Maybe we do not need a "czar." We do need someone with authority, responsibility, carrots, sticks and leadership working on water issues full time.

Robbie Hewitt, Smyrna

Being a real estate agent who once lived/worked in San Diego, CA you should look at how the county there addresses the retrofitting of low flow water fixtures at the change of ownership. I know my industry will fight this as they already have but let them. It needs to be mandated that at the change of ownership, every residential property will be retrofitted with lowflow fixtures. I suggest the seller be responsible for doing so. This way buyers will not let sellers off the hook for something the law requires and they perceive as a freebee. Every seller will comply by using the cheapest product they can but experience in San Diego proves buyers will cooperate with sellers to pay any additional cost to get what they want in the way of fixtures. A rebate from the counties or water systems will make the law more palatable.

Mandate all car washes recycle water.

Put outdoor water restrictions in place permanently, including those who use well water. Stop the issuance of private well permits where public water is available in an effort to stop the depletion of the water table and the gross mis-use of our water resource as it will no longer be a free commodity for those who would put in wells.

Rick Gray

An editorial column in today's AJC regarding Georgia's water task force prompted me to ask a few questions regarding Georgia's use of water for "agricultural purposes".....

I currently live on a private 28 acre lake on the headwaters of Lake Allatoona. Much to the surprise of the homeowners on this lake, the Ga EPD, in the midst of our ongoing "water wars" with Florida and Alabama, and deep into our recent Level 4 drought, issued an agricultural water withdrawal permit allowing a golf club (with property along a portion of the lake) to withdrawal millions of gallons of water from the lake each month (for the purpose of watering a 225 acre golf course), this withdrawal causing the lake's water level to drop as much as 3 inches/day. Needless to say, these water withdrawals result in the lake having no outflow for months at a time, thus precluding any use of the water downstream, while the golf club has essentially free use of this water, the vast majority of which is lost via evaporation or transpiration. Given this situation, I would like to ask you to address the following questions:

How many such "agricultural" water withdrawal permits has the EPD issued (ie, permits for recreational as opposed to for true agricultural water use)?
Why are they still issuing such permits?
How many gallons of water per year are these permittees withdrawing?
How many individuals or households in Georgia could this water support if it wasn't being used to water golf courses, etc?
Why are these permittees being allowed to use "waters of the state" for free, thus having no incentive for conservation, when we are threatened with ongoing and potentially ever worsening water supply issues in this state?
Why are these permittees allowed to use this water essentially free of charge, while the cost of water used for drinking, bathing, etc increases steadily, in part to promote conservation and discourage excessive water use given our threatened water supply?
How does the issuance of these permits affect the thoughts and actions of federal judges and the public officials of Alabama and Florida?

Why should our opponents in the "water wars" take us seriously when we have such little concern about how we conserve the water we claim is so scarce and valuable?

Thank you for considering this matter. I look forward to your response.

Arlene D. Davis, RE/MAX Vidalia

I strongly urge this water task force to consider the following when making a decision to take to the Governor regarding the water issues Georgia is currently facing. I strongly oppose anything that would impact private property rights including but not limited to:

- Inefficient point of sale government mandates such as retrofit at resale. This would place an unnecessary burden on homeowners.
- I oppose the public trust doctrine.
- I promote a riparian water rights system and the water rights of property owners.
- I support efforts to increase water supply levels by expediting the permitting and construction of new water supply reservoirs and increasing the capacity of existing reservoirs.

Lou Irby, Lou Irby Realty

As a REALTOR® in the State of Georgia I am opposed to anything that places an unnecessary burden on the property owners. We have enough burden already with taxes and other mandates already in place. I hope you will please consider these factors when you make your recommendations to the Governor.

No one should question the need for better conservation of Georgia's water supply...Punishing property owners is NOT the answer. Our state and local governments are and have been negligent in building and maintaining reservoirs to meet our needs when droughts occur. Enough money is wasted by all government agencies to easily cover the cost of creating a workable solution.

Governmental agencies never seem to understand that when an economic slow-down occurs that the income of tax-payers is reduced -- yet elected officials look for higher taxes from the "reduced income" taxpayer to keep their non-essential projects funded. They are also quick to pass mandates for expensive updates and/or repairs for homeowners instead of using "common sense" requests to work together to attain a solution. As a Realtor and homeowner I hope the members of the Water Contingency Task Force will work diligently for a common sense solution -- and consider the cost vs the impact on Georgia's citizens.

Octavio Perez, Dalton

Please consider this on your meeting November 23:
I supports your efforts on increase water supply levels by expediting the permits and construction of new water supply reservoirs and/or increase the capacity of existing reservoirs.

I support the riparian water rights system as well as the water rights of property owners.

I support responsible market based conservation measures as conservation pricing and retrofit incentives as rebates.

I oppose the public trust doctrine, and inefficient point-of-sale government mandates such as retrofit at resale.

Sandi Green, 2008 President, Columbus Board of Realtors, Columbus, GA

As a realtor, I look at water issues not only as a resident myself but also as a representative of the many, many Georgia residents that I have represented in my 30+ years as a realtor.

I emphatically oppose the following:
1) Retrofitting existing homes at resale
2) The Public Trust Doctrine

I support:
1) Responsible conservation measures (conservation pricing and retrofit incentives/rebates)
2) Riparian water rights system
3) Water rights of property owners
4) All efforts to increase water supply levels by encouraging permitting and construction of new water supply reservoirs and the increasing of capacity of existing reservoirs.

I would greatly appreciate your efforts in eliminating the retrofitting and Public Trust Doctrine issues and your support of responsible conservation measures, riparian water rights, rights of property owners, and the addition/capacity of water supply reservoirs.

Thank you for your support.

Carol Moson, The Moson Group, RE/MAX Greater Atlanta

I am a REALTOR in Cobb County and would like to voice my opinion regarding topics before the water task force.

- Myself, along with GAR (Georgia Association of REALTORS) oppose inefficient point-of-sale government mandates such as retrofit at resale as this is a burden on the already struggling homeowner.
- Myself along with GAR support responsible market based conservation measures such as conservation pricing and retrofit incentives such as rebates.
- Myself along with GAR support a riparian water rights system and the water rights of property owners. This is absolutely critical.
- Myself along with GAR oppose the public trust doctrine.
- Myself along with GAR support efforts to increase water supply levels by expediting the permitting and construction of new water supply reservoirs and increasing the capacity of existing reservoirs.

We hope you take our voice seriously as it is crucial that these issues are properly addressed and the rights of our citizens to own and enjoy real property are protected.

Jack Shanks

In today's market with resale portion being so difficult this requirement would place an expensive and unnecessary cost for the Seller. The current resale market has prices of 2003 or 2004 market. I think there are more efficient ways to save water.

Rosan Hall, Keller Williams Realty Atlanta North

As a Realtor of some 17+ experience, I can say without a doubt that placing this additional burden on the market now is unconscionable. There are so many more ways to cure this problem without hurting the housing industry just as it may and I say that conditionally, may be coming out of a deep recession. Why not curb sprinkler systems using water that flows down gutters because people do not take the proper time to adjust them.

What about fixing bad or aged city and county water pipes which break and cause huge amounts of lost water as well as inconvenience to homeowners and businesses alike? Why not concentrate on making sure that the new houses built must have low flow plumbing? If this is truly an effort to fix the problem, why not offer incentives to make these changes?

Homeowners are already taking a huge hit. They are trying to sell houses which are not appraising and then the underwriters are cramming down the prices further because the Atlanta area is in a declining market. And, if we are in a declining market can you imagine what's happening in the rest of Georgia.

The economy cannot sustain another hit. For goodness sake think of something worthwhile which will help the housing market grow and not put additional burdens on Realtors who have been hit so hard already.

Edwin Farmer, Water Optimizer http://WaterOptimizer.com

Optimizer is an intelligent irrigation controller which can operate as a standard time clock controller as well as modes utilizing weather data or soil moisture sensors. The controller is also capable of transmitting data including run time, soil moisture levels, etc, via the Water Optimizer web site to the entity managing the system. I would very much appreciate you forwarding this information to the task force staff and we would be happy to come to Atlanta to demonstrate the systems capability. Tests from our installations around the country as well as tests conducted by the University of Florida have shown water savings of up to 70% when using the moisture sensor operation mode vs time clock controllers.

The Florida Legislature in the 2009 session passed legislation which allows intelligent controllers utilizing soil moisture sensors and having reporting capability to be exempt from watering restrictions which are in place over most of the state.

This technology allows users to conserve irrigation water and self report the usage to government as opposed to government imposed time restrictions on irrigation with enforcement required to verify compliance.

Chuck Jonaitis, Results realty Service

I am against mandated retrofit plumbing fixtures. I agree with the stand GAR has taken as listed below. Feel free to contact me if you need further information or have any questions. Thank you for your attention.

- GAR opposes inefficient point-of-sale government mandates such as retrofit at resale
- GAR supports responsible market based conservation measures such as conservation pricing and retrofit incentives such as rebates.

- GAR supports a riparian water rights system and the water rights of property owners.
- GAR opposes the public trust doctrine.
- GAR supports efforts to increase water supply levels by expediting the permitting and construction of new water supply reservoirs and increasing the capacity of existing reservoirs.

Peggy Desiderio, Keller Williams Realty Atlanta North

To whom it may concern,
As a member of the Georgia Association of Realtors and an active real estate agent in Georgia, I oppose the proposal that homeowners be required to retrofit their homes with low flow toilets and fixtures prior to resale of their homes.

Maggie Crowe, Perfect Choice Realty

To whom it may concern:

GAR Talking Points:
- GAR opposes inefficient point-of-sale government mandates such as retrofit at resale
- GAR supports responsible market based conservation measures such as conservation pricing and retrofit incentives such as rebates.
- GAR supports a riparian water rights system and the water rights of property owners.
- GAR opposes the public trust doctrine.
- GAR supports efforts to increase water supply levels by expediting the permitting and construction of new water supply reservoirs and increasing the capacity of existing reservoirs.

I totally support the Georgia Association of Realtors talking points. My reasons are housing, families are what this economy, society and nation rest upon. It is hard enough for hard working Georgians to get into homes and requiring more mandates on homes makes it even harder. Georgians believe in property rights and freedom of choice. Don't take away any of these, but give incentives to go the way of water conservation. There are many ways to do it, but not the way taking rights or freedom of choice away.

John Shea, President, Walton-Barrow Board Of Realtors

I am fully in support of GAR's position and am very pleased to be involved with an organization such as this that will protect property owners and our Business.

Jackie West, Harry Norman, realtors, Clayton

The economy is in a severe money crunch. Home sales are struggling to get back on tract and for an owner suddenly be slapped with the expense of retrofit there home at resale.

As a Realtor in Georgia I OPPOSE this inefficient point-of-sale government mandate. I OPPOSE the public trust doctrine. GAR SUPPORT efforts to increase water supple levels by expediting the permitting and construction of new water supply reservoirs and increasing the capacity of existing reservoirs. GAR supports responsible market based conservation measures such as conservation pricing & retrofit incentives such as rebates. GAR SUPPORTS a riparian water rights system and the water rights of property owners.

Mark Burson

Please Consider:

There is an affect on changing water flow from waste water receptacles in residential housing. Decreasing flow does not give adequate force or measure to clear lines into sewer and septic systems. This measure will increase stoppage, and expense to homeowners who do not understand the process. Those who do will double flush and increase water usage as a net effect.

There are more proficient measures that will facilitate the desired effect. Offering incentives and rebates for conservation measures, planning to increase state water reservoir capacity, improved measures for storm water reclamation, and seasonal conservation education and implementation measures would be collectively more effective than forced retrofitting at resale of residential housing units.

Lee Marlin, Realtor, Keller Williams Realty Atlanta North

To the Georgia Water Task Force:

To presume that Realtors can and should act as the unpaid Low Flow Toilet police whenever a home is resold, presumes that we will spend our time surveying all the fixtures in / on a property and accurately assess whether a particular toilet is low flow. Are Realtors equipped to do this?

I've been a Realtor for over 5 years and until recently had never sold a home where this was a question. The property was located in DeKalb County. Fortunately, I was on-site with a home inspector who did know what to look for and where to look for it. Policing and documenting that homeowners are in compliance is a regulatory matter that is best left to people who have the training to do it and are paid to do it - not Realtors.

There are quite a few other water conservancy approaches that bear more urgent scrutiny and ultimately result in more water conservation, namely:

- GAR opposes inefficient point-of-sale government mandates such as retrofit at resale.

Consequences: Yet another regulatory mandate that will be oppressive to voters who need to sell their homes and will cause them to spend money on their homes prior to going on the market. Realtors want to remove impediments that cause people to stall buying or selling property. They also want to get our economy moving by getting the Georgia real estate industry moving.

- GAR supports responsible market based conservation measures such as conservation pricing and retrofit incentives such as rebates.

Consequences: Water wasters should pay more when they create "too much" or unreasonable demand for water and waste water treatment, at the expense of everyone else. This should affect both homeowners and businesses.

- GAR supports a riparian water rights system and the water rights of property owners.

Consequences: We want to encourage people who want to own properties that have water resources to take care of them so that everyone benefits from them.

- GAR opposes the public trust doctrine.
- GAR supports efforts to increase water supply levels by expediting the permitting and construction of new water supply reservoirs and increasing the capacity of existing reservoirs.

Consequences: Our past severe drought showed that our communities and the State of Georgia as a whole had been lax in providing adequate capacity to store the water that our citizens and industries need. As a result, we suffered through several years of drought and severe drought. As budget permits, our legislators should be planning how we can add new reservoirs and new capacity to the statewide systems.

Sandra Queen, Metro Brokers, GMAC Real Estate

To Whom It May Concern:

I am against this requirement! It will in effect shut down all sales of older homes!

Most people will not be able to afford to do all that is required to sell their house. Since the economy is in a bad place now, I would think that you would not want to do anything to further stall it.

This also intrudes on private property homeowner's rights!

If this is passed, you are effectively telling private property owners that they cannot sell their property without government invasion.

This is totally unacceptable!

I would not be able to sell my condo, and condo sales are in the toilet anyway, why make it worse?

Realtors provide a stimulus to the economy, by sales and when someone buys a new home, they do go out and buy furnishings, etc., further providing sales!

Our economy needs all the help it can get right now, lets not further cripple it by cutting down on the number of homes that can be sold and making it more difficult for realtors to sell!

Joan Boudreau, Keller Williams Realty Duluth,

To Whom It May Concern:

We have received the following email from GAR:

Members of the task force have informed GAR that all options are on the table including an unfunded government mandate that all homes in Georgia be retrofit with low flow plumbing fixtures prior to resale.

I am definitely opposed to such a mandate. Do we not have a hard enough time selling homes these days? Prices are down 30%, unemployment is sky high, and now you want to put more restrictions on the home owner, specifically, the home seller? Do you know how many people

have to sell their homes (short sales, foreclosures, etc)? That means that can't even pay their mortgage let alone replace their toilets before they can sell?

The timing is not good for this. I also agree that it intervenes with our personal property rights.

Mark Teytel, Realty 1st

Please consider the following positions Mark Teytel and Realty 1st developed on the issues tackled by your water task force:

- I oppose inefficient point-of-sale government mandates such as retrofit at resale
- I support responsible market based conservation measures such as conservation pricing and retrofit incentives such as rebates.
- I support a riparian water rights system and the water rights of property owners.
- I oppose the public trust doctrine.
- I support efforts to increase water supply levels by expediting the permitting and construction of new water supply reservoirs and increasing the capacity of existing reservoirs.

My position is also supported by the Georgia Association of Realtors.

Dale Herdandez, Metro Brokers/GMAC Real Estate

To Whom It May Concern:

As a professional Realtor® in the State of Georgia, I am dismayed at the task force's consideration of an unfunded government mandate that all homes in Georgia be retrofitted with low flow plumbing fixtures prior to resale.

The real estate industry has had it hard enough these past two years!

If this plumbing retrofit is required, this will further depress the real estate industry and will be a hardship on everyone – not just buyers, sellers and realtors! I think we have all seen that as real estate goes, so follows the economy!

I beg you to please consider the following alternative measures for water conservation, which I whole-heartedly support:

1. Responsible market-based conservation measures such as conservation pricing and retrofit incentives such as rebates.
2. Efforts to increase water supply levels by expediting the permitting and construction of new water supply reservoirs and increasing the capacity of existing reservoirs.

Please further note that as a member of the Georgia Association of Realtors:

- I support a riparian water rights system and the water rights of property owners.
- I oppose the public trust doctrine.

Thank you for your thorough consideration of the effects of your recommendations on the real estate industry and Georgia's economic health in general.

Elizabeth Chamberlin, Harry Norman Realtors, Peachtree City,

I am strongly opposed to any government mandate to retrofit all homes for sale with low flow devices.

Jim Smith, Willingham Loan & Realty Co, Macon

I am an active member of the Georgia Association of Realtors.

I am writing you to voice my support for the position of GAR as follows:

- GAR opposes inefficient point- of- sale government mandates such as retrofit at resale
- GAR supports retrofit incentives such as rebates.
- GAR supports a riparian water rights system and the water rights of property owners.
- GAR opposes the public trust doctrine.
- GAR supports efforts to increase water supply levels by expediting the permitting and construction of new water supply reservoirs and increasing the capacity of existing reservoirs.

When I was a young man there were government incentives to encourage pond building and water conservation. Those programs worked well and thousands of ponds were built that improved the quantity and quality of water in Georgia.

Please consider policies that will encourage conservation and water management in lieu of policies that will unnecessarily penalize property owners.

Please consider our concerns when making water policy for our State.

Jack Finn, Prudential GA Realty

Please do not do anything that will have a negative impact on the real-estate market as the Gov proposed bill would do.

Regarding re tooling homes that are being sold to adjust the water presser.

Nan Coppenrath, Realtor

I am opposed to any change in water policy that would negatively impact private property rights, especially any point of sale mandate such as required retrofit at resale.

Our Georgia homeowners are suffering enough with the loss of home value (32% in Cherokee County), and a law requiring them to spend more money, which a lot of them don't have, before they can sell to the one Buyer who made a passable offer, is inhumane.

Please consider the carrot approach first: Offer incentives to use low-flow fixtures, discounts on the labor and parts, or a tax credit.

Or, save water another way, by mandating that all new building will not be allowed underground irrigation.

Sherri Schaefer, Realtor

I oppose inefficient point-of-sale government mandates such as retrofit at resale

- I support responsible market based conservation measures such as conservation pricing and retrofit incentives such as rebates.
- I support a riparian water rights system and the water rights of property owners.
- I oppose the public trust doctrine.

- I support efforts to increase water supply levels by expediting the permitting and construction of new water supply reservoirs and increasing the capacity of existing reservoirs.

W Richard Merritt, Realtor

Georgia has plenty of water in Lake Lanier and it was built specifically to give Atlanta more water.

This is a state's right issue and our governor should tell the Feds that we will govern our own water problems. We don't need their help.

Paul Christen, Alpharetta

Based conservation measures such as conservation pricing and retrofit incentives such as rebates. I supports a riparian water rights system and the water rights of property owners I oppose the public trust doctrine. I support efforts to increase water supply levels by expediting the permitting and construction of new water supply reservoirs and increasing the capacity of existing reservoirs.

Doreen Evans, Realtor

As a Georgia Realtor, I oppose mandating that property owners be required to retrofit low plumbing fixtures at resale. The current economic climate and it's impact on the housing industry places an extra burden on homeowners trying to sell in a bad market. With many homeowners being forced to sell their properties below market value, this would place our sellers under unfair financial stress. I support water conservation. However, we must come up with other alternatives that place less financial burden on property owners.

Cynthia Cromartie, Registered Appraiser, Peachtree City

I am in full agreement with the following points:

- GAR opposes inefficient point-of-sale government mandates such as retrofit at resale
- GAR supports responsible market based conservation measures such as conservation pricing and retrofit incentives such as rebates.
- GAR supports a riparian water rights system and the water rights of property owners.
- GAR opposes the public trust doctrine.
- GAR supports efforts to increase water supply levels by expediting the permitting and construction of new water supply reservoirs and increasing the capacity of existing reservoirs.

Mike Robinson, Realtor, Peachtree City

I am OPPOSED to any mandatory government requirement regarding upgrading of water fixtures in homes prior to their sale. I OPPOSE restrictions on property right of Georgia Homeowners.

Carol Link, Realtor

I have thought about this and know how very necessary water is to our very lives. It would seem water costs will continue to rise. Non low flow fixtures will, in the future, cost the home owner more that it would if they change now, using tax credits. And, we would save our precious water.

I do think we need to have a way for the cost to be adjusted at the closing table, if there is going to be cash to the seller, so they won't have to pay up front. If no cash to the seller then we have a

hardship situation and adjustments need to be available for that. It would be something that needs to be addressed with information obtained from net to seller upon receipt of a contract.

I think the safest way to protect everyone getting paid would be to allow it to survive the closing and escrow funds at the closing to be paid to the vendor of choice. The closing attorney then releases the money only after a before and after picture, along with the receipt are presented.

Susan West, Realtor

Water Task Force:
As a Realtor here in the Metro Atlanta area, I in very involved in supporting the rights of private property ownership. I want what is best for not only my Clients , but as well, the environment.

I DO OPPOSE inefficient point-of-sale government mandates such as retrofit at resale! This will hinder the sale of houses!
I DO SUPPORT responsible market based conservation measures such as conservation pricing and retrofit incentives such as rebates. Offering the consumers rebates to get their house up to standards is a more efficient and cost effective way to promote water conservation.

I, as a Realtor oppose the public trust doctrine and I support a Riparian water right system and the water rights of property owners. I also support efforts to increase water supply levels by expediting the permitting and construction of new water supply reservoirs and increasing the capacity of existing reservoirs.

I hope this information will be reviewed in the decision by Governor Sonny Perdue.

Joe Maltese

I wanted to share some developing information about what might be a significant existing water resource that is being overlooked in the ACF basin.

As you are aware, GA Power operates 3 good sized lakes in the middle Chattahoochee region. Here-to- for many had been working under the premise that these lakes carried a "run of the river" designation. While GA Power may have been able to convince FERC and others that this is how these lake should be operated, their capabilities are far different. There is significant storage in these 3 significant lakes (Bartlett's Ferry/Lake Harding, Lake Oliver, and Goat Rock).

While GA Power owns the complexes that form these lakes, as you know the waters in them is Federal water or "water of the United States". We recently conducted an assessment of what these lakes could do to ease stress either to the north for water supply, or downstream for flow augmentation to reduce stress on West Point and Lanier. What we found was quite surprising. Our engineers revealed that Lake Harding alone held 60,000 acre feet of water (equivalent to almost 3 feet of water in West Point or about 2 feet in Lanier) that could be put in play and utilized to satisfy needs in the basin upstream for water supply- or downstream for flow augmentation. Our engineers think that hydro operations could continue even while utilizing this storage, but we agree some degree of hydro generation reliability would be the impact.

But we live in a time when ALL trade offs must be explored. As we explore the transfer of water from many existing lakes around the state, logic would dictate that we explore the use of these lakes of the GA Power Mid Chatt complex with some intensity. It would also seem logical that water withdrawal from these GA Power lakes would be far more easy than withdrawing from

Corps lakes. In fact I think I am correct that Opelika and Valley AL already make use of these lakes for water supply with rather substantial withdrawals.

I think this points to the fact that we should explore all existing impoundments- including all the FERC regulated lakes of the Chattahoochee and the Flint and not focus too closely on existing Corps lakes that are already the center of so much attention on the legal front.
With regards to this concept- timing is everything. Coincidently Bartlett's Ferry /Lake Harding is just getting started in its relicensing process with FERC and this is the proper time for this dialogue with regards to that project.

Joyce Small, Realtor

I am adamantly against government adding one more expense to home owners. I know that these toilets take twice the water to do the same job as the present ones. Because of the minuscule amount of water in them it takes two or three flushes to do the job properly, so how pray tell are you saving anything. You are just placing homeowners with another needless and costly burden.

Bill Brannen, Associate Broker

Please support our realtors concerns in this matter.

Thank you

Jenny Hoffner, American Rivers

On behalf of American Rivers, thank you for the opportunity to provide the Task Force with our recommendations and input to help further inform your work as you develop a proposal to address the potential gap in supply that would exist should Judge Magnuson's ruling go into effect in July 2012.

We provide these recommendations in addition to the Georgia Water Coalition comments submitted on November 6, 2009 which we fully support and helped to formulate. These recommendations serve to elaborate and highlight particular points and complement the specific policy recommendations included in the Georgia Water Coalition document.

Attached you will find American Rivers' recommendations, the Georgia Water Coalition recommendations as well as American Rivers' Hidden Reservoir report.

Please do not hesitate to contact me if you have questions. We look forward to continuing our dialogue as the Task Force develops its proposal.

John Farra, Johns Creek

Flying to Chicago and Minneapolis on two recent trips brought to my mind some geographical considerations for dealing with North Georgia's water crisis on a long term basis. Stating the obvious, the Chattahoochee is a mere creek (at least up stream from the Alabama border) compared to many rivers in the eastern U.S. Yet there are two major rivers within 50 to 100 miles of the Chattahoochee watershed that could (and should) be accessible to balance and reflect the water needs of the entire region in these modern times – one is the Tennessee River and the other is the Savannah River.

The Tennessee is especially capable of serving this purpose. Except for the Ohio, the Tennessee is the largest river basin in the eastern U.S. Down stream from Chattanooga the only population

centers the river serves in Alabama are Huntsville, Decatur and Florence and there are NO population centers in Tennessee or Kentucky that are served.

Below Chattanooga, I believe it is a certainty that the volume of water flow on the Tennessee far exceeds the drinking water, power generation and navigation requirements at present and beyond the foreseeable future.

After crossing into Alabama, the river flows 60 miles southwest to Guntersville before going due west and back north through Tennessee and Kentucky. This proximity allows for the construction of a pipeline of approximately 100 miles that could end in the Chattahoochee above West Point Lake. The pipeline would also cross two river basins – Coosa and Tallapoosa - that are contentious problems with Alabama. So this pipeline could supplement water flow in the three river basins that are the reason for the water wars between Georgia, Alabama and Florida.

Such a pipeline solution should then allow Georgia to solve its own water problems by building new lakes and reservoirs, reducing withdrawals from Lanier and Allatoona and give reasonable time for water conservation measures to be effective in the long term.

Some related thoughts.

- Isn't Los Angeles' main water source a large and longer pipeline from Lake Meade (fed by the Colorado river) in Nevada.
- Since congressional earmarks/pork will never go away, couldn't our Georgia and Alabama congressman get some major funds to help pay the cost of a pipeline.
- A 40 to 50 mile pipeline from Lake Hartwell can reach Lake Lanier.
- How does the cost of land acquisition and lake construction compare to the cost of running a pipeline?

Thanks for your consideration,

Ronnie Burrell, Realtor

While I support changes, I do not support moves that will hurt home sales, such as, point of sale retrofit and public trust doctrine.

Christine Topham, Realtor

As an active Realtor in my community, I fully agree with GARS position on the Water Task Force opposition to any change in water policy that would negatively impact private property rights, as well as our opposition to point of sale mandates such as retrofit at resale.

- GAR opposes inefficient point-of-sale government mandates such as retrofit at resale
- GAR supports responsible market based conservation measures such as conservation pricing and retrofit incentives such as rebates.
- GAR supports a riparian water rights system and the water rights of property owners.
- GAR opposes the public trust doctrine.
- GAR supports efforts to increase water supply levels by expediting the permitting and construction of new water supply reservoirs and increasing the capacity of existing reservoirs.

Terry Moore, Realtor, Woodstock

I would like you to seriously consider any change in water policy that would negatively impact private property rights as well as point of sale mandates such as retrofit at resale. It was made clear I am a REALTORS and we are pro-conservation and that we fully support common sense market based conservation measures such as incentives and rebates that do not interfere with property rights or free enterprise.

GAR opposes inefficient point-of-sale government mandates such as retrofit at resale.
GAR supports responsible market based conservation measures such as conservation pricing and retrofit incentives such as rebates.
GAR supports a riparian water rights system and the water rights of property owners.
GAR opposes the public trust doctrine.
GAR supports efforts to increase water supply levels by expediting the permitting and construction of new water supply reservoirs and increasing the capacity of existing reservoirs.

Please consider carefully any change that will negatively affect our property rights.

Jim Waddell, Realtor

Please do not force sellers to retrofit plumbing to low flow toilets prior to resale. It does not work to save water.

People have to flush twice and actually use more water, not less.

This unfunded requirement will further hurt the housing market.

Alec Poitevint, Former Federal Commissioner – ACF & ACT Water Compacts – Member Ga Water Task Force

Ground Water via wells remain the best option with the shortest time for development – also "returned" treated water from more wells should be able to used for credits for increased surface water withdrawals.

Thus "win –win"

Dick Morrow, Mayor, City of Griffin

Water Task Force.

I applaud the creative work accomplished to arrive at the many possible solutions to the North Metro (Lake Lanier) water crisis. What truly perplexes me, tho, is why we in the surrounding counties were never queried as to our water availability and interest in supplying the Atlanta market.

To our consternation, the plan calls for potential deep wells to be drilled in Spalding County but does not even consider our present water surplus. This is a plan to spend mega millions on 6 MGD and ignores our present excess capacity.

FYI the City of Griffin owns TWO reservoirs - both operational. One, Heads Creek Reservoir, is old and has diminished capacity. Two, Still Branch Reservoir, is new and state of the art. In total we have a present withdrawal permit for 26.2 MGD. Today our total usage is only 8.2

MGD in winter and 12 MGD in summer. We have excess water of at least 13 MGD all year around.

We want to sell that water. In fact, we NEED to sell more water to pay our bond indebtedness for the new reservoir and water plant. Why not let us supply the N. Metro market with existing reservoir and plant capacity? Why spend money on new capacity when it already exists?

In addition, with some new capital investment, our old Heads Creek Reservoir could be rehabilitated and have the capability of greater storage and additional supply.

I believe the Task Force has overlooked one key solution. Take down the political wall around the Atlanta area market and let those of us outside supply the need. The systems should be interconnected and let those with excess freely sell to those with inadequate supply. This is essentially a free market solution with water being sold and traded across political boundaries and political agendas.

We need to sell water and N. Metro needs to buy water. Let's open up the process.

BTW, why would we want to allow you to drill into and take our groundwater when we have water currently available?

Incidentally, Coweta County also has excess water and would be interested in the same system as Griffin. Please don't ignore the potential providers outside the Metro area.

Brad Currey

I have responded to the survey. There is one important issue not addressed. All of our work thus far is based on data of questionable accuracy and value.

The State needs to mandate collection, reporting, and compilation of data from every water utility using AWWA standards. Every use needs to be metered down to each fire hydrant. We must keep score. Only then can we determine true water loss and begin to control and eliminate loss from leaks and other issues.

The projection of future water needs also needs a careful look. An independent resource needs to look at the data on future needs for reasonableness and consistency. Only then can we be sure that we are preparing for the future and not wasting capital in implementing all of these expensive, time consuming measures included in the survey.

Finally, our report needs to focus on the critical matter that all of us all over the state will pay more for less water, a scarce resource, in the years to come. The infrastructure needs of our utilities do not go down when people use less water, but utility revenues do go down. The public and government agencies need to be prepared for reality!

Steve Williams, BUILDINGGREENER LLC

To Whom It May Concern:
After reading the last news release form the Governors Water Task Force, I thought I would see if I could convince the task force at least to consider rainwater harvesting if not recommending it.

As most of you do not realize rainwater harvesting systems (RHS) could quickly and relatively inexpensively help reduce our dependency on the Chattahoochee and help with stormwater problems. With incentives and education non-potable water usage could be drastically reduced. By promoting it to commercial users the quick ROI for many applications could be realizes.

Please consider commenting before the State decides on one of the more expensive and/or environmentally damaging options.

Below is my brief critique of your solutions. I would be more then happy to address them in person.

Solution: Build more reservoirs or expand current reservoirs.
Result: Very expensive, takes years of permitting, lots of money, as well as an inefficient way to store water due to seepage and evaporation. Then there are the environmental issues of destroying our natural ecosystem.

Solution: Desalinization plants on the coast and pump the water to Atlanta.
Result: The cost of desalination plant and the amount of energy to produce water is quite expensive. Costs for plants run from $100 million to over $ 1 billion depending on size. The environmental impact can be intensive, because of the brine disposal. Finally, the cost to pump millions of gallons 1000 vertical feet plus 250 miles. Wow. The California Energy Commission conducted a study in 2007 that found that water-related energy use consumes about 19 percent of the state's electricity.

Solution: Piping water from the Savannah River.
Result: Apparently there is a down hill root from the Savannah River to Atlanta, but that will take a decade or two to plan, then build and then we will be at war with another state.

Solution: Conservation
Result: Great idea. Everyone supports it, but will the legislators and the governor provide the incentives, education and promotion needed? I doubt it. The North Metro GA Update water plan only set moderate efficiency goals.

Solution: Rainwater Harvesting
Result: This is an efficient and relatively inexpensive way to collect water, especially for non-potable water. Such as for irrigation and commercial applications. The water collected is very clean and free of minerals. Once the water is stored there is virtually no loss from the storage container. And the water can be stored for months. The amount of energy saved do to the close proximity of the water source to its need should be significant. Rainwater Harvesting is also a good way to help with stormwater management.

With almost 50 inches of rain a year in the Metro Atlanta area a modest 2500 square foot 1 story house can realistically capture about the 70,000 gallons of water per year. This could provide all the water needs for 2 people for a year. Why are we letting it go down the drain?

Solution: Green Infrastructure
Result: Green infrastructure is a passive and natural way to harvest water. The water is allowed to percolate into the ground replenishing the ground water which keeps the surface water level higher. This means more water for everyone. By mimicking and restoring the natural water cycle grey (concrete) infrastructure costs are reduced. Installation and maintenance tends to be significantly less the traditional grey infrastructure.

Diane Johnson

I would like to make a recommendation for our water issue. Please consider utilizing Rainwater Harvesting Catchments Systems to be used for non-potable water...washing clothes, flushing toilets, and irrigation. Eventually, there will be enough clarifying that we will be able to utilize rainwater for drinking water too. (It's being used in other places now.)

By using Rainwater catchment systems, we would save on overall water usage (draw from reservoirs)as well a mitigate stormwater runoff (flooding). THIS IS a viable solution in conjunction to other solutions of GOING GREEN. Please consider this option. I am a Rainwater Catchment Systems Professional and belong to an upstart organization (ARCSA)

The national group is out of Austin, TX. Please look it up!!! I am also active in the SE-ARCSA group...this group is reforming and is looking forward to develop NEW JOBS in GA. This is one avenue for that goal.

The SEARCSA has been instrumental in working with UGA in developing new plumbing codes for rainwater usage.

Please consider this as a highly VIABLE option. You WILL be convinced of the merits of rainwater usage once you speak with the leaders in this industry.

As a landscape architect and home owner, I know the problems with stormwater runoff and flooding. I know what causes it and I know the methods to mitigate it. Claiming rainwater is a good co-solution.

As a citizen of GA, I am very worried about our drinking water problems (and general congestion). I feel certain there will be no further development in Atlanta if we have no water to drink!!! People will be moving out of the areas where water is a problem. I've considered moving based on lack of work, traffic congestion...and now the lack of water.

We should be building all things 'green' and utilizing FREE water and putting people to work in a new 'green' industry is a very good and feasible solution.

I hope that you will consider this option seriously.

Candace Balega

To whom this concerns:

My husband and I own a 37,000 square foot shopping center. That gives us a tremendous area to capture rain water in large volumes ,which we do. We have our roof water drained to cisterns that pump it through our drip irrigation system. We choose this over city water that would be very costly in many ways. The other option of drilling a well is also costly in our west GA location and would use additional electricity. We also took up 1/3 of the asphalt and planted trees when we purchased the property to help eliminate runoff. If there were incentives for owners to add small economically sustainable features like this maybe more people would invest the money to help make a difference.

Vince Zappiam , member GWC, Suwanee,

Please use conservation to heavily weigh decisions on how best to provide water for the future of Georgia.

Furthermore, please consider wisely the data provided by groups such as the GWC to base such decisions.

The economic and environmental burden of engineered solutions will further hinder generations of Georgians with problems created today. Such solutions are likely to be just another band-aid approach to a situation that requires extensive conservation. And, after all, there is a finite number of rivers and streams to dam-up and aquifers to plunder.

Mark Brown, Rain Catchers

I am writing to offer a solid solution to the impending water crisis in GA. I am writing as a concerned citizen and an expert in the field of rainwater harvesting. Several years ago I chose Rainwater Harvesting as a new career path. As an already successful entrepreneur in another industry I made this choice, because it was obvious to me that water was fast becoming a major issue in our state as well as around the world. In my endeavor to become an expert, I sought out the authorities in the field, and spent much time researching and learning from these experts. I also looked for knowledge from leading authorities on water from around the world, and through this journey I found that there are a few points on which all are in agreement. Water is a finite resource and the rate of demand on this finite resource is growing quicker than the rate of population growth itself. We know this all too well in GA.

The question that perplexes all who understand rainwater harvesting is, "why is our state not seriously considering this as a viable solution?" What other single solution can provide a clean source of water, save energy, and greatly reduce stormwater runoff and the resulting pollution simultaneously? Throughout my business career I have always found that numbers speak louder than words, so I will offer up a simple example of an existing system we have designed and installed here in Atlanta:

Ex. Home with 1500 square ft of roof space that is currently using rainwater for non-potable water uses inside of home and outside for irrigation.

1500 sq ft x . 62 gallons per inch of rainfall x . 95 collection efficiency = 883 gallons per 1 inch of rainfall

883 gallons x 52" avg annual rainfall = 45,916 gallons collected per year
3 person family has average water use of 60,225 gallons/yr without water saving fixtures (leaks are not considered in this #)
36,135 gallons of this represents non-potable use

Potential Rainfall Supply = 45,916 gals/yr
Non-Potable Demand = 36,135 gals/yr Total Demand = 60,225 gals/yr
Potential Energy Savings = 65 KWh/yr
Potential Stormwater Runoff Reduction = 45,916 gals/yr

It is a simple equation. Rainwater supplied is greater than non-potable demand. The numbers are even more compelling when considering commercial, industrial, and institutional applications where more water can be collected and more water is typically used.

Ex. Industrial plant with 200,000 square ft of roof space that will be using rainwater for cooling towers
200,000 sq ft x . 62 gallons per inch of rainfall x . 95 collection efficiency = 117,800 gallons per 1 inch of rainfall
117,800 gallons x 52" avg annual rainfall = 6,125,600 gallons collected per year
3 cooling towers use total of 15,000 gallons per day or 5,460,000 gallons per year
Potential Supply = 6,125,600 gals/yr
Demand = 5,460,000 gals/yr
Potential Energy Savings = 9188 KWh/yr
Potential Stormwater Runoff Reduction = 6,125,600 gals/yr

Obviously cost is an important factor in determining viable solutions for the impending water crisis. The solutions offered up thus far are quite expensive just as rainwater harvesting is expensive, however rainwater harvesting offers the end user a return on investment rather than continuing price increases down the road. The typical industrial or institutional application will receive a payback of 1 to 5 years on a rainwater harvesting system. Residential systems where water is used inside the home typically produce a payback of 5-10 years and when amortized over 30 years are normally cash flow positive or at minimum break even as compared to savings on a monthly water bill in Atlanta. As water prices continue to increase, the time it takes to pay for the systems will continue to shorten.

Because rainwater harvesting is relatively new to GA I would like to take a moment to dispel a few myths:

1. Rainwater harvesting systems are nothing more than rain barrels connected to downspouts. Most people picture a rain barrel when rainwater harvesting is mentioned. While rain barrels are commonly used by gardeners for hand watering plants, rainwater harvesting systems can be used for much more including non-potable water uses such as flushing toilets, laundry, irrigation, building and vehicle washing, fire suppression, and many other things. They are also used for a potable water source where municipal or well water is not a viable option.
2. Rainwater harvesting systems are a new invention in response to the recent droughts the US has been experiencing. It has been around for 1000's of years. Technology has advanced over the years and many of today's systems are much more complex.

3. Rainwater harvesting systems are only good when there is plentiful rain, not in times of drought. Drought is a shortage not an absence of rainfall. Also, rainfall can be collected during rainy seasons and stored for use in drier seasons when demand is typically higher.
4. Rainwater contains many contaminants that are harmful to humans and animals. Rainwater harvesting systems will produce very healthy water if properly designed. German scientists figured this out many years ago, as Germany has been using rainwater harvesting for over 30 years, and it is required on all new construction.
5. Rainwater harvesting tanks need to be emptied and disinfected every year to keep the water healthy. This is not required in a properly designed rainwater harvesting system. If proper filtration and other important steps are used, the tanks will never require cleaning.
6. Rainwater is another word for greywater. These are two very different things. Rainwater falls from the sky. Greywater is water that has been collected from sinks and washing machines. Collection, treatment, storage, and regulation are very different between greywater and rainwater.

Rainwater Harvesting is now being utilized in many countries around the world and is required to be installed during new construction in places like Germany, Australia, South Africa, Paris, United Kingdom, and recently Tuscon, AZ. Some of these places have similar rainfall to GA, and some of them receive much less rainfall than we do, but all of these places have one thing in common. Water supply is a problem for one reason or another in each of these places, just as it is here in GA.

Many states including GA have adopted a rainwater harvesting code in anticipation of this solution becoming more popular. Rainwater Harvesting systems have already been installed in government buildings, schools, universities, fire stations, non-profit organizations, industrial plants, office buildings, and homes all across the United States.

I believe the time has come for GA to officially adopt Rainwater Harvesting as a solution to its impending water crisis. Listed below is a basic outline of how this can be done:
1. Tax Incentives and rebates for retrofitting of existing homes and businesses with Rainwater Harvesting Systems
2. Mandate for installation of Rainwater Harvesting Systems on all new construction projects over 400 sq. ft.
3. Statewide education program for general public, governmental agencies, and private sector business
4. Retrofitting of qualifying governmental facilities with Rainwater Harvesting Systems

I have heard many options being tossed around as solutions to the water crisis. While recently attending the GA Environmental Conference I continually heard terms like desalination, aquifer recharge, and pipeline (from wherever).

The common thread with the solutions being discussed is that they are all very expensive and most importantly they all have an expiration date. They are all temporary solutions to get us through another 5 to 50 years based on population growth charts. Rainwater Harvesting is a permanent solution that decentralizes the water supply and places personal responsibility on our population to use this finite resource wisely. Along with water conservation it can and should play an important role in solving our impending water crisis.

Joe Clark, RainbankUSA

GA Water Task Force,

Please find attached a letter in support of Rainwater Catchment Systems (Rain Harvesting), and supporting reasons. Please add Rain Harvesting to the list of options for GA, and especially the Atlanta Metro area.

Frank Carl, Savannah Riverkeeper, Inc

Re: November 23, 2009 Report from the Task Force

Given the Governor's assigned timeline for the task force we can understand the accelerated schedule for providing information. Unfortunately, that accelerated schedule will inevitably lead to errors in the final product. We wish to take this opportunity to provide some input to minimize the errors and political fallout that are bound to happen with such an accelerated schedule. Maybe it should be impressed upon the Governor as the old saying goes that "failure to plan on your part does not constitute an emergency on my part. "

At any rate we recognize that the Governor is simply providing himself with some alternatives that he should have provided himself much earlier instead of relying totally on winning the legal option. Unfortunately, taking a negotiated option off the table as a potential solution to the problem is a mistake. It would be very informative if we could compare the supply volumes and costs of a negotiated use of Lanier to the other options being considered. At this point we can only assume that the negotiated option would provide more water more cheaply than any other option except conservation. But of course that option cannot be evaluated in the current context because the Governor has taken it off the table.

It is also obvious that the task force has been tasked to consider only the economic drivers involved and to ignore the need for water for the health and welfare of the people of Georgia. Indeed, that priority has been prominent in the water planning process from the beginning back in 2005 when the mission statement put the economy ahead of the health and welfare of the people of Georgia. The mission statement for the Water Council states, "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. " We need to get our priorities straight, starting now. We should use water to support the economy, but let's make sure that it is not at the expense of the people.

Maybe it is time to stop feeding the ravenous growth machine of the metro area, the growth that keeps developers happy but saddles the people of the metro area with sprawl, transportation issues, bad air, higher taxes, and a myriad of land use and water quality problems. Maybe it is time to allow the development in the metro area to run up against its natural constraints, a finite water supply and a 90 minute commute. Maybe it's time to allow development to follow the resources instead of commandeering the resources of others to allow us to continue to play the same old game, growing metro Atlanta.

The Task Force has made its conference with the Georgia Water Coalition a prominent part of its November 23 report, leaving the impression that the input of conservation groups had been included in the report.

Unfortunately, the report did not use the information provided by the Georgia Water Coalition in its report and the inclusion of the GWC in the Task Force report seems to be just window dressing. In fact, the GWC has calculated that the water saved by earnest conservation efforts in the metro district (and some already exist) would be much greater than the 35 MGD used in the Task Force report. Indeed, the GWC indicates that a combination of conservation and good faith negotiation with Alabama and Florida could easily produce enough water for current needs in the metro district. The inflated predictions of future needs used by the Task Force should be brought into perspective by the constraints mentioned in the previous paragraph. The growth industry needs to branch out and follow the resources. The current study should be used not only to find other sources of water but to understand the limits of growth in the metro area. The information the Task Force is generating can help us do that.

With the possible exception of West Point Lake the control options mentioned (Lake Burton, Lake Hartwell and the Tennessee River) would essentially be stealing someone else's water. And taking water from West Point Lake would re-open the same can of worms that the Task Force is trying to close. It would involve negotiations with Alabama and Florida.

Taking water from Lake Burton would likely involve negotiations with the Savannah/Upper Ogeechee Water Planning Council and they just passed (unanimously) a resolution to ban interbasin transfers. While the infrastructure for transferring the water may be relatively cheap, in this case the water itself may end up being politically expensive. In addition, it appears that currently a transfer from Lake Burton to the Chattahoochee would be illegal. Taking water from Lake Hartwell and transferring it into the North Georgia Metro District would also be illegal within Georgia, but more importantly might be challenged by South Carolina and by Georgia cities downstream (Augusta and Savannah).

Taking water from the Tennessee River is fraught with a myriad of problems, least of which is the expense. First, we do not think that it will matter much if the state line is successfully challenged to gain access to the river. Tennessee River water is highly allocated to a variety of uses downstream and downstream includes AL, TN, KY, IL, MO, AR, MS, and LA. Now, that is a lawsuit. While it may be possible to physically control water from the four sources under the control option, it may be much more difficult to legally control that water. We advise you to consider these comments when prioritizing the control options for the Governor. In fact, our advice would be to forget the control options. They are not really options.

We know that the Governor is partial to building reservoirs to capture water that is available in times of excess rainfall to be used in times of drought. While this mechanism can provide water to a water-starved city, there are major disadvantages to building reservoirs. First, the cheapest mechanism for building a reservoir is to dam a stream. Creating a reservoir where a stream once flowed completely changes not only the aquatic ecosystem but also the terrestrial ecosystem surrounding the new reservoir. Re-equilibration of an ecosystem takes generations, maybe centuries. These changes to nature should not be taken lightly. Second, there will be considerable pressure from the growth industry to use these newly built reservoirs as real estate amenities. I urge you to resist that pressure for two reasons. (1) Development on the shores of these new reservoirs will cause water quality problems that will have to be treated before the water can be used as a drinking water source. That treatment can become expensive. Indeed, New York City calculated that it would be cheaper for them to buy the watershed in the Catskills that supplies their drinking water than it was to treat the drinking water if they allowed

development on the shores of their reservoir. (2) Making the land around the reservoir available for real estate development will eventually lead to pressure to manage the water resource as a real estate resource. I you will be acquiring land to use for a reservoir for water supply, it would be disingenuous to allow the growth industry to drive up the cost of the water supply while profiting from development of land that was acquired for other reasons. And finally, if reservoirs are to be built, we recommend dedicated off-stream reservoirs where water is pumped into the reservoir during periods of excess and the reservoir does not interrupt the flow of an existing stream.

We wish you luck in providing a priority list for the Governor. We look forward to seeing that list. And we appreciate the opportunity to comment on your November 23 report.

Somchay Chong

As a concern citizen of Georgia, our water problem had been a big issue. Per the governor suggestion, I would like for you to consider an idea I was thinking of. Is it possible for us to just make rain water collectors and just pour it down stream during drought season. This way we are saving most of the rain water. We won't need to treat it at all but just pour it down stream when Alabama and Florida need some water. Thank you for considering my idea, I hope we can figure this out before the next drought.

Steve Williams BUILDINGGREENER LLC

I sent a message to you a few days ago to share some thoughts on other solutions not mentioned in the news as considerations for GA. Please take the time to down load and review my presentation: Finding Water Through Rain. This presentation has been given to a international, a state and a local conference in the past year. It not only talks about the environmental impacts of our current water management practices, but touches on the large amounts of water we lose every time it rains. The statics are accurate on water and the cost overruns on big infrastructure projects are usually the norm rather then the occasional outcome. Let's try a new approach and keep think simple. I would love to share this in person, but time is running out.

Russ Jackson, Rain Harvest Systems

Since the release of the Water Contingency Planning Task Force Report there has been much discussion by the Georgia rainwater harvesting community about the absence of rainwater harvesting (RWH) as part of the viable solution to our water crisis. I would like to offer my expertise on the topic to help educate the Task Force on the costs and savings potential rwh can provide. I have been involved with the industry since 2001. My company, RainHarvest Systems is the largest supplier of rainwater harvesting equipment in the world, and we are based here in the Metro Atlanta Area.

Because of our position as a company I can offer a truly global perspective on our problem and help us reach a solution.

Please let me know if you can afford me the opportunity to help educate the Task Force.

Randy Kauk Rain Harvest Systems

My name is Randy Kauk. I am the President and principal owner of RainHarvest Systems, a Georgia-based North American distributor of rainwater collection systems based in Cumming, GA. We operate a 10,000 square foot warehouse with rain harvesting lab, retail showroom and e-commerce site devoted solely to the distribution and promotion of rainwater collection systems

in the US, Canada, Mexico, the Caribbean and Bahamas. We are the largest distributor of rainwater collection systems in the US.

It was recently brought to my attention that the Water Contingency Planning Task Force is working on a final report to the Governor with regard to the impending water shortage and litigation issues surrounding Lake Lanier and associated basins.

I would like to make myself and my company available in any way possible to help promote rainwater collection as a potential solution to the water shortage problems we're encountering. Georgia's water issues present a great opportunity for us to economically resolve our own issues, reduce our dependence on water from the Chattahoochee basin and take a leading role in the rapidly growing rainwater collection industry. As a property owner on Lake Lanier, individual member of the 1071 coalition, corporate member of the DNR's Partnership for a Sustainable Georgia and founding members of the Southeast Rainwater Collection Systems Association, I believe my company and I can make a valuable contribution to your efforts.

If there is anything we can do to assist the state of Georgia in solving our water shortage, please don't hesitate to contact me or anyone in my company.

Chatham Environmental Forum

The following comments are a reflection of the Chatham Environmental Forum's immediate thoughts on the water resource management problems of North Georgia currently being studied by the Governor's Water Task Force. The full forum will take positions on these issues after the results of that task force are made public. Please pass them along to the Task Force!

Opposed to:
Inter-basin transfer of surface water, unless there is an opposite and equal amount of fully treated effluent returned to the basin from which the withdrawal originated.

Any form of aquifer storage and recovery (ASR) in the upper or lower Floridan aquifer. Desalinization of any kind, unless and until all environmental impacts are fully studied, scientifically understood, and avoided or fully mitigated.

In favor of:
Water resource conservation, including:
- Residential
- Industrial
- Municipal

Note: water conservation measures implemented in Chatham County since 1995 should be carefully studied and used as a model. The 2005 Chatham County Comprehensive Water Supply Management Plan which contains twenty-eight strategies that were implemented to achieve a reduction in domestic and commercial water usage from 169 gallons per capita per day in 1995 to 135 gallons per day per capita in 2005. A significant finding is that from the measures implemented the County saw a 13.6 percent rise in population between 1990 and 2005 and an overall 6 percent reduction in domestic and commercial water usage over the same period.

Maximum water reuse, through effective and environmentally sound treatment, and return of water used to its original source.

Maximum efficient water use for all energy and industrial purposes.

Economic analysis of any proposed alternative to the water management issues of North Georgia must not be limited to consideration of only engineering, construction, and operational costs.

These analyses should also include and account fully for all costs to the impacted areas downstream, including: (a) limitations in supply and potential increases in costs to existing and future water users, (b) loss of economic opportunity, (b) diminishment of property values, (c) potential loss of tax revenues for local governments, (d) costs of quantifiable short and long-term environmental impacts, (e) identification and inventory of other environmental impacts that may not be easily quantifiable, such as aesthetic loss or negative effect on quality of life.

Regardless of what solutions are adopted, it is imperative that the full economic and environmental costs be borne by the effected water consumers only, and not spread out to the entire State of Georgia, or amortized so that consumers do not fully experience the real costs, and have the fullest opportunity to enjoy the economic benefits of conservation.

John Bennett

I am assuming that the more aggressive Conservation measures would only apply to the metro area and other parts of the State as necessary and would not be Statewide. Am I correct?

Bob Drew, Founder, EcoVie Environmental

Hello Task Force,
I commend you efforts and rigorous analysis through BCG. The problem is obviously complex and breaking it down into a more objective set of problems can only help. I would like to offer some solution alternatives which you may or may not be strongly considering, but which I believe can have a true impact on metro Atlanta's water challenges regardless of the Lake Lanier outcome.

You seem to be going down the path of building new reservoirs. While some of this may prove necessary, I would advocate more small reservoir building in the form of rainwater collection systems. For residences, this alternate water supply should range from about 3,000 to 10,000 gallons to replace all outdoor watering and to be considered for indoor use. For commercial applications, the cistern size may be much larger.

Such systems are already proven to reduce residential use by well over 50% over and above any conservation steps and in many cases can eliminate all municipal water use. Very different from tiny 50 gallon rain barrels, rainwater collection systems provide a real impact on municipal water demand. Typical water savings range from 50,000 to 100,000 gallons per home. Multiplied across a meaningful percentage of metro Atlanta homes, impact can easily be 10-30 million gallons per day and conceivably more. Coupled with an effective conservation policy, the impact can be even more. By my estimates, rainwater collection can eliminate the need for at least some of the planned reservoirs and can be implemented much faster and with less state and city funds (see below).

Implementation will require support of your task force as well as state municipal governments. Here are a few ideas for implementation:

1. If you have not already, I recommend to benchmark and collaborate with municipalities in Australia where the water challenge pre-dates that of Atlanta and where rainwater collection has been an integral part of the water management plan.
2. Consider using federal loan money to finance rainwater collection systems. Funds are available which could be directed to private home owners and businesses as capital for rainwater collection. With rates being offered at around 2.2% the finance charge of a system is lower than the monthly water bill savings, making it a cash flow positive incentive for investors and avoids the cost to local governments of incentives such as tax rebates (which would be a challenge with current state and local budget crunches.
3. One alternative could be to implement alternative water sources only for outdoor watering. Coupled with the incentive above, a ban on using municipal water for irrigation could have a huge and sustainable impact on metro Atlanta municipal water usage
4. Compared to permitting for reservoirs and environmental impact, rainwater collection for homes and businesses is straightforward. However, state code could be more streamlined and clear to allow only certified rainwater system installers to do installations and to specify requirements for potable and non-potable applications. At the same time, it should be made easier for certified installers to obtain permits.

One final comment: I concur that conservation efforts can only take us so far, although your numbers on outdoor water use appear understated in the recent presentation I saw. Most estimates show outdoor water use accounts for over half of residential consumption. Switching exclusively to alternate water supplies for this purpose would have a much greater impact on municipal water usage than the outdoor watering ban the last few years.

I am founder of an Atlanta local rainwater collection business (www.ecovieenvironmental.com) and am a member of ARCSA (American Rainwater Collection Systems Association). I serve as the EPA liaison for the organization.

I hope that you find at least some of these comments useful and I would like to be of service in any way possible. Please feel free to contact me.

Tall Timbers Research Station & Land Conservancy

Tall Timbers Research Station & Land Conservancy has been closely following the work of the Georgia Water Contingency Task Force. Tall Timbers' interest in the work of the Task Force stems from our role as one of the largest regional land trusts in the southeastern United States.

Our mission is to conserve the ecological, scenic, and historical resources of the Red Hills region of southwest Georgia and north Florida. The Red Hills is a unique rural landscape, home to 64 protected species of plants and animals. Tall Timbers also has significant conservation interests in the Lower Flint River watershed. In these two special areas, we have worked closely with conservation-minded private landowners to permanently protect more than 112,000 acres of critical wildlife habitat as well as rivers, streams, springs, and one of the most productive freshwater aquifer systems in the United States.

Tall Timbers appreciates the important work that the Georgia Water Contingency Task Force has completed in such a short time frame. We encourage the Task Force to consider the following suggestions as it develops recommendations for Governor Perdue.

First, establish as the highest priority, aggressive Metro Atlanta water conservation and efficiency measures.

Georgia Water Coalition resource experts have identified the potential for significant water savings at a price per gallon lower than other infrastructure-based options. Second, aggressively pursue reauthorizing and reallocating water from Lake Lanier as one aspect of a long-term, comprehensive water supply plan for Metro Atlanta. The reauthorization and reallocation must recognize the critical ecosystem management role played by adequate downstream flows on the Apalachicola-Chattahoochee-Flint system. Third, interbasin water transfers, reservoir construction and expansion projects, and South Georgia groundwater transfer projects could all have significant adverse impacts to Georgia's ecology, economy, and quality of life. These costly options should not be considered until all conservation, efficiency, and reservoir reallocation measures are implemented to the greatest extent practicable.

Thank you for the opportunity to comment on this important issue.

Governor's Agriculture Advisory Commission

The Water Contingency Task Force is to be commended for seeking solutions to insure all Georgians have adequate water in the future. Their work sends a strong message to all Georgians and to our neighbors that we are dedicated to water conservation. Members of the Governor's Agriculture Advisory Commission support and are practicing aggressive conservation measures and support expanding existing reservoirs and building new ones. However there has been some concern with the mention of restrictions on outdoor water use. The green industry and urban agriculture has just gone through one of the worst economic times with massive layoffs and economic losses. According to a UGA study, the industry recently suffered a loss of 35,000 jobs and over $3.15 billion in economic harm.

Some suggestions from the Governor's Ag Commission include:

- Building additional reservoirs
- Accommodate a minimum 30 day installation allowance for new landscapes
- Allowing retail garden centers, wholesale nurseries and landscape contractors to water their plants
- Continue with outdoor water use certification program
- Maintain current exemptions for agriculture use
- Support conservation of water i.e. variable rate irrigation, sensors, micro-irrigation, drip irrigation
- Creation of an outdoor water use committee