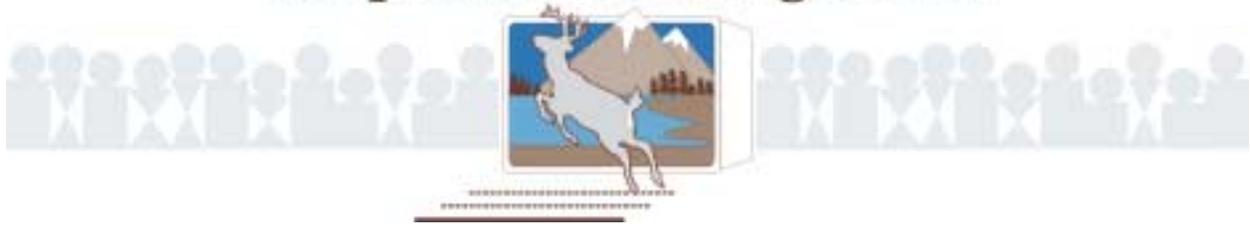


# Responsive Management



## **UNDERSTANDING THE GEORGIA PUBLIC'S PERCEPTION OF WATER ISSUES AND THE MOTIVATIONAL MESSAGES TO WHICH THEY WILL RESPOND**

**Final Report (With Appendices)**

**Conducted for the Georgia Department of Natural Resources Pollution  
Prevention Assistance Division**

**by Responsive Management**

**2003**

**UNDERSTANDING THE GEORGIA PUBLIC'S  
PERCEPTION OF WATER ISSUES  
AND THE MOTIVATIONAL MESSAGES TO WHICH  
THEY WILL RESPOND**

**Final Report (With Appendices)**

**2003**

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## **EXECUTIVE SUMMARY**

The purpose of this study was to better understand Georgia residents' attitudes and opinions toward water resource issues in Georgia, Georgia residents' willingness to participate in water conservation measures, incentives and constraints to water conservation in Georgia, as well as the educational messages to which the Georgia public will respond in a statewide water conservation campaign.

There were three phases to the project: 1) pre-survey focus groups with Georgia residents, 2) a telephone survey of the Georgia public, and 3) post-survey focus groups with Georgia residents. This executive summary describes the major findings and implications from this study. Study results are reported through a series of six reports: 1) Focus group findings (pre-survey focus groups), 2) Telephone survey findings (Volume 1), 3) Telephone survey findings with cross tabulations (Volume 2), 4) Executive summary of telephone survey findings, 5) Final report (with appendices), and 6) Final report (without appendices).

## **MAJOR FINDINGS**

- Among Georgia residents, water quality and water quantity appeared to be two of the most important "top-of-mind" natural resource/environmental issues facing Georgia.
- Although both water quantity and water quality were important issues to Georgia residents, there was greater concern for water *quality* over water *quantity*.
- Georgia residents had mixed opinions on whether or not the State's waterways were healthy.
- Georgia residents were concerned about water quality and water quantity in Georgia because of the potential effects on human well-being more so than the potential effects on environmental well-being.
- Overall, the Georgia public had positive attitudes toward the general need to conserve water. Most importantly, the Georgia public strongly supported the statewide water conservation effort.
- The survey research showed that the top three ways that the Georgia public felt they consumed water were: taking a shower, doing the laundry, and washing dishes or other household items.
- The survey research demonstrated that Georgia residents are already undertaking and are likely to undertake a variety of water conservation measures.
- Statistical analyses showed that females were statistically more likely than males and African-Americans were statistically more likely than other races to be likely to undertake certain water conservation measures.

- Statistical analyses showed that there appears to be an important geographical component regarding Georgia residents' attitudes toward water quantity and quality as well as propensity to adopt various water conservation measures.
- Not receiving feedback on whether their water conservation efforts were working was the number one reason preventing Georgia residents from adopting water conservation behaviors.
- Georgia residents were most concerned about health-related effects/human well-being as an incentive to conserve water. Penalties were less likely to motivate Georgia residents to conserve water.
- Brochures mailed to the respondent's home were the preferred method of receiving information about water conservation.

## IMPLICATIONS AND RECOMMENDATIONS

- Results from this study demonstrated that a majority of the Georgia public is concerned about water resource issues. Although both water *quantity* and water *quality* were important issues, there was greater concern for water *quality* over water *quantity*. The implication is that an effective water conservation campaign should tie water quality to water quantity in order to elevate awareness and concern about water conservation in Georgia.
- In addition to a general concern about water resource issues, the Georgia public was also concerned with specific aspects of water conservation, including following the 2000-2002 watering restrictions and conserving water even during times of adequate rainfall.
- The research suggested that Georgia residents need to be informed about household activities that consume more water than they thought they were consuming.

## Constraints To Water Conservation

- Constraint #1: *There is a perception that the State should be doing more to conserve water.* The research suggested that the Georgia public needs to be shown that the State is doing its part to help conserve water.
- Constraint #2: *Residential users feel that the State does not have an overall plan for water conservation in place.* The research suggested that many residential users were interested in learning how their water conservation efforts fit into an overall statewide effort.
- Constraint #3: *There is no feedback mechanism concerning the effectiveness of water conservation efforts.* Fortunately, the survey research indicated that a majority of the Georgia public believes that they can personally make a difference in terms of water conservation. However, this belief needs to be reinforced with a feedback mechanism

showing people that they really are making a difference, such as providing quantified data regarding the number of gallons that have been conserved.

- **Constraint #4:** *Many residential users believe that they do not consume very much water.* Although the Georgia public acknowledged that residential users consume a substantial amount of water, there is still a need to educate Georgia residents about how significant residential water use is, as well as how individuals may waste water without fully realizing it.
- **Constraint #5:** *There is a general lack of knowledge and awareness about where to find information about water conservation measures.* The research suggested that the Georgia public is concerned about water resources in Georgia, but some residents will need more information on what they can do to conserve water.
- **Constraint #6:** *People do not generally make the connection between water quantity/water conservation and water quality/human well-being.* The research indicated that although Georgia residents would be motivated to conserve water for reasons related to human well-being, many Georgia residents are probably not clear on the link between water conservation and water quality/human well-being.
- **Constraint #7:** *There is a perception that water is readily available.* The research indicated that many Georgia residents do not really believe that there is a serious water quantity problem or that there will be an imminent water shortage.

### **Participation in and Motivation to Conserve Water**

- The top water actions that Georgia residents most commonly said they had *already undertaken* were washing only full loads of clothes and dishes, not letting water run unnecessarily, watering the lawn infrequently, and washing the car less frequently or not at all.
- The survey results indicated that the Georgia public is *most likely* to: install water efficient hose nozzles for outside garden hoses, practice drought-tolerant landscaping, routinely check fixtures for leaks, and install water efficient washing machines and dishwashers.
- The water conservation measures with the highest percentages of the Georgia public having said they would be *not at all likely* to implement related to irrigation systems and toilets.
- As part of the water conservation campaign, Georgia residents that are not already participating in water conservation behaviors should be encouraged to adopt one or two small measures.
- An effective water conservation campaign will educate the Georgia public about the link between water quantity, water quality, and health issues.

- The survey research suggested that the Georgia public will be motivated to conserve water if they know how it personally affects them, especially regarding their personal well-being and the well-being of their children.

### **Message and Communications Development**

- A major umbrella campaign is necessary to increase awareness and concern about water quantity and water conservation in Georgia. All water conservation information, education, and outreach efforts should be developed and coordinated so that they fall under the umbrella campaign. *This is especially important for consistency and to ensure that the campaign is widely recognized in Georgia.*

The research indicated that the water conservation campaign will be successful if it includes the following elements:

- A water conservation message that specifically encourages people to act by saving water.
- Promotes the links between water quantity/water conservation and human well-being.
- Provides numerous water conservation tips to the public rather than focusing on only one or two. (Note that specific water conservation efforts can and should be promoted such as lists that contain numerous water saving tips but not in the overall message of the campaign.)

In addition to these elements, the water conservation campaign must incorporate the following:

- The public needs assurance that the State is doing its part to conserve water and that other entities are also doing their part (agriculture, business, etc.).
- The public needs feedback on whether their water conservation efforts are working. This will reinforce the water conservation messages and promote long-term behavioral changes.
- Georgia residents must be educated regarding how significant residential water use can be.
- The public needs to be provided with simple, readily available information on water conservation and measures that can be taken to conserve water. The public needs to be reminded about water conservation at regular intervals.
- Encouragement needs to be provided to those individuals who are already taking water conservation measures – especially to encourage those individuals to implement a few more measures in addition to what they are already doing.

- Georgia residents that have not taken any measures to conserve water should be encouraged to adopt one small, inexpensive measure to initiate them into the water conservation process.



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## **INTRODUCTION**

The purpose of this study was to better understand Georgia residents' attitudes and opinions toward water resource issues in Georgia, Georgia residents' willingness to participate in water conservation measures, incentives and barriers to water conservation in Georgia, as well as the educational messages to which the Georgia public will respond in a statewide water conservation campaign.

In August 2002, a series of meetings were held on behalf of the Georgia Department of Natural Resources (GDNR), Pollution Prevention Assistance Division and its partners to identify and prioritize the key water issues in the state of Georgia and to apply this information toward the development of in-depth, values-based educational messages to motivate the public to take appropriate conservation action. Findings from these meetings indicated that the two priority communications issues were that 1) water management is a responsibility shared by all Georgians; and 2) water limitations are an immediate issue for the region. Based on these meetings and the goals of the GDNR Pollution Prevention Assistance Division, this study focuses on issues related to water quantity and water conservation. It is recommended that other studies be conducted regarding the opinions and attitudes of agricultural establishments, businesses, and/or government toward water resource issues in Georgia.

This report summarizes the major findings and implications of this water conservation messaging study. There were three phases to the project: 1) pre-survey focus groups with Georgia residents, 2) a telephone survey of the Georgia public, and 3) post-survey focus groups with Georgia residents.

Results from this study are presented in a series of six reports: 1) Focus group findings (pre-survey focus groups), 2) Telephone survey findings (Volume 1), 3) Telephone survey findings with cross tabulations (Volume 2), 4) Executive summary of telephone survey findings, 5) Final report (with appendices), and 6) Final report (without appendices). A complete methodology for all aspects of the research conducted for this study is presented in Appendix A of this report. Additional graphs and tables are also found in the Appendices.

## MAJOR FINDINGS

### NATURAL RESOURCE/ENVIRONMENTAL ISSUES PERCEIVED TO BE IMPORTANT

- **Among Georgia residents, water quality and water quantity appeared to be two of the most important “top-of-mind” natural resource/environmental issues facing Georgia.**

When asked to name the most important natural resource/environmental issues facing Georgia in an open-ended question, water quality and water quantity were named the two most important issues. Forty-two percent of respondents said that water quality was the most important natural resource/environmental issue facing Georgia, and 30% said water quantity. Although both of these issues appeared to be “top-of-mind” issues to the Georgia public, it is important to realize that these were *not* “top-of-mind” issues to large percentages of the Georgia public (ie., 58% of respondents *did not* name water quality as the most important natural resource/environmental issue facing Georgia, and 70% *did not* name water quantity).

### AWARENESS AND CONCERN ABOUT WATER RESOURCE ISSUES

- **Although both water quantity and water quality were important issues to Georgia residents, there was greater concern for water *quality* over water *quantity*.**

In a series of questions regarding whether specific issues were important or unimportant in Georgia, water quality was the top issue deemed to be very important (90% said that water quality was very important), and water quantity was the third issue in the ranking (70%) behind air quality. Also, 64% of respondents were very concerned about water quality compared to 41% of respondents who were very concerned about water quantity.

- **Georgia residents had mixed opinions on whether or not the State’s waterways were healthy.**

Slightly more respondents thought that Georgia’s waterways were somewhat or very unhealthy (38%) than thought they were very or somewhat healthy (36%). Statistical analyses showed that males were statistically more likely than females to have the opinion that Georgia’s waterways were very or somewhat *healthy*, while females were statistically more likely than males to have the opinion that Georgia’s waterways were somewhat or very *unhealthy*.

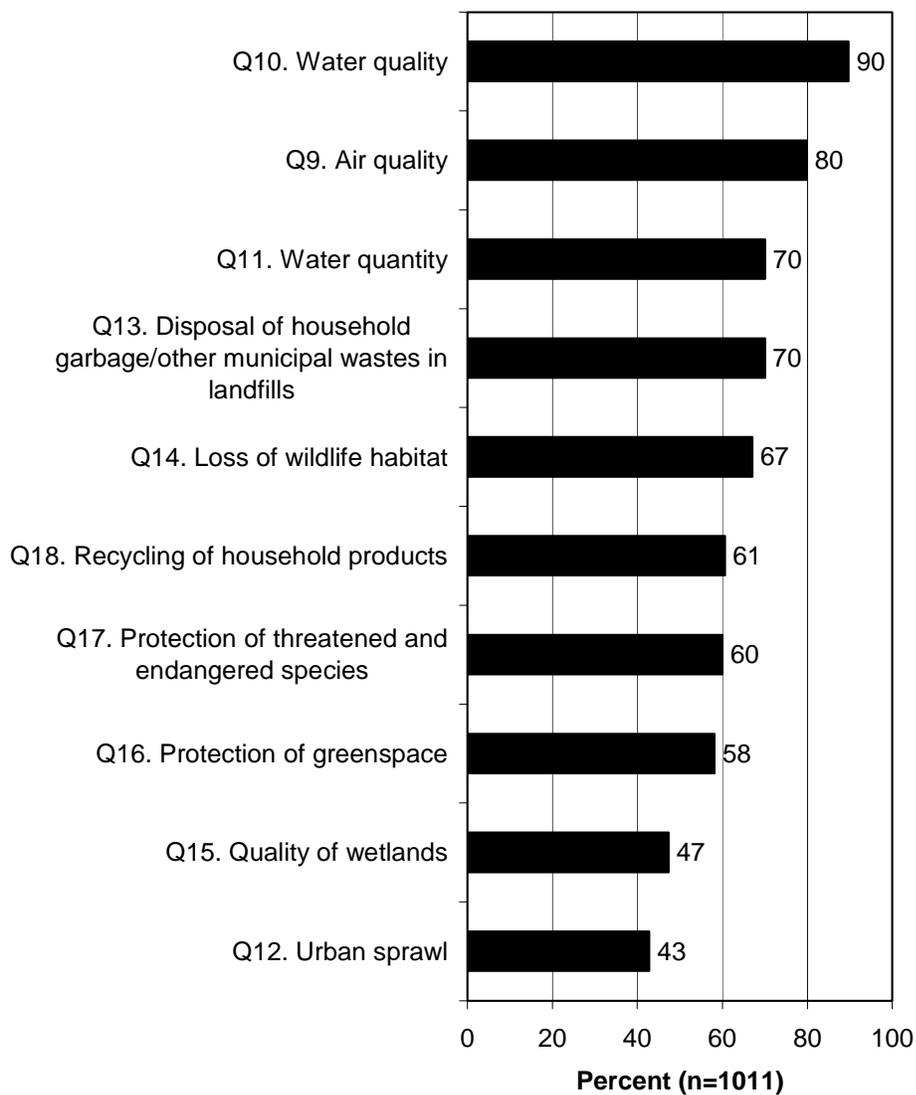
- **Georgia residents were concerned about water quality and water quantity in Georgia because of the potential effects on human well-being more so than the potential effects on environmental well-being.**

The top reasons why respondents were concerned about water quality in Georgia related to its effects on human well-being: the top three answers were drinking water (46% said this was a reason they were concerned about water quality), their own health/safety (27%), and public

health/safety (23%). Answers relating to fish and wildlife habitat and the environment were lower in the ranking: fish and wildlife resources (14%) and to maintain natural beauty/for the environment (7%).

The top reasons that respondents were concerned about water quantity also related to its effects on humans: water shortages (69%) and watering restrictions (18%). Concern for the environment (9%) had a much lower percentage saying it was a reason for their concern about water quantity.

**Q9-18. Percent who think the following issues are very important.**



<b>Says Georgia's waterways are very or somewhat healthy</b>	<b>Z-SCORE</b>
Is male	5.98***
Strongly or moderately agrees that the State is doing enough to conserve water in Georgia	5.59***
Says not enough water/water quantity is one of the most important natural resource issues facing Georgia	4.07***
Thinks people use a little water in everyday life	3.85***
Thinks industry uses 29% or less of all water used in Georgia	3.83***
Is not at all concerned about water quality in Georgia	3.45***
45-54 years old	2.95**
Strongly or moderately agree that I don't think individual users use that much water (is a reason for not conserving)	2.93**
Very or somewhat likely to wash car less frequently or not at all	2.88**
Lives in Macon County	2.71**
Is somewhat concerned about water quality in Georgia	2.61**
Says water quality is a somewhat or very unimportant issue facing Georgia	2.6**
Says GA State Soil and Water Conservation Comm. is primarily responsible for managing water	2.55*
Knowledge that the health of his/her children was at stake would make him/her somewhat or very unlikely to conserve water	2.53*
Strongly or moderately agree if I conserve water, it just means that more people will be able to move to my community (is a reason for not conserving)	2.5*
Strongly or moderately agrees that he/she can make a difference in water conservation	2.46*
Very or somewhat likely to water lawn infrequently	2.4*
Lives in Hart County	2.34*
Not at all likely to replace current irrigation system with a drip irrigation system for lawn or garden	2.33*
Says air quality is a somewhat or very unimportant issue facing Georgia	2.28*
Lives in Dougherty County	2.28*
Very or somewhat likely to practice drought-tolerant landscaping (xeriscaping)	2.24*
Says protection of greenspace is a very or somewhat important issue facing Georgia	2.16*
Not at all likely to not let water run unnecessarily	2.07*
Says GA Dept. of Natural Resources is primarily responsible for managing water	2.02*
Thinks agriculture/farming uses the most water in Georgia	2*
Lives in Charlton County	2*
Strongly or moderately agree that I never get information on whether my conservation efforts are helpful (is a reason for not conserving)	1.97*
<b>STATISTICALLY INSIGNIFICANT VARIABLES OMITTED</b>	
Lives in Rockdale County	-1.97*
Husband usually opens water bill	-1.99*
25-34 years old	-2.05*

Most likely to say Georgia's waterways are very or somewhat healthy.



Already waters lawn infrequently	-2.08*
Says habitat fragmentation is one of the most important natural resource issues facing Georgia	-2.1*
Moderately or strongly disagrees that the State is doing enough to conserve water in Georgia	-2.21*
Says air pollution/air quality is one of the most important natural resource issues facing Georgia	-2.7**
Is concerned about water quality because of its effect on drinking water	-2.73**
Already washes car less frequently or not at all	-2.76**
Thinks people use a great deal of water in everyday life	-3.02**
Says air quality is a very or somewhat important issue facing Georgia	-3.18**
Someone else receives water bill	-3.22**
Thinks industry uses more than 30% of all water used in Georgia	-3.83***
Is very concerned about water quality in Georgia	-4.02***
Is female	-6.1***



Most likely *not* to say Georgia's waterways are very or somewhat healthy.

<b>Says Georgia's waterways are somewhat or very unhealthy</b>	<b>Z-SCORE</b>	
Moderately or strongly disagrees that the State is doing enough to conserve water in Georgia	7.33***	Most likely to say Georgia's waterways are somewhat or very unhealthy. 
Is very concerned about water quality in Georgia	5.08***	
Already washes car less frequently or not at all	4.24***	
Owens more than 1 acre (median)	3.84***	
Thinks industry uses more than 30% of all water used in Georgia	3.32***	
Lives in Carroll County	3.14**	
Is female	2.94**	
Says habitat fragmentation is one of the most important natural resource issues facing Georgia	2.88**	
Already does not let water run unnecessarily	2.85**	
Thinks commercial businesses use the most water in Georgia	2.72**	
Says air pollution/air quality is one of the most important natural resource issues facing Georgia	2.71**	
Strongly or moderately disagree if I conserve water, it just means that more people will be able to move to my community (is a reason for not conserving)	2.37*	
Is concerned about water quality because of habitat, environmental, spiritual, and/or aesthetic concerns	2.35*	
Rebate programs would make him/her very or somewhat likely to adopt water conservation practices	2.32*	
Lives in Clayton County	2.26*	
Thinks people use a great deal of water in everyday life	2.24*	
Says federal government in general is primarily responsible for managing water	2.21*	
Someone else receives water bill	2.2*	
Lives in Harris County	2.15*	
Says protection of threatened and endangered species is a very or somewhat important issue facing Georgia	2.09*	
Already waters lawn infrequently	2.07*	
Says air quality is a very or somewhat important issue facing Georgia	2.06*	
Says urban sprawl is a very or somewhat important issue facing Georgia	2.05*	
Rarely makes effort to conserve water	1.96*	
<b>STATISTICALLY INSIGNIFICANT VARIABLES OMITTED</b>		
Lives in Lee County	-2.09*	
Rebate programs would make him/her somewhat or very unlikely to adopt water conservation practices	-2.1*	
Not at all likely to not let water run unnecessarily	-2.14*	
Not at all likely to install water efficient hose nozzles for outside garden hoses	-2.19*	
Is a member of a sportsmen's organization	-2.21*	
Not at all likely to install water efficient washing machines and dishwashers	-2.25*	
Lives in Liberty County	-2.28*	
Says not enough water/water quantity is one of the most important natural resource issues facing Georgia	-2.41*	

Is not at all concerned about water quality in Georgia	-2.89**
Is male	-2.93**
Is somewhat concerned about water quality in Georgia	-3.14**
Very or somewhat likely to wash car less frequently or not at all	-3.28**
Thinks industry uses 29% or less of all water used in Georgia	-3.32***
Owns 1 acre or less (median)	-3.84***
Strongly or moderately agrees that the State is doing enough to conserve water in Georgia	-4.45***

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Most likely *not* to say Georgia's waterways are somewhat or very unhealthy.

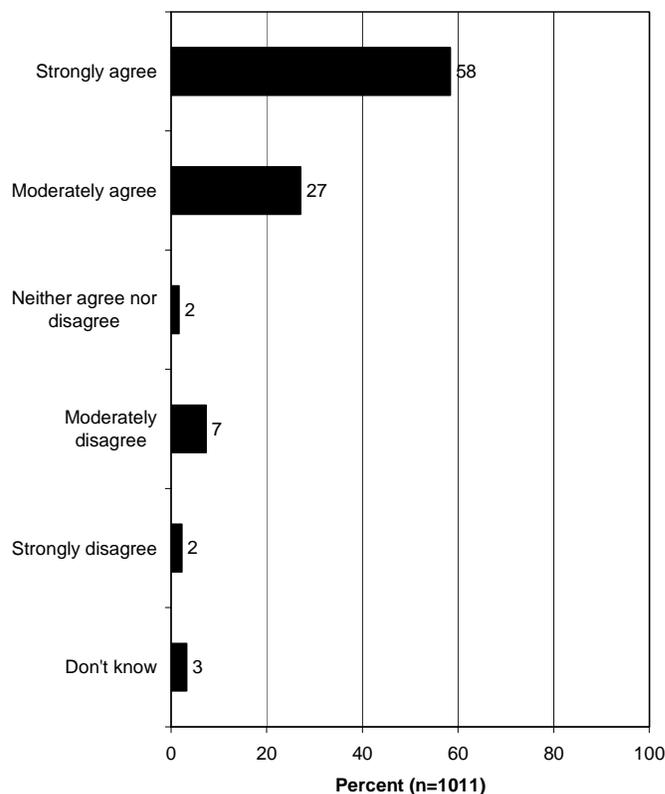
## OVERALL EFFORTS TO CONSERVE WATER AND ATTITUDES TOWARD WATER CONSERVATION

- Overall, the Georgia public had positive attitudes toward the general need to conserve water. Most importantly, the Georgia public strongly supported the statewide water conservation effort.

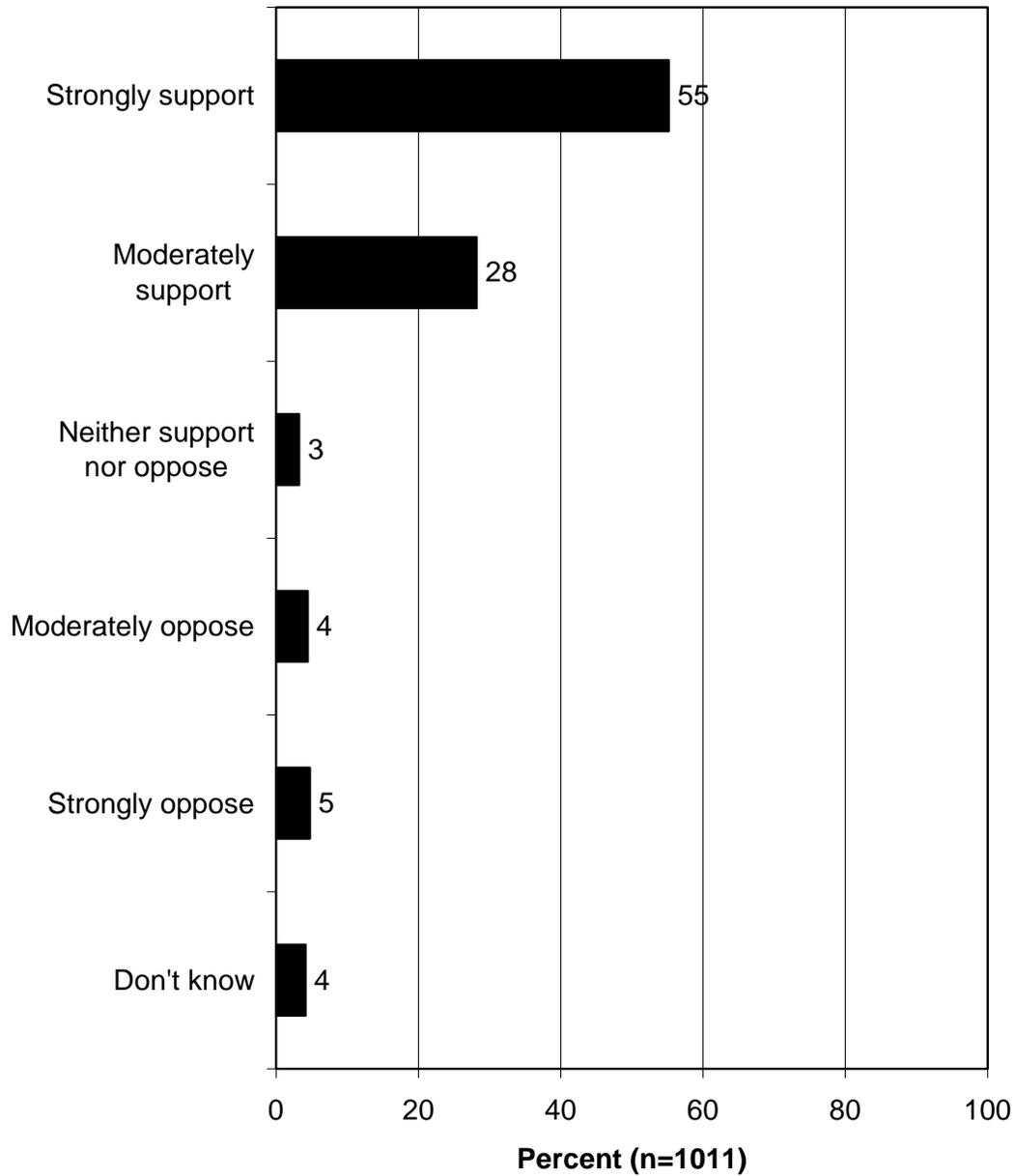
Even though Georgia residents may not yet be doing everything they can to conserve water, the survey results indicated that the Georgia public supported the need to conserve water. For example, a large majority of respondents (85%) strongly or moderately agreed that water should be conserved, even when no drought conditions exist, with a majority (58%) having strongly agreed. Also, a large majority of respondents (83%) said that they strongly or moderately supported the statewide water conservation effort, with a majority having strongly supported (55%). Most respondents (77%) were very or somewhat concerned about trying to follow the 2000-2002 watering restrictions in Georgia during those years of drought.

A majority of respondents (86%) strongly or moderately agreed that they can personally make a difference in conserving water, and 57% strongly agreed that they can make a difference. Only 10% moderately or strongly disagreed that they can personally make a difference.

### Q52. Do you agree or disagree that water should be conserved when there are not drought conditions and when there is plenty of rain?



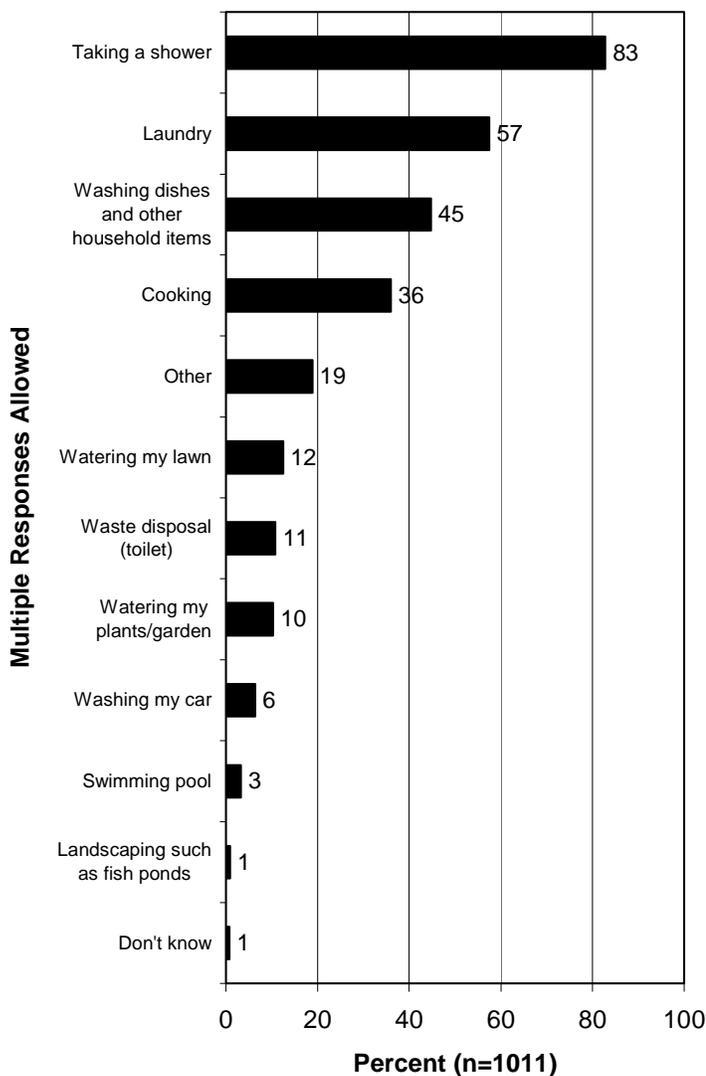
**Q67. [Respondents were read elements of the statewide water conservation effort for Georgia and were then asked the following question.] Overall, would you support or oppose this statewide water conservation effort?**



- The survey research showed that the top three ways that the Georgia public perceived they consumed water were: taking a shower, doing the laundry, and washing dishes or other household items.

In the general population survey, respondents were asked to name the top three ways that they used water. When asked about the top three ways that respondents used water, 83% said taking a shower, 57% said laundry, 45% said washing dishes and other household items, and 36% said cooking.

### Q39. What are the top three ways that you use water?



## **PARTICIPATION IN AND WILLINGNESS TO PARTICIPATE IN WATER CONSERVATION EFFORTS**

- **The survey research demonstrated that Georgia residents are already undertaking and are likely to undertake a variety of water conservation measures.**

The top measures that respondents most commonly said they have *already undertaken* were to wash only full loads of clothes and dishes (75%), not let water run unnecessarily (65%), water the lawn infrequently (59%), and wash the car less frequently or not at all (59%).

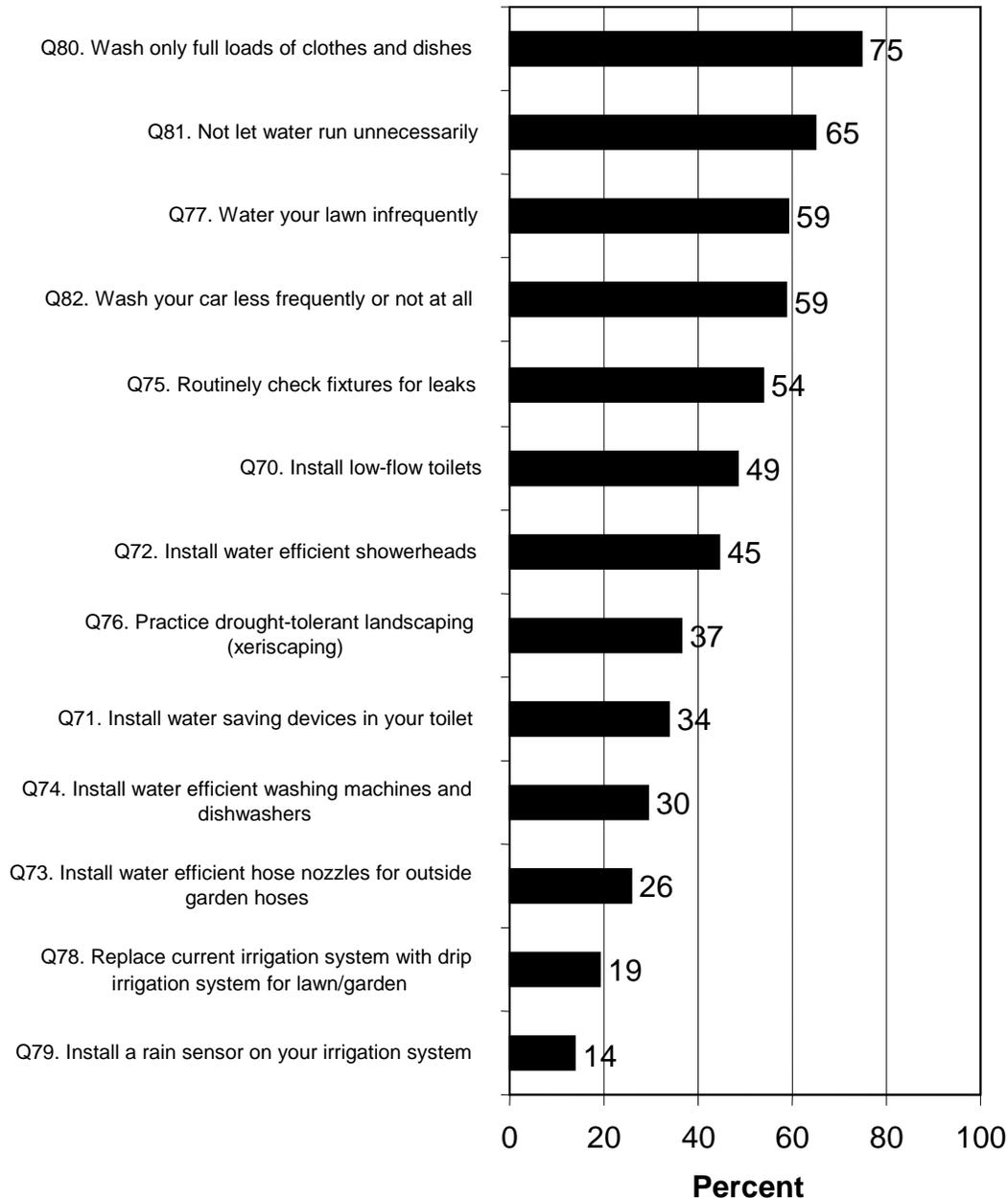
Respondents were also asked about their likelihood to undertake the 13 specific measures to conserve water that were presented. Four measures had a majority of respondents saying that they would be very or somewhat likely to adopt that particular conservation measure: install water efficient hose nozzles for outside garden hoses (60%), install water efficient washing machines and dishwashers (56%), practice drought-resistant landscaping, known as xeriscaping (52%), and install a rain sensor on their irrigation system (52%). Also fairly high percentages, although slightly less than a majority, said that they would be very or somewhat likely to install water saving devices in the toilet (46%), to install water efficient showerheads (44%), and to routinely check fixtures for leaks (43%). (Note that this analysis removed those respondents who answered “not applicable” so that the results are among only those who could take the action.)

The measures that had the highest percentages of respondents having said that they would be not at all likely to participate in related to irrigation systems. The next two measures after irrigation systems, however, related to toilets: install water saving devices in their toilet (20% said that they were not at all likely to do this) and install low-flow toilets (19%).

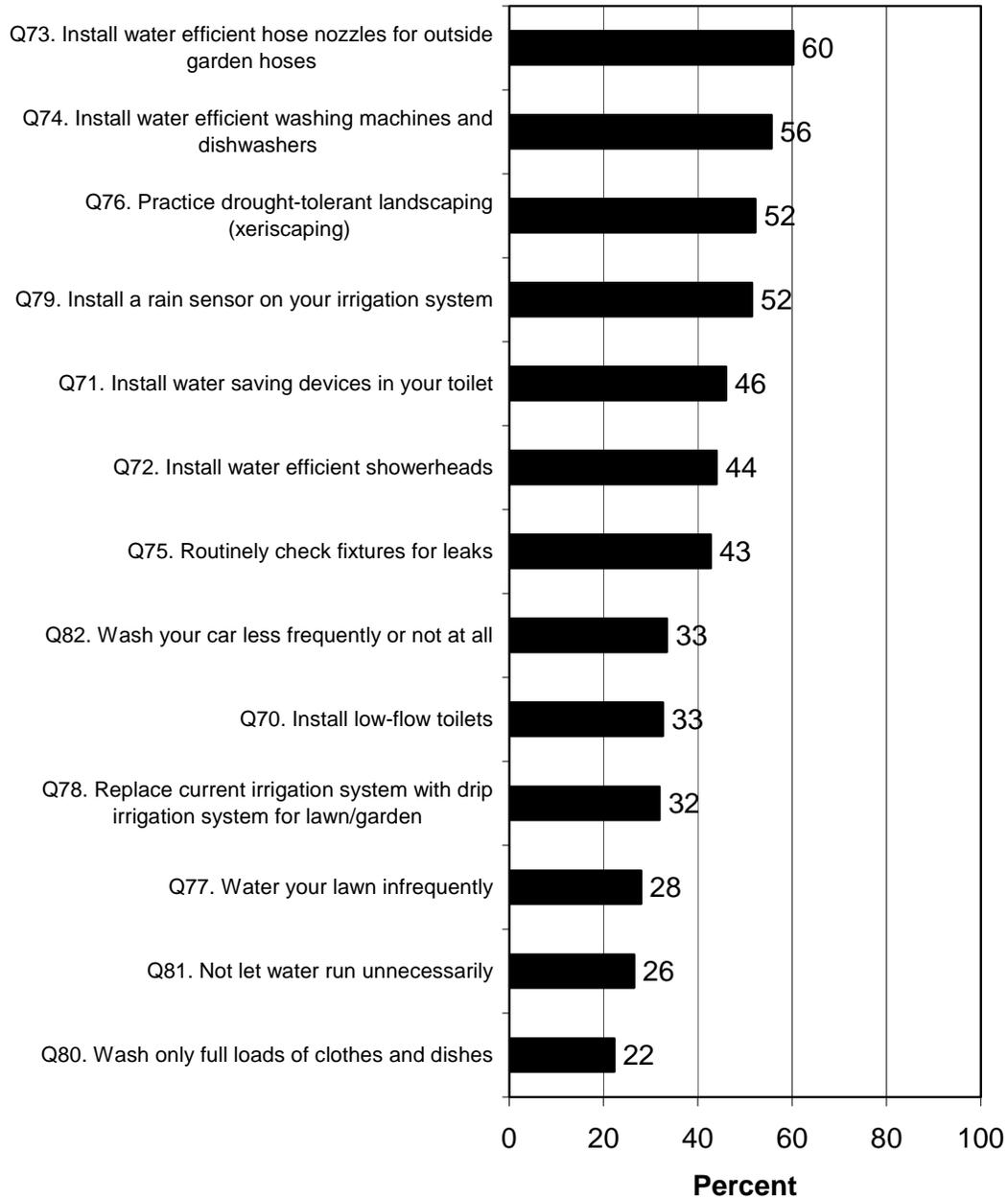
- **Statistical analyses showed that females were statistically more likely than males and African-Americans were statistically more likely than other races to be likely to undertake certain water conservation measures.**

In the statistical analyses, females were more likely than males to be concerned about water quantity in Georgia. In addition, females were statistically more likely than males and African-Americans were statistically more likely than other races to currently participate in and be likely to participate in some water conservation behaviors.

**Q70-82. Percent who said they have already done the following water conservation efforts. (Excluding those who answered "Not applicable" or "Don't know.")**



**Q70-82. Percent who said they would be very or somewhat likely to do the following water conservation efforts. (Excluding those who answered "Not applicable" or "Don't know.")**



- **Statistical analyses showed that there appears to be an important geographical component regarding Georgia residents' attitudes toward water quantity and quality as well as propensity to adopt various water conservation measures.**

Counties in Georgia consistently appeared in the statistical analyses regarding water conservation behaviors that were already undertaken, water conservation behaviors that were likely to be adopted, and overall concern about water quantity and water quality in Georgia. A scale was developed to determine each county's rank regarding concern about water quantity and water quality, the importance of water quantity and water quality, whether or not water conservation actions had already been undertaken and finally, the likelihood to undertake water conservation actions. The counties were ranked according to the results of the survey for the following questions as they applied to each county:

Q10. Would you say that water quality is a very important, somewhat important, or not at all important issue facing Georgia?

Q11. Would you say that water quantity is a very important, somewhat important, or not at all important issue facing Georgia?

Q20. Would you say you are very concerned, somewhat concerned, or not at all concerned about water quality in Georgia?

Q27. Would you say you are very concerned, somewhat concerned, or not at all concerned about water quantity in Georgia?

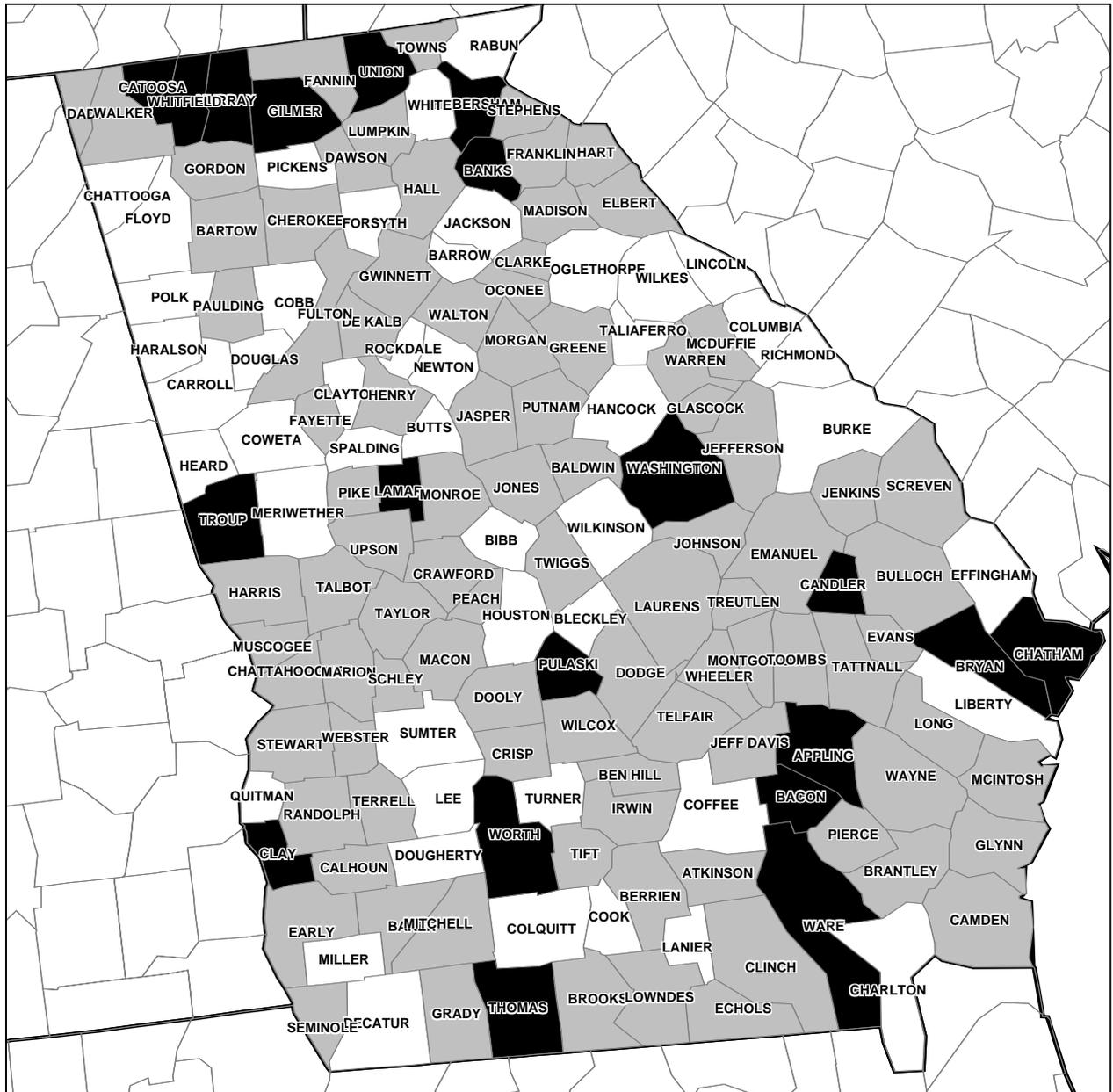
Q70-82. Would you be very likely, somewhat likely, or not at all likely to do [the following water conservation behavior] or have you already done this? (The water conservation behaviors that were measured were: washing only full loads of clothes and dishes, not letting water run unnecessarily, watering the lawn infrequently, washing the car less frequently or not at all, routinely checking fixtures for leaks, installing low-flow toilets, installing water-efficient showerheads, practicing drought-tolerant landscaping (xeriscaping), installing water saving devices in the toilet, installing water efficient washing machines and dishwashers, installing water efficient hose nozzles for outside garden hoses, replacing current irrigation systems with a drip irrigation system for the lawn or garden and installing a rain sensor in an irrigation system).

The counties were assigned a positive or negative score depending on their answers to each question (if it was positive or negative), and the state of Georgia was mapped based on the county scores. A map was also produced to depict the *overall* score for each county as a ratio of the total positive and negative scores (see map on the following page). White shading means that those counties had a high concern for water quantity and quality, had already undertaken several water conservation measures, and were very likely to undertake water conservation measures. Black shading means that those counties were not as concerned about water quantity and quality, were less likely to have already undertaken water conservation measures, and were less likely to adopt water conservation measures. This map should be used as a broad tool in the water conservation campaign. It does not imply that all citizens have positive or negative attitudes regarding water quantity and conservation according to the county, rather, it is simply a broad overview to illustrate that there appear to be regional differences in attitudes across Georgia. Even though the statistical analyses showed differences between some counties, what should be kept in mind is that some of the counties may have had low numbers of responses.

**Concern, Intent, and Behaviors (CIB) Summed Scale**

[The sum of the significant z-scores (negatives coded as -1 and positives coded as +1) for each county for survey questions 10, 11, 20, 27 and 72-80]

- White = Positive (High CIB)
- Gray = Neutral (CIB is 0)
- Black = Negative (Negative CIB)



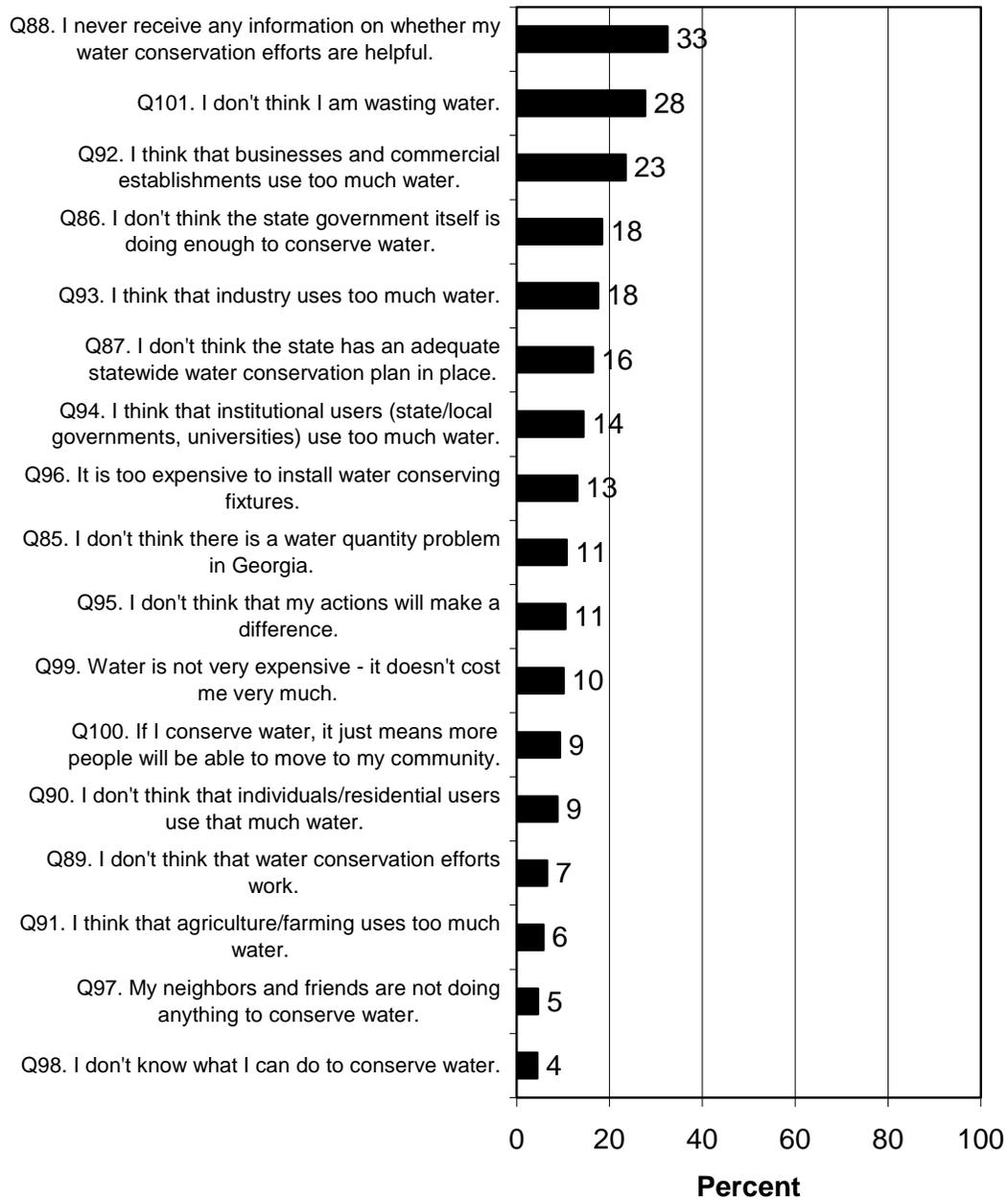
## **GEORGIA RESIDENTS' PERCEPTION OF REASONS PREVENTING THEM FROM CONSERVING WATER**

- **Not receiving feedback on whether their water conservation efforts were working was the number one reason preventing Georgia residents from adopting water conservation behaviors.**

Respondents were asked about 17 factors that might prevent them from undertaking water conservation efforts. The top factor was that respondents did not receive feedback on whether their conservation efforts were effective (33% strongly agreed and 17% moderately agreed that this is a reason preventing them from conserving water). Another important factor was that the respondent did not think he/she was wasting water (28% strongly agreed). The next most commonly given factors preventing the respondent from conserving water related to the perception that residential users do not use enough water to make a difference: "I think businesses and commercial establishments use too much water," (23% strongly agreed that this prevents them from conserving water), "I don't think the state government itself is doing enough to conserve water," (18%), "I think that industry uses too much water," (18%), "I don't think the state has an adequate statewide conservation plan in place," (16%), and "I think that institutional users use too much water" (14%).

The factor that had the highest percentage of respondents having said that they disagreed that the given factor prevented them from conserving water was that they don't know what they can do to conserve water (60% strongly disagreed and 21% moderately disagreed that this was a reason preventing them from conserving water).

**Q85-101. Percent who strongly agree that the following reasons prevent them from conserving water in Georgia.**



## **INCENTIVES AND PENALTIES TO ENCOURAGE CONSERVATION OF WATER**

- **Georgia residents were most concerned about health-related effects/human well-being as an incentive to conserve water.**

Respondents were asked about 21 factors that might encourage them to conserve water. The health of their children (91%) and their own health (89%) were the two top reasons that would make Georgia residents very likely to conserve water. The next reason also related to the respondent personally: knowing a severe water supply crisis could happen during their lifetime (88%). The next three items were fairly altruistic: knowing they could help protect the quality of life for future generations (85%), knowing that water is a limited resource (85%), and knowing that the health of the environment was at stake (84%). The final item that had a markedly higher percentage of respondents, relative to the rest of the items, saying it would be very likely to encourage them to conserve water also directly related to them personally: knowing they could save money on their water bill (75%).

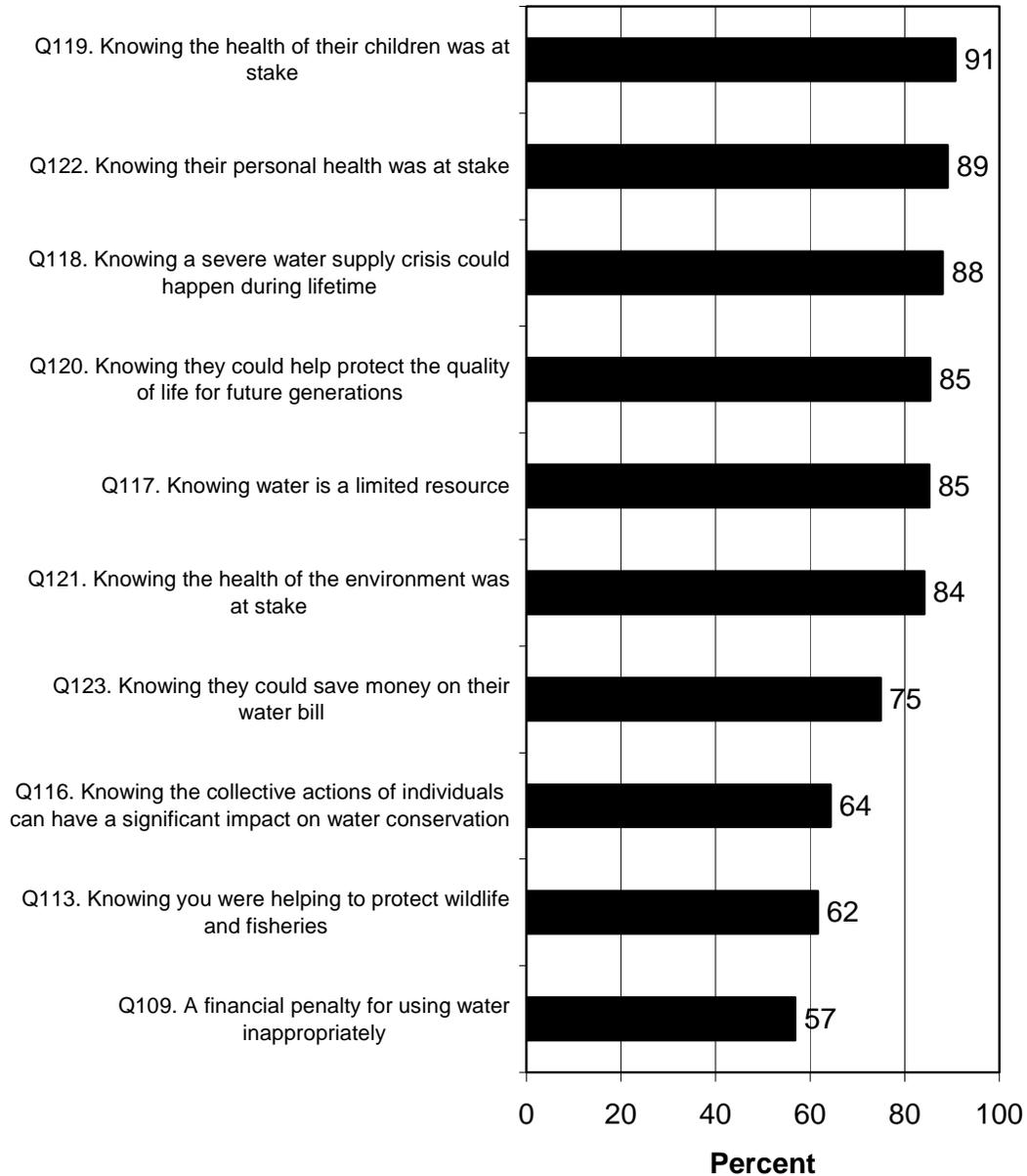
Peer pressure from neighbors (19%) and pressure from children (24%) were at the bottom of the list. Additionally, penalties were not as likely to motivate people to conserve water: conservation pricing (overuse of water being penalized) (38%), the possibility of increased watering restrictions being imposed by the state (50%), an increase in current water costs (52%), and a financial penalty for using water inappropriately (57%) were halfway or more down the list.

## **INFORMATION ABOUT WATER CONSERVATION**

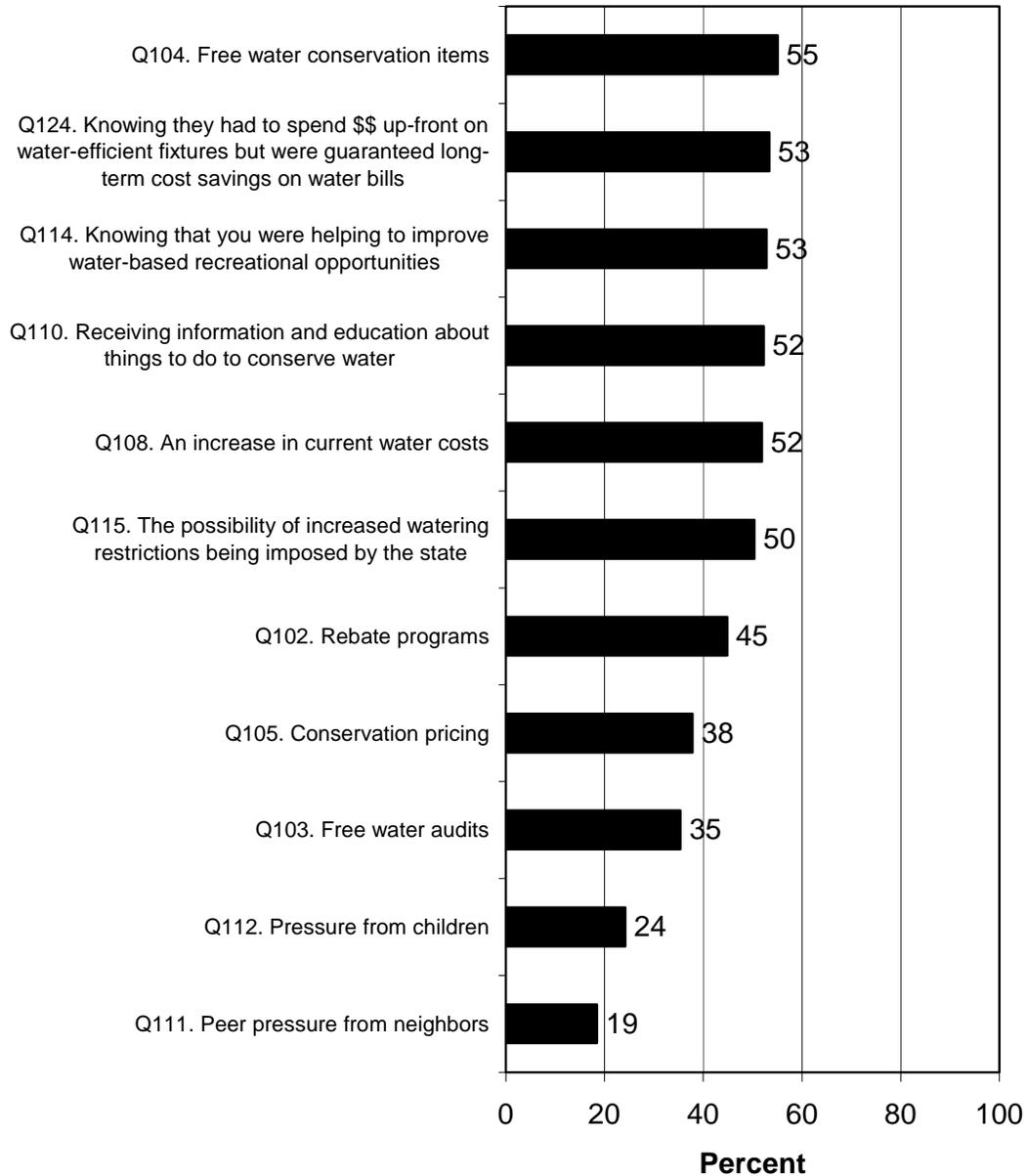
- **Brochures mailed to the respondent's home were the preferred method of receiving information about water conservation.**

Georgia residents most commonly said that one of their preferred methods of receiving information about things they can do to conserve water were brochures mailed to their house (49%). Sixteen percent of respondents said that water bill inserts were the preferred method of receiving information.

**Q102-124. Percent who said the following would make them very likely to adopt water conservation practices or conserve water.  
Part 1.**



**Q102-124. Percent who said the following would make them very likely to adopt water conservation practices or conserve water.  
Part 2.**



## **IMPLICATIONS AND RECOMMENDATIONS**

- **Results from this study demonstrated that a majority of the Georgia public is concerned about water resource issues. Although both water *quantity* and water *quality* were important issues, there was greater concern for water *quality* over water *quantity*. The implication is that an effective water conservation campaign should tie water *quality* to water *quantity* in order to elevate awareness and concern about water conservation in Georgia.**

In the general population survey, respondents were asked to name what they felt were the top natural resource and environmental issues facing Georgia. Polluted water/water quality and not enough water/water quantity were clearly top-of-mind issues to the Georgia public, with 42% of respondents rating polluted water/water quality as the top issue and 30% of respondents rating not enough water/water quantity as the top issue. Likewise, in a series of questions about whether specific issues were important or unimportant in Georgia, water quality was the top issue deemed to be very important (90% said that water quality was very important), and water quantity was the third issue in the ranking (70%). Also, 64% of Georgia residents were very concerned about water quality compared to 41% of respondents who were concerned about water quantity.

Although water quantity was considered an important issue, the data suggested that this issue was not as salient an issue as water quality to the Georgia public. Findings from the focus groups also supported this. Knowing that water quantity is not as salient an issue as water quality to the Georgia public, an effective water conservation campaign should focus on linking water *quality* to water *quantity*, thereby raising awareness and concern about water quantity by association. Also, linking quality and quantity can help raise the saliency of *both* water resource issues, by promoting the importance of conserving water *quantity* so that water *quality* may be preserved.

- **In addition to a general concern about water resource issues, the Georgia public was also concerned with specific aspects of water conservation, including following the 2000-2002 watering restrictions and conserving water even during times of adequate rainfall.**

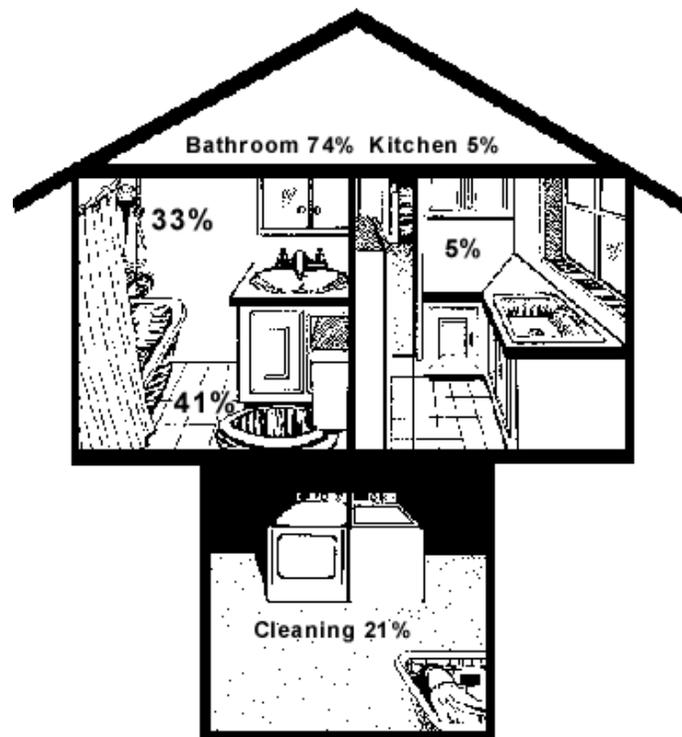
In order for a messaging campaign to be effective, the public must be moved from awareness to concern and ultimately to action. The good news is that there is already a high level of concern for water resource issues among many Georgia residents as indicated in the previous implication. The Georgia public was also concerned about trying to follow the 2000-2002 watering restrictions in Georgia: 47% of respondents said they were very concerned with trying to follow the 2000-2002 watering restrictions, and 30% of respondents said they were moderately concerned with trying to follow the 2000-2002 watering restrictions. In addition, the survey research showed that a large majority of respondents (85%) strongly or moderately agreed that water should be conserved even when no drought conditions exist.

The survey and focus group results showed that many Georgia residents are already concerned about water resource issues in their state; they simply need to be motivated to act on behalf of

their concern. However, what should be kept in mind is that this concern varies regionally across the state, as some areas of Georgia appear to be more concerned than other areas. However, since some concern about water resource issues is already in place, the Georgia public appears to be a potentially receptive audience for a water conservation initiative in the state.

- **The research suggested that Georgia residents need to be informed about household activities that consume more water than they thought were consuming.**

When asked the top three ways that respondents used water, 83% said taking a shower, 57% said laundry, 45% said washing dishes and other household items, and 36% said cooking. These findings indicated that the Georgia public needs to be informed about how much water different activities use, compared to how much water they *think* is used. According to the Environmental Protection Agency, toilet flushes use the highest percent of water in the average household. But yet, only 11% of the survey respondents named toilets as one of the top ways that they use water (toilets were ranked seventh compared to all other uses). Also according to the Environmental Protection Agency, the average household uses only 5% of its total water consumption in the kitchen, while the survey showed that 36% of respondents said that cooking was one of the top three ways that they consume water. These findings suggested that the Georgia public may in fact be consuming or wasting water in ways they are not aware of. For example, in assuming that toilet flushes do not consume a large amount of water, many Georgia residents may be flushing more than is necessary (i.e. flushing materials down the toilet that could instead be thrown in the trash). This suggested that although Georgia residents may be concerned about water resource issues, they may not be aware of ways that they are wasting water.



Typical breakdown of interior water use.

Source: <http://www.epa.gov/ow/you/chap1.html>.

## **CONSTRAINTS TO WATER CONSERVATION EFFORTS**

As part of an effective water conservation campaign, several constraints must be overcome. The survey research and focus group findings suggested that the following constraints must be overcome in order for Georgia citizens to take greater measures to conserve water:

**Constraint #1: There is a perception that the State should be doing more to conserve water.**

**Constraint #2: Residential users feel that the State does not have an overall plan for water conservation in place.**

**Constraint #3: There is no feedback mechanism concerning the effectiveness of water conservation efforts.**

**Constraint #4: Many residential users believe that they do not consume very much water.**

**Constraint #5: There is a general lack of knowledge and awareness about where to find information about water conservation and water conservation measures.**

**Constraint #6: People do not generally make the connection between water quantity/water conservation and water quality.**

**Constraint #7: There is a perception that water is readily available.**

- **Constraint #1: *There is a perception that the State should be doing more to conserve water.* The research suggested that the Georgia public needs to be shown that the State is doing its part to help conserve water.**

According to the survey results, 35% of Georgia residents strongly or moderately agreed that the following statement prevented them from conserving water, "I don't think that the State has an adequate statewide water conservation plan in place." Also, 34% of Georgia residents strongly or moderately agreed that the following statement prevented them from conserving water: "I don't think that the state government itself is doing enough to conserve water." The focus group findings also suggested that many Georgia residents distrusted the State government and felt that the State itself is not doing enough to conserve water. Much of this sentiment was fueled by residents that said they witnessed government and commercial establishments running their sprinklers even while it was raining, which appeared to several focus group participants to be a blatant display of wasting water. A majority of the focus group participants felt that the State should lead by example to help motivate the public to conserve water. Even if the State is already enacting measures to help conserve water, the water conservation campaign should publicize this information so that residential users do not feel that all of the pressure to conserve water is placed on them.

*What is the State doing to conserve water? They are so busy trying to make the place look good, that they waste so much of the resource. They are using so much water but we are told to water only on certain days. If the State starts there first, people will be a lot more comfortable doing it [conserving water] at home.*

- **Constraint #2: Residential users feel that the State does not have an overall plan for water conservation in place. The research suggested that many residential users were interested in learning how their water conservation efforts fit into the overall statewide effort.**

Many of the focus group participants were interested in gaining a better understanding of exactly how water conservation measures adopted by homeowners fit into the overall statewide water conservation effort.

*The State should always have a plan ready for drought.*

The survey results and focus group findings suggested that the Georgia public is interested in learning more about the statewide water conservation effort that documents how each major entity (industry, homeowners, state government, etc.) uses water and how each group will be expected to find and adopt ways to conserve water. This document could be posted on the Internet, and the public could be notified of its availability through an announcement that accompanies a monthly water bill. Findings from the focus groups also suggested that the public may be interested in receiving a shortened version of the statewide water conservation effort – i.e., a concise form of the document that explains the main points in a several short statements. Several focus group participants mentioned that they wanted concise facts that are not highly technical. The water conservation campaign will be more effective if homeowners have a sense of ownership in the statewide effort, and are reassured that other entities are also doing their part in water conservation.

As the water conservation campaign is developed and implemented, it will be important to project an image that the State government is doing its part and taking a leadership role to help conserve water in Georgia. The water conservation campaign will have a high potential of failure if Georgia residents are told that they must conserve water without being reassured that entities such as government, industry, and other commercial establishments are also taking measures to conserve water. Information should be made readily available to the public regarding the water conservation efforts that are implemented by government, industry, and other commercial establishments. This can be accomplished over time and does not have to be done all at once. For example, public service announcements can be used several times a year over the course of several years. In addition, the public not only wants to hear the information, but they want to see it – especially not to see sprinklers running while it is raining at government buildings, businesses and other facilities.

- **Constraint #3: There is no feedback mechanism concerning the effectiveness of water conservation efforts. Fortunately, the survey research indicated that a majority of the Georgia public believes that they can personally make a difference in terms of water conservation. However, this belief needs to be reinforced with a feedback mechanism showing people that they really are making a difference, such as providing quantified data regarding the number of gallons that have been conserved.**

The survey research indicated that although a majority (57%) of the Georgia public felt that they could personally make a difference in terms of water conservation, a top reason that prevented

them from conserving water on a consistent basis was that they did not receive feedback on whether their conservation efforts were effective (33% strongly agreed and 17% moderately agreed that this is a reason preventing them from conserving water). An effective water conservation campaign should include feedback provided to the public regarding whether their water conservation efforts are working. Information about how many gallons have been saved in the previous six months, for example, could be posted on the GDNR's website or included as inserts in homeowners' water bills. This type of information should be visible and repeated to ensure that it reaches the broadest audience.

Feedback on performance, in this case feedback showing the impact of Georgia residents' efforts on conservation, is very powerful in influencing performance. Performance feedback alone (without any further explanation) will usually lead to spontaneous goal setting, and spontaneous performance improvements by the person(s) receiving the feedback (Locke & Latham, 1990). Giving a goal without also providing feedback on the results of users efforts toward meeting the goal usually renders goals completely ineffective (Locke & Latham, 1990).

Goals, whether they are self-set, or externally set, have the known impact of raising the level of effort, attention, persistence, and strategy development toward meeting the goals (Locke & Latham, 1990). This means that individuals who have been somehow engaged in a goal, either through being shown feedback and "self-setting" the goal, or through somehow being inducted into commitment to a goal, will more so than those without goals work harder, pay more attention, persist despite difficulty, and spend time and effort developing unique strategies (Locke & Latham, 1990).

Regardless of the method, goals are initiated, feedback is absolutely necessary to show progress, and to assess efforts and strategies toward achieving the goal. The goals are best if they are specific and they are difficult. In fact, the more difficult the goal, as long as there is some level of commitment by the participants, the better the outcome. This is even true when the goals are unreasonably difficult, or when the goals exceed the current ability of the individual. In those cases, the individual learns new skills, even without instruction, to meet the challenge and increase performance (De Michele, 2000).

- **Constraint #4: *Many residential users believe that they do not consume very much water. Although the Georgia public acknowledged that residential users consume a substantial amount of water, there is still a need to educate Georgia residents about how significant residential water use is, as well as how individuals may waste water without fully realizing it.***

When respondents were asked if they felt that they could personally make a difference in terms of water conservation, the number one reason for those that *disagreed* was because they felt that residential users do not use much water (17% gave this answer). Also, when respondents were asked to agree or disagree with a series of reasons that might prevent them from conserving water in Georgia, the reason, "I don't think I am wasting water" (28% strongly agreed) was the second most important reason for not conserving water. Not receiving adequate feedback was the number one reason. The next most commonly given reasons preventing respondents from conserving water related to the perception that residential users do not use enough water to make

a difference: “I think business and commercial establishments use too much water,” “I don’t think the state government itself is doing enough to conserve water,” “I think that industry uses too much water,” “I don’t think the State has an adequate statewide conservation plan in place,” and “I think that institutional users use too much water.” Clearly, the research implied that many Georgia residents felt that residential use is often insignificant compared to commercial establishments; it is someone else’s problem.

These results from the survey research clearly suggested that the Georgia public may not be fully aware of how much water can be wasted through residential use. Interestingly, when respondents were asked to estimate the percent of water used by residential users compared to all other user groups in Georgia, respondents estimated that residential users use more water (45%) than industry (35%) or agriculture (32%). This finding suggested that although Georgia residents may be aware that residential use of water can be significant, they may not be aware that residents may be *wasting* water. Georgia residents need to be informed that residential water use can be significant, and therefore, that if residential users collectively work together to conserve water, a significant amount of water can be conserved. The focus group findings also supported this and showed that residents may not fully realize that, collectively, residential water use and waste can be significant. When the focus group participants were asked what they felt were the major sources of water quantity and water quality problems in Georgia, the consensus was that industry and agriculture were both the biggest users and polluters of water. As the discussions progressed, a few individuals acknowledged that some homeowners were guilty of wasting water, but by far, they felt that homeowners contributed negligibly to water consumption and pollution compared to industry and agriculture.

- **Constraint #5: *There is a general lack of knowledge and awareness about where to find information about water conservation measures. The research suggested that the Georgia public is concerned about water resources in Georgia, but some residents will need more information on what they can do to conserve water. Most importantly, all residents need to be continuously reminded about all of the measures that can be taken to conserve water in order to make water conservation a “top-of-mind” issue.***

In the focus groups, many individuals expressed concern about water conservation but said that they were unaware of measures they could take to conserve water:

*I don’t know what we could do. I would like to know what we could do as citizens.*

*I’m concerned about water resources, but all I hear about is what is in the newspaper. We all have limited information.*

The survey research demonstrated that of those respondents who said that they disagreed they could personally make a difference in terms of water conservation, 15% said it was because they did not know what they could do. This was ranked as the second-highest reason as to why respondents felt that they could not personally make a difference in terms of water conservation. Although this reason was ranked lower in a series of questions asking respondents the reasons that prevented them from conserving water in Georgia, evidence from the survey research and

focus group findings suggested that this is still an important constraint. One of the goals of the water conservation campaign must be to educate the public on measures they can take to conserve water and increase the visibility of this information. An effective water conservation campaign includes providing the public with simple, straightforward tips they can implement to help conserve water. This information must also be adequately promoted so that the information is visible and readily available to the public. The public needs to be constantly reminded about measures they can take to conserve water in and around their home. These reminders are necessary for the long-term viability of the water conservation campaign, especially reminders about some of the more costly water conservation measures such as installing low-flow toilets or installing water efficient dishwashers and washing machines. The research indicated that most people probably will not replace these devices until their old devices break, so reminders are essential to make water conservation an issue to consider when purchasing a new device.

- **Constraint #6: *People do not generally make the connection between water quantity/water conservation and water quality/human well-being.* The research indicated that although Georgia residents would be motivated to conserve water for reasons related to human well-being, many Georgia residents are probably not clear on the link between water conservation and water quality/human well-being.**

The survey research demonstrated that Georgia residents would be motivated to conserve water for reasons related to human well-being (such as if they knew their children's health and their own health were at stake). However, the focus group findings suggested that many Georgia residents may not make the connection between water conservation and water quality, which directly impacts health and human well-being. Although the public does not need highly technical, scientific facts about the link between water quantity/conservation and water quality, one of the elements of the water conservation campaign should be to educate the public on this link. One of the goals of the water conservation campaign is to raise the awareness and concern about water quantity and conservation, and this could be accomplished by linking water quantity and conservation to water quality, since concern for water quality is already higher than concern for water quantity.

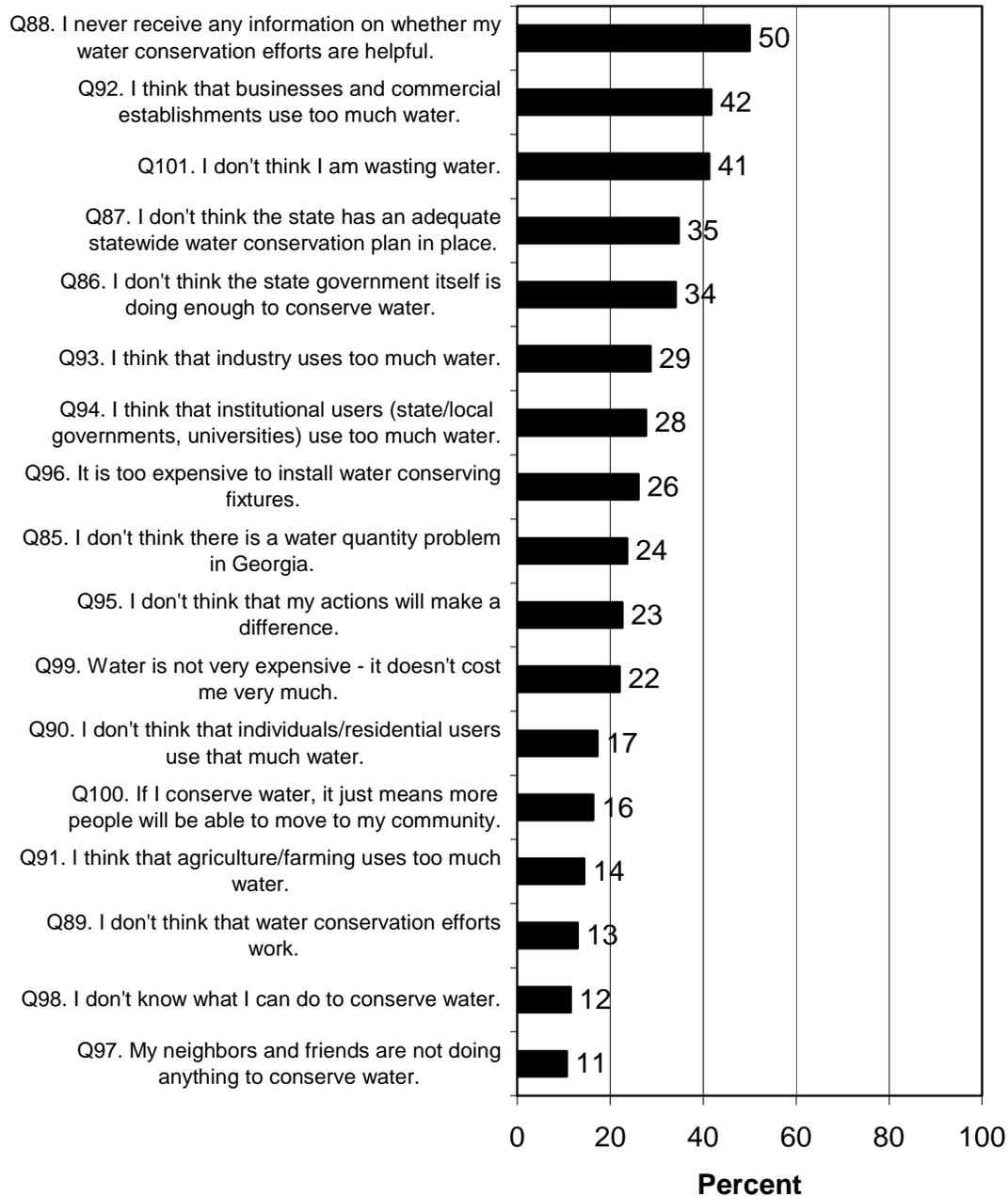
- **Constraint #7: *There is a perception that water is readily available.* The research indicated that many Georgia residents do not really believe that there is a serious water quantity problem or that there will be an imminent water shortage.**

Although the survey research did not directly address this issue, the focus group findings suggested that many Georgia residents felt that water is readily available and that there is not a threat of an imminent water shortage or crisis. In fact, several focus group participants mentioned that water is always available when the faucet is turned on, and even if the electricity is turned off, water is still available. A successful water conservation campaign must educate the public that although water appears to be a plentiful commodity, it could run out eventually if measures are not taken to conserve it.

*When the electricity goes off, you still have water!*

*When you turn on the faucet, the water is always there.*

**Q85-101. Percent who strongly or moderately agree that the following reasons prevent them from conserving water in Georgia.**



## **PARTICIPATION IN AND SUPPORT FOR WATER CONSERVATION MEASURES**

- **The top water actions that Georgia residents most commonly said they had *already undertaken* were washing only full loads of clothes and dishes, not letting water run unnecessarily, watering the lawn infrequently, and washing the car less frequently or not at all.**

The survey research demonstrated that many Georgia residents are already taking measures (excluding those who answered “not applicable” or “don’t know”) to conserve water including:

- Washing only full loads of clothes (75%),
- Not letting water run unnecessarily (65%),
- Watering the lawn infrequently (59%),
- Washing the car less frequently or not at all (59%).

Since the survey research and focus group findings indicated that the public is interested in feedback as to whether or not their conservation efforts are working, the water conservation campaign should focus on the above four measures and publicize how much water is saved by implementing these conservation measures. Since some people are participating in certain water conservation behaviors and other people are participating in other conservation behaviors, the feedback should be provided on *all* conservation measures but special attention should perhaps be given to the above mentioned measures since large percentages of the State’s population are already undertaking these measures. Showing the public that their water conservation efforts are working and producing desired results will likely encourage the public to increase their efforts to conserve water and continue the measures they are already taking. Georgia residents could be provided with quantified numbers regarding the amount of water that was conserved. One of the most important aspects of the water conservation campaign must be to have individuals that are already taking measures to conserve water to *continue* to do so.

- **The survey results indicated that the Georgia public is *most likely* to: install water efficient hose nozzles for outside garden hoses, practice drought-tolerant landscaping, routinely check fixtures for leaks, and install water efficient washing machines and dishwashers.**

The general population survey asked respondents about their likelihood to undertake (or whether they had already undertaken) 13 specific actions to conserve water. The survey research indicated that the measures with the highest percentages of the Georgia public that said they were very likely (excluding those who answered “not applicable” or “don’t know”) to take the following measures to help conserve water were:

- Install water efficient hose nozzles for outside garden hoses (37%),
- Practice drought tolerant landscaping, also known as xeriscaping (34%),
- Routinely check fixtures for leaks (33%),
- Install water efficient washing machines and dishwashers (30%).

When the 13 conservation behaviors were graphed as a percent of the entire number of respondents (including those who answered “not applicable” or “don’t know”), the above four behaviors were still shown to have sizeable markets indicating that as a percent of the entire population of Georgia, a sizeable number of Georgia residents would be very likely to adopt these measures.

Interestingly, the following behaviors had lower percentages of Georgia residents that said they would be very likely to implement these measures but yet, had higher percentages of residents that said they had already adopted these measures: washing the car less frequently or not at all (18% were very likely to do this and 54% had already done this), not letting water run unnecessarily (17% were very likely to do this and 64% had already done this), and washing only full loads of clothes and dishes (16% were very likely to do this and 73% had already done this). Therefore, even though these measures had lower percentages of Georgia residents that said they would be very likely to implement them, they should not be discounted as potential promotional water conservation tips. Since large percentages have already implemented these measures, the implication is that there may be even more support that can be garnered for these water conservation measures.

- **The water conservation measures with the highest percentages of the Georgia public having said they would be *not at all likely* to implement related to irrigation systems and toilets.**

The actions that had the highest percentages of respondents having said that they would be not at all likely to implement the action related to irrigation systems. Forty-nine percent of respondents said that they would be not at all likely to replace their current irrigation system with a drip irrigation system for their lawn and/or garden, and 35% said they would be not at all likely to install a rain sensor on their irrigation system. The next two actions related to toilets: installing water-saving devices in their toilet (20% said that they were not likely to do this) and installing low-flow toilets (19%).

Even though Georgia residents indicated that they would be less likely to adopt these water conservation measures, these measures should still be promoted as long-term efforts. Most of these less popular measures are more costly than others, such as watering a lawn less frequently, or installing water efficient showerheads or hose nozzles. Several focus group participants said that they would not be very likely to install new irrigation systems or low flow toilets unless their current devices broke. Therefore, these measures should still be promoted over the long term, because when Georgia residents are considering replacing irrigation systems or toilets they could be reminded to think about water conservation when making their next purchase.

- **The survey research demonstrated that Georgia residents are already implementing and are likely to implement a variety of water conservation measures.**

As the previous discussions indicate, many Georgia residents have already undertaken and are very likely to implement a variety of water conservation measures. Upon examination of the

statistical analyses for each of the 13 specific water conservation measures that were presented to the respondents in the general population survey, the results showed that overall, those people who were statistically significantly more likely (very or somewhat likely) to adopt a conservation measure that they weren't currently participating in were already participating in other water conservation efforts. *This suggests that conservation-minded individuals are already participating in water conservation behaviors and are likely to do other things to help conserve water.* This finding is important to the water conservation campaign because those individuals who are already conserving water need to be reminded and encouraged to continue their water conservation behaviors. Part of the campaign could include encouragement to do more – for example, if you are already implementing one conservation measure, do one more. If you are doing two conservation measures, do three, etc. This reinforcement of what is already being done is very important – Georgia residents need to be informed that their actions are having a positive impact on water conservation as they will only continue to act if they receive feedback on whether or not their water conservation efforts are working.

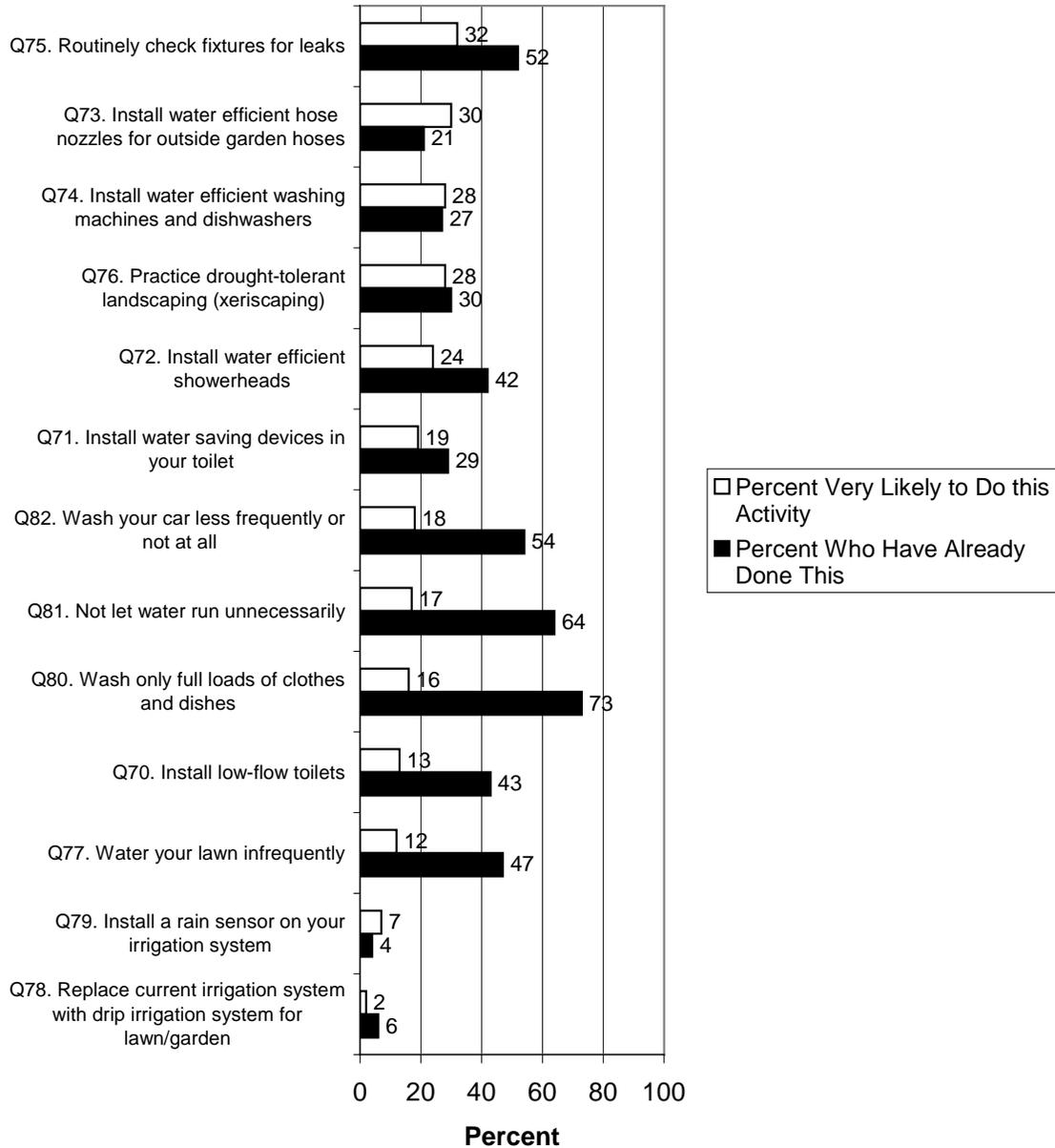
- **As part of the water conservation campaign, Georgia residents that are not already participating in water conservation behaviors should be encouraged to adopt one or two small measures.**

Statistical analyses demonstrated that those individuals who were most likely to participate in each of the 13 water conservation measures had already adopted several other water conservation measures. Therefore, this suggests that once an individual starts conserving water, he/she may be likely to adopt other measures to conserve water. Based on this idea, one element of the water conservation campaign should be to provide as much encouragement as possible to the Georgia public to adopt even one small measure to conserve water. The research showed that Georgia residents were most likely to install water efficient hose nozzles for outside garden hoses (37%), practice drought tolerant landscaping, also known as xeriscaping (34%), routinely check fixtures for leaks (33%), and install water efficient washing machines and dishwashers (30%). Installing water efficient hose nozzles is probably one of the least expensive measures that an individual could take to conserve water. Hose nozzles could be promoted as an example of a simple, inexpensive measure that can be taken and that, when implemented collectively by numerous homeowners, can help save a substantial amount of water. Also, more research should be conducted to investigate further the least expensive water conservation measures so that accurate information can be made available to the public regarding inexpensive measures that can be taken to conserve water. In addition, partnerships between government and businesses such as Home Depot or Lowes could be investigated and developed in order to promote water conserving devices, or to hold workshops for Georgia residents on how to integrate water conservation into their own residence.

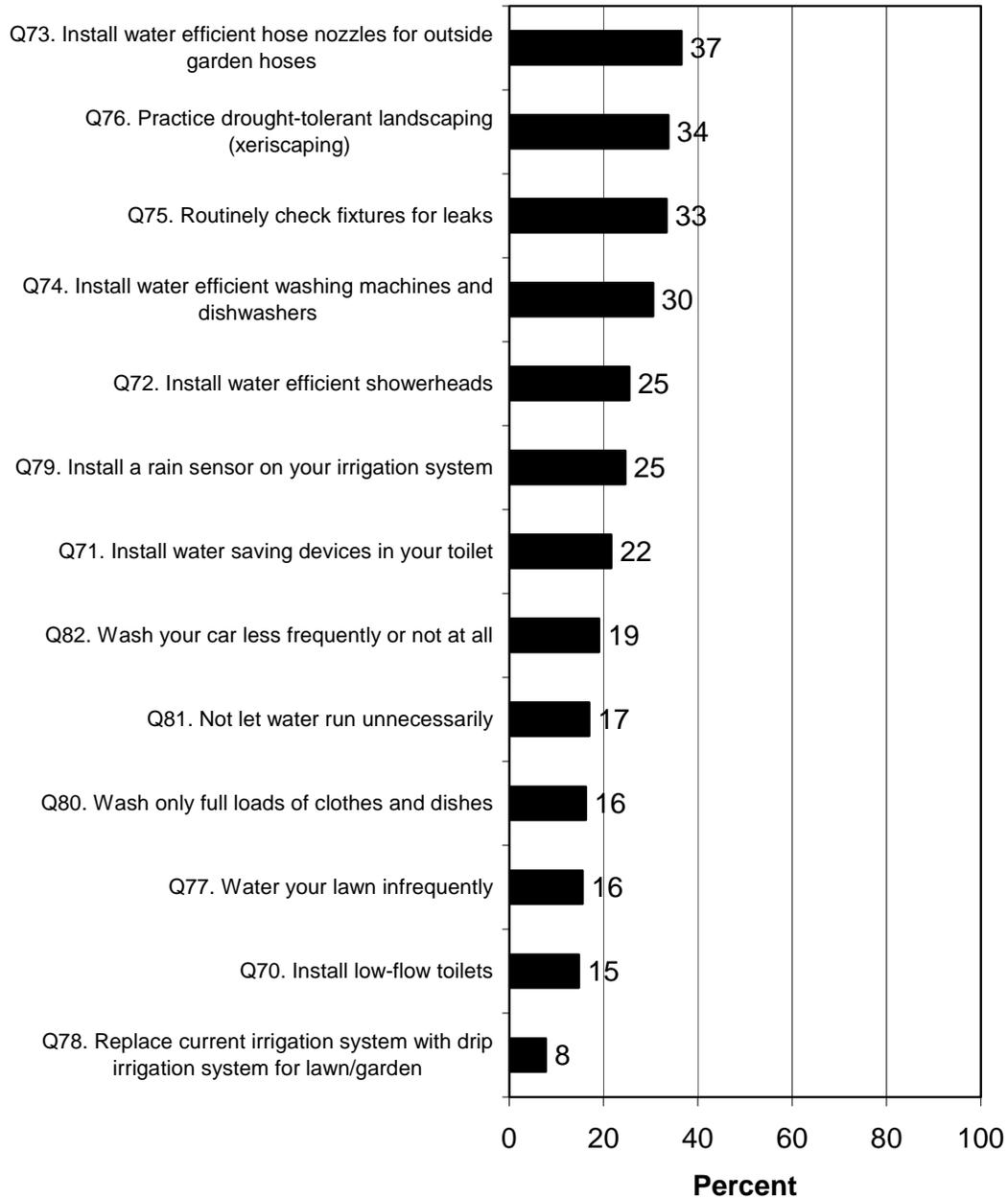
As quoted in In Search of Excellence: “There are two schools of thought. One says that attitudes (beliefs, policies, proclamations) precede actions – the “Tell, then do” model. The other, clearly more dominant, reverses the logic. The Harvard psychologist Jerome Bruner captures the spirit when he says, “You are more likely to act yourself into feeling than feel yourself into action”.....The implications of this line of reasoning are clear:

only if you get people *acting*, even in small ways, the way you want them to, will they come to believe in what they're doing.”

**Q70-82. Percent who said they would be very likely to do and percent who have already done the following water conservation behaviors.**



**Q70-82. Percent who said they would be very likely to do the following water conservation efforts. (Excluding those who answered "Not applicable" or "Don't know.")**



## TARGET MARKETS

The research indicated that there are several important target markets that the water conservation campaign should reach. On the broadest level, the three major target markets include: 1) Georgia residents that are not concerned about water quantity or conservation and are not currently participating in water conservation measures, 2) Georgia residents that are somewhat concerned about water quantity and conservation and have implemented one or two conservation measures and 3) Georgia residents who are very concerned about water quantity and conservation and have already implemented several water conservation measures.

## GROUPS THAT ARE ALREADY PARTICIPATING IN WATER CONSERVATION BEHAVIORS

- **Statistical analyses demonstrated that whites and males are already undertaking several water conservation efforts in Georgia.**

Statistical analyses showed that there was a significant, positive correlation between males and whites with having already undertaken a variety of water conservation measures. Part of the water conservation campaign should include reminders to these groups that water conservation measures are effective, and are indeed having a significant impact on the amount of water that is conserved.

## GROUPS THAT ARE LIKELY TO PARTICIPATE IN WATER CONSERVATION BEHAVIORS

- **The survey research suggested that females and African-Americans are a potentially important target market for the water conservation campaign in Georgia.**

Statistical analyses showed that there was a significant, positive correlation between females with concern about water quantity in Georgia, and a significant, positive correlation between females and African-Americans with current participation and likelihood to participate in some water conservation behaviors. As a whole, African-Americans were not statistically more likely to have *already* undertaken certain water conservation measures but rather were more *likely* to participate in water conservation measures, thus, making this group an important target market. Based on the statistical analyses, African-Americans were significantly more likely to participate in the following water conservation behaviors:

- Install water efficient washing machines and dishwashers
- Install water efficient showerheads
- Routinely check fixtures for leaks
- Wash the car less frequently or not at all
- Water the lawn infrequently
- Not let water run unnecessarily
- Wash only full loads of clothes and dishes

Females were significantly more likely to participate in the following water conservation behaviors:

- Install water saving devices in the toilet
- Install water efficient showerheads

As the water conservation campaign is developed, the potential receptivity of females and African-Americans to implementing water conservation measures should be kept in mind. An effective water conservation campaign should consider using females and African-Americans in promotional tools and visuals.

- **The results of this study indicated that there is an important geographical component to consider regarding concern about water resources and participation in water conservation behaviors in Georgia.**

Counties in Georgia consistently appeared in the statistical analyses regarding water conservation behaviors that were already undertaken, water conservation behaviors that were likely to be adopted, and overall concern about water quantity and water quality in Georgia. Strong regional differences were also observed in the focus groups. A scale was developed to determine each county's rank regarding concern about water quantity and water quality, the importance of water quantity and water quality, whether or not water conservation actions had already been undertaken, and the likelihood to undertake water conservation actions. A map was produced to show how the counties compared to each other regarding their attitudes toward water resources and water conservation measures (as shown in the Major Findings section of this report).

White shaded counties mean that those counties had a high concern for water quantity and quality, had already undertaken several water conservation measures, and were very likely to undertake water conservation measures. Black shaded counties mean that those counties were less concerned about water quantity and quality, were less likely to have already undertaken water conservation measures, and were less likely to adopt water conservation measures. The grey shaded counties are perhaps of most interest, because the residents of these counties could likely be motivated to act to conserve water. Those individuals living in the white shaded counties should be encouraged to continue to conserve water and perhaps adopt one or two additional conservation measures, while the grey shaded counties should be encouraged to adopt just one small inexpensive measure to start conserving water. The water conservation campaign should also not ignore the black shaded counties even though they appear to have less positive attitudes toward water quantity and water conservation. The residents of these counties need to have their awareness and concern levels raised regarding water quantity and conservation. The residents of these counties should also be encouraged to adopt one small inexpensive measure, and the State should be especially vigilant in portraying an image that other entities such as businesses and the government are also doing their part to conserve water.

The good news is that a majority of the counties are either white or grey, meaning there is a high likelihood that the water conservation campaign will be successful.

## TARGET MARKETS ON A COUNTY LEVEL

The interpretations, descriptions, and suggested directions described in the rest of this report indicate the best methods to instill a culture of water conservation for Georgia as a whole. Described below are additional analysis intended to illustrate potential differential treatment of particular counties based on differences in the attitudes within these counties. These analyses complement each other in that the survey data showed how people in the state of Georgia felt about these issues, while the data in this section indicate how residents of the counties may be more or less sensitive to different approaches that can be implemented through the water conservation campaign.

Analyses were performed to compare county census data to the survey data. The significant, positive relationships between the census data and the survey data are summarized below (the complete set of significant findings are reported in the Appendices). The results show that many demographic factors within the counties are strongly related to whether a county was likely or unlikely to have or be likely to undertake water conservation measures.

- **More densely populated areas, whether measured by the number of houses or the number of people per square mile, were more likely to prefer information about water resources and conservation in their water bill, to make efforts to conserve water due to concerns about water restrictions, and to conserve water when presented with the idea that they are part of a collective group.**
- **As a county's median age increased it was more likely that people in that county were less likely to install efficient showerheads, conserve water to protect wildlife and fisheries, and replace irrigation systems with drip systems.**
- **Counties with higher median incomes were more likely to respond, by conserving water, to messages that convey personal health issues. These same, wealthier counties, also had a greater likelihood of feeling they had the ability to make a difference in water conservation. However, they were also more likely to not conserve water due to their perception of the lack of government involvement.**
- **County racial makeup also played a part in water-related beliefs, actions, and intents. Counties with greater proportions of whites and Hispanics were less likely to currently be making efforts to conserve water. Counties with higher proportions of whites were more likely to have installed low-flow toilets and wash only full loads. Most other proportions of county-races that were non-white, and/or non-Hispanic races showed a higher propensity for supporting or intending to implement conservation related behaviors.**

### **Suggested Marketing Actions on a County Basis**

Based on the county-specific information indicated above, differential marketing for counties should be considered as part of an effective water conservation campaign in Georgia. However, what should be kept in mind is that if counties are targeted individually, these efforts should still fall under an overall umbrella campaign to unify the message of water conservation across the State. Counties with higher population and housing densities should be contacted by water bills, counties with higher percentages of whites should be encouraged to continue those conservation efforts they may already do and adopt additional conservation measures. Those counties with higher proportions of African-Americans should be encouraged to act on their likelihood to participate in conservation efforts. Counties with higher proportions of older residents, where there is especially high resistance to action, should be aided through incentives or helped with the installation of water conservation measures.

Water-saving devices are generally inexpensive, and may be subsidized and/or made more appealing by making them easily available. The installation of water-saving devices can be encouraged through convincing arguments about water-bill savings, along with their cheap and easy installation. An even more powerful argument can be made if government agencies that have saved money through installation are modeled. This will help allay hesitation to conserve water due to the impression of low government participation in water conservation.

In the end, county-by-county marketing would seem best targeted to, *maintain*, *enable*, and *model* water conservation. The idea would be to *maintain* those persons who have already implemented water conservation actions, to *enable* those who are likely to participate by making implementation easy (and to enable those who will not participate by helping them participate in some manner), and to use Georgia governmental offices to *model* appropriate water saving behaviors and indicate the water and financial (or projected financial) savings of using those methods in government offices.

## INCENTIVES TO CONSERVE WATER

- **An effective water conservation campaign will educate the Georgia public about the link between water quantity, water quality, and human well-being.**

The research showed that water quantity and water quality were important issues to the Georgia public. Also, the top reasons why respondents were concerned about water quality in Georgia related to effects on human well-being: the top three answers were drinking water (46% said this was a reason they were concerned about water quality), own health/safety (27%), and public healthy/safety (23%). Answers relating to fish and wildlife habitat and the environment were lower in ranking. When respondents were asked why they were concerned about water quantity, concern for the environment (9%) also had a much lower ranking than other reasons.

The water conservation campaign should include promotion of the links between the importance of water conservation, water quality effects, and health-related issues. The survey research suggested that the Georgia public already makes the connection between poor water quality and human well-being, including effects on drinking water. Drinking water and effects on human well-being are clearly reasons why the Georgia public is concerned about water quality and are therefore likely motivators for taking measures to help improve water quality. Since water quality resonated more strongly than water quantity with the Georgia public, the water conservation campaign may be able to increase the concern about water quantity by relating this issue to water quality and the effects on human well-being. For example, according to the Environmental Protection Agency, reduction of streamflow (such as from reservoir construction) has a myriad of effects, including effects on water-based recreation, aquifer recharge, maintaining water delivery to downstream users, and sediment flushing (<http://www.epa.gov/ow/you/chap2.html>), all of which ultimately affects water quality. Saving water through improved efficiency can lessen the need to withdraw ground or surface water supplies. Conserving water decreases the need to impound or otherwise regulate the natural flow of streams, thus preserving free flow to retain the value of stream and river systems. Scientific facts such as these and images could be presented as well as the links between water quantity, water quality, and health-related issues in a manner that is simple and understandable to the Georgia public.

- **The survey research suggested that the Georgia public will be motivated to conserve water if they know how it personally affects them, especially regarding their own well-being and the well-being of their children.**

The survey asked respondents about 21 factors that would encourage them to conserve water. The following were ranked markedly higher than other items regarding the incentives that would make respondents very likely to adopt conservation practices or conserve water:

- Knowing the health of their children was at stake (91%),
- Knowing their personal health was at stake (89%),
- Knowing a severe water supply crisis could happen during their lifetime (88%),
- Knowing they could help protect the quality of life for future generations (85%),

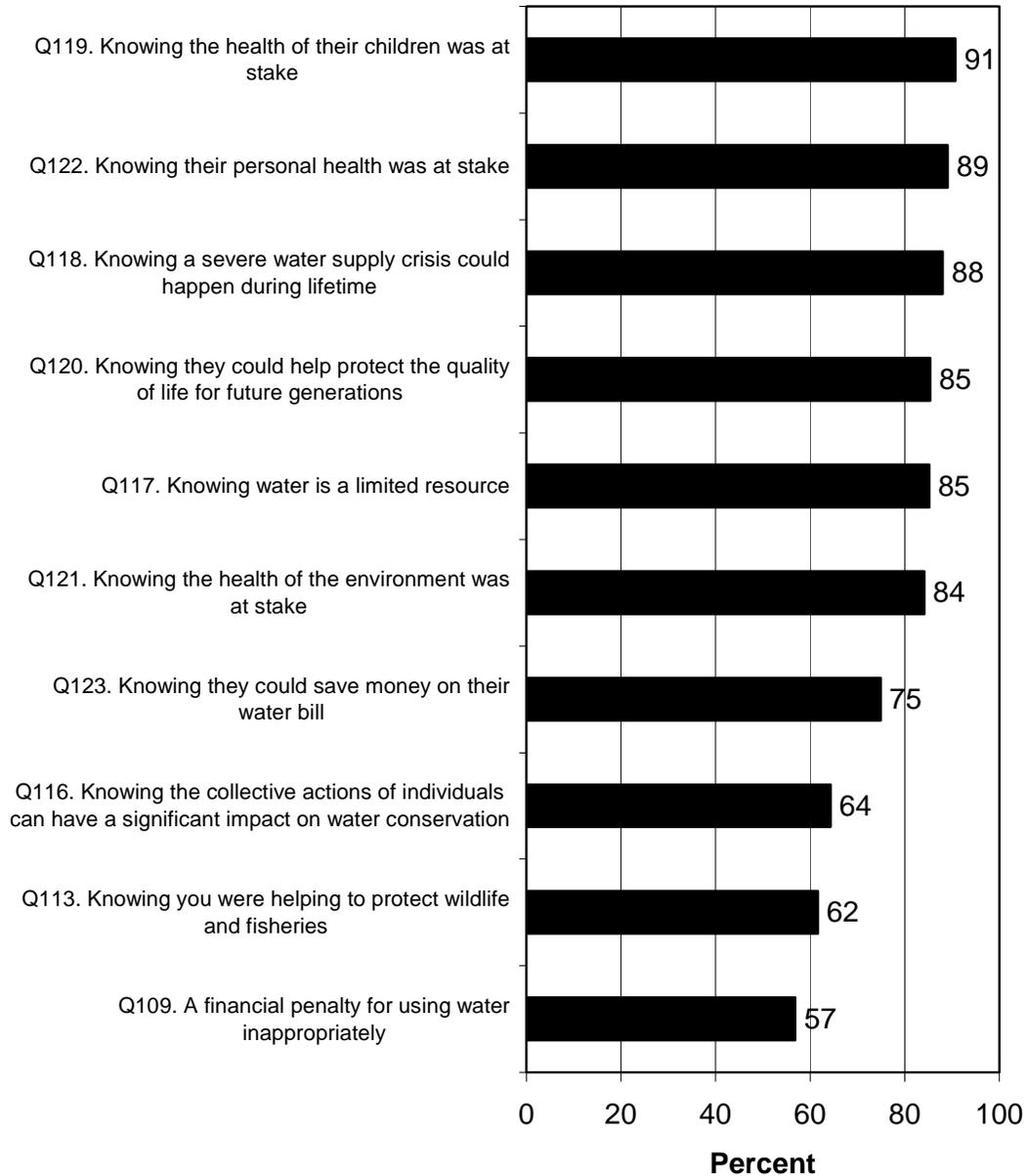
- Knowing water is a limited resource (85%),
- Knowing the health of the environment was at stake (84%),
- Knowing they could save money on their water bill (75%).

The survey research suggested that one of the major themes that resonated with the Georgia public in terms of making people very likely to adopt water conservation practices was knowing that if they do not conserve water, they will be *personally affected*. Knowing that they could be personally affected by the well-being of their children, their own well-being, a water supply crisis, and water savings on their water bill supported the idea that the Georgia public was motivated to act to conserve water on their own behalf. The survey research suggested that the water conservation campaign should use messages that tie in water conservation and how it affects individuals personally, especially regarding human well-being. Developing messages with themes related to human well-being is also supported by survey research that showed that the Georgia public was concerned about water quality for safety reasons and reasons related to human well-being.

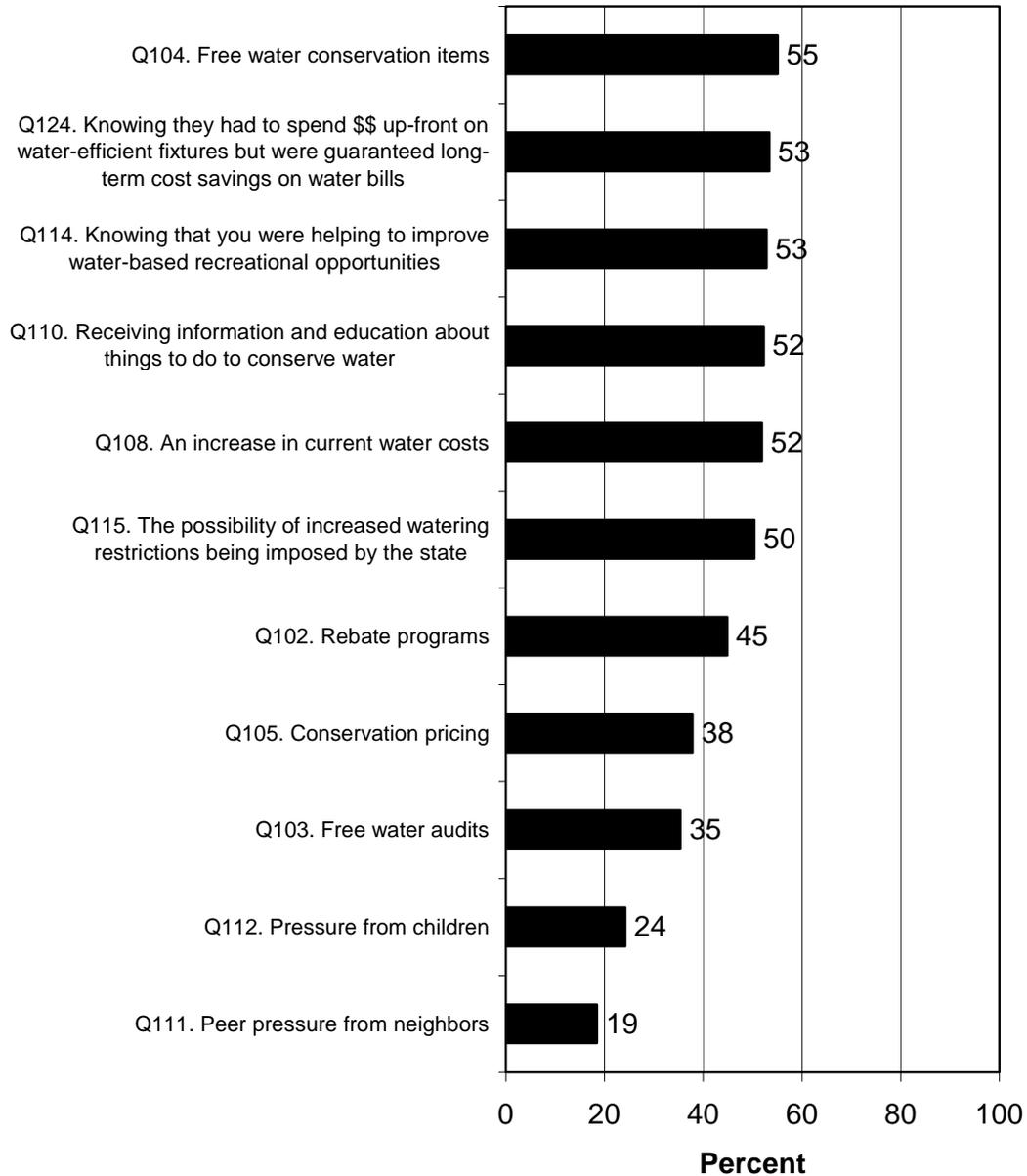
Another major theme that emerged from the survey research was that the Georgia public was motivated to conserve water for altruistic reasons: for future generations and the environment, as shown above. Even though the survey research showed that Georgia residents are likely to respond to a water conservation effort if they know how it personally affects them, the survey research also showed that Georgia residents may respond to a message that advocates water conservation for the sake of future generations and the environment.

The third major theme that emerged was a desire to save money on water bills. Seventy-five percent of Georgia residents said that they would be very likely to adopt water conservation practices or conserve water if they knew they could save money on their water bill. Once again, this theme relates to how a person is personally affected by water conservation; they can save money every month on their water bill.

**Q102-124. Percent who said the following would make them very likely to adopt water conservation practices or conserve water.**  
**Part 1.**



**Q102-124. Percent who said the following would make them very likely to adopt water conservation practices or conserve water.  
Part 2.**

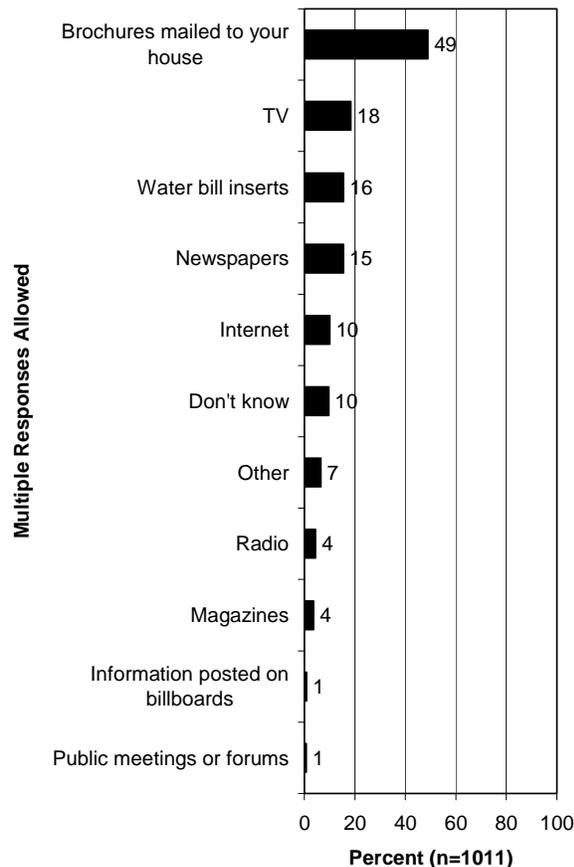


## INFORMATION DISTRIBUTION

- **The top three methods through which the Georgia public preferred to receive information about water conservation were brochures mailed to their house, television, and water bill inserts.**

In the general population survey, respondents most commonly said that they preferred to receive information about things they can do to conserve water through brochures mailed to their house (49%). The second most common response was television (18%). Water bill inserts had 16% saying it was a preferred method of receiving information. An effective water conservation campaign will use a combination of promotional methods to get information out to Georgia residents. Residents already receive water bills, so inserts in the water bills would likely be less costly in terms of mailing, as well as logical. Although brochures and direct mail may be more expensive, perhaps brochures could be mailed out less frequently and then supplemented by more frequent information distributed along with water bills.

**Q126. What are your preferred methods of receiving information about water resources and things you can do to conserve water?**



## MESSAGE AND CAMPAIGN DEVELOPMENT

- **A major umbrella effort is necessary to increase awareness and concern about water quantity and water conservation in Georgia. All water conservation information, education, and outreach efforts should be developed and coordinated so that they fall under the umbrella campaign. This is especially important for consistency and to ensure that the campaign is widely recognized in Georgia.**

The survey research and focus group findings suggested that several key elements should be incorporated in and used as a foundation for the water conservation campaign. Although different strategies will be required for different target audiences, a major umbrella effort to increase concern and awareness about water quantity and water conservation is necessary. *This umbrella effort would present itself in the form of a water conservation theme that ties all of the statewide efforts together, including the efforts of various partner organizations throughout Georgia. One overall message must be used to secure widespread recognition of the water conservation campaign among the broadest audience.*

In order for the water conservation campaign to have any impact the message must be accompanied by specific attempts to address the constraints to water conservation that were discussed earlier in this report. Addressing the constraints are just as important, if not more important than simply promoting a water conservation message. The overall theme will tie all water conservation efforts together and increase visibility of the campaign, thus overcoming the aforementioned constraints, as well as encouraging action and long-term behavioral changes among Georgia residents. The research indicated that the water conservation campaign will be successful if it incorporates the following:

- A water conservation message that specifically encourages people to act by saving water.
- Promotes the links between water quantity/water conservation and human well-being.
- Provides numerous water conservation tips to the public rather than focusing on only one or two. (Note that specific water conservation efforts can and should be promoted such as lists that contain numerous water saving tips but not in the overall message of the campaign.)

In addition to these elements, the water conservation campaign must incorporate the following:

- The public needs assurance that the State is doing its part to conserve water and that other entities are also doing their part (agriculture, business, etc.).
- The public needs feedback on whether their water conservation efforts are working. This will reinforce the water conservation messages and promote long-term behavioral changes.
- Georgia residents must be educated regarding how significant residential water use can be.

- The public needs to be provided with simple, readily available information on water conservation and measures that can be taken to conserve water. The public needs to be reminded about water conservation at regular intervals.
- Encouragement needs to be provided to those individuals who are already taking water conservation measures – especially to encourage those individuals to implement a few more measures in addition to what they are already doing.
- Georgia residents that have not taken any measures to conserve water should be encouraged to adopt one small, inexpensive measure to get them initiated into the water conservation process.

## MESSAGE THEMES

Several water conservation messages were tested in the post-survey focus groups. The messages that resonated highly had several elements in common. For example, a majority of focus group participants responded positively to messages that were short and declarative, encouraging them to act. The focus group participants preferred messages instructing them to act by saving water rather than messages that were less action-oriented. Most of the focus group participants preferred the word, “save” to “conserve” because they felt that “save” implied a greater sense of urgency. Save may also be more effective because it is more closely connected to human well-being than the word conserve, which is often associated with the environment. The focus group participants felt that messages that conveyed a sense of *urgency* but not *emergency* would motivate them to conserve water. Overall, the positive messages resonated much higher than the negative messages.

One message that tested highly was “Save Georgia Water – Every Drop Counts.” Although this message may be successful in the short-term, this message does not instill an idea of saving water long-term. Also, this message may actually discourage some Georgia residents over time because “saving every drop of water” is essentially impossible.

Other messages that tested highly were: “Water: Use it Wisely,” “Georgia Water – Use it Wisely,” “Save Water and Money in Your Home,” “Save Water: Save Life,” and “Water Smart: Save Water – Save Time – Save Money.”

Instead of “Water Smart,” the focus group participants suggested using the terminology, “Be Water Smart.” Several individuals were not convinced that saving water could also save time, and were interested in more information about this.

Although at the beginning of the discussions, many focus group participants said that they liked the idea of having the word Georgia in the message theme, this attitude changed by the end of the discussions. Most of the focus group participants at the end of the discussions felt that since water conservation should be a universal concern, adding the word Georgia would make the message too narrow. In addition, several individuals mentioned that the disagreement with neighboring states over water rights came to mind when they saw Georgia in the message theme.

The Water – Use it Wisely campaign (<http://www.wateruseitwisely.com>) is a water conservation campaign that began in the southwest United States and has grown into a national effort. The developers of the campaign have created numerous promotional materials including brochures, posters, public service announcements, television ads, watering guides, and numerous other materials that include many water conservation tips for the public. The developers of the campaign work with interested parties to customize promotional materials to their specific needs. Since this message tested fairly high with focus group participants, some of the materials may be able to be integrated in Georgia's water conservation campaign.

The research suggested that, "Water, Save it for Life" and similar themes (such as Save Life: Save Water, etc.) should be considered for the water conservation campaign. This message touches on the idea of linking water quantity to human well-being, which was demonstrated to be important to Georgia residents as a motivating factor to conserve water. The survey research demonstrated that residents of Georgia responded positively to water conservation efforts when they knew their own well-being was at stake as well as their children's health. In addition, as the survey research demonstrated, conserving water for the sake of the environment was a close second behind the health issue as a motivating factor. "Save it for Life" also touches on this concern for the environment, because it captures the altruistic concern for life in general, as opposed to just the personal aspect. "Life" is a universally appealing word, and several focus group participants commented that the word was appropriate in initiating concern about their own life/health, their children's life/health, or the environment's life/health. "Save it for Life" also implies saving water for a lifetime. Since several different messages resonated highly in the focus groups, the water conservation campaign could use different combinations of the words. For example, other possible variations include:

- Water Use it Wisely – Save it for Life
- Water – Use it Wisely for Life
- Save Water for Life
- Save Water for Life, Every Drop Counts
- Be Water Smart: Save Water for Life

An Internet search was conducted to ensure that the theme, "Water, Save it for Life" was not already trademarked. A similar message was discovered on the Bonita Springs Utilities website ([http://69.0.212.254/water\\_resources/flash.htm](http://69.0.212.254/water_resources/flash.htm)); however it does not appear to be trademarked.

Overall, the post-survey focus group findings and survey research suggested that a statewide water conservation campaign in Georgia can and will be successful if a concerted effort is made to address the constraints to water conservation among the Georgia public and that an umbrella message theme is used to coordinate and unify the effort. This is not to say that messages could not be tailored to individual partners contributing to the overall effort, such as businesses, specific counties or regions in Georgia or other entities, *but rather the overall theme must be short, consistent, repeated over the long-term and include the elements previously discussed. It is very important for the campaign to promote a single message theme, rather than multiple messages so that the campaign will function as a unified whole.* The research presented in this report can be used to help instill a culture of water conservation in Georgia, both in the short term and the years to come.

## COMMUNICATIONS EFFORTS

Overall, the research suggested that Georgia residents can and will be motivated to adopt certain water conservation measures. As the water conservation campaign is developed, all of the partners in this effort must keep in mind that certain challenges will develop. During the past fifteen years, Responsive Management has had the opportunity to evaluate numerous communications and outreach efforts. Based on these evaluations, Responsive Management has identified some of the challenges that may arise during implementation of communications plans. Knowing these challenges ahead of time will enable the water conservation campaign to be as effective as possible:

- Appropriate and adequate financial and personnel resources must be allocated. Many communications programs and efforts are woefully underfunded from the start.
- Efforts must be directly linked to Georgia's highest conservation priorities.
- Biologists, administrators, and other partners must be directly involved in setting communications priorities and goals.
- Specific communications goals and objectives must be specified or committed to writing.
- Target audiences need to be identified. Communications efforts sometimes attempt to be all things to all people.
- Messages should be simple and not complex.
- Appropriate media need to be selected with the specific target audience in mind.
- There should be less emphasis on communications initiative *outputs* as opposed to *outcomes*.
- Efforts and initiatives must be implemented long-term. Efforts need time to work and sometimes personnel get bored of the implementation phase of repeating the same message over and over. There is often too much emphasis on product and program development and not enough on implementation.
- Efforts must be evaluated quantitatively in terms of outcomes and specified goals and objectives.

On the other hand, Responsive Management has also identified the elements of successful communications and outreach programs. Following are the steps that have led to successful conservation communications and outreach initiatives. If the following steps are implemented in the water conservation campaign, a water conservation culture can and will be instilled in the state of Georgia.

- Step 1: *Identify and Prioritize Issues*. The first step in information, education, and communications planning is the challenging task of identifying and prioritizing the issues most important to the organization regarding conservation.
- Step 2: *Identify and Prioritize Information, Education, and Communications Issues*. The next step is to understand and identify the information, education, and communications goals and priorities of organization staff.
- Step 3: *Define Goals and Set Measureable Objectives*. The next step is to define specific goals and set measureable objectives. Goals define the management philosophy within which objectives will be pursued. They are general and often

lofty statements about the outcome desired for a program or initiative. Objectives are directed toward the accomplishment of goals and are specific and measurable statements of what, when, and how much will be achieved.

- Step 4: *Identify, Define, and Target Publics.* To develop effective and successful communications programs, managers need to identify and classify different user groups and discern their socio-demographic characteristics.
- Step 5: *Understand the Audience.* Understanding how people relate to conservation issues is an important foundation upon which communications efforts can be built and can determine how an organization approaches target groups. Three major aspects of understanding how people relate to conservation and other issues include understanding public opinion, attitudes, and level of awareness or readiness stage.
- Step 6: *Identify, Define, and Test the Message.* Research clearly indicates that some messages will resonate with the public while others will not. The final steps in marketing, publicizing, and advertising the communications product, program, or service are to choose the appeal(s) or motivator, and develop and pretest the product, program, or service. Several considerations when developing projects and programs to create positive actions and behaviors include: appealing to people's emotions, creating programs that are locally based, making programs convenient for people, and reminding people of results and benefits. The final step is to pretest and evaluate the product, program, or service. Pretest programs, products, and messages on the target audience for which they have been designed. Incorporate feedback into the program. Repeat the exercise until the program produces the desired results.
- Step 7: *Consider Demographic, Social, Economic, and Political Trends.* Identifying and incorporating changing societal factors into communications programs allows organizations to become proactive, rather than reactive, to external forces. Information on societal makeup and change also can be used in conjunction with market segmentation, target marketing, and target group segmentation.
- Step 8: *Getting the Message Across: A Marketing and Advertising Approach.* The next step in bringing an organization's message or program to target groups is to select the appropriate medium. The decision should be based on the target group – where they live; where, when and how often the organization wants to reach them; and how much effective advertising costs.
- Step 9: *Internal Considerations.* There are many internal issues that information, education, and communications specialists should be aware of that can make the difference between successful and unsuccessful programs. For example, communications efforts will not work if there are not appropriate resources committed to the effort. Internal awareness and acceptance must be created as well.
- Step 10: *Project Evaluation.* Evaluation is one of the most important components of a communications program because it will answer the fundamental question, "Did the program work?" Evaluation of information, education, and communications programs should be based on the goals and objectives initially set.

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## **APPENDICES**

### **Appendix A: Methodology**

#### **Phase 1 and 3: Qualitative Analysis**

##### **Pre-survey and Post-survey Focus Groups**

The first phase of this study included three pre-survey focus groups that were conducted with the Georgia public to better understand Georgia residents' attitudes and opinions toward water resource issues in Georgia, Georgia residents' willingness to participate in water conservation measures, and incentives and barriers to water conservation in Georgia. These focus groups were conducted in May 2002 in Savannah, Albany, and Atlanta.

The third phase of this study included four post-survey focus groups that were conducted with the Georgia public to better understand Georgia residents' opinions and attitudes toward specific findings from the quantitative survey as well as to test and refine messages related to water conservation to be used in the statewide water conservation campaign. These focus groups were conducted in October 2003 in Savannah, Atlanta, Augusta and Columbus.

Focus groups are group-depth interviews in which a small group of participants (8 to 12) are interviewed at length about select subjects. The use of focus groups is an accepted research technique for qualitative explorations of attitudes, opinions, perceptions, motivations, constraints, participation, and behaviors. The use of focus groups provides researchers with insights, new hypotheses, and understanding through the process of interaction. An experienced, trained moderator lead the focus groups, as unobtrusively as possible, through a discussion guide and looked for new insights into why individuals felt the way they did about particular issues. The moderator kept the discussion within design parameters without exerting a strong influence on the discussion content. A discussion guide helped ensure consistency in data collection. Responsive Management developed the discussion guide based on its previous knowledge of literature in the field and through input provided by the GDNR, Pollution Prevention Assistance Division. The focus groups were recorded on audio tape for further analysis and were used for developing a qualitative understanding of the Georgia public's attitudes toward water resource issues and the motivational messages to which they would respond in a water conservation campaign. The pre-survey focus groups were also used in developing the telephone survey instrument.

#### **Phase 2: Quantitative Analysis**

##### **Telephone Survey**

The second phase of this study involved a quantitative telephone survey of Georgia residents. In the telephone survey, 1,011 completed interviews were obtained with a sample error of plus or minus 3.08 percentage points. Telephones were selected as the preferred sampling medium

because of the universality of telephone ownership. In addition, a central polling site at the Responsive Management office allowed for rigorous quality control over the interviews and data collection. Responsive Management maintains its own in-house telephone interviewing facilities. These facilities are staffed by interviewers with experience conducting computer-assisted telephone interviews on the subjects of public attitudes toward natural resources. The telephone survey questionnaire was developed cooperatively by Responsive Management and the GDNR, Pollution Prevention Assistance Division. Responsive Management conducted a pre-test of the questionnaire, and revisions were made to the questionnaire based on the pre-test.

To ensure that the telephone survey data collected were of the highest quality, Responsive Management employed interviewers who have been trained according to the standards established by the Council of American Survey Research Organizations. Methods of instruction included lecture and role-playing. The Survey Center Managers conducted project briefings with the interviewers prior to the administration of the survey. Interviewers were instructed on the type of study, study goals and objectives, handling of survey questions, interview length, termination points and qualifiers for participation, interviewer instructions within the survey instrument, reading of the survey instrument, skip patterns, and probing and clarifying techniques necessary for specific questions on the survey instrument. The Survey Center Managers randomly monitored telephone workstations without the interviewers' knowledge to evaluate the performance of each interviewer. After the surveys were obtained by the interviewers, the Survey Center Managers and/or statisticians edited each completed survey to ensure clarity and completeness.

Interviews were conducted Monday through Friday from 9:00 a.m. to 9:00 p.m., Saturday noon to 6:00 p.m., and Sunday from 3:00 p.m. to 7:00 p.m. A five-callback design was used to maintain the representativeness of the sample, to avoid bias toward people easy to reach by telephone, and to provide an equal opportunity for all potential respondents to participate. When a respondent could not be reached on the first call, subsequent calls were placed on different days of the week and at different times of the day. The survey was conducted in August 2003.

Throughout the reports, findings of the general population telephone survey are reported at a 95% confidence interval. For the entire sample of Georgia residents, the sampling error is at most plus or minus 3.08 percentage points. This means that if the survey were conducted 100 times on different samples that were selected in the same way, the findings of 95 out of the 100 surveys would fall within plus or minus 3.08% of each other. Sampling error was calculated using the formula described below, with a sample size of 1,011 and a population size of 6.1 million (residents 18 years old and older).

**Sampling error equation:**

$$B = \left( \sqrt{\frac{N_p(.25) - .25}{N_s}} \right) \sqrt{\frac{N_s}{N_p - 1}} (1.96)$$

Where: B = maximum sampling error (as decimal)  
N<sub>P</sub> = population size (e.g., total number of residents)  
N<sub>S</sub> = sample size

Derived from formula: p. 206 in Dillman, D. A. 2000. *Mail and Internet Surveys*. John Wiley & Sons, NY.

**Note:** This is a simplified version of the formula that calculates the maximum sampling error using a 50:50 split (the most conservative calculation because a 50:50 split would give maximum variation).

Note that some sums (e.g., when “very likely” and “somewhat likely” are summed to determine the total percentage answering “likely”) may appear to be off by as much as 1 or 2 percentage points, and some graphs may not sum to 100%, because of rounding.

**Data Analysis**

The software used for data collection was Questionnaire Programming Language 4.1 (QPL). The survey data were entered into the computer as each interview was being conducted, eliminating manual data entry after the completion of the survey and the concomitant data entry errors that may occur with manual data entry. The survey instrument was programmed so that QPL branched, coded, and substituted phrases in the survey based on previous responses to ensure the integrity and consistency of the data collection. The analysis of data was performed using Statistical Package for the Social Sciences (SPSS) software. SPSS is a software package that is specifically designed for quantitative statistical analyses.

For this report, a nonparametric analysis examined how the various responses to specific survey questions related to behavioral, attitudinal, and demographic characteristics. Responses for selected questions were tested by means of z-scores for relationships to behavioral, attitudinal, and demographic characteristics. The analysis examined approximately 500 variables regarding characteristics of the respondents (Please see the Appendix for the list of variables). A positive z-score means that the response and characteristic are positively related; a negative z-score means that the response and characteristic are negatively related.

The top of the z-score tabulation shows the strongest *positive* correlation (unless the tabulation had no statistically significant positive z-scores); the bottom of the z-score tabulation shows the strongest *negative* correlation (unless the tabulation had no statistically significant negative

z-scores). The arrows show that the positive correlation increases towards the top of the tabulation and the negative correlation increases towards the bottom of the tabulation. The absence of arrows on some small tables was simply due to lack of room to graphically portray the arrows.

The asterisks on the z-scores show the strength of the relationship between the characteristic and the response to the question. Those z-scores that have an absolute value of 3.30 or greater have three asterisks—three asterisks indicate that the relationship is so strong that it would happen by chance only 1 out of 1,000 times. Those z-scores that have an absolute value of 2.58 to 3.29 have two asterisks—two asterisks indicate that the relationship is so strong that it would happen by chance only 1 out of 100 times. Finally, those z-scores that have an absolute value of 1.96 to 2.57 have one asterisk—one asterisk indicates that the relationship is so strong that it would happen by chance only 5 out of 100 times.

The z-scores were calculated as shown in the formula that follows.

$$z = \frac{(p_1 - p_2)}{\sqrt{p(1-p) \left[ \frac{1}{n_1} + \frac{1}{n_2} \right]}}$$

where:

- $n_1$  represents the number of observations in Group 1.
- $n_2$  represents the number of observations in Group 2.
- $p_1 = a/(a + b) = a/n_1$  and represents the proportion of observations in Group 1 that falls in Cell  $a$ . It is employed to estimate the population proportion  $\Pi_1$  (% of Group 1 who had specific characteristic).
- $p_2 = c/(c + d) = c/n_2$  and represents the proportion of observations in Group 2 that falls in Cell  $c$ . It is employed to estimate the population proportion  $\Pi_2$  (% of Group 2 who had specific characteristic).
- $p = (a + c)/(n_1 + n_2) = (a + c)/n$  and is a pooled estimate of the proportion of respondents who had specific characteristic in the underlying population.

(Equation from *Handbook of Parametric and Nonparametric Statistical Procedures*, 2<sup>nd</sup> Edition by David J. Sheskin. © 2000, Chapman & Hall/CRC, Boca Raton, FL.)

The demographic characteristics examined include:

- gender,
- age,
- ethnicity,
- income level,
- education level,
- profession,
- location of residence—the character of the location (i.e., rural, small city or town, suburban, urban, or large city), and
- attitudes toward water quality, quantity, and conservation.

### **How to Read a Z-score Table (Example)**

The table shown on the following page is a typical z-score table that is presented in the report. On the following page is the table titled, "Water quantity is a very or somewhat important issue facing Georgia." This table depicts the relative ranking of the strength of the relationship between various responses on the survey (shown in the left-hand column), including attitudes, behaviors, and demographic information and the question listed in the title of the table. For instance, on this particular table, those individuals who indicated that "water **quality** is a very or somewhat important issue facing Georgia" were significantly more likely to have also said that water **quantity** was an important issue than those who did not say this. In each case, the data shows how much more likely people who indicated one response on the left would also say the response which is presented in the title of the table. Therefore, people who said water **quality** was important were much more likely than those who did not say this, to also say that water **quantity** was important.

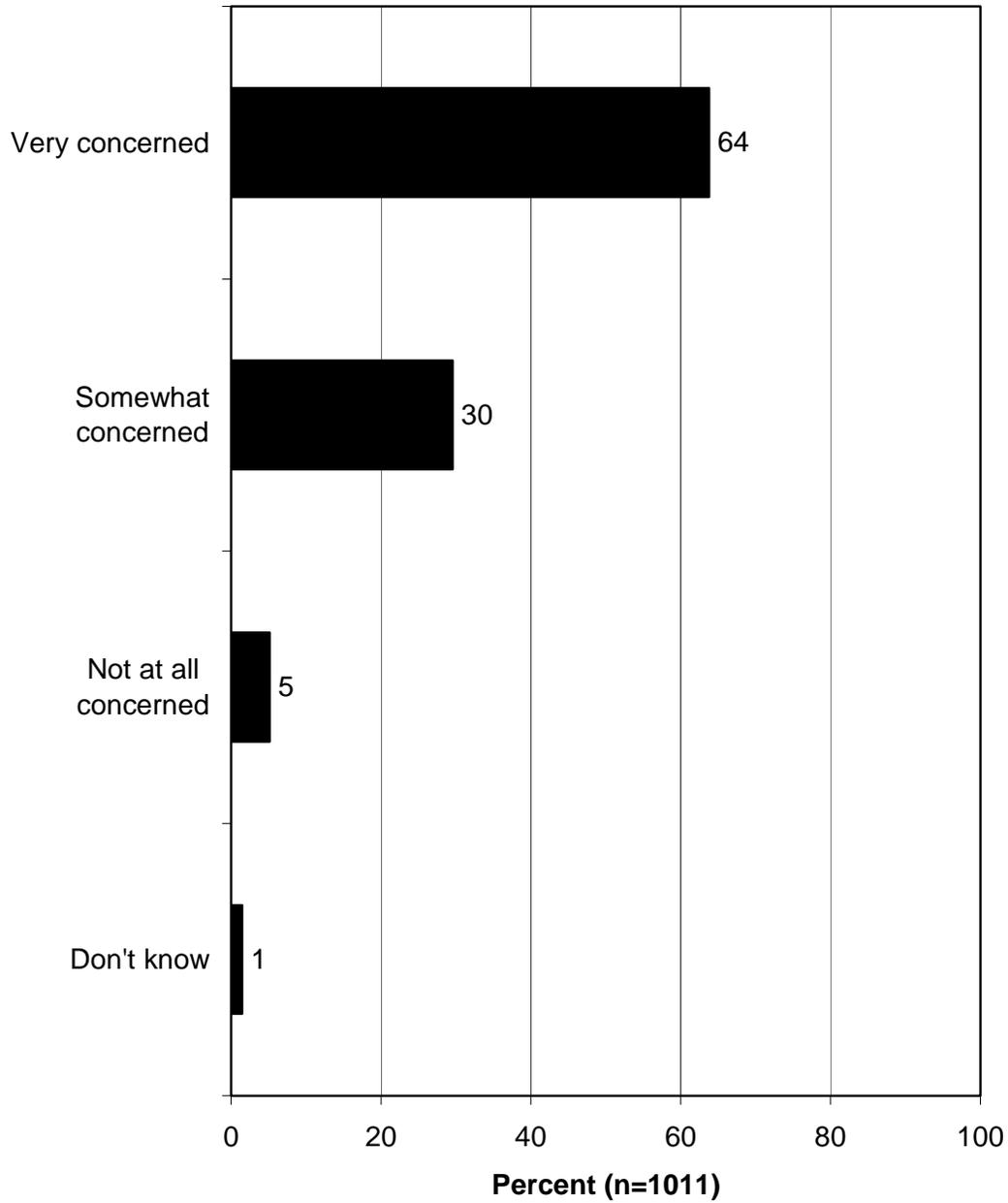
<b>Water quantity is a very or somewhat important issue facing Georgia</b>	<b>Z-SCORE</b>	Most likely to say water quantity is a very or somewhat important issue facing Georgia. 
Says water quantity is a very or somewhat important issue facing Georgia	8.46***	
Says loss of wildlife habitat is a very or somewhat important issue facing Georgia	5.85***	
Is very concerned about water quantity in Georgia	5.23***	
Says air quality is a very or somewhat important issue facing Georgia	4.7***	
Says quality of wetlands is a very or somewhat important issue facing Georgia	4.37***	
Strongly or moderately agrees that water should be conserved when there are not drought conditions and when there is plenty of rain	3.91***	
Says disposal of household garbage and other municipal wastes in landfills is a very or somewhat important issue facing Georgia	3.83***	
Says not enough water/water quantity is one of the most important natural resource issues facing Georgia	3.53***	
Says urban sprawl is a very or somewhat important issue facing Georgia	3.5***	
The possibility of increased watering restrictions being imposed by the state would make him/her very or somewhat likely to conserve water	3.08**	
Receiving info about things to do to conserve water would make him/her very or somewhat likely to conserve water	3.07**	
Is concerned about water quantity because of water shortages and watering restrictions	3.03**	
Says polluted water/water quality is one of the most important natural resource issues facing Georgia	2.94**	
Strongly or moderately supports statewide water conservation effort	2.83**	
Knowledge that the collective actions of individuals can have a significant impact on water conservation would make him/her very or somewhat likely to conserve water	2.76**	
Strongly or moderately agrees that he/she can make a difference in water conservation	2.72**	
Conservation pricing would make him/her very or somewhat likely to adopt water conservation practices	2.72**	
Says protection of threatened and endangered species is a very or somewhat important issue facing Georgia	2.64**	
Says protection of greenspace is a very or somewhat important issue facing Georgia	2.6**	
Makes effort to conserve water because of concerns about drought	2.58*	
Strongly or moderately disagree that my friends and neighbors aren't conserving water (is a reason for not conserving)	2.33*	
Very or somewhat likely to wash only full loads of clothes and dishes	2.3*	
Says recycling of household products is a very or somewhat important issue facing Georgia	2.3*	
Strongly or moderately disagree that there isn't a water quantity problem in Georgia (is a reason for not conserving)	2.27*	

Free water conservation items would make him/her very or somewhat likely to adopt water conservation practices	2.24*
Strongly or moderately agree that the state doesn't have an adequate statewide conservation plan (is a reason for not conserving)	2.22*
Strongly or moderately disagree that I don't think individual users use that much water (is a reason for not conserving)	2.21*
Is very concerned about water quality in Georgia	2.2*
Thinks people use a great deal of water in everyday life	2.14*
Indicated that watering my plants/garden was one of the top three ways they use water	2.1*
Is somewhat concerned about water quantity in Georgia	2.07*
<b>STATISTICALLY INSIGNIFICANT VARIABLES OMITTED</b>	
Already washes only full loads of clothes and dishes	-2*
Says loss of wildlife habitat is a somewhat or very unimportant issue facing Georgia	-2.13*
Rarely or never makes effort to conserve water because doesn't think there is a problem	-2.17*
Thinks golf courses use the most water in Georgia	-2.31*
Knowledge that health of the environment was at stake would make him/her somewhat or very unlikely to conserve water	-2.43*
Makes effort to conserve water because it's the right thing to do	-2.48*
Has already installed water efficient washing machines and dishwashers	-2.51*
Lives in Whitfield County	-2.66**
Says recycling of household products is a somewhat or very unimportant issue facing Georgia	-2.71**
Moderately or strongly disagrees that water should be conserved when there are not drought conditions and when there is plenty of rain	-2.79**
Landlord usually opens water bill	-2.79**
Says air quality is a somewhat or very unimportant issue facing Georgia	-2.96**
Lives in Gilmer County	-2.97**
Lives in Ware County	-2.97**
Strongly or moderately agree that I don't think individual users use that much water (is a reason for not conserving)	-3**
Lives in Candler County	-3.05**
Lives in Clay County	-3.05**
Rarely or never makes effort to conserve water because doesn't think the govt. does enough	-3.12**
Says disposal of household garbage and other municipal wastes in landfills is a somewhat or very unimportant issue facing Georgia	-3.22**
Lives in Elbert County	-3.33***
Says quality of wetlands is a somewhat or very unimportant issue facing Georgia	-3.36***
Is not at all concerned about water quality in Georgia	-3.39***
Says water quality is a somewhat or very unimportant issue facing Georgia	-4.06***
Lives in Bacon County	-4.31***
Is not at all concerned about water quantity in Georgia	-7.54***

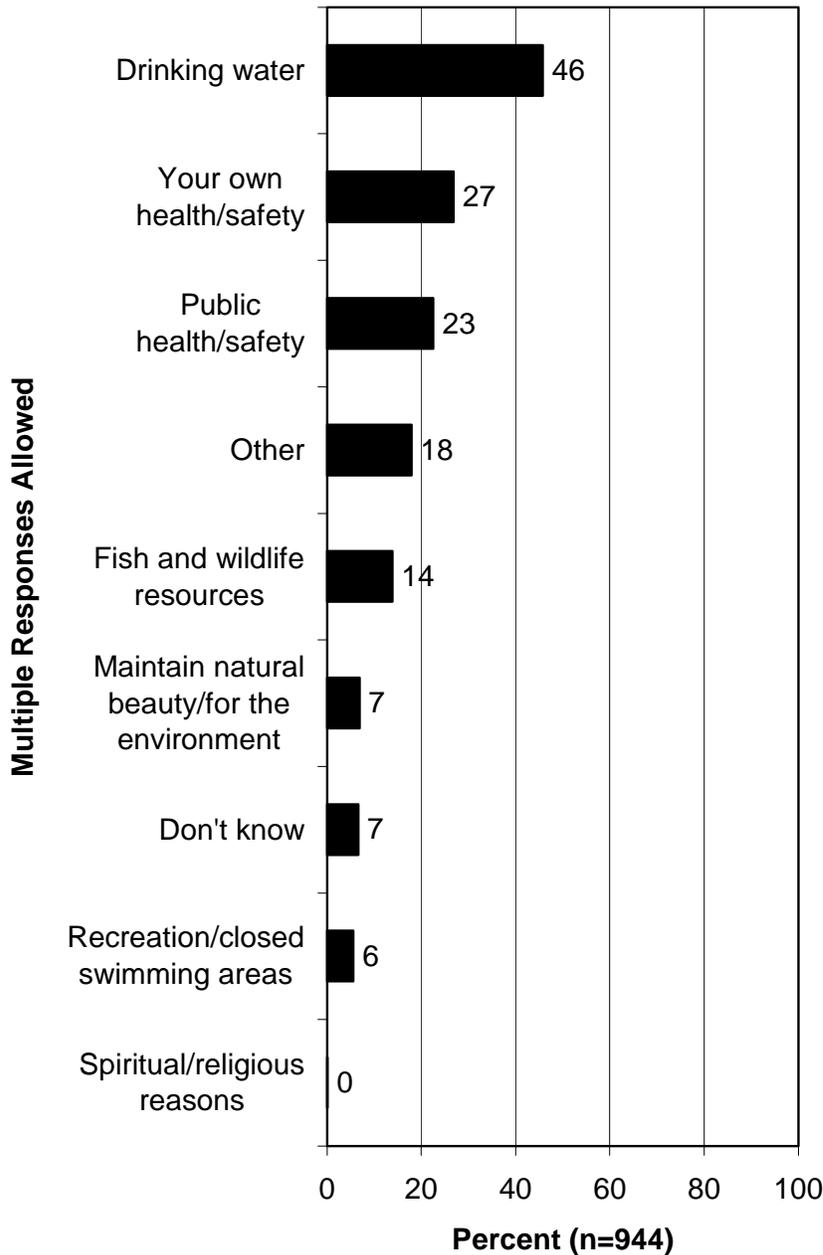
Most likely *not* to say water quantity is a very or somewhat important issue facing Georgia.

**Appendix B: Additional Graphs and Tables**

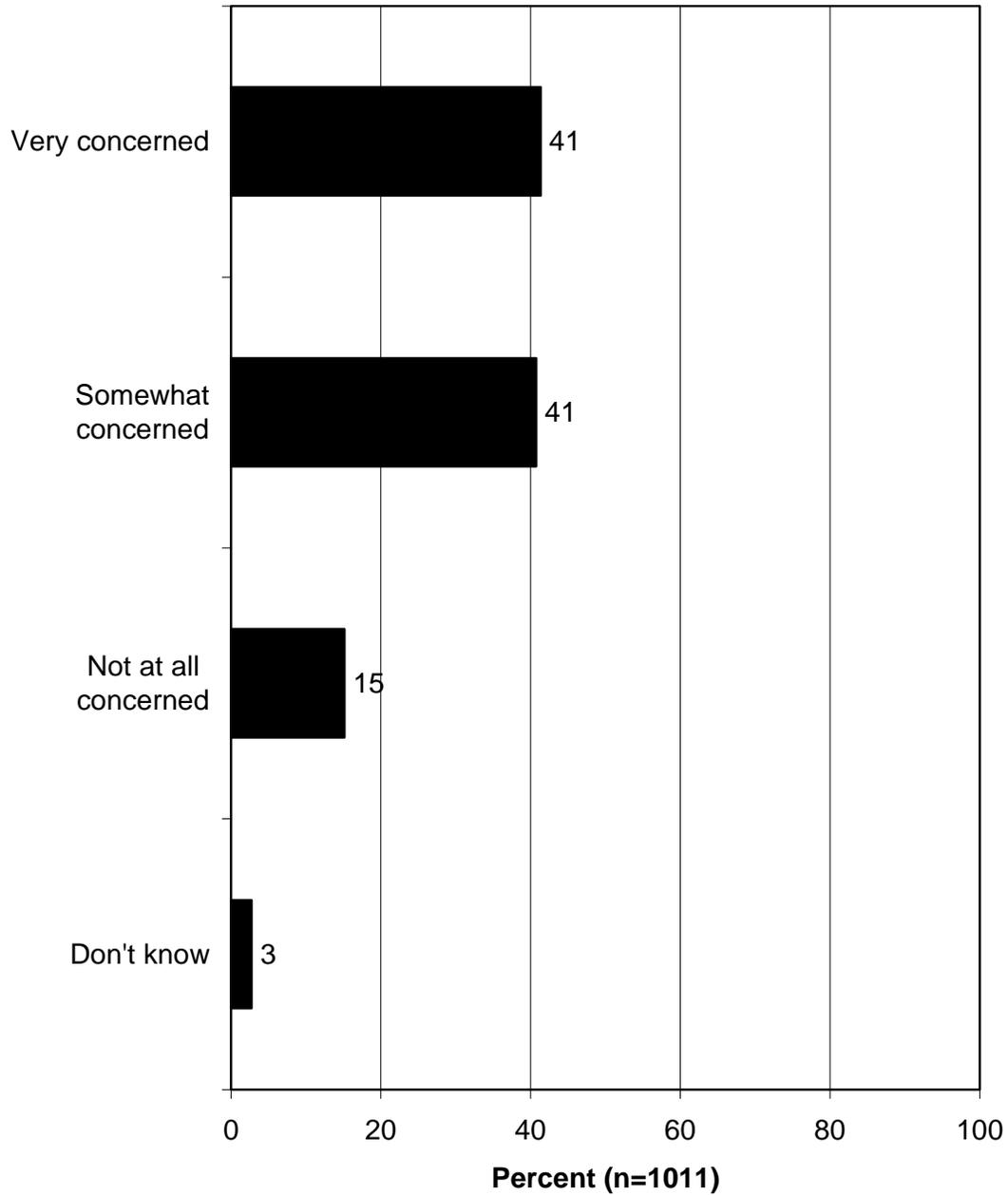
**Q20. Would you say that you are very concerned, somewhat concerned, or not at all concerned about water quality in Georgia?**



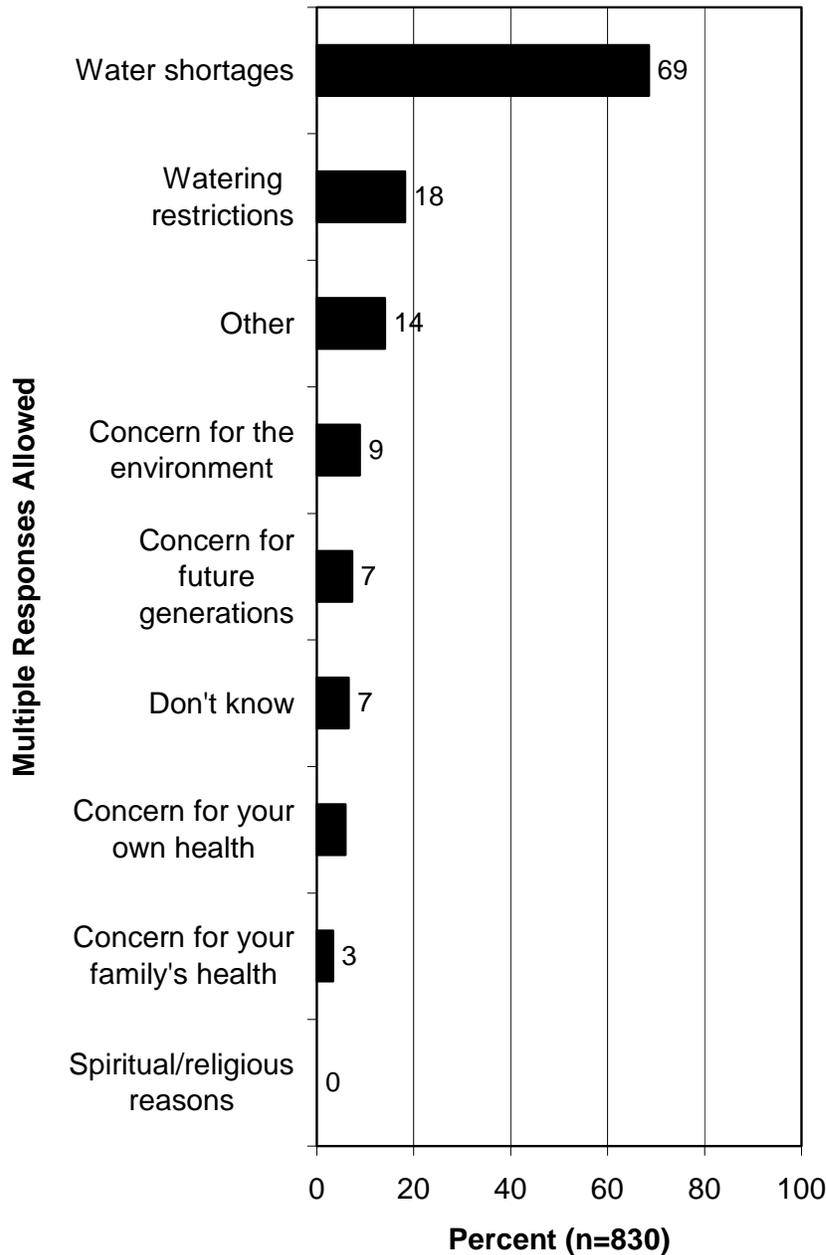
**Q22. Specifically, why are you concerned about water quality? (Asked of those who were concerned about water quality in Georgia.)**



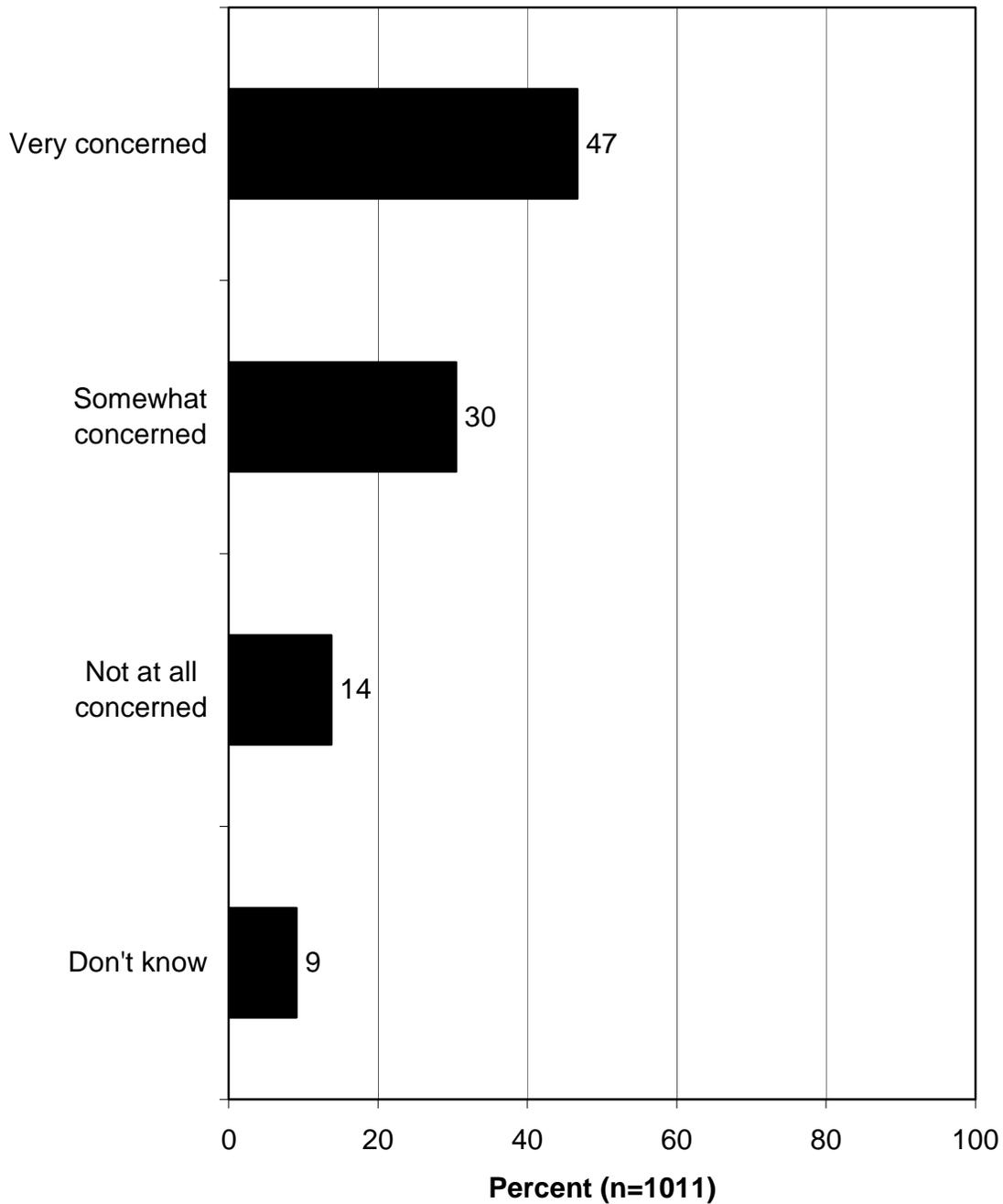
**Q27. Would you say that you are very concerned, somewhat concerned, or not at all concerned about water quantity in Georgia?**



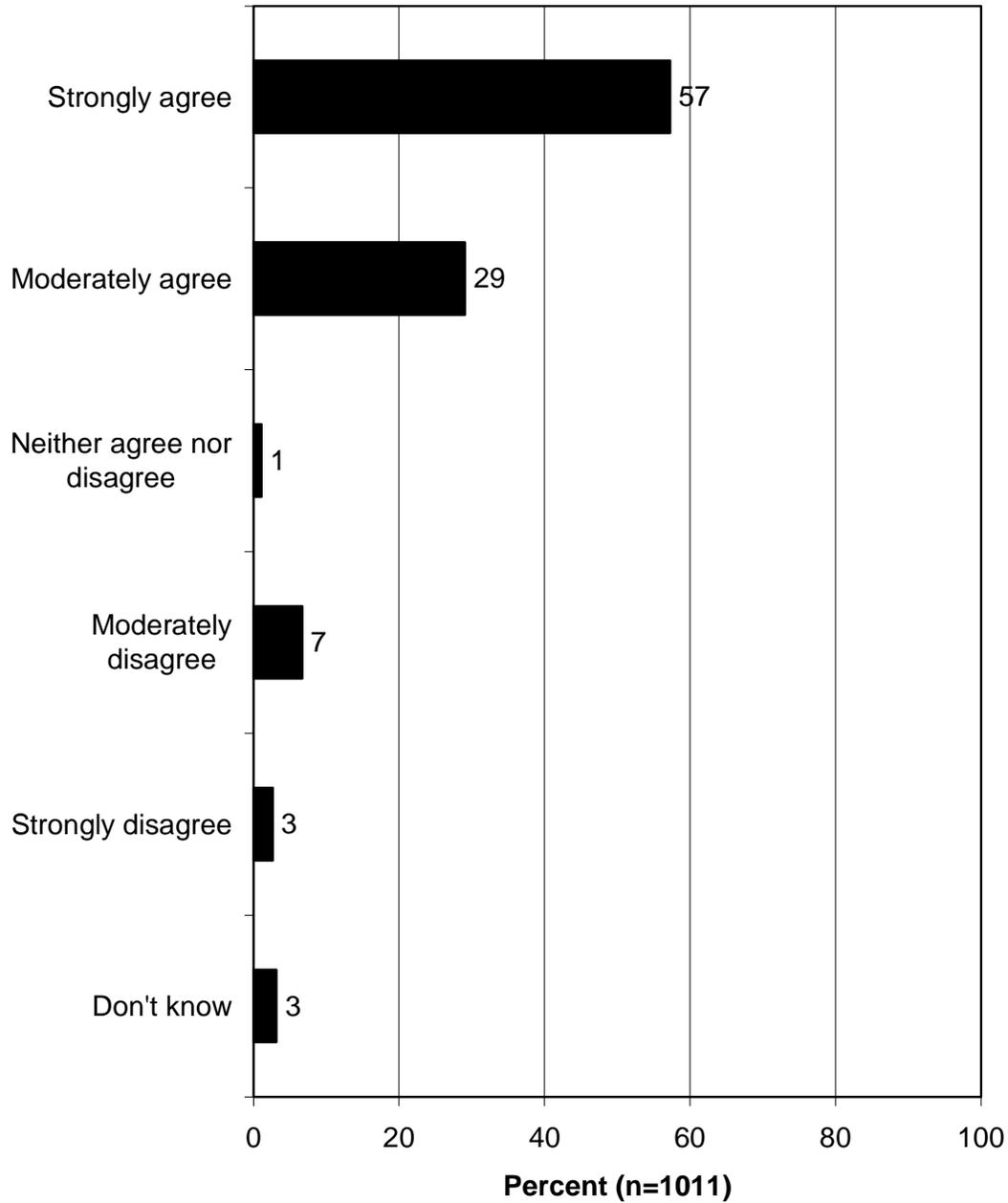
**Q29. Why are you concerned about water quantity?  
(Asked of those who were concerned about water quantity in Georgia.)**



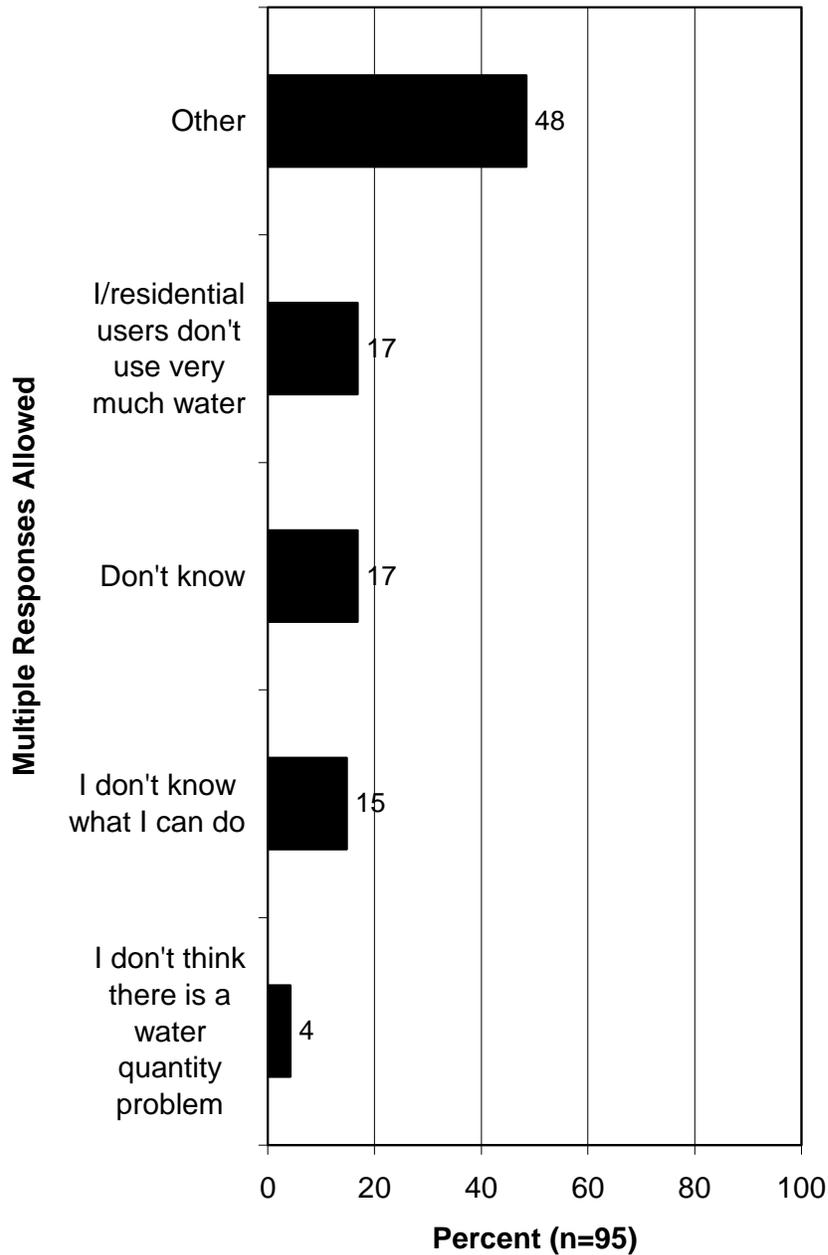
**Q65. Overall, were you very concerned, somewhat concerned, or not at all concerned about trying to follow the 2000-2002 watering restrictions in Georgia?**



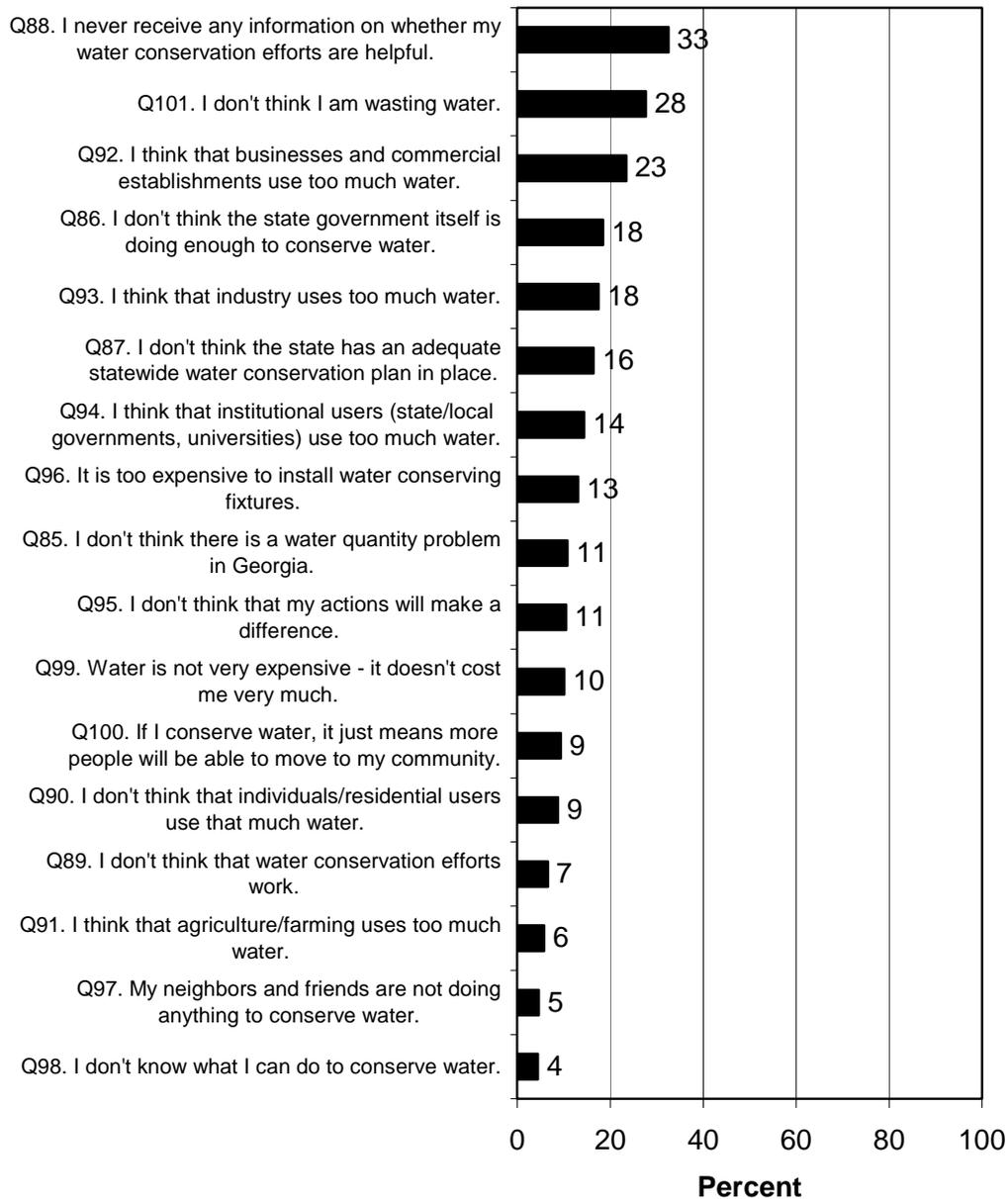
**Q48. Do you agree or disagree that you can personally make a difference in terms of water conservation in Georgia?**



**Q50. Why do you disagree that you can personally make a difference in terms of water conservation in Georgia? (Asked of those who disagreed that they could make a difference.)**



### Q85-101. Percent who strongly agree that the following reasons prevent them from conserving water in Georgia.



<b>Georgia Residents Who Have Already Installed Water Efficient Hose Nozzles for Outside Garden Hoses</b>	<b>Z-SCORE</b>
Has already installed water efficient showerheads	7.98***
Has already installed water efficient washing machines and dishwashers	7.05***
Already routinely checks fixtures for leaks	6.4***
Has already installed low-flow toilets	5.34***
Already practices drought-tolerant landscaping (xeriscaping)	5.06***
Has already installed water saving devices in toilet	4.83***
Not at all likely to practice drought-tolerant landscaping (xeriscaping)	4.22***
Always makes effort to conserve water	3.8***
Was very concerned about trying to follow the 2000-2002 watering restrictions in GA	3.18**
Lives in Oconee County	2.7**
Lives in Wilkinson County	2.7**
Says habitat fragmentation is one of the most important natural resource issues facing Georgia	2.63**
Strongly or moderately disagree that it's too expensive to install water conserving fixtures (is a reason for not conserving)	2.57*
Usually is not the person to open the water bill	2.56*
Is very concerned about water quality in Georgia	2.46*
Strongly or moderately disagree that I don't know what I can do to conserve water (is a reason for not conserving)	2.27*
Indicated that swimming pool was one of the top three ways they use water	2.03*
Thinks people use a little water in everyday life	1.97*
Lives in Douglas County	1.96*

Most likely to say have already installed water efficient hose nozzles for outside garden hoses.



<b>Georgia Residents Who Are Very or Somewhat Likely to Install Water Efficient Hose Nozzles for Outside Garden Hoses</b>	<b>Z-SCORE</b>
Very or somewhat likely to install water efficient showerheads	11.21***
Very or somewhat likely to routinely check fixtures for leaks	9.96***
Very or somewhat likely to practice drought-tolerant landscaping (xeriscaping)	9.46***
Very or somewhat likely to install water efficient washing machines and dishwashers	9.12***
Very or somewhat likely to install water saving devices in toilet	8.94***
Very or somewhat likely to install low-flow toilets	5.6***
Free water conservation items would make him/her very or somewhat likely to adopt water conservation practices	4.21***
Knowledge that he/she was helping to protect wildlife and fisheries would make him/her very or somewhat likely to conserve water	3.11**
Lives in Muscogee County	2.76**
Knowledge that he/she could save money on water bill would make him/her very or somewhat likely to conserve water	2.66**
Conservation pricing would make him/her very or somewhat likely to adopt water conservation practices	2.45*
Strongly or moderately supports statewide water conservation effort	2.42*
Free water audits would make him/her very or somewhat likely to adopt water conservation practices	2.4*
Says loss of wildlife habitat is a very or somewhat important issue facing Georgia	2.31*
Strongly or moderately agree that farming uses too much water (is a reason for not conserving)	2.31*
Usually opens the water bill	2.3*
Very or somewhat likely to conserve water if had to spend money up-front on water efficient fixtures but were guaranteed long-term cost savings on water bills	2.29*
Receiving info about things to do to conserve water would make him/her very or somewhat likely to conserve water	2.22*
Strongly or moderately agree that I don't know what I can do to conserve water (is a reason for not conserving)	2.21*
Rebate programs would make him/her very or somewhat likely to adopt water conservation practices	2.17*
Says recycling of household products is a very or somewhat important issue facing Georgia	2.14*
Was somewhat concerned about trying to follow the 2000-2002 watering restrictions in GA	2.13*
Strongly or moderately agree that businesses uses too much water (is a reason for not conserving)	2.11*
Knowledge that he/she was helping to improve water-based recreational opportunities would make him/her very or somewhat likely to conserve water	2.08*
Your children getting sick is a health/safety concern	2.08*

Most likely to say are very or somewhat likely to install water efficient hose nozzles for outside garden hoses.



Pressure from children would make him/her very or somewhat likely to conserve water	2.02*
Strongly or moderately agree that I never get information on whether my conservation efforts are helpful (is a reason for not conserving)	2.01*
Knowledge that a severe water supply crisis could happen during lifetime would make him/her very or somewhat likely to conserve water	1.97*
Indicated that washing my car was one of the top three ways they use water	1.96*



<b>Georgia Residents Who Have Already Installed Water Efficient Washing Machines and Dishwashers</b>	<b>Z-SCORE</b>
Already routinely checks fixtures for leaks	8.92***
Has already installed water efficient showerheads	8.47***
Has already installed water saving devices in toilet	7.5***
Has already installed water efficient hose nozzles for outside garden hoses	7.05***
Has already installed low-flow toilets	6.7***
Not at all likely to practice drought-tolerant landscaping (xeriscaping)	5.33***
Already practices drought-tolerant landscaping (xeriscaping)	3.8***
Always makes effort to conserve water	3.14**
Lives in Jackson County	3.13**
Was very concerned about trying to follow the 2000-2002 watering restrictions in GA	3.07**
Strongly or moderately disagree that I don't know what I can do to conserve water (is a reason for not conserving)	3.05**
Strongly or moderately disagree that it's too expensive to install water conserving fixtures (is a reason for not conserving)	2.95**
Strongly or moderately disagree if I conserve water, it just means that more people will be able to move to my community (is a reason for not conserving)	2.69**
Lives in Bulloch County	2.33*
Lives in Butts County	2.33*
Lives in Oglethorpe County	2.33*
Lives in Douglas County	2.28*
Getting sick is a health/safety concern	2.27*
Thinks institutional users use the most water in Georgia	2.24*
Is a homeowner	2.21*
Lives in Whitfield County	2.2*
Says GA Dept. of Natural Resources is primarily responsible for managing water	2.2*

Most likely to say have already installed water efficient washing machines and dishwashers.



<b>Georgia Residents Who Are Very or Somewhat Likely to Install Water Efficient Washing Machines and Dishwashers</b>	<b>Z-SCORE</b>
Very or somewhat likely to routinely check fixtures for leaks	9.14***
Very or somewhat likely to install water efficient hose nozzles for outside garden hoses	9.12***
Very or somewhat likely to practice drought-tolerant landscaping (xeriscaping)	8.81***
Very or somewhat likely to install water saving devices in toilet	8.65***
Very or somewhat likely to install water efficient showerheads	8.45***
Very or somewhat likely to install low-flow toilets	7.1***
Free water conservation items would make him/her very or somewhat likely to adopt water conservation practices	4.15***
Conservation pricing would make him/her very or somewhat likely to adopt water conservation practices	3.62***
Knowledge that he/she was helping to protect wildlife and fisheries would make him/her very or somewhat likely to conserve water	3.47***
Says urban sprawl is a very or somewhat important issue facing Georgia	3.39***
Says recycling of household products is a very or somewhat important issue facing Georgia	3.23**
Knowledge that he/she was helping to improve water-based recreational opportunities would make him/her very or somewhat likely to conserve water	2.91**
Knowledge that he/she could help protect the quality of life for future generations would make him/her very or somewhat likely to conserve water	2.29*
Rebate programs would make him/her very or somewhat likely to adopt water conservation practices	2.17*
Strongly or moderately disagree that there isn't a water quantity problem in Georgia (is a reason for not conserving)	2.16*
Says loss of wildlife habitat is a very or somewhat important issue facing Georgia	2.11*
African-American	1.99*

Most likely to say are very or somewhat likely to install water efficient washing machines and dishwashers.



<b>Georgia Residents Who Already Practice Drought Tolerant Landscaping (Xeriscaping)</b>	<b>Z-SCORE</b>
Already routinely checks fixtures for leaks	8.84***
Has already installed water efficient showerheads	8.37***
Has already installed water efficient hose nozzles for outside garden hoses	5.06***
Has already installed low-flow toilets	4.69***
Has already installed water saving devices in toilet	4.55***
Is a homeowner	4.13***
Has already installed water efficient washing machines and dishwashers	3.8***
Was very concerned about trying to follow the 2000-2002 watering restrictions in GA	3.44***
Strongly or moderately disagree that it's too expensive to install water conserving fixtures (is a reason for not conserving)	3.2**
Rarely or never makes effort to conserve water because of time constraints	3.12**
Is concerned about water quantity because of environmental concerns	3.02**
Lives in Colquitt County	3.02**
Says protection of greenspace is one of the most important natural resource issues facing Georgia	2.83**
Strongly or moderately disagree if I conserve water, it just means that more people will be able to move to my community (is a reason for not conserving)	2.79**
Strongly or moderately disagree that I never get information on whether my conservation efforts are helpful (is a reason for not conserving)	2.78**
Always makes effort to conserve water	2.76**
Makes effort to conserve water because of concerns about environment	2.63**
Says habitat loss is one of the most important natural resource issues facing Georgia	2.61**
55-64 years old	2.46*
Knowledge that the health of the environment was at stake would make him/her somewhat or very unlikely to conserve water	2.46*
Says recycling of household products is a very or somewhat important issue facing Georgia	2.45*
Strongly or moderately disagree that I don't think my actions will make a difference (is a reason for not conserving)	2.36*
Is very concerned about water quality in Georgia	2.32*
Strongly or moderately disagree that I don't know what I can do to conserve water (is a reason for not conserving)	2.29*
Is female	2.23*

Most likely to say already practice drought tolerant landscaping (xeriscaping).



Says quality of wetlands is a very or somewhat important issue facing Georgia	2.15*
Says protection of greenspace is a very or somewhat important issue facing Georgia	2.14*
Lives in Lincoln County	2.13*
Lives in Oconee County	2.13*
Lives in Oglethorpe County	2.13*
Lives in Polk County	2.13*
Says Environmental Protection Agency is primarily responsible for managing water	2.09*
Is part of a neighborhood association	2.03*
Rebate programs would make him/her very or somewhat likely to adopt water conservation practices	2.03*
Native American	2.01*
Indicated that laundry was one of the top three ways they use water	1.98*



<b>Georgia Residents Who Are Very or Somewhat Likely to Practice Drought Tolerant Landscaping (Xeriscaping)</b>	<b>Z-SCORE</b>
Very or somewhat likely to routinely check fixtures for leaks	12.08***
Very or somewhat likely to install water efficient hose nozzles for outside garden hoses	9.46***
Very or somewhat likely to install water efficient showerheads	9.22***
Very or somewhat likely to install water efficient washing machines and dishwashers	8.81***
Very or somewhat likely to install water saving devices in toilet	8.31***
Very or somewhat likely to install low-flow toilets	7.04***
Lives in Richmond County	2.91**
Strongly or moderately agree that it's too expensive to install water conserving fixtures (is a reason for not conserving)	2.85**
Free water conservation items would make him/her very or somewhat likely to adopt water conservation practices	2.79**
Knowledge that the health of the environment was at stake would make him/her very or somewhat likely to conserve water	2.76**
Says urban sprawl is a very or somewhat important issue facing Georgia	2.65**
Strongly or moderately agree that I never get information on whether my conservation efforts are helpful (is a reason for not conserving)	2.63**
25-34 years old	2.35*
Says loss of wildlife habitat is a very or somewhat important issue facing Georgia	2.34*
Lives in White County	2.3*
Says Georgia's waterways are very or somewhat healthy	2.24*
Thinks industry uses 29% or less of all water used in Georgia	2.1*
Future generations getting sick is a health/safety concern	2.07*
Knowledge that he/she could help protect the quality of life for future generations would make him/her very or somewhat likely to conserve water	2.04*
Knowledge that he/she could save money on water bill would make him/her very or somewhat likely to conserve water	2.04*

Most likely to say are very or somewhat likely to practice drought tolerant landscaping (xeriscaping).



<b>Georgia Residents Who Have Already Installed a Rain Sensor on their Irrigation System</b>	<b>Z-SCORE</b>	Most likely to say have already installed a rain sensor on their irrigation system.
Has already replaced current irrigation system with a drip irrigation system for lawn or garden	8.34***	
Not at all likely to replace current irrigation system with a drip irrigation system for lawn or garden	6.86***	
Lives in Miller County	5.04***	
Indicated that watering my lawn was one of the top three ways they use water	4.13***	
Lives in Elbert County	3.43***	
College experience, with or without obtaining an Associate's or Bachelor's degree	3.11**	
Already washes car less frequently or not at all	2.99**	
Household income of \$60,000 or more (pre-tax)	2.83**	
Says not enough water/water quantity is one of the most important natural resource issues facing Georgia	2.75**	
Lives in Baldwin County	2.69**	
Usually is not the person to open the water bill	2.48*	
Is not at all concerned about water quality in Georgia	2.41*	
Husband usually opens water bill	2.38*	
Says polluted water/water quality is one of the most important natural resource issues facing Georgia	2.36*	
Thinks golf courses use the most water in Georgia	2.25*	
Indicated that landscaping such as fish ponds was one of the top three ways they use water	2.25*	
Already does not let water run unnecessarily	2.24*	
Lives in Laurens County	2.23*	
Lives in Rockdale County	2.23*	
Is a homeowner	2.09*	
Says protection of greenspace is one of the most important natural resource issues facing Georgia	2.08*	

<b>Georgia Residents Who Are Very or Somewhat Likely to Install a Rain Sensor on Their Irrigation System</b>	<b>Z-SCORE</b>
Very or somewhat likely to replace current irrigation system with a drip irrigation system for lawn or garden	13.9***
Was somewhat concerned about trying to follow the 2000-2002 watering restrictions in GA	3.72***
Not at all likely to replace current irrigation system with a drip irrigation system for lawn or garden	3.5***
Indicated that watering my lawn was one of the top three ways they use water	3.36***
Thinks car washes use the most water in Georgia	3.33***
Says quality of wetlands is a somewhat or very unimportant issue facing Georgia	3.11**
Very or somewhat likely to water lawn infrequently	2.93**
Water bill inserts are preferred method of receiving info about water resources and water conservation	2.78**
Rebate programs would make him/her very or somewhat likely to adopt water conservation practices	2.73**
Very or somewhat likely to wash car less frequently or not at all	2.63**
Lives in Camden County	2.62**
Internet is preferred method of receiving info about water resources and water conservation	2.59**
Knowledge that the collective actions of individuals can have a significant impact on water conservation would make him/her very or somewhat likely to conserve water	2.53*
Has lived in Georgia for 30 or fewer years (median)	2.48*
Lives in Cook County	2.47*
Lives in Heard County	2.47*
Lives in Taliaferro County	2.47*
Lives in Turner County	2.47*
Was not born in Georgia	2.44*
Strongly or moderately agree that water is not very expensive (is a reason for not conserving)	2.43*
Has already replaced current irrigation system with a drip irrigation system for lawn or garden	2.43*
Strongly or moderately agree that businesses uses too much water (is a reason for not conserving)	2.39*
Very or somewhat likely to conserve water if had to spend money up-front on water efficient fixtures but were guaranteed long-term cost savings on water bills	2.32*
Very or somewhat likely to not let water run unnecessarily	2.28*
Strongly or moderately agree that the state government isn't conserving water in Georgia (is a reason for not conserving)	2.21*
Lives in Forsyth County	2.2*
Says urban sprawl is a very or somewhat important issue facing Georgia	2.15*
Peer pressure from neighbors would make him/her very or somewhat likely to conserve water	2.1*
Strongly or moderately disagree that there isn't a water quantity problem in Georgia (is a reason for not conserving)	2.08*
Lives in Laurens County	2.07*
Lives in Liberty County	2.07*

Most likely to say are very or somewhat likely to install a rain sensor on their irrigation system.



Lives in Lowndes County	2.07*
Lives in Coffee County	2.07*
Strongly or moderately agree that industry uses too much water (is a reason for not conserving)	2.04*
Is concerned about water quantity because of concerns for future generations	2.03*



<b>Georgia Residents Who Have Already Installed Water Saving Devices in Their Toilet</b>	<b>Z-SCORE</b>
Has already installed low-flow toilets	10.83***
Has already installed water efficient showerheads	8.36***
Has already installed water efficient washing machines and dishwashers	7.5***
Already routinely checks fixtures for leaks	6.25***
Has already installed water efficient hose nozzles for outside garden hoses	4.83***
Not at all likely to practice drought-tolerant landscaping (xeriscaping)	4.77***
Always makes effort to conserve water	4.69***
Already practices drought-tolerant landscaping (xeriscaping)	4.55***
Strongly or moderately disagree that it's too expensive to install water conserving fixtures (is a reason for not conserving)	4.29***
Is a homeowner	3.96***
Has lived in Georgia for more than 30 years (median)	3.84***
Was very concerned about trying to follow the 2000-2002 watering restrictions in GA	3.8***
Lives in a small city/town or a rural area	3.41***
Strongly or moderately disagree that I don't know what I can do to conserve water (is a reason for not conserving)	2.97**
Indicated that cooking was one of the top three ways they use water	2.89**
Rarely or never makes effort to conserve water because not concerned about having enough water	2.81**
Owens more than 1 acre (median)	2.67**
White	2.55*
Is concerned about water quantity because of concerns for future generations	2.48*
Getting sick is a health/safety concern	2.41*
Makes effort to conserve water because of concerns about water availability	2.41*
Magazines are preferred method of receiving info about water resources and water conservation	2.26*
Lives in Burke County	2.18*
Lives in Lanier County	2.18*
Lives in Oglethorpe County	2.18*
Lives in Polk County	2.18*
Lives in Wilkes County	2.18*
Lives in Wilkinson County	2.18*
Moderately or strongly opposes statewide water conservation effort	2.05*
Lives in Douglas County	2.05*

Most likely to say have already installed water saving devices in their toilet.



<b>Georgia Residents Who Are Very or Somewhat Likely to Install Water Saving Devices in Their Toilet</b>	<b>Z-SCORE</b>	Most likely to say are very or somewhat likely to install water saving devices in their toilet.
Very or somewhat likely to install low-flow toilets	11.99***	
Very or somewhat likely to install water efficient showerheads	10.57***	
Very or somewhat likely to install water efficient hose nozzles for outside garden hoses	8.94***	
Very or somewhat likely to install water efficient washing machines and dishwashers	8.65***	
Very or somewhat likely to practice drought-tolerant landscaping (xeriscaping)	8.31***	
Very or somewhat likely to routinely check fixtures for leaks	7.35***	
Conservation pricing would make him/her very or somewhat likely to adopt water conservation practices	5.22***	
Free water conservation items would make him/her very or somewhat likely to adopt water conservation practices	5.07***	
Rebate programs would make him/her very or somewhat likely to adopt water conservation practices	3.92***	
Knowledge that he/she was helping to protect wildlife and fisheries would make him/her very or somewhat likely to conserve water	3.24**	
Free water audits would make him/her very or somewhat likely to adopt water conservation practices	3.21**	
Sometimes makes effort to conserve water	3.14**	
Is very concerned about water quality in Georgia	3**	
Says loss of wildlife habitat is a very or somewhat important issue facing Georgia	2.86**	
Strongly or moderately supports statewide water conservation effort	2.82**	
Has lived in Georgia for 30 or fewer years (median)	2.78**	
Imposition of a financial penalty for using water inappropriately would make him/her very or somewhat likely to conserve water	2.71**	
Your children getting sick is a health/safety concern	2.67**	
Says recycling of household products is a very or somewhat important issue facing Georgia	2.58**	
Indicated that washing dishes and other household items was one of the top three ways they use water	2.53*	
Pressure from children would make him/her very or somewhat likely to conserve water	2.49*	
Makes effort to conserve water because of concerns about own health	2.44*	
Future generations getting sick is a health/safety concern	2.37*	
Very or somewhat likely to conserve water if had to spend money up-front on water efficient fixtures but were guaranteed long-term cost savings on water bills	2.37*	
Usually opens the water bill	2.34*	
Birth defects is a health/safety concern	2.31*	
College experience, with or without obtaining an Associate's or Bachelor's degree	2.29*	
Strongly or moderately agree that it's too expensive to install water conserving fixtures (is a reason for not conserving)	2.23*	
Is female	2.21*	

Lives in Richmond County	2.17*
Lives in Chattooga County	2.14*
Lives in Decatur County	2.14*
Receiving info about things to do to conserve water would make him/her very or somewhat likely to conserve water	2.09*
Strongly or moderately agree that businesses uses too much water (is a reason for not conserving)	2.03*
Indicated that laundry was one of the top three ways they use water	2.01*
Is not a homeowner	2*
Is concerned about water quantity because of water shortages and watering restrictions	1.99*



<b>Georgia Residents Who Have Already Installed Water Efficient Showerheads</b>	<b>Z-SCORE</b>	Most likely to say have already installed water efficient showerheads.
Has already installed low-flow toilets	8.81***	
Has already installed water efficient washing machines and dishwashers	8.47***	
Already practices drought-tolerant landscaping (xeriscaping)	8.37***	
Has already installed water saving devices in toilet	8.36***	
Already routinely checks fixtures for leaks	8.19***	
Has already installed water efficient hose nozzles for outside garden hoses	7.98***	
Not at all likely to practice drought-tolerant landscaping (xeriscaping)	7.62***	
Always makes effort to conserve water	4.55***	
Strongly or moderately disagree that it's too expensive to install water conserving fixtures (is a reason for not conserving)	4.32***	
Strongly or moderately agrees that he/she can make a difference in water conservation	3.76***	
Says protection of greenspace is a very or somewhat important issue facing Georgia	3.32***	
Strongly or moderately disagree that I don't know what I can do to conserve water (is a reason for not conserving)	3.24**	
Strongly or moderately disagree that I don't think conservation efforts work (is a reason for not conserving)	3.2**	
White	2.94**	
Says GA Dept. of Natural Resources is primarily responsible for managing water	2.89**	
45-54 years old	2.66**	
Rebate programs would make him/her very or somewhat likely to adopt water conservation practices	2.66**	
Lives in Douglas County	2.62**	
Was very concerned about trying to follow the 2000-2002 watering restrictions in GA	2.56*	
Strongly or moderately disagree that I don't think my actions will make a difference (is a reason for not conserving)	2.54*	
College experience, with or without obtaining an Associate's or Bachelor's degree	2.54*	
35-44 years old	2.49*	
Is a homeowner	2.48*	
Rarely or never makes effort to conserve water because not concerned about having enough water	2.48*	
Says urban sprawl is a very or somewhat important issue facing Georgia	2.46*	
Was not born in Georgia	2.44*	
Getting sick is a health/safety concern	2.42*	
Is part of a neighborhood association	2.36*	
Says Environmental Protection Agency is primarily responsible for managing water	2.32*	

<b>Georgia Residents Who Are Very or Somewhat Likely to Install Water Efficient Showerheads</b>	<b>Z-SCORE</b>
Very or somewhat likely to install water efficient hose nozzles for outside garden hoses	11.21***
Very or somewhat likely to install water saving devices in toilet	10.57***
Very or somewhat likely to practice drought-tolerant landscaping (xeriscaping)	9.22***
Very or somewhat likely to routinely check fixtures for leaks	9.19***
Very or somewhat likely to install water efficient washing machines and dishwashers	8.45***
Very or somewhat likely to install low-flow toilets	8.42***
Strongly or moderately agree that I don't know what I can do to conserve water (is a reason for not conserving)	3.56***
African-American	3.17**
Sometimes makes effort to conserve water	3.02**
Free water conservation items would make him/her very or somewhat likely to adopt water conservation practices	2.95**
Free water audits would make him/her very or somewhat likely to adopt water conservation practices	2.9**
25-34 years old	2.88**
Knowledge that he/she could save money on water bill would make him/her very or somewhat likely to conserve water	2.6**
Is female	2.52*
Husband usually opens water bill	2.4*
An increase in current water costs would make him/her very or somewhat likely to conserve water	2.36*
Strongly or moderately agree that it's too expensive to install water conserving fixtures (is a reason for not conserving)	2.26*
Lives in Clayton County	2.18*
Lives in Richmond County	2.14*
Lives in Barrow County	2.13*
Lives in Dougherty County	2.03*
Says recycling of household products is a very or somewhat important issue facing Georgia	2*
Conservation pricing would make him/her very or somewhat likely to adopt water conservation practices	1.99*

Most likely to say are very or somewhat likely to install water efficient showerheads.



<b>Georgia Residents Who Already Routinely Check Fixtures for Leaks</b>	<b>Z-SCORE</b>
Not at all likely to practice drought-tolerant landscaping (xeriscaping)	9.99***
Has already installed water efficient washing machines and dishwashers	8.92***
Already practices drought-tolerant landscaping (xeriscaping)	8.84***
Has already installed water efficient showerheads	8.19***
Has already installed water efficient hose nozzles for outside garden hoses	6.4***
Has already installed water saving devices in toilet	6.25***
Has already installed low-flow toilets	5.83***
Is a homeowner	4.54***
Says polluted water/water quality is one of the most important natural resource issues facing Georgia	3.81***
Getting sick is a health/safety concern	2.95**
55-64 years old	2.94**
Has lived in Georgia for more than 30 years (median)	2.5*
Strongly or moderately disagree that I don't know what I can do to conserve water (is a reason for not conserving)	2.47*
Lives in Jackson County	2.36*
Lives in a small city/town or a rural area	2.31*
Always makes effort to conserve water	2.27*
Not at all likely to install water efficient hose nozzles for outside garden hoses	2.24*
Strongly or moderately disagree if I conserve water, it just means that more people will be able to move to my community (is a reason for not conserving)	2.2*
Is very concerned about water quality in Georgia	2.16*
Has a well or cistern	2.13*
Has a well or cistern	2.13*
White	2.06*
Strongly or moderately disagree that it's too expensive to install water conserving fixtures (is a reason for not conserving)	2.02*

Most likely to say already routinely check fixtures for leaks.



<b>Georgia Residents Who Are Very or Somewhat Likely to Routinely Check Fixtures for Leaks</b>	<b>Z-SCORE</b>
Very or somewhat likely to practice drought-tolerant landscaping (xeriscaping)	12.08***
Very or somewhat likely to install water efficient hose nozzles for outside garden hoses	9.96***
Very or somewhat likely to install water efficient showerheads	9.19***
Very or somewhat likely to install water efficient washing machines and dishwashers	9.14***
Very or somewhat likely to install water saving devices in toilet	7.35***
Very or somewhat likely to install low-flow toilets	6.35***
25-34 years old	3.51***
Is not a homeowner	3.01**
Your children getting sick is a health/safety concern	2.61**
Strongly or moderately agree that I don't think individual users use that much water (is a reason for not conserving)	2.59**
African-American	2.59**
Lives in large city/urban area or a suburban area	2.51*
Someone else receives water bill	2.41*
Has lived in Georgia for 30 or fewer years (median)	2.39*
Birth defects is a health/safety concern	2.28*
Indicated that washing my car was one of the top three ways they use water	2.16*
Lives in Bibb County	2.12*
Owens 1 acre or less (median)	2.09*
Lives in Decatur County	2.08*
Says threatened or endangered species is one of the most important natural resource issues facing Georgia	2.08*
Says loss of wildlife habitat is a very or somewhat important issue facing Georgia	2.06*
Is somewhat concerned about water quality in Georgia	2.05*
Knowledge that personal health was at stake would make him/her very or somewhat likely to conserve water	2.04*
Knowledge that the health of his/her children was at stake would make him/her very or somewhat likely to conserve water	2.02*
Lives in Columbia County	1.97*

Most likely to say are very or somewhat likely to routinely check fixtures for leaks.



<b>Georgia Residents Who Already Wash Their Car Less Frequently or Not at All</b>	<b>Z-SCORE</b>
Already washes only full loads of clothes and dishes	8.71***
Already does not let water run unnecessarily	8.63***
Already waters lawn infrequently	7.05***
Says Georgia's waterways are somewhat or very unhealthy	4.24***
Thinks agricultural users use 29% or less of all water used in Georgia	3.21**
Strongly or moderately disagree that farming uses too much water (is a reason for not conserving)	3.06**
Has already installed a rain sensor on irrigation system	2.99**
Says polluted water/water quality is one of the most important natural resource issues facing Georgia	2.88**
Is concerned about water quality because of its effect on drinking water	2.62**
Always makes effort to conserve water	2.6**
Is a member of an environmental organization	2.55*
Wife usually opens water bill	2.32*
Knowledge that water is a limited resource would make him/her very or somewhat likely to conserve water	2.31*
Strongly or moderately disagree that it's too expensive to install water conserving fixtures (is a reason for not conserving)	2.16*
Knowledge that personal health was at stake would make him/her very or somewhat likely to conserve water	2.1*
Knowledge that the health of the environment was at stake would make him/her very or somewhat likely to conserve water	2.09*
White	2.06*
Lives in Pickens County	2.04*
Is a homeowner	2*

Most likely to say already wash their car less frequently or not at all.



<b>Georgia Residents Who Are Very or Somewhat Likely to Wash their Car Less Frequently or Not at All</b>	<b>Z-SCORE</b>
Very or somewhat likely to wash only full loads of clothes and dishes	8.09***
Very or somewhat likely to not let water run unnecessarily	7.26***
Very or somewhat likely to water lawn infrequently	6.7***
Free water conservation items would make him/her very or somewhat likely to adopt water conservation practices	3.25**
Strongly or moderately agree that farming uses too much water (is a reason for not conserving)	3.14**
Says Georgia's waterways are very or somewhat healthy	2.88**
Free water audits would make him/her very or somewhat likely to adopt water conservation practices	2.83**
Radio is preferred method of receiving info about water resources and water conservation	2.72**
Cancer is a health/safety concern	2.68**
Very or somewhat likely to install a rain sensor on irrigation system	2.63**
Household income of \$60,000 or more (pre-tax)	2.53*
Rarely or never makes effort to conserve water because not concerned about having enough water	2.46*
18-24 years old	2.42*
Thinks agricultural users use more than 30% of all water used in Georgia	2.28*
Says air quality is a very or somewhat important issue facing Georgia	2.17*
Makes effort to conserve water because of concerns about water restrictions	2.15*
An increase in current water costs would make him/her very or somewhat likely to conserve water	2.15*
Lives in Haralson County	2.12*
Lives in Putnam County	2.12*
African-American	2.11*
Says urban sprawl is a very or somewhat important issue facing Georgia	2.1*
Knowledge that the collective actions of individuals can have a significant impact on water conservation would make him/her somewhat or very unlikely to conserve water	2.04*

Most likely to say are very or somewhat likely to wash their car less frequently or not at all.



<b>Georgia Residents Who Have Already Installed Low-Flow Toilets</b>	<b>Z-SCORE</b>	Most likely to say have already installed low-flow toilets.
Has already installed water efficient showerheads	8.81***	
Has already installed water efficient washing machines and dishwashers	6.7***	
Always makes effort to conserve water	6.11***	
Is a homeowner	5.93***	
Already routinely checks fixtures for leaks	5.83***	
Has already installed water efficient hose nozzles for outside garden hoses	5.34***	
Not at all likely to practice drought-tolerant landscaping (xeriscaping)	4.72***	
Already practices drought-tolerant landscaping (xeriscaping)	4.69***	
Says protection of greenspace is a very or somewhat important issue facing Georgia	3.64***	
White	3.63***	
Owns more than 1 acre (median)	3.51***	
Strongly or moderately disagree that I don't know what I can do to conserve water (is a reason for not conserving)	3.06**	
Household income of \$60,000 or more (pre-tax)	2.96**	
35-44 years old	2.94**	
Has lived in Georgia for more than 30 years (median)	2.9**	
Strongly or moderately disagree that it's too expensive to install water conserving fixtures (is a reason for not conserving)	2.89**	
Rarely or never makes effort to conserve water because doesn't care	2.77**	
Is part of a neighborhood association	2.59**	
Was very concerned about trying to follow the 2000-2002 watering restrictions in GA	2.47*	
Strongly or moderately agree that industry uses too much water (is a reason for not conserving)	2.47*	
Thinks industry uses the most water in Georgia	2.46*	
Lives in a small city/town or a rural area	2.45*	
45-54 years old	2.39*	
Says habitat fragmentation is one of the most important natural resource issues facing Georgia	2.29*	
Lives in Carroll County	2.28*	
Lives in Floyd County	2.28*	
Is male	2.16*	
Says air quality is a somewhat or very unimportant issue facing Georgia	2.1*	
Receiving info about things to do to conserve water would make him/her very or somewhat likely to conserve water	2.08*	
Lives in Bryan County	1.97*	

<b>Georgia Residents Who Are Very or Somewhat Likely to Install Low-Flow Toilets</b>	<b>Z-SCORE</b>
Very or somewhat likely to install water saving devices in toilet	11.99***
Very or somewhat likely to install water efficient showerheads	8.42***
Very or somewhat likely to install water efficient washing machines and dishwashers	7.1***
Very or somewhat likely to practice drought-tolerant landscaping (xeriscaping)	7.04***
Very or somewhat likely to routinely check fixtures for leaks	6.35***
Very or somewhat likely to install water efficient hose nozzles for outside garden hoses	5.6***
Lives in Dougherty County	2.91**
Lives in Richmond County	2.72**
Lives in Liberty County	2.54*
Says depletion of fossil fuels is one of the most important natural resource issues facing Georgia	2.51*
Always or sometimes reads the water usage tips in bill	2.35*
Lives in Bleckley County	2.23*
Lives in Burke County	2.23*
Lives in Washington County	2.23*
Listserve are preferred method of receiving info about water resources and water conservation	2.21*
Rebate programs would make him/her very or somewhat likely to adopt water conservation practices	2.17*
Sometimes makes effort to conserve water	2.11*
Free water conservation items would make him/her very or somewhat likely to adopt water conservation practices	2.09*
Is concerned about water quantity because of water shortages and watering restrictions	1.99*
Knowledge that a severe water supply crisis could happen during lifetime would make him/her very or somewhat likely to conserve water	1.98*

Most likely to say are very or somewhat likely to install low-flow toilets.



<b>Georgia Residents Who Have Already Replaced Their Current Irrigation System with a Drip Irrigation System for their Lawn or Garden</b>	<b>Z-SCORE</b>	Most likely to say have already replaced their current irrigation system with a drip irrigation system for their lawn or garden.
Not at all likely to replace current irrigation system with a drip irrigation system for lawn or garden	10.71***	
Has already installed a rain sensor on irrigation system	8.34***	
Lives in Cook County	4.08***	
Lives in Miller County	4.08***	
Lives in Burke County	2.71**	
Lives in Elbert County	2.71**	
Lives in Rabun County	2.71**	
Lives in White County	2.71**	
Says state government in general is primarily responsible for managing water	2.62**	
Husband usually opens water bill	2.62**	
Very or somewhat likely to install a rain sensor on irrigation system	2.43*	
Internet is preferred method of receiving info about water resources and water conservation	2.36*	
Says acid rain is one of the most important natural resource issues facing Georgia	2.09*	
Lives in Colquitt County	2.07*	



<b>Georgia Residents Who Are Very or Somewhat Likely to Replace their Current Irrigation System with a Drip Irrigation System for Their Lawn or Garden</b>	<b>Z-SCORE</b>
Very or somewhat likely to install a rain sensor on irrigation system	13.9***
Very or somewhat likely to water lawn infrequently	4.19***
Lives in Heard County	3.09**
Lives in Turner County	3.09**
Rebate programs would make him/her very or somewhat likely to adopt water conservation practices	3.09**
Says quality of wetlands is a somewhat or very unimportant issue facing Georgia	2.85**
Pressure from children would make him/her very or somewhat likely to conserve water	2.83**
Indicated that landscaping such as fish ponds was one of the top three ways they use water	2.8**
Lives in Coffee County	2.78**
Thinks institutional users use the most water in Georgia	2.69**
Free water audits would make him/her very or somewhat likely to adopt water conservation practices	2.6**
Is concerned about water quantity because of concerns for future generations	2.55*
Strongly or moderately agrees that he/she can make a difference in water conservation	2.54*
Strongly or moderately agrees that water should be conserved when there are not drought conditions and when there is plenty of rain	2.52*
Says depletion of fossil fuels is one of the most important natural resource issues facing Georgia	2.49*
Peer pressure from neighbors would make him/her very or somewhat likely to conserve water	2.41*
Your children getting sick is a health/safety concern	2.4*
Strongly or moderately agree that institutions (such as government and universities) use too much water (is a reason for not conserving)	2.37*
Lives in Fulton County	2.33*
Knowledge that the collective actions of individuals can have a significant impact on water conservation would make him/her very or somewhat likely to conserve water	2.26*
Strongly or moderately agree that industry uses too much water (is a reason for not conserving)	2.22*
35-44 years old	2.22*
Thinks people use a little water in everyday life	2.19*
Indicated that cooking was one of the top three ways they use water	2.03*
Says recycling is one of the most important natural resource issues facing Georgia	2.03*
Says agricultural runoff is one of the most important natural resource issues facing Georgia	1.98*
Lives in Burke County	1.96*
Lives in Dade County	1.96*
Lives in Effingham County	1.96*

Most likely to say are very or somewhat likely to replace their current irrigation system with a drip irrigation system for their lawn or garden.



Lives in Hancock County	1.96*
Lives in Pierce County	1.96*
Lives in Spalding County	1.96*



<b>Georgia Residents Who Already Water Their Lawn Infrequently</b>	<b>Z-SCORE</b>
Already washes only full loads of clothes and dishes	8.47***
Already washes car less frequently or not at all	7.05***
Already does not let water run unnecessarily	6.46***
Is a homeowner	4.33***
Is concerned about water quality because of its effect on drinking water	3.73***
Has lived in Georgia for more than 30 years (median)	2.86**
55-64 years old	2.79**
Lives in Cobb County	2.75**
White	2.74**
Says polluted water/water quality is one of the most important natural resource issues facing Georgia	2.65**
Was very concerned about trying to follow the 2000-2002 watering restrictions in GA	2.58**
Always makes effort to conserve water	2.52*
Lives in Columbia County	2.39*
Is concerned about water quantity because of concerns for future generations	2.17*
Lives in Barrow County	2.14*
Says protection of greenspace is one of the most important natural resource issues facing Georgia	2.13*
Says Georgia's waterways are somewhat or very unhealthy	2.07*
Lives in Forsyth County	2.07*
Says GA Dept. of Natural Resources is primarily responsible for managing water	2.06*
Peer pressure from neighbors would make him/her somewhat or very unlikely to conserve water	2.02*
Indicated that taking a shower was one of the top three ways they use water	2*
Says not enough water/water quantity is one of the most important natural resource issues facing Georgia	2*

Most likely to say already water their lawn infrequently.



<b>Georgia Residents Who Are Very or Somewhat Likely to Water Their Lawn Infrequently</b>	<b>Z-SCORE</b>	Most likely to say are very or somewhat likely to water their lawn infrequently.
Very or somewhat likely to wash only full loads of clothes and dishes	6.7***	
Very or somewhat likely to wash car less frequently or not at all	6.7***	
Very or somewhat likely to not let water run unnecessarily	5.63***	
Very or somewhat likely to replace current irrigation system with a drip irrigation system for lawn or garden	4.19***	
Indicated that watering my lawn was one of the top three ways they use water	3.49***	
Not at all likely to wash only full loads of clothes and dishes	3.48***	
Lives in Bibb County	3.18**	
African-American	3.18**	
Is somewhat concerned about water quantity in Georgia	3.13**	
Very or somewhat likely to install a rain sensor on irrigation system	2.93**	
Lives in Effingham County	2.69**	
Lives in Haralson County	2.69**	
Lives in Houston County	2.49*	
Not at all likely to not let water run unnecessarily	2.58**	
Indicated that washing my car was one of the top three ways they use water	2.54*	
Personally receives water bill	2.45*	
Says Georgia's waterways are very or somewhat healthy	2.4*	
Lives in DeKalb County	2.24*	
Was somewhat concerned about trying to follow the 2000-2002 watering restrictions in GA	2.23*	
Household income of \$60,000 or more (pre-tax)	2.19*	
Rarely makes effort to conserve water	2.13*	
Strongly or moderately agree that I don't think individual users use that much water (is a reason for not conserving)	2.11*	
Is part of a neighborhood association	2.1*	
Knowledge that the health of his/her children was at stake would make him/her very or somewhat likely to conserve water	2.05*	
Radio is preferred method of receiving info about water resources and water conservation	2.03*	

<b>Georgia Residents Who Already Do Not Let Water Run Unnecessarily</b>	<b>Z-SCORE</b>
Already washes only full loads of clothes and dishes	10.86***
Already washes car less frequently or not at all	8.63***
Already waters lawn infrequently	6.46***
Strongly or moderately agrees that water should be conserved when there are not drought conditions and when there is plenty of rain	4.02***
Always makes effort to conserve water	3.62***
Thinks agricultural users use 29% or less of all water used in Georgia	3.53***
Is not at all concerned about water quantity in Georgia	2.97**
Says Georgia's waterways are somewhat or very unhealthy	2.85**
Strongly or moderately disagree that I don't think I'm wasting water (is a reason for not conserving)	2.84**
Imposition of a financial penalty for using water inappropriately would make him/her very or somewhat likely to conserve water	2.51*
Is a homeowner	2.49*
Strongly or moderately disagree that industry uses too much water (is a reason for not conserving)	2.38*
Strongly or moderately disagree that farming uses too much water (is a reason for not conserving)	2.29*
Has already installed a rain sensor on irrigation system	2.24*
Was very concerned about trying to follow the 2000-2002 watering restrictions in GA	2.14*
Thinks industry uses the most water in Georgia	2.09*
Strongly or moderately disagree if I conserve water, it just means that more people will be able to move to my community (is a reason for not conserving)	2.01*

Most likely to say already do not let water run unnecessarily.



<b>Georgia Residents Who Are Very or Somewhat Likely to Not Let Water Run Unnecessarily</b>	<b>Z-SCORE</b>
Very or somewhat likely to wash only full loads of clothes and dishes	11.11***
Very or somewhat likely to wash car less frequently or not at all	7.26***
Very or somewhat likely to water lawn infrequently	5.63***
African-American	4.16***
Lives in large city/urban area or a suburban area	3.5***
Strongly or moderately agree that I don't think I'm wasting water (is a reason for not conserving)	3.28**
Radio is preferred method of receiving info about water resources and water conservation	2.93**
Thinks agricultural users use more than 30% of all water used in Georgia	2.74**
Strongly or moderately agree if I conserve water, it just means that more people will be able to move to my community (is a reason for not conserving)	2.73**
Lives in Chatham County	2.51*
Lives in Meriwether County	2.41*
Household income of \$60,000 or more (pre-tax)	2.29*
Very or somewhat likely to install a rain sensor on irrigation system	2.28*
Lives in Grady County	2.27*
Is not a homeowner	2.22*
18-24 years old	2.1*
Very or somewhat likely to conserve water if had to spend money up-front on water efficient fixtures but were guaranteed long-term cost savings on water bills	2.05*
Says depletion of fossil fuels is one of the most important natural resource issues facing Georgia	2.04*

Most likely to say are very or somewhat likely to not let water run unnecessarily.



<b>Georgia Residents Who Already Wash Only Full Loads of Clothes and Dishes</b>	<b>Z-SCORE</b>
Already does not let water run unnecessarily	10.86***
Already washes car less frequently or not at all	8.71***
Already waters lawn infrequently	8.47***
Wife usually opens water bill	3.71***
Always makes effort to conserve water	3.05**
Is a homeowner	2.93**
Knowledge that water is a limited resource would make him/her very or somewhat likely to conserve water	2.89**
Lives in Cobb County	2.71**
Is a member of an environmental organization	2.48*
Strongly or moderately disagree that farming uses too much water (is a reason for not conserving)	2.44*
Strongly or moderately disagree that I don't think my actions will make a difference (is a reason for not conserving)	2.4*
Receives water usage tips with water bill	2.38*
Strongly or moderately disagree that industry uses too much water (is a reason for not conserving)	2.36*
White	2.36*
35-44 years old	2.27*
Strongly or moderately disagree that it's too expensive to install water conserving fixtures (is a reason for not conserving)	2.22*
Strongly or moderately disagree that I don't think conservation efforts work (is a reason for not conserving)	2.11*
Indicated that watering my plants/garden was one of the top three ways they use water	2.08*
Rebate programs would make him/her very or somewhat likely to adopt water conservation practices	2.02*
Strongly or moderately disagree if I conserve water, it just means that more people will be able to move to my community (is a reason for not conserving)	2.01*

Most likely to say already wash only full loads of clothes and dishes.



<b>Georgia Residents Who Are Very or Somewhat Likely to Wash Only Full Loads of Clothes and Dishes</b>	<b>Z-SCORE</b>
Very or somewhat likely to not let water run unnecessarily	11.11***
Very or somewhat likely to wash car less frequently or not at all	8.09***
Very or somewhat likely to water lawn infrequently	6.7***
18-24 years old	4.57***
African-American	3.29**
Strongly or moderately agree that I don't think my actions will make a difference (is a reason for not conserving)	3.13**
Other family member usually opens water bill	2.93**
Peer pressure from neighbors would make him/her very or somewhat likely to conserve water	2.77**
Lives in Meriwether County	2.73**
Lives in Grady County	2.64**
Is not a homeowner	2.64**
Radio is preferred method of receiving info about water resources and water conservation	2.61**
Has lived in Georgia for 30 or fewer years (median)	2.57*
Not at all likely to water lawn infrequently	2.45*
Strongly or moderately agree that my friends and neighbors aren't conserving water (is a reason for not conserving)	2.42*
Lives in DeKalb County	2.31*
Says water quantity is a very or somewhat important issue facing Georgia	2.3*
Cancer is a health/safety concern	2.28*
Does not receive water usage tips with water bill	2.24*
Rarely makes effort to conserve water	2.2*
Strongly or moderately agree if I conserve water, it just means that more people will be able to move to my community (is a reason for not conserving)	2.2*
Strongly or moderately agree that I don't think I'm wasting water (is a reason for not conserving)	2.17*
Strongly or moderately agree that it's too expensive to install water conserving fixtures (is a reason for not conserving)	2.09*
Landlord usually opens water bill	2.06*
Lives in Fulton County	2.06*
Says quality of wetlands is a very or somewhat important issue facing Georgia	2.05*
Not at all likely to wash car less frequently or not at all	2.01*

Most likely to say are very or somewhat likely to wash only full loads of clothes and dishes.



## **Appendix C: ADDITIONAL ANALYSES (Z-SCORES AND CENSUS DATA)**

Following shows additional analyses that were conducted to compare regional differences in Georgia on a county by county basis regarding attitudes and opinions toward water quality and quantity, participation in, and interest in water conservation measures. The following relationships were discovered upon further analyses of z-score data and census data:

1. Density. Housing Units per Square Miles - Positively Related to (ranked by strength of relationship):
  - Water bill inserts are preferred method of receiving info about water resources and water conservation (Significance = 0\*\*\*and r = 0.418)
  - Makes effort to conserve water because of concerns about water restrictions (Significance = 0\*\*and r = 0.273)
  - Knowledge that the collective actions of individuals can have a significant impact on water conservation would make him/her very or somewhat likely to conserve water (Significance = 0.01\*\*and r = 0.241)
2. Density. People per Square Miles - Positively Related to (ranked by strength of relationship):
  - Water bill inserts are preferred method of receiving info about water resources and water conservation (Significance = 0\*\*\*and r = 0.424)
  - Makes effort to conserve water because of concerns about water restrictions (Significance = 0\*\*and r = 0.27)
  - Knowledge that the collective actions of individuals can have a significant impact on water conservation would make him/her very or somewhat likely to conserve water (Significance = 0.01\*\*and r = 0.248)
3. Housing - Positively Related to (ranked by strength of relationship):
  - Water bill inserts are preferred method of receiving info about water resources and water conservation (Significance = 0\*\*\*and r = 0.343)
  - Rarely or never makes effort to conserve water because doesn't think the govt. does enough (Significance = 0.02\*and r = 0.313)
  - Other family member usually opens water bill (Significance = 0.02\*and r = 0.299)
4. Land Area in Square Miles - Positively Related to (ranked by strength of relationship):
  - Not at all likely to wash car less frequently or not at all (Significance = 0.01\*and r = 0.228)
  - Cancer is a health/safety concern (Significance = 0.03\*and r = 0.214)
5. Males per 100 Females - Positively Related to (ranked by strength of relationship):
  - Says disposal of household garbage and other municipal wastes in landfills is a somewhat or very unimportant issue facing Georgia (Significance = 0.01\*and r = 0.208)
  - Newspapers are preferred method of receiving info about water resources and water conservation (Significance = 0.02\*and r = 0.19)
  - Already waters lawn infrequently (Significance = 0.04\*and r = 0.19)
6. Median age (years) - Positively Related to (ranked by strength of relationship):
  - Not at all likely to install water efficient showerheads (Significance = 0.02\*and r = 0.219)

- Knowledge that he/she was helping to protect wildlife and fisheries would make him/her somewhat or very unlikely to conserve water (Significance = 0.02\*and r = 0.217)
  - Not at all likely to replace current irrigation system with a drip irrigation system for lawn or garden (Significance = 0.05\*and r = 0.188)
7. Median Household Income for 1999 in 2000 Dollars - Positively Related to (ranked by strength of relationship):
- Knowledge that personal health was at stake would make him/her very or somewhat likely to conserve water (Significance = 0.02\*and r = 0.732)
  - Strongly or moderately agrees that he/she can make a difference in water conservation (Significance = 0\*\*\*and r = 0.32)
  - Rarely or never makes effort to conserve water because doesn't think the govt. does enough (Significance = 0.04\*and r = 0.28)
8. Percent 18 and Over - Positively Related to (ranked by strength of relationship):
- Says disposal of household garbage and other municipal wastes in landfills is a somewhat or very unimportant issue facing Georgia (Significance = 0.01\*\*and r = 0.225)
  - Says threatened or endangered species is one of the most important natural resource issues facing Georgia (Significance = 0.01\*\*and r = 0.218)
  - An increase in current water costs would make him/her somewhat or very unlikely to conserve water (Significance = 0.03\*and r = 0.201)
9. Percent 18 to 24 - Positively Related to (ranked by strength of relationship):
- Says U.S. Fish and Wildlife Service is primarily responsible for managing water (Significance = 0\*\*\*and r = 0.354)
  - Rarely or never makes effort to conserve water because doesn't have to pay for it (Significance = 0.02\*and r = 0.327)
  - Disagrees that he/she can make a difference in water conservation because residential users don't use very much water (Significance = 0.04\*and r = 0.265)
10. Percent 25 to 44 - Positively Related to (ranked by strength of relationship):
- Knowledge that personal health was at stake would make him/her very or somewhat likely to conserve water (Significance = 0.04\*and r = 0.699)
  - Strongly or moderately agrees that he/she can make a difference in water conservation (Significance = 0\*\*\*and r = 0.274)
  - Water bill inserts are preferred method of receiving info about water resources and water conservation (Significance = 0\*\*and r = 0.262)
11. Percent 45 to 64 - Positively Related to (ranked by strength of relationship):
- Knowledge that he/she was helping to protect wildlife and fisheries would make him/her somewhat or very unlikely to conserve water (Significance = 0.02\*and r = 0.211)
  - Moderately or strongly opposes statewide water conservation effort (Significance = 0.04\*and r = 0.175)
12. Percent 65 and Over - Positively Related to (ranked by strength of relationship):
- Landlord usually opens water bill (Significance = 0\*\*and r = 0.407)
  - Makes effort to conserve water because of concerns about drought (Significance = 0.02\*and r = 0.197)
  - Not at all likely to install water efficient showerheads (Significance = 0.03\*and r = 0.192)

13. Percent American Indian and Alaskan Native - Positively Related to (ranked by strength of relationship):

- Wife usually opens water bill (Significance = 0.04\*and r = 0.279)
- Makes effort to conserve water because of concerns about water availability (Significance = 0\*\*and r = 0.24)
- Says habitat loss is one of the most important natural resource issues facing Georgia (Significance = 0.02\*and r = 0.194)

14. Percent Asian - Positively Related to (ranked by strength of relationship):

- Rarely or never makes effort to conserve water because doesn't think the govt. does enough (Significance = 0\*\*\*and r = 0.612)
- Water bill inserts are preferred method of receiving info about water resources and water conservation (Significance = 0\*\*\*and r = 0.316)
- Strongly or moderately supports statewide water conservation effort (Significance = 0\*\*\*and r = 0.284)

15. Percent Black or African American - Positively Related to (ranked by strength of relationship):

- Very or somewhat likely to wash only full loads of clothes and dishes (Significance = 0\*\*\*and r = 0.309)
- Husband usually opens water bill (Significance = 0.02\*and r = 0.301)
- Very or somewhat likely to not let water run unnecessarily (Significance = 0\*\*and r = 0.271)

16. Percent Hispanic or Latino (of any race) - Positively Related to (ranked by strength of relationship):

- Rarely or never makes effort to conserve water because doesn't think the govt. does enough (Significance = 0.01\*\*and r = 0.353)
- Rarely or never makes effort to conserve water because doesn't think there is a problem (Significance = 0.05\*and r = 0.271)
- Internet is preferred method of receiving info about water resources and water conservation (Significance = 0\*\*and r = 0.258)

17. Percent Native Hawaiian and Other Pacific Islander - Positively Related to (ranked by strength of relationship):

- Says disposal of household garbage and other municipal wastes in landfills is a somewhat or very unimportant issue facing Georgia (Significance = 0\*\*\*and r = 0.31)
- Birth defects is a health/safety concern (Significance = 0.01\*\*and r = 0.259)
- The possibility of increased watering restrictions being imposed by the state would make him/her somewhat or very unlikely to conserve water (Significance = 0.01\*\*and r = 0.252)

18. Percent Some Other Race - Positively Related to (ranked by strength of relationship):

- Rarely or never makes effort to conserve water because doesn't think there is a problem (Significance = 0.01\*\*and r = 0.362)
- Internet is preferred method of receiving info about water resources and water conservation (Significance = 0\*\*and r = 0.26)
- Future generations getting sick is a health/safety concern (Significance = 0.02\*and r = 0.225)

19. Percent Two or More Races - Positively Related to (ranked by strength of relationship):
  - Says disposal of household garbage and other municipal wastes in landfills is a somewhat or very unimportant issue facing Georgia (Significance = 0\*\*\*and  $r = 0.353$ )
  - Indicated that watering my lawn was one of the top three ways they use water (Significance = 0\*\*and  $r = 0.256$ )
  - Strongly or moderately supports statewide water conservation effort (Significance = 0\*\*and  $r = 0.235$ )
20. Percent Under 18 - Positively Related to (ranked by strength of relationship):
  - Very or somewhat likely to install water efficient washing machines and dishwashers (Significance = 0.02\*and  $r = 0.215$ )
  - Says acid rain is one of the most important natural resource issues facing Georgia (Significance = 0.03\*and  $r = 0.185$ )
  - Indicated that watering my lawn was one of the top three ways they use water (Significance = 0.05\*and  $r = 0.165$ )
21. Percent White - Positively Related to (ranked by strength of relationship):
  - Rarely or never makes effort to conserve water because not concerned about having enough water (Significance = 0.01\*\*and  $r = 0.375$ )
  - Already washes only full loads of clothes and dishes (Significance = 0\*\*\*and  $r = 0.299$ )
  - Has already installed low-flow toilets (Significance = 0\*\*\*and  $r = 0.299$ )
22. Percent White Alone (not Hispanic or Latino) - Positively Related to (ranked by strength of relationship):
  - Rarely or never makes effort to conserve water because not concerned about having enough water (Significance = 0.01\*\*and  $r = 0.363$ )
  - Already washes only full loads of clothes and dishes (Significance = 0\*\*and  $r = 0.296$ )
  - Has already installed low-flow toilets (Significance = 0\*\*and  $r = 0.292$ )
23. Total Area in Square Miles - Positively Related to (ranked by strength of relationship):
  - Not at all likely to wash car less frequently or not at all (Significance = 0.01\*and  $r = 0.223$ )
24. Total Population - Positively Related to (ranked by strength of relationship):
  - Rarely or never makes effort to conserve water because doesn't think the govt. does enough (Significance = 0.01\*\*and  $r = 0.363$ )
  - Water bill inserts are preferred method of receiving info about water resources and water conservation (Significance = 0\*\*\*and  $r = 0.352$ )
  - Other family member usually opens water bill (Significance = 0.04\*and  $r = 0.274$ )
25. Water Area in Square Miles - Positively Related to (ranked by strength of relationship):
  - Daughter usually opens water bill (Significance = 0\*\*\*and  $r = 0.762$ )
  - Information posted on billboards is preferred method of receiving info about water resources and water conservation (Significance = 0\*\*\*and  $r = 0.35$ )
  - Knowledge that the health of his/her children was at stake would make him/her somewhat or very unlikely to conserve water (Significance = 0\*\*\*and  $r = 0.323$ )

**Appendix D: VARIABLES RUN FOR Z-SCORE ANALYSES**

<b>Characteristics That Were Compared Through the Nonparametric Analyses</b>
Says not enough water/water quantity is one of the most important natural resource issues facing Georgia
Says polluted water/water quality is one of the most important natural resource issues facing Georgia
Says acid rain is one of the most important natural resource issues facing Georgia
Says air pollution/air quality is one of the most important natural resource issues facing Georgia
Says urban sprawl/urban development is one of the most important natural resource issues facing Georgia
Says recycling is one of the most important natural resource issues facing Georgia
Says habitat loss is one of the most important natural resource issues facing Georgia
Says habitat fragmentation is one of the most important natural resource issues facing Georgia
Says wildlife health is one of the most important natural resource issues facing Georgia
Says depletion of ozone layer is one of the most important natural resource issues facing Georgia
Says depletion of fossil fuels is one of the most important natural resource issues facing Georgia
Says agricultural runoff is one of the most important natural resource issues facing Georgia
Says industrial pollution is one of the most important natural resource issues facing Georgia
Says threatened or endangered species is one of the most important natural resource issues facing Georgia
Says protection of greenspace is one of the most important natural resource issues facing Georgia
Says air quality is a very or somewhat important issue facing Georgia
Says air quality is a somewhat or very unimportant issue facing Georgia
Says water quality is a very or somewhat important issue facing Georgia
Says water quality is a somewhat or very unimportant issue facing Georgia
Says water quantity is a very or somewhat important issue facing Georgia
Says water quantity is a somewhat or very unimportant issue facing Georgia
Says urban sprawl is a very or somewhat important issue facing Georgia
Says urban sprawl is a somewhat or very unimportant issue facing Georgia
Says disposal of household garbage and other municipal wastes in landfills is a very or somewhat important issue facing Georgia
Says disposal of household garbage and other municipal wastes in landfills is a somewhat or very unimportant issue facing Georgia
Says loss of wildlife habitat is a very or somewhat important issue facing Georgia
Says loss of wildlife habitat is a somewhat or very unimportant issue facing Georgia
Says quality of wetlands is a very or somewhat important issue facing Georgia
Says quality of wetlands is a somewhat or very unimportant issue facing Georgia
Says protection of greenspace is a very or somewhat important issue facing Georgia
Says protection of greenspace is a somewhat or very unimportant issue facing Georgia
Says protection of threatened and endangered species is a very or somewhat important issue facing Georgia
Says protection of threatened and endangered species is a somewhat or very unimportant issue facing Georgia
Says recycling of household products is a very or somewhat important issue facing Georgia
Says recycling of household products is a somewhat or very unimportant issue facing Georgia
Says Georgia's waterways are very or somewhat healthy
Says Georgia's waterways are somewhat or very unhealthy

<b>Characteristics That Were Compared Through the Nonparametric Analyses</b>
Cancer is a health/safety concern
Getting sick is a health/safety concern
Your children getting sick is a health/safety concern
Future generations getting sick is a health/safety concern
Birth defects is a health/safety concern
Is very concerned about water quality in Georgia
Is somewhat concerned about water quality in Georgia
Is not at all concerned about water quality in Georgia
Is concerned about water quality because of health/safety concerns
Is concerned about water quality because of habitat, environmental, spiritual, and/or aesthetic concerns
Is concerned about water quality because of its effect on drinking water
Is very concerned about water quantity in Georgia
Is somewhat concerned about water quantity in Georgia
Is not at all concerned about water quantity in Georgia
Is concerned about water quantity because of water shortages and watering restrictions
Is concerned about water quantity because of environmental concerns
Is concerned about water quantity because of health concerns
Is concerned about water quantity because of concerns for future generations
Is concerned about water quantity because of spiritual/religious concerns
Thinks agriculture/farming uses the most water in Georgia
Thinks residential users use the most water in Georgia
Thinks industry uses the most water in Georgia
Thinks golf courses use the most water in Georgia
Thinks car washes use the most water in Georgia
Thinks public pools use the most water in Georgia
Thinks institutional users use the most water in Georgia
Thinks commercial businesses use the most water in Georgia
Thinks residential users use 44% or less of all water used in Georgia
Thinks residential users use more than 45% of all water used in Georgia
Thinks agricultural users use 29% or less of all water used in Georgia
Thinks agricultural users use more than 30% of all water used in Georgia
Thinks industry uses 29% or less of all water used in Georgia
Thinks industry uses more than 30% of all water used in Georgia
Thinks people use a great deal of water in everyday life
Thinks people use a moderate amount of water in everyday life
Thinks people use a little water in everyday life
Thinks people use no water in everyday life
Indicated that cooking was one of the top three ways they use water
Indicated that laundry was one of the top three ways they use water
Indicated that washing dishes and other household items was one of the top three ways they use water
Indicated that watering my lawn was one of the top three ways they use water
Indicated that watering my plants/garden was one of the top three ways they use water
Indicated that landscaping such as fish ponds was one of the top three ways they use water

<b>Characteristics That Were Compared Through the Nonparametric Analyses</b>
Indicated that washing my car was one of the top three ways they use water
Indicated that taking a shower was one of the top three ways they use water
Indicated that waste disposal (toilet) was one of the top three ways they use water
Indicated that swimming pool was one of the top three ways they use water
Indicated that don't know was one of the top three ways they use water
Always makes effort to conserve water
Sometimes makes effort to conserve water
Rarely makes effort to conserve water
Never makes effort to conserve water
Makes effort to conserve water to save money on water bill
Makes effort to conserve water because of concern about future generations
Makes effort to conserve water because wants to make a difference
Makes effort to conserve water because of concerns about own health
Makes effort to conserve water because of concerns about family's health
Makes effort to conserve water because of concerns about water availability
Makes effort to conserve water because of concerns about drought
Makes effort to conserve water because of concerns about water restrictions
Makes effort to conserve water because of concerns about environment
Makes effort to conserve water because it's the right thing to do
Rarely or never makes effort to conserve water because doesn't have to pay for it
Rarely or never makes effort to conserve water because not concerned about having enough water
Rarely or never makes effort to conserve water because doesn't think there is a problem
Rarely or never makes effort to conserve water because of time constraints
Rarely or never makes effort to conserve water because doesn't think about it
Rarely or never makes effort to conserve water because it costs too much to install water-saving fixtures
Rarely or never makes effort to conserve water because doesn't think the govt. does enough
Rarely or never makes effort to conserve water because doesn't care
Strongly or moderately agrees that he/she can make a difference in water conservation
Moderately or strongly disagrees that he/she can make a difference in water conservation
Disagrees that he/she can make a difference in water conservation because residential users don't use very much water
Disagrees that he/she can make a difference in water conservation because doesn't know what to do
Disagrees that he/she can make a difference in water conservation because doesn't think there is a water quantity problem
Strongly or moderately agrees that water should be conserved when there are not drought conditions and when there is plenty of rain
Moderately or strongly disagrees that water should be conserved when there are not drought conditions and when there is plenty of rain
Says state government in general is primarily responsible for managing water
Says GA Dept. of Natural Resources is primarily responsible for managing water
Says GA Forestry Commission is primarily responsible for managing water
Says GA State Soil and Water Conservation Comm. is primarily responsible for managing water
Says federal government in general is primarily responsible for managing water
Says Environmental Protection Agency is primarily responsible for managing water

<b>Characteristics That Were Compared Through the Nonparametric Analyses</b>
Says National Oceanic & Atmospheric Administration is primarily responsible for managing water
Says National Park Service is primarily responsible for managing water
Says U.S. Fish and Wildlife Service is primarily responsible for managing water
Says U.S. Forest Service is primarily responsible for managing water
Strongly or moderately agrees that the State is doing enough to conserve water in Georgia
Moderately or strongly disagrees that the State is doing enough to conserve water in Georgia
Is a homeowner
Is not a homeowner
Personally receives water bill
Someone else receives water bill
Has a well or cistern
Usually opens the water bill
Usually is not the person to open the water bill
Husband usually opens water bill
Wife usually opens water bill
Son usually opens water bill
Daughter usually opens water bill
Other family member usually opens water bill
Landlord usually opens water bill
Property owner usually opens water bill
Property manager usually opens water bill
Receives water usage tips with water bill
Does not receive water usage tips with water bill
Always or sometimes reads the water usage tips in bill
Rarely or never reads the water usage tips in bill
Was very concerned about trying to follow the 2000-2002 watering restrictions in GA
Was somewhat concerned about trying to follow the 2000-2002 watering restrictions in GA
Was not at all concerned about trying to follow the 2000-2002 watering restrictions in GA
Strongly or moderately supports statewide water conservation effort
Moderately or strongly opposes statewide water conservation effort
Very or somewhat likely to install low-flow toilets
Not at all likely to install low-flow toilets
Has already installed low-flow toilets
Very or somewhat likely to install water saving devices in toilet
Not at all likely to install water saving devices in toilet
Has already installed water saving devices in toilet
Very or somewhat likely to install water efficient showerheads
Not at all likely to install water efficient showerheads
Has already installed water efficient showerheads
Very or somewhat likely to install water efficient hose nozzles for outside garden hoses
Not at all likely to install water efficient hose nozzles for outside garden hoses
Has already installed water efficient hose nozzles for outside garden hoses
Very or somewhat likely to install water efficient washing machines and dishwashers

<b>Characteristics That Were Compared Through the Nonparametric Analyses</b>
Not at all likely to install water efficient washing machines and dishwashers
Has already installed water efficient washing machines and dishwashers
Very or somewhat likely to routinely check fixtures for leaks
Not at all likely to routinely check fixtures for leaks
Already routinely checks fixtures for leaks
Very or somewhat likely to practice drought-tolerant landscaping (xeriscaping)
Not at all likely to practice drought-tolerant landscaping (xeriscaping)
Already practices drought-tolerant landscaping (xeriscaping)
Very or somewhat likely to water lawn infrequently
Not at all likely to water lawn infrequently
Already waters lawn infrequently
Very or somewhat likely to replace current irrigation system with a drip irrigation system for lawn or garden
Not at all likely to replace current irrigation system with a drip irrigation system for lawn or garden
Has already replaced current irrigation system with a drip irrigation system for lawn or garden
Very or somewhat likely to install a rain sensor on irrigation system
Not at all likely to install a rain sensor on irrigation system
Has already installed a rain sensor on irrigation system
Very or somewhat likely to wash only full loads of clothes and dishes
Not at all likely to wash only full loads of clothes and dishes
Already washes only full loads of clothes and dishes
Very or somewhat likely to not let water run unnecessarily
Not at all likely to not let water run unnecessarily
Already does not let water run unnecessarily
Very or somewhat likely to wash car less frequently or not at all
Not at all likely to wash car less frequently or not at all
Already washes car less frequently or not at all
Strongly or moderately agree that there isn't a water quantity problem in Georgia (is a reason for not conserving)
Strongly or moderately disagree that there isn't a water quantity problem in Georgia (is a reason for not conserving)
Strongly or moderately agree that the state government isn't conserving water in Georgia (is a reason for not conserving)
Strongly or moderately disagree that the state government isn't conserving water in Georgia (is a reason for not conserving)
Strongly or moderately agree that the state doesn't have an adequate statewide conservation plan (is a reason for not conserving)
Strongly or moderately disagree that the state doesn't have an adequate statewide conservation plan (is a reason for not conserving)
Strongly or moderately agree that I never get information on whether my conservation efforts are helpful (is a reason for not conserving)
Strongly or moderately disagree that I never get information on whether my conservation efforts are helpful (is a reason for not conserving)
Strongly or moderately agree that I don't think conservation efforts work (is a reason for not conserving)
Strongly or moderately disagree that I don't think conservation efforts work (is a reason for not conserving)

<b>Characteristics That Were Compared Through the Nonparametric Analyses</b>
Strongly or moderately agree that I don't think individual users use that much water (is a reason for not conserving)
Strongly or moderately disagree that I don't think individual users use that much water (is a reason for not conserving)
Strongly or moderately agree that farming uses too much water (is a reason for not conserving)
Strongly or moderately disagree that farming uses too much water (is a reason for not conserving)
Strongly or moderately agree that businesses uses too much water (is a reason for not conserving)
Strongly or moderately disagree that businesses uses too much water (is a reason for not conserving)
Strongly or moderately agree that industry uses too much water (is a reason for not conserving)
Strongly or moderately disagree that industry uses too much water (is a reason for not conserving)
Strongly or moderately agree that institutions (such as government and universities) use too much water (is a reason for not conserving)
Strongly or moderately disagree that institutions (such as government and universities) use too much water (is a reason for not conserving)
Strongly or moderately agree that I don't think my actions will make a difference (is a reason for not conserving)
Strongly or moderately disagree that I don't think my actions will make a difference (is a reason for not conserving)
Strongly or moderately agree that it's too expensive to install water conserving fixtures (is a reason for not conserving)
Strongly or moderately disagree that it's too expensive to install water conserving fixtures (is a reason for not conserving)
Strongly or moderately agree that my friends and neighbors aren't conserving water (is a reason for not conserving)
Strongly or moderately disagree that my friends and neighbors aren't conserving water (is a reason for not conserving)
Strongly or moderately agree that I don't know what I can do to conserve water (is a reason for not conserving)
Strongly or moderately disagree that I don't know what I can do to conserve water (is a reason for not conserving)
Strongly or moderately agree that water is not very expensive (is a reason for not conserving)
Strongly or moderately disagree that water is not very expensive (is a reason for not conserving)
Strongly or moderately agree if I conserve water, it just means that more people will be able to move to my community (is a reason for not conserving)
Strongly or moderately disagree if I conserve water, it just means that more people will be able to move to my community (is a reason for not conserving)
Strongly or moderately agree that I don't think I'm wasting water (is a reason for not conserving)
Strongly or moderately disagree that I don't think I'm wasting water (is a reason for not conserving)
Rebate programs would make him/her very or somewhat likely to adopt water conservation practices
Rebate programs would make him/her somewhat or very unlikely to adopt water conservation practices
Free water audits would make him/her very or somewhat likely to adopt water conservation practices
Free water audits would make him/her somewhat or very unlikely to adopt water conservation practices
Free water conservation items would make him/her very or somewhat likely to adopt water conservation practices
Free water conservation items would make him/her somewhat or very unlikely to adopt water conservation practices
Conservation pricing would make him/her very or somewhat likely to adopt water conservation practices

<b>Characteristics That Were Compared Through the Nonparametric Analyses</b>
Conservation pricing would make him/her somewhat or very unlikely to adopt water conservation practices
An increase in current water costs would make him/her very or somewhat likely to conserve water
An increase in current water costs would make him/her somewhat or very unlikely to conserve water
Imposition of a financial penalty for using water inappropriately would make him/her very or somewhat likely to conserve water
Imposition of a financial penalty for using water inappropriately would make him/her somewhat or very unlikely to conserve water
Receiving info about things to do to conserve water would make him/her very or somewhat likely to conserve water
Receiving info about things to do to conserve water would make him/her somewhat or very unlikely to conserve water
Peer pressure from neighbors would make him/her very or somewhat likely to conserve water
Peer pressure from neighbors would make him/her somewhat or very unlikely to conserve water
Pressure from children would make him/her very or somewhat likely to conserve water
Pressure from children would make him/her somewhat or very unlikely to conserve water
Knowledge that he/she was helping to protect wildlife and fisheries would make him/her very or somewhat likely to conserve water
Knowledge that he/she was helping to protect wildlife and fisheries would make him/her somewhat or very unlikely to conserve water
Knowledge that he/she was helping to improve water-based recreational opportunities would make him/her very or somewhat likely to conserve water
Knowledge that he/she was helping to improve water-based recreational opportunities would make him/her somewhat or very unlikely to conserve water
The possibility of increased watering restrictions being imposed by the state would make him/her very or somewhat likely to conserve water
The possibility of increased watering restrictions being imposed by the state would make him/her somewhat or very unlikely to conserve water
Knowledge that the collective actions of individuals can have a significant impact on water conservation would make him/her very or somewhat likely to conserve water
Knowledge that the collective actions of individuals can have a significant impact on water conservation would make him/her somewhat or very unlikely to conserve water
Knowledge that water is a limited resource would make him/her very or somewhat likely to conserve water
Knowledge that water is a limited resource would make him/her somewhat or very unlikely to conserve water
Knowledge that a severe water supply crisis could happen during lifetime would make him/her very or somewhat likely to conserve water
Knowledge that a severe water supply crisis could happen during lifetime would make him/her somewhat or very unlikely to conserve water
Knowledge that the health of his/her children was at stake would make him/her very or somewhat likely to conserve water
Knowledge that the health of his/her children was at stake would make him/her somewhat or very unlikely to conserve water
Knowledge that he/she could help protect the quality of life for future generations would make him/her very or somewhat likely to conserve water
Knowledge that he/she could help protect the quality of life for future generations would make him/her somewhat or very unlikely to conserve water
Knowledge that the health of the environment was at stake would make him/her very or somewhat likely to conserve water

<b>Characteristics That Were Compared Through the Nonparametric Analyses</b>
Knowledge that the health of the environment was at stake would make him/her somewhat or very unlikely to conserve water
Knowledge that personal health was at stake would make him/her very or somewhat likely to conserve water
Knowledge that personal health was at stake would make him/her somewhat or very unlikely to conserve water
Knowledge that he/she could save money on water bill would make him/her very or somewhat likely to conserve water
Knowledge that he/she could save money on water bill would make him/her somewhat or very unlikely to conserve water
Very or somewhat likely to conserve water if had to spend money up-front on water efficient fixtures but were guaranteed long-term cost savings on water bills
Somewhat or very unlikely to conserve water if had to spend money up-front on water efficient fixtures but were guaranteed long-term cost savings on water bills
Newspapers are preferred method of receiving info about water resources and water conservation
TV is preferred method of receiving info about water resources and water conservation
Radio is preferred method of receiving info about water resources and water conservation
Magazines are preferred method of receiving info about water resources and water conservation
Brochures mailed to house are preferred method of receiving info about water resources and water conservation
Water bill inserts are preferred method of receiving info about water resources and water conservation
Information posted on billboards is preferred method of receiving info about water resources and water conservation
Demonstrations are preferred method of receiving info about water resources and water conservation
Public meetings or forums are preferred method of receiving info about water resources and water conservation
Information fairs at malls or parks are preferred method of receiving info about water resources and water conservation
School or classroom discussions are preferred method of receiving info about water resources and water conservation
The Weather Channel is preferred method of receiving info about water resources and water conservation
Internet is preferred method of receiving info about water resources and water conservation
Listserves are preferred method of receiving info about water resources and water conservation
Free water audits and water conservation demonstrations are preferred method of receiving info about water resources and water conservation
Lives in large city/urban area or a suburban area
Lives in a small city/town or a rural area
Lives on a farm or ranch
Does not live on a farm or ranch
Has lived in Georgia for 30 or fewer years (median)
Has lived in Georgia for more than 30 years (median)
Was born in Georgia
Was not born in Georgia
Lives in Appling County
Lives in Atkinson County
Lives in Bacon County

<b>Characteristics That Were Compared Through the Nonparametric Analyses</b>
Lives in Baker County
Lives in Baldwin County
Lives in Banks County
Lives in Barrow County
Lives in Bartow County
Lives in Ben Hill County
Lives in Berrien County
Lives in Bibb County
Lives in Bleckley County
Lives in Brantley County
Lives in Brooks County
Lives in Bryan County
Lives in Bulloch County
Lives in Burke County
Lives in Butts County
Lives in Calhoun County
Lives in Camden County
Lives in Candler County
Lives in Carroll County
Lives in Catoosa County
Lives in Charlton County
Lives in Chatham County
Lives in Chattahoochee County
Lives in Chattooga County
Lives in Cherokee County
Lives in Clarke County
Lives in Clay County
Lives in Clayton County
Lives in Clinch County
Lives in Cobb County
Lives in Coffee County
Lives in Colquitt County
Lives in Columbia County
Lives in Cook County
Lives in Coweta County
Lives in Crawford County
Lives in Crisp County
Lives in Dade County
Lives in Dawson County
Lives in Decatur County
Lives in DeKalb County
Lives in Dodge County
Lives in Dooly County

<b>Characteristics That Were Compared Through the Nonparametric Analyses</b>
Lives in Dougherty County
Lives in Douglas County
Lives in Early County
Lives in Echols County
Lives in Effingham County
Lives in Elbert County
Lives in Emanuel County
Lives in Evans County
Lives in Fannin County
Lives in Fayette County
Lives in Floyd County
Lives in Forsyth County
Lives in Franklin County
Lives in Fulton County
Lives in Gilmer County
Lives in Glascock County
Lives in Glynn County
Lives in Gordon County
Lives in Grady County
Lives in Greene County
Lives in Gwinnett County
Lives in Habersham County
Lives in Hall County
Lives in Hancock County
Lives in Haralson County
Lives in Harris County
Lives in Hart County
Lives in Heard County
Lives in Henry County
Lives in Houston County
Lives in Irwin County
Lives in Jackson County
Lives in Jasper County
Lives in Jeff Davis County
Lives in Jefferson County
Lives in Jenkins County
Lives in Johnson County
Lives in Jones County
Lives in Lamar County
Lives in Lanier County
Lives in Laurens County
Lives in Lee County
Lives in Liberty County

<b>Characteristics That Were Compared Through the Nonparametric Analyses</b>
Lives in Lincoln County
Lives in Long County
Lives in Lowndes County
Lives in Lumpkin County
Lives in McDuffie County
Lives in McIntosh County
Lives in Macon County
Lives in Madison County
Lives in Marion County
Lives in Meriwether County
Lives in Miller County
Lives in Mitchell County
Lives in Monroe County
Lives in Montgomery County
Lives in Morgan County
Lives in Murray County
Lives in Muscogee County
Lives in Newton County
Lives in Oconee County
Lives in Oglethorpe County
Lives in Paulding County
Lives in Peach County
Lives in Pickens County
Lives in Pierce County
Lives in Pike County
Lives in Polk County
Lives in Pulaski County
Lives in Putnam County
Lives in Quitman County
Lives in Rabun County
Lives in Randolph County
Lives in Richmond County
Lives in Rockdale County
Lives in Schley County
Lives in Screven County
Lives in Seminole County
Lives in Spalding County
Lives in Stephens County
Lives in Stewart County
Lives in Sumter County
Lives in Talbot County
Lives in Taliaferro County
Lives in Tattnall County

<b>Characteristics That Were Compared Through the Nonparametric Analyses</b>
Lives in Taylor County
Lives in Telfair County
Lives in Terrell County
Lives in Thomas County
Lives in Tift County
Lives in Toombs County
Lives in Towns County
Lives in Treutlen County
Lives in Troup County
Lives in Turner County
Lives in Twiggs County
Lives in Union County
Lives in Upson County
Lives in Walker County
Lives in Walton County
Lives in Ware County
Lives in Warren County
Lives in Washington County
Lives in Wayne County
Lives in Webster County
Lives in Wheeler County
Lives in White County
Lives in Whitfield County
Lives in Wilcox County
Lives in Wilkes County
Lives in Wilkinson County
Lives in Worth County
Owns 1 acre or less (median)
Owns more than 1 acre (median)
Is part of a neighborhood association
Is not part of a neighborhood association
Is a member of an environmental organization
Is a member of a conservation organization
Is a member of a sportsmen's organization
No college experience
College experience, with or without obtaining an Associate's or Bachelor's degree
Has graduate or professional degree
Hispanic
White
African-American
Native American
Asian-American
Household income of less than \$60,000 (pre-tax)

<b>Characteristics That Were Compared Through the Nonparametric Analyses</b>
Household income of \$60,000 or more (pre-tax)
Works in agriculture
Works in city government
Works in construction
Works in county government
Works in education
Works in federal government
Is a homemaker
Works in manufacturing
Works in mining
Works for nonprofit organization
Works in retail/wholesale sales
Works in state government
Is a student
Works in timber industry
Works in tourism/service
Is unemployed
Under 18 Years old
18-24 years old
25-34 years old
35-44 years old
45-54 years old
55-64 years old
65 years old or older .
Is male
Is female

## Appendix E: SURVEY INSTRUMENT

### 2003 GADNR GA Residents Water Quantity Survey

1. PRESS RETURN WHEN INTERVIEW BEGINS  
START  
TIMER STARTS AFTER THIS SCREEN

2. Time when interview began  
TIME1 1:1-5

3. DOS SURVEY NAME  
SNAME 1:6  
(CHECK ONLY ONE ANSWER)

1. GAH2O

4. Hello, my name is \_\_\_\_\_, and I'm calling on behalf of the Georgia Department of Natural Resources. We are conducting a research project on citizens' attitudes toward natural resource issues and government programs in Georgia. We are not selling anything and would just like to ask you a few questions.

CONPER 1:7-8

(CHECK ONLY ONE ANSWER)

- 1. Correct person, good time to do survey (GO TO QUESTION 7)
- 2. Bad time/schedule recall (CB - do not save) (GO TO QUESTION 5)
- 3. AM, NA, BZ (do not save)
- 4. TM
- 5. RF
- 6. NE
- 7. DS
- 8. BG
- 9. DL
- 10. Bad Number (missing digit, begins with zero, etc.)

SKIP TO QUESTION 157

---

5. When would be a more convenient time to call you back?

Thank you for your time.

WHENCALL

ENTER DAY AND TIME ON CALLSHEET (CB)

SKIP TO QUESTION 157

---

6. YOU DID NOT USE  
YOUR SPACE BAR

NOSPAC98

PRESS ENTER TO TRY AGAIN

7. First, in your opinion, what are the most important natural resource and environmental issues facing the state of Georgia.  
(DNR LIST; CHECK ALL THAT APPLY)

ISSUES 1:9-25

(CHECK ALL THAT APPLY)

- 1. Not enough water/Water quantity
- 2. Polluted water/Water quality
- 3. Acid rain
- 4. Air pollution/Air quality
- 5. Urban sprawl/Urban development
- 6. Recycling
- 7. Habitat loss
- 8. Habitat fragmentation
- 9. Wildlife health
- 10. Depletion of ozone layer
- 11. Depletion of fossil fuels
- 12. Agricultural runoff
- 13. Industrial pollution
- 14. Threatened or endangered species
- 15. Protection of greenspace
- 16. Don't know
- 17. Other

IF (#7 = 0) GO TO #6

IF (#7 @ 17) GO TO #8

SKIP TO QUESTION 9

---

8. ENTER OTHER NATURAL RESOURCE OR ENVIRONMENTAL ISSUE.  
ISSUESST 2:1-240

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9. Next, I am going to read you a list of natural resource and environmental issues facing Georgia, and I would like for you to tell me if you think each is a very important, somewhat important, neither important nor unimportant, somewhat unimportant, or very unimportant issue facing Georgia.

The first issue is AIR QUALITY in Georgia. Do you think it is very important, somewhat important, neither important nor unimportant, somewhat unimportant, very unimportant, or do you not know? (READ SCALE AS NECESSARY; PROMPT FOR DEGREE)

AIRQUAL 2:241

(CHECK ONLY ONE ANSWER)

- 1. Invalid answer. Select another. (GO TO QUESTION 9)
- 2. Very important
- 3. Somewhat important
- 4. Neither important nor unimportant
- 5. Somewhat unimportant
- 6. Very unimportant
- 7. Don't know

10. What about WATER QUALITY? (Do you think it is very important, somewhat important, neither important nor unimportant, somewhat unimportant, very unimportant, or do you not know?)

(READ SCALE AS NECESSARY; PROMPT FOR DEGREE)

H2OQUAL 2:242

(CHECK ONLY ONE ANSWER)

- 1. Invalid answer. Select another. (GO TO QUESTION 10)
- 2. Very important
- 3. Somewhat important
- 4. Neither important nor unimportant
- 5. Somewhat unimportant
- 6. Very unimportant
- 7. Don't know

11. What about WATER QUANTITY? (Do you think it is very important, somewhat important, neither important nor unimportant, somewhat unimportant, very unimportant, or do you not know?)  
(READ SCALE AS NECESSARY; PROMPT FOR DEGREE)  
H2OQUAN 2:243  
(CHECK ONLY ONE ANSWER)

- 1. Invalid answer. Select another. (GO TO QUESTION 11)
- 2. Very important
- 3. Somewhat important
- 4. Neither important nor unimportant
- 5. Somewhat unimportant
- 6. Very unimportant
- 7. Don't know

12. What about land use issues, such as URBAN SPRAWL?  
(Do you think it is very important, somewhat important, neither important nor unimportant, somewhat unimportant, very unimportant, or do you not know?)  
(READ SCALE AS NECESSARY; PROMPT FOR DEGREE)  
LANDUSE 2:244  
(CHECK ONLY ONE ANSWER)

- 1. Invalid answer. Select another. (GO TO QUESTION 12)
- 2. Very important
- 3. Somewhat important
- 4. Neither important nor unimportant
- 5. Somewhat unimportant
- 6. Very unimportant
- 7. Don't know

13. What about DISPOSAL OF HOUSEHOLD GARBAGE AND OTHER MUNICIPAL WASTES IN LANDFILLS? (Do you think it is very important, somewhat important, neither important nor unimportant, somewhat unimportant, very unimportant, or do you not know?)  
(READ SCALE AS NECESSARY; PROMPT FOR DEGREE)

LANDFILL 2:245

(CHECK ONLY ONE ANSWER)

- 1. Invalid answer. Select another. (GO TO QUESTION 13)
- 2. Very important
- 3. Somewhat important
- 4. Neither important nor unimportant
- 5. Somewhat unimportant
- 6. Very unimportant
- 7. Don't know

14. What about LOSS OF WILDLIFE HABITAT? (Do you think it is very important, somewhat important, neither important nor unimportant, somewhat unimportant, very unimportant, or do you not know?)  
(READ SCALE AS NECESSARY; PROMPT FOR DEGREE)

WILDHAB 2:246

(CHECK ONLY ONE ANSWER)

- 1. Invalid answer. Select another. (GO TO QUESTION 14)
- 2. Very important
- 3. Somewhat important
- 4. Neither important nor unimportant
- 5. Somewhat unimportant
- 6. Very unimportant
- 7. Don't know

15. What about the QUALITY OF WETLANDS? (Do you think it is very important, somewhat important, neither important nor unimportant, somewhat unimportant, very unimportant, or do you not know?)  
(READ SCALE AS NECESSARY; PROMPT FOR DEGREE)

WETQUAL 2:247

(CHECK ONLY ONE ANSWER)

- 1. Invalid answer. Select another. (GO TO QUESTION 15)
- 2. Very important
- 3. Somewhat important
- 4. Neither important nor unimportant
- 5. Somewhat unimportant
- 6. Very unimportant
- 7. Don't know

16. What about PROTECTION OF GREENSPACE? (Do you think it is very important, somewhat important, neither important nor unimportant, somewhat unimportant, very unimportant, or do you not know?) (READ SCALE AS NECESSARY; PROMPT FOR DEGREE)

GRNSPACE 2:248

(CHECK ONLY ONE ANSWER)

- 1. Invalid answer. Select another. (GO TO QUESTION 16)
- 2. Very important
- 3. Somewhat important
- 4. Neither important nor unimportant
- 5. Somewhat unimportant
- 6. Very unimportant
- 7. Don't know

17. What about the PROTECTION OF THREATENED AND ENDANGERED SPECIES? (Do you think it is very important, somewhat important, neither important nor unimportant, somewhat unimportant, very unimportant, or do you not know?) (READ SCALE AS NECESSARY; PROMPT FOR DEGREE)

PROTTNE 2:249

(CHECK ONLY ONE ANSWER)

- 1. Invalid answer. Select another. (GO TO QUESTION 17)
- 2. Very important
- 3. Somewhat important
- 4. Neither important nor unimportant
- 5. Somewhat unimportant
- 6. Very unimportant
- 7. Don't know

18. What about RECYCLING OF HOUSEHOLD PRODUCTS? (Do you think it is very important, somewhat important, neither important nor unimportant, somewhat unimportant, very unimportant, or do you not know?) (READ SCALE AS NECESSARY; PROMPT FOR DEGREE)

RECYCLE 2:250

(CHECK ONLY ONE ANSWER)

- 1. Invalid answer. Select another. (GO TO QUESTION 18)
- 2. Very important
- 3. Somewhat important
- 4. Neither important nor unimportant
- 5. Somewhat unimportant
- 6. Very unimportant
- 7. Don't know

19. Next, I'm going to ask some general questions about water resources in Georgia. First, I am going to start with a few questions about water quality and then ask you a few questions about water quantity.

First, do you think that Georgia's waterways, that is rivers, lakes, streams, and underground aquifer are very healthy, somewhat healthy, neither healthy nor unhealthy, somewhat unhealthy, very unhealthy, or do you not know?

(READ SCALE AS NECESSARY; PROMPT FOR DEGREE)

H2OWAYS 3:1

(CHECK ONLY ONE ANSWER)

- 1. Invalid answer. Select another. (GO TO QUESTION 19)
- 2. Very healthy
- 3. Somewhat healthy
- 4. Neither healthy nor unhealthy
- 5. Somewhat unhealthy
- 6. Very unhealthy
- 7. Don't know

20. Would you say that you are very concerned, somewhat concerned, or not at all concerned about water quality in Georgia?  
(READ SCALE AS NECESSARY; PROMPT FOR DEGREE)

QLCNCRN 3:2

(CHECK ONLY ONE ANSWER)

- 1. Invalid answer. Select another. (GO TO QUESTION 20)
- 2. Very concerned (GO TO QUESTION 22)
- 3. Somewhat concerned (GO TO QUESTION 22)
- 4. Not at all concerned
- 5. Don't know

SKIP TO QUESTION 27

=====

21. YOU DID NOT USE  
YOUR SPACE BAR

NOSPAC1

PRESS ENTER TO TRY AGAIN

22. Specifically, why are you concerned about water quality?  
(DNR LIST; CHECK ALL THAT APPLY)

WHYQL 3:3-11

(CHECK ALL THAT APPLY)

- 1. Public health/safety
- 2. Your own health/safety
- 3. Recreation/closed swimming areas
- 4. Fish and wildlife resources
- 5. Maintain natural beauty/for the environment
- 6. Spiritual/religious reasons
- 7. Drinking water
- 8. Don't know
- 9. Other

IF (#22 = 0) GO TO #21

IF (#22 @ 9) GO TO #23

IF (#22 @ 1 OR #22 @ 2) GO TO #25

SKIP TO QUESTION 27

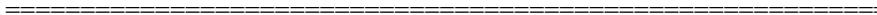
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23. ENTER OTHER REASON FOR CONCERN ABOUT WATER QUALITY.  
WHYQLST 4:1-250

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

IF (#22 @ 1 OR #22 @ 2) GO TO #25

SKIP TO QUESTION 27



24. YOU DID NOT USE  
YOUR SPACE BAR

NOSPAC2

PRESS ENTER TO TRY AGAIN

25. What specifically about health/safety are you concerned about?  
(DNR LIST; CHECK ALL THAT APPLY)

SAFETY 5:1-7

(CHECK ALL THAT APPLY)

- 1. Cancer
- 2. Getting sick
- 3. Your children getting sick
- 4. Future generations getting sick
- 5. Birth defects
- 6. Don't know
- 7. Other

IF (#25 = 0) GO TO #24

IF (#25 @ 7) GO TO #26

SKIP TO QUESTION 27



26. ENTER SPECIFIC CONCERNS ABOUT HEALTH/SAFETY.  
SAFETYST 6:1-250

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

27. Would you say that you are very concerned, somewhat concerned, or not at all concerned about water quantity in Georgia?  
(READ SCALE AS NECESSARY; PROMPT FOR DEGREE)  
QNCNCRN 7:1  
(CHECK ONLY ONE ANSWER)

- 1. Invalid answer. Select another. (GO TO QUESTION 27)
- 2. Very concerned (GO TO QUESTION 29)
- 3. Somewhat concerned (GO TO QUESTION 29)
- 4. Not at all concerned
- 5. Don't know

SKIP TO QUESTION 32

=====

28. YOU DID NOT USE  
YOUR SPACE BAR  
NOSPAC3  
PRESS ENTER TO TRY AGAIN

29. Why are you concerned about water quantity?  
(DNR LIST; CHECK ALL THAT APPLY)  
WHYQN 7:2-10  
(CHECK ALL THAT APPLY)

- 1. Water shortages
- 2. Watering restrictions
- 3. Concern for the environment
- 4. Concern for your own health
- 5. Concern for your family's health
- 6. Concern for future generations
- 7. Spiritual/religious reasons
- 8. Don't know
- 9. Other

IF (#29 = 0) GO TO #28  
IF (#29 @ 9) GO TO #30

SKIP TO QUESTION 32

=====

30. ENTER OTHER REASON FOR CONCERN ABOUT WATER QUANTITY.  
WHYQNST 8:1-250

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

SKIP TO QUESTION 32



31. YOU DID NOT USE  
YOUR SPACE BAR

NOSPAC4

PRESS ENTER TO TRY AGAIN

32. Who do you think uses the most water in Georgia?  
(DNR LIST; CHECK ALL THAT APPLY)

USEMST 9:1-10

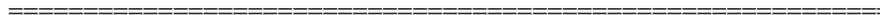
(CHECK ALL THAT APPLY)

- 1. Agriculture/farming
- 2. Residential users
- 3. Industry
- 4. Golf courses
- 5. Car washes
- 6. Public pools
- 7. Institutional users (state/local government & universities, etc.)
- 8. Commercial businesses
- 9. Don't know
- 10. Other

IF (#32 = 0) GO TO #31

IF (#32 @ 10) GO TO #33

SKIP TO QUESTION 34



33. ENTER ENTITY THAT USES THE MOST WATER IN GA.  
USEMSTST 10:1-250

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

34. What percent of all water used in Georgia do you think residential users, that is homeowners and renters, use?  
(ENTER ? FOR DON'T KNOW)

PCTRES 11:1-3

%|\_|\_|\_|

35. What percent of all water used in Georgia do you think agricultural users use? (ENTER ? FOR DON'T KNOW)

PCTAG 11:4-6

%|\_|\_|\_|

36. What percent of all water used in Georgia do you think industry uses? (ENTER ? FOR DON'T KNOW)

PCTIND 11:7-9

%|\_|\_|\_|

37. Do you think people during the course of everyday life use a great deal, a moderate amount, a little, or no water?  
(READ SCALE AS NECESSARY)

CONSUME 11:10

(CHECK ONLY ONE ANSWER)

- 1. Invalid answer. Select another. (GO TO QUESTION 37)
- 2. A great deal
- 3. A moderate amount
- 4. A little
- 5. None
- 6. Don't know

SKIP TO QUESTION 39

=====

38. YOU DID NOT USE  
YOUR SPACE BAR

NOSPAC99

PRESS ENTER TO TRY AGAIN

39. What are the top three ways that you use water?

(DNR LIST; CHECK ALL THAT APPLY)

USEH2O 11:11-22

(CHECK ALL THAT APPLY)

- 1. Cooking
- 2. Laundry
- 3. Washing dishes and other household items
- 4. Watering my lawn
- 5. Watering my plants/garden
- 6. Landscaping such as fish ponds
- 7. Washing my car
- 8. Taking a shower
- 9. Waste disposal (toilet)
- 10. Swimming pool
- 11. Don't know
- 12. Other

IF (#39 = 0) GO TO #38

IF (#39 @ 12) GO TO #40

SKIP TO QUESTION 41



40. ENTER OTHER USE OF WATER.

USEH2OST 12:1-250

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41. Would you say you currently make an effort to conserve water that is, use less water, always, sometimes, rarely, or never?  
(READ SCALE AS NECESSARY)

EFFORT 13:1

(CHECK ONLY ONE ANSWER)

- 1. Invalid answer. Select another. (GO TO QUESTION 41)
- 2. Always (GO TO QUESTION 43)
- 3. Sometimes (GO TO QUESTION 43)
- 4. Rarely (GO TO QUESTION 46)
- 5. Never (GO TO QUESTION 46)
- 6. Don't know

SKIP TO QUESTION 48

=====

42. YOU DID NOT USE  
YOUR SPACE BAR

NOSPAC5

PRESS ENTER TO TRY AGAIN

43. Why do you currently #41 make an effort to conserve water? (DNR LIST; CHECK ALL THAT APPLY)

WHYEFF 13:2-13

(CHECK ALL THAT APPLY)

- 1. Save money on water bill
- 2. I'm concerned about future generations
- 3. I want to make a difference
- 4. I'm concerned about my health
- 5. I'm concerned about my family's health
- 6. I'm concerned about water availability
- 7. I'm concerned about a drought
- 8. I'm concerned about water restrictions
- 9. I'm concerned about the environment
- 10. It's the right thing to do
- 11. Don't know
- 12. Other

IF (#43 = 0) GO TO #42

IF (#43 @ 12) GO TO #44

SKIP TO QUESTION 48

=====

2003 GADNR GA Residents Water Quantity Survey

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44. ENTER OTHER REASON THEY CURRENTLY #41  
 MAKE AN EFFORT TO CONSERVE WATER  
 WHYEFFST 14:1-240

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SKIP TO QUESTION 48

=====

45. YOU DID NOT USE  
 YOUR SPACE BAR

NOSPAC6

PRESS ENTER TO TRY AGAIN

46. Why do you currently #41 make an effort to  
 conserve water? (DNR LIST; CHECK ALL THAT APPLY)  
 NOEFF 14:241-250

(CHECK ALL THAT APPLY)

- 1. Don't have to pay for it
- 2. I'm not concerned about having enough water
- 3. Don't think there is a problem
- 4. I don't have time
- 5. I don't think about it
- 6. It costs too much to install water-saving fixtures
- 7. I don't think that the govt. is doing enough to conserve water
- 8. Don't care
- 9. Don't know
- 10. Other

IF (#46 = 0) GO TO #45

IF (#46 @ 10) GO TO #47

SKIP TO QUESTION 48

=====

47. ENTER OTHER REASON THEY CURRENTLY #41  
MAKE AN EFFORT TO CONSERVE WATER.

NOEFFST 15:1-240

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48. Do you agree or disagree that you can personally make a  
difference in terms of water conservation in Georgia?  
(READ SCALE AS NECESSARY; PROMPT FOR DEGREE)

MAKEDIFF 15:241

(CHECK ONLY ONE ANSWER)

- 1. Invalid answer. Select another. (GO TO QUESTION 48)
- 2. Strongly agree
- 3. Moderately agree
- 4. Neither agree nor disagree
- 5. Moderately disagree (GO TO QUESTION 50)
- 6. Strongly disagree (GO TO QUESTION 50)
- 7. Don't know

SKIP TO QUESTION 52

=====

49. YOU DID NOT USE  
YOUR SPACE BAR

NOSPAC7

PRESS ENTER TO TRY AGAIN

50. Why do you disagree that you can personally make a difference in terms of water conservation in Georgia?  
(DNR LIST; CHECK ALL THAT APPLY)  
NODIFF 15:242-246  
(CHECK ALL THAT APPLY)

1. I/residential users don't use very much water  
 2. I don't know what I can do  
 3. I don't think there is a water quantity problem  
 4. Don't know  
 5. Other

IF (#50 = 0) GO TO #49

IF (#50 @ 5) GO TO #51

SKIP TO QUESTION 52

=====

51. ENTER OTHER REASON FOR DISAGREEING ABOUT MAKING A DIFFERENCE IN TERMS OF WATER CONSERVATION IN GA.  
NODIFFST 16:1-240

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

52. Do you agree or disagree that water should be conserved when there are not drought conditions and when there is plenty of rain? (READ SCALE AS NECESSARY; PROMPT FOR DEGREE)  
TMOPLNTY 16:241  
(CHECK ONLY ONE ANSWER)

1. Invalid answer. Select another. (GO TO QUESTION 52)  
 2. Strongly agree  
 3. Moderately agree  
 4. Neither agree nor disagree  
 5. Moderately disagree  
 6. Strongly disagree  
 7. Don't know

SKIP TO QUESTION 54

=====

53. YOU DID NOT USE  
YOUR SPACE BAR

NOSPAC8

PRESS ENTER TO TRY AGAIN

54. What agency do you think is primarily responsible for managing  
the water you use? (DNR LIST; CHECK ALL THAT APPLY)

WHOH2O 17:1-12

(CHECK ALL THAT APPLY)

- 1. State government in general
- 2. GA Dept. of Natural Resources
- 3. GA Forestry Commission
- 4. GA State Soil and Water Conservation Commission
- 5. Federal government in general
- 6. Environmental Protection Agency
- 7. National Oceanic & Atmospheric Administration
- 8. National Park Service
- 9. U.S. Fish and Wildlife Service
- 10. U.S. Forest Service
- 11. Don't know
- 12. Other

IF (#54 = 0) GO TO #53

IF (#54 @ 12) GO TO #55

SKIP TO QUESTION 56

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55. ENTER OTHER AGENCY RESPONSIBLE FOR MANAGING WATER IN GA.

WHOH2OST 18:1-240

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56. Do you agree or disagree that the State is doing enough to conserve water in Georgia? (READ SCALE AS NECESSARY; PROMPT FOR DEGREE)

STATEJOB 18:241

(CHECK ONLY ONE ANSWER)

- 1. Invalid answer. Select another. (GO TO QUESTION 56)
- 2. Strongly agree
- 3. Moderately agree
- 4. Neither agree nor disagree
- 5. Moderately disagree
- 6. Strongly disagree
- 7. Don't know

57. Are you a homeowner?

OWNHOME 18:242

(CHECK ONLY ONE ANSWER)

- 1. Invalid answer. Select another. (GO TO QUESTION 57)
- 2. Yes
- 3. No
- 4. Don't know

58. Do you receive your water bill, does someone else receive your water bill, such as your landlord, or does your residence have a well or cistern?

GETBILL 18:243

(CHECK ONLY ONE ANSWER)

- 1. Invalid answer. Select another. (GO TO QUESTION 58)
- 2. I receive it
- 3. Someone else/My landlord receives it (GO TO QUESTION 65)
- 4. Have a well or cistern (GO TO QUESTION 65)
- 5. Don't know

59. Are you usually the person to open your water bill?

OPENBILL 18:244

(CHECK ONLY ONE ANSWER)

- 1. Invalid answer. Select another. (GO TO QUESTION 59)
- 2. Yes
- 3. No (GO TO QUESTION 61)
- 4. Don't know

SKIP TO QUESTION 63

=====

60. YOU DID NOT USE  
YOUR SPACE BAR

NOSPAC9

PRESS ENTER TO TRY AGAIN

61. Who usually opens your water bill?

(DNR LIST; CHECK ALL THAT APPLY)

WHOO PN 19:1-10

(CHECK ALL THAT APPLY)

- 1. Husband
- 2. Wife
- 3. Son
- 4. Daughter
- 5. Other family member
- 6. Landlord
- 7. Property owner
- 8. Property manager
- 9. Don't know
- 10. Other

IF (#61 = 0) GO TO #60

IF (#61 @ 10) GO TO #62

SKIP TO QUESTION 63

=====

62. ENTER OTHER PERSON WHO OPENS WATER BILL.  
WHOOPNST 19:11-250

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63. Do you currently receive tips or information  
on water usage with your water bill?

GETTIPS 20:1

(CHECK ONLY ONE ANSWER)

1. Invalid answer. Select another. (GO TO QUESTION 63)  
 2. Yes (GO TO QUESTION 64)  
 3. No  
 4. Don't know

SKIP TO QUESTION 65

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64. Would you say you read the tips or information on  
water usage always, sometimes, rarely, or never?

(READ SCALE AS NECESSARY)

READTIPS 20:2

(CHECK ONLY ONE ANSWER)

1. Invalid answer. Select another. (GO TO QUESTION 64)  
 2. Always  
 3. Sometimes  
 4. Rarely  
 5. Never  
 6. Don't know

65. Overall, were you very concerned, somewhat concerned, or not at all concerned about trying to follow the 2000-2002 watering restrictions in Georgia?  
(READ SCALE AS NECESSARY; PROMPT FOR DEGREE)  
RESTRICT 20:3  
(CHECK ONLY ONE ANSWER)

- 1. Invalid answer. Select another. (GO TO QUESTION 65)
- 2. Very concerned
- 3. Somewhat concerned
- 4. Not at all concerned
- 5. Don't know

66. Next, I'd like to explain to you the following outdoor watering schedule.

In a non-drought situation, people with odd numbered addresses would be allowed to water outdoors on Tuesdays, Thursdays, and Sundays. People with even numbered addresses would be allowed to water outdoors on Mondays, Wednesdays, and Saturdays. No one would be allowed to water outdoors on Fridays.

In a drought situation, the outdoor watering schedule would be based on the severity of the drought. In a level 1 drought, you would be allowed to water outdoors in the morning and evening only. In a level 2 drought, you would only be allowed to water outdoors in the morning. In a level 3 drought, you would be allowed to water outdoors only on the weekend day corresponding to your odd or even numbered address. In a level 4 drought, no watering outdoors would be allowed.

H2OSCHED

PRESS ENTER TO CONTINUE

67. Overall, would you support or oppose this statewide water conservation effort?

(READ SCALE AS NECESSARY; PROMPT FOR DEGREE)

PLANOP 20:4

(CHECK ONLY ONE ANSWER)

- 1. Invalid answer. Select another. (GO TO QUESTION 67)
- 2. Strongly support
- 3. Moderately support
- 4. Neither support nor oppose
- 5. Moderately oppose
- 6. Strongly oppose
- 7. Don't know

68. Next, I am going to read a list of things that can be done to conserve water, and I would like to know if you would be very likely, somewhat likely, or not at all likely to participate in the following measures, or if you already do these things. Also, please tell me if any of these items are not applicable to you.

THNGTODO

PRESS ENTER TO CONTINUE

69. RANDOMIZATION FOR THINGS TO CONSERVE WATER.

RANDTHNG 20:5

(CHECK ONLY ONE ANSWER)

- 1. List 1 (GO TO QUESTION 70)
- 2. List 2 (GO TO QUESTION 77)
- 3. List 1 (GO TO QUESTION 70)
- 4. List 2 (GO TO QUESTION 77)

SKIP TO QUESTION 83

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70. The first item is installing low-flow toilets. Would you be very likely, somewhat likely, or not at all likely to do this, or have you already done this? (READ SCALE AS NECESSARY; PROMPT FOR DEGREE)

LOWFLOW 20:6

(CHECK ONLY ONE ANSWER)

- 1. Invalid answer. Select another. (GO TO QUESTION 70)
- 2. Very likely
- 3. Somewhat likely
- 4. Not at all likely
- 5. Have already done this
- 6. Not applicable
- 7. Don't know

71. What about installing water saving devices in your toilet? Water saving devices include things that are installed in the toilet tank that reduce the amount of water used with each flush.

Would you be very likely, somewhat likely, or not at all likely to do this, or have you already done this? (READ SCALE AS NECESSARY; PROMPT FOR DEGREE)

TOILET 20:7

(CHECK ONLY ONE ANSWER)

- 1. Invalid answer. Select another. (GO TO QUESTION 71)
- 2. Very likely
- 3. Somewhat likely
- 4. Not at all likely
- 5. Have already done this
- 6. Not applicable
- 7. Don't know

72. What about installing water efficient showerheads? Would you be very likely, somewhat likely, or not at all likely to do this, or have you already done this?  
(READ SCALE AS NECESSARY; PROMPT FOR DEGREE)  
SHOWER 20:8  
(CHECK ONLY ONE ANSWER)

- 1. Invalid answer. Select another. (GO TO QUESTION 72)
- 2. Very likely
- 3. Somewhat likely
- 4. Not at all likely
- 5. Have already done this
- 6. Not applicable
- 7. Don't know

73. What about installing water efficient hose nozzles for outside garden hoses? Would you be very likely, somewhat likely, or not at all likely to do this, or have you already done this? (READ SCALE AS NECESSARY; PROMPT FOR DEGREE)  
HOSENOZZ 20:9  
(CHECK ONLY ONE ANSWER)

- 1. Invalid answer. Select another. (GO TO QUESTION 73)
- 2. Very likely
- 3. Somewhat likely
- 4. Not at all likely
- 5. Have already done this
- 6. Not applicable
- 7. Don't know

74. What about installing water efficient washing machines and dishwashers? Would you be very likely, somewhat likely, or not at all likely to do this, or have you already done this?  
(READ SCALE AS NECESSARY; PROMPT FOR DEGREE)  
WASHMACH 20:10  
(CHECK ONLY ONE ANSWER)

- 1. Invalid answer. Select another. (GO TO QUESTION 74)
- 2. Very likely
- 3. Somewhat likely
- 4. Not at all likely
- 5. Have already done this
- 6. Not applicable
- 7. Don't know

75. What about routinely checking fixtures for leaks? Would you be very likely, somewhat likely, or not at all likely to do this, or have you already done this?  
(READ SCALE AS NECESSARY; PROMPT FOR DEGREE)  
CHCKLEAK 20:11  
(CHECK ONLY ONE ANSWER)

- 1. Invalid answer. Select another. (GO TO QUESTION 75)
- 2. Very likely
- 3. Somewhat likely
- 4. Not at all likely
- 5. Have already done this
- 6. Not applicable
- 7. Don't know

76. What about practicing drought-tolerant landscaping (xeriscaping), that is planting plants that don't need a lot of water? Would you be very likely, somewhat likely, or not at all likely to do this, or have you already done this?  
(READ SCALE AS NECESSARY; PROMPT FOR DEGREE)  
XERISCAP 20:12  
(CHECK ONLY ONE ANSWER)

- 1. Invalid answer. Select another. (GO TO QUESTION 76)
- 2. Very likely
- 3. Somewhat likely
- 4. Not at all likely
- 5. Have already done this
- 6. Not applicable
- 7. Don't know

SKIP TO QUESTION 83

=====

77. What about watering your lawn infrequently? Would you be very likely, somewhat likely, or not at all likely to do this, or have you already done this?  
(READ SCALE AS NECESSARY; PROMPT FOR DEGREE)

LAWNLESS 20:13

(CHECK ONLY ONE ANSWER)

- 1. Invalid answer. Select another. (GO TO QUESTION 77)
- 2. Very likely
- 3. Somewhat likely
- 4. Not at all likely
- 5. Have already done this
- 6. Not applicable
- 7. Don't know

78. What about replacing your current irrigation system with a drip irrigation system for your lawn or garden? Would you be very likely, somewhat likely, or not at all likely to do this, or have you already done this?  
(READ SCALE AS NECESSARY; PROMPT FOR DEGREE)

DRIPIRR 20:14

(CHECK ONLY ONE ANSWER)

- 1. Invalid answer. Select another. (GO TO QUESTION 78)
- 2. Very likely
- 3. Somewhat likely
- 4. Not at all likely
- 5. Have already done this
- 6. Not applicable
- 7. Don't know

79. What about installing a rain sensor on your irrigation system? Rain sensors detect natural rainfall and shut the irrigation system off automatically. Would you be very likely, somewhat likely, or not at all likely to do this, or have you already done this?  
(READ SCALE AS NECESSARY; PROMPT FOR DEGREE)  
SENSOR 20:15  
(CHECK ONLY ONE ANSWER)

- 1. Invalid answer. Select another. (GO TO QUESTION 79)
- 2. Very likely
- 3. Somewhat likely
- 4. Not at all likely
- 5. Have already done this
- 6. Not applicable
- 7. Don't know

80. What about only washing full loads of clothes and dishes? Would you be very likely, somewhat likely, or not at all likely to do this, or have you already done this?  
(READ SCALE AS NECESSARY; PROMPT FOR DEGREE)  
FULLLOAD 20:16  
(CHECK ONLY ONE ANSWER)

- 1. Invalid answer. Select another. (GO TO QUESTION 80)
- 2. Very likely
- 3. Somewhat likely
- 4. Not at all likely
- 5. Have already done this
- 6. Not applicable
- 7. Don't know

81. What about not letting water run unnecessarily (for example, while brushing teeth)? Would you be very likely, somewhat likely, or not at all likely to do this, or have you already done this? (READ SCALE AS NECESSARY; PROMPT FOR DEGREE)

LETRUN 20:17

(CHECK ONLY ONE ANSWER)

- 1. Invalid answer. Select another. (GO TO QUESTION 81)
- 2. Very likely
- 3. Somewhat likely
- 4. Not at all likely
- 5. Have already done this
- 6. Not applicable
- 7. Don't know

82. What about washing your car less frequently or not at all? Would you be very likely, somewhat likely, or not at all likely to do this, or have you already done this?

(READ SCALE AS NECESSARY; PROMPT FOR DEGREE)

CARWASH 20:18

(CHECK ONLY ONE ANSWER)

- 1. Invalid answer. Select another. (GO TO QUESTION 82)
- 2. Very likely
- 3. Somewhat likely
- 4. Not at all likely
- 5. Have already done this
- 6. Not applicable
- 7. Don't know

83. Next, I am going to read a list of statements about water conservation, and I'd like to know if you agree or disagree that each one is a reason preventing you from conserving water in Georgia?

H2OCONS

PRESS ENTER TO CONTINUE

84. RANDOMIZATION OF STATEMENTS ABOUT WATER CONSERVATION.

STATRAND 20:19

(CHECK ONLY ONE ANSWER)

- 1. Loop 1 (GO TO QUESTION 85)
- 2. Loop 2 (GO TO QUESTION 93)
- 3. Loop 1 (GO TO QUESTION 85)
- 4. Loop 2 (GO TO QUESTION 93)

SKIP TO QUESTION 102

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85. The first statement is: I don't think there is a WATER QUANTITY problem in Georgia. Do you agree or disagree that this is a reason preventing you from conserving water in Georgia?

(READ SCALE AS NECESSARY; PROMPT FOR DEGREE)

NOPROB 20:20

(CHECK ONLY ONE ANSWER)

- 1. Invalid answer. Select another. (GO TO QUESTION 85)
- 2. Strongly agree
- 3. Moderately agree
- 4. Neither agree nor disagree
- 5. Moderately disagree
- 6. Strongly disagree
- 7. Don't know

86. I don't think the state government itself is doing enough to conserve water. Do you agree or disagree that this is a reason preventing you from conserving water in Georgia?

(READ SCALE AS NECESSARY; PROMPT FOR DEGREE)

STATEGOV 20:21

(CHECK ONLY ONE ANSWER)

- 1. Invalid answer. Select another. (GO TO QUESTION 86)
- 2. Strongly agree
- 3. Moderately agree
- 4. Neither agree nor disagree
- 5. Moderately disagree
- 6. Strongly disagree
- 7. Don't know

87. I don't think the state has an adequate statewide water conservation plan in place. Do you agree or disagree that this is a reason preventing you from conserving water in Georgia? (READ SCALE AS NECESSARY; PROMPT FOR DEGREE)

CONSPLAN 20:22

(CHECK ONLY ONE ANSWER)

- 1. Invalid answer. Select another. (GO TO QUESTION 87)
- 2. Strongly agree
- 3. Moderately agree
- 4. Neither agree nor disagree
- 5. Moderately disagree
- 6. Strongly disagree
- 7. Don't know

88. I never receive any information on whether my water conservation efforts are helpful. Do you agree or disagree that this is a reason preventing you from conserving water in Georgia?

(READ SCALE AS NECESSARY; PROMPT FOR DEGREE)

NOINFO 20:23

(CHECK ONLY ONE ANSWER)

- 1. Invalid answer. Select another. (GO TO QUESTION 88)
- 2. Strongly agree
- 3. Moderately agree
- 4. Neither agree nor disagree
- 5. Moderately disagree
- 6. Strongly disagree
- 7. Don't know

89. I don't think that water conservation efforts work.

Do you agree or disagree that this is a reason preventing you from conserving water in Georgia?

(READ SCALE AS NECESSARY; PROMPT FOR DEGREE)

NOWORK 20:24

(CHECK ONLY ONE ANSWER)

- 1. Invalid answer. Select another. (GO TO QUESTION 89)
- 2. Strongly agree
- 3. Moderately agree
- 4. Neither agree nor disagree
- 5. Moderately disagree
- 6. Strongly disagree
- 7. Don't know

90. I don't think that individuals/residential users use that much water. Do you agree or disagree that this is a reason preventing you from conserving water in Georgia?  
(READ SCALE AS NECESSARY; PROMPT FOR DEGREE)  
RESUSERS 20:25  
(CHECK ONLY ONE ANSWER)

- 1. Invalid answer. Select another. (GO TO QUESTION 90)
- 2. Strongly agree
- 3. Moderately agree
- 4. Neither agree nor disagree
- 5. Moderately disagree
- 6. Strongly disagree
- 7. Don't know

91. I think that agriculture/farming uses too much water. Do you agree or disagree that this is a reason preventing you from conserving water in Georgia?  
(READ SCALE AS NECESSARY; PROMPT FOR DEGREE)  
FARMUSE 20:26  
(CHECK ONLY ONE ANSWER)

- 1. Invalid answer. Select another. (GO TO QUESTION 91)
- 2. Strongly agree
- 3. Moderately agree
- 4. Neither agree nor disagree
- 5. Moderately disagree
- 6. Strongly disagree
- 7. Don't know

92. I think that businesses and commercial establishments use too much water. Do you agree or disagree that this is a reason preventing you from conserving water in Georgia?

(READ SCALE AS NECESSARY; PROMPT FOR DEGREE)

BUSUSE 20:27

(CHECK ONLY ONE ANSWER)

- 1. Invalid answer. Select another. (GO TO QUESTION 92)
- 2. Strongly agree
- 3. Moderately agree
- 4. Neither agree nor disagree
- 5. Moderately disagree
- 6. Strongly disagree
- 7. Don't know

SKIP TO QUESTION 102

=====

93. The first statement is: I think that industry uses too much water. Do you agree or disagree that this is a reason preventing you from conserving water in Georgia?

(READ SCALE AS NECESSARY; PROMPT FOR DEGREE)

INDUSE 20:28

(CHECK ONLY ONE ANSWER)

- 1. Invalid answer. Select another. (GO TO QUESTION 93)
- 2. Strongly agree
- 3. Moderately agree
- 4. Neither agree nor disagree
- 5. Moderately disagree
- 6. Strongly disagree
- 7. Don't know

94. I think that institutional users, such as state/local governments and universities, use too much water. Do you agree or disagree that this is a reason preventing you from conserving water in Georgia? (READ SCALE AS NECESSARY; PROMPT FOR DEGREE)

INSTUSE 20:29

(CHECK ONLY ONE ANSWER)

- 1. Invalid answer. Select another. (GO TO QUESTION 94)
- 2. Strongly agree
- 3. Moderately agree
- 4. Neither agree nor disagree
- 5. Moderately disagree
- 6. Strongly disagree
- 7. Don't know

95. I don't think that my actions will make a difference.

Do you agree or disagree that this is a reason preventing you from conserving water in Georgia?

(READ SCALE AS NECESSARY; PROMPT FOR DEGREE)

MYACT 20:30

(CHECK ONLY ONE ANSWER)

- 1. Invalid answer. Select another. (GO TO QUESTION 95)
- 2. Strongly agree
- 3. Moderately agree
- 4. Neither agree nor disagree
- 5. Moderately disagree
- 6. Strongly disagree
- 7. Don't know

96. It is too expensive to install water conserving fixtures.

Do you agree or disagree that this is a reason preventing you from conserving water in Georgia?

(READ SCALE AS NECESSARY; PROMPT FOR DEGREE)

FIXTCOST 20:31

(CHECK ONLY ONE ANSWER)

- 1. Invalid answer. Select another. (GO TO QUESTION 96)
- 2. Strongly agree
- 3. Moderately agree
- 4. Neither agree nor disagree
- 5. Moderately disagree
- 6. Strongly disagree
- 7. Don't know

97. My neighbors and friends are not doing anything to conserve water. Do you agree or disagree that this is a reason preventing you from conserving water in Georgia?  
(READ SCALE AS NECESSARY; PROMPT FOR DEGREE)  
NEIGHBOR 20:32  
(CHECK ONLY ONE ANSWER)

- 1. Invalid answer. Select another. (GO TO QUESTION 97)
- 2. Strongly agree
- 3. Moderately agree
- 4. Neither agree nor disagree
- 5. Moderately disagree
- 6. Strongly disagree
- 7. Don't know

98. I don't know what I can do to conserve water. Do you agree or disagree that this is a reason preventing you from conserving water in Georgia?  
(READ SCALE AS NECESSARY; PROMPT FOR DEGREE)  
DONTKNOW 20:33  
(CHECK ONLY ONE ANSWER)

- 1. Invalid answer. Select another. (GO TO QUESTION 98)
- 2. Strongly agree
- 3. Moderately agree
- 4. Neither agree nor disagree
- 5. Moderately disagree
- 6. Strongly disagree
- 7. Don't know

99. Water is not very expensive - it doesn't cost me very much. Do you agree or disagree that this is a reason preventing you from conserving water in Georgia?  
(READ SCALE AS NECESSARY; PROMPT FOR DEGREE)  
NOTEXP 20:34  
(CHECK ONLY ONE ANSWER)

- 1. Invalid answer. Select another. (GO TO QUESTION 99)
- 2. Strongly agree
- 3. Moderately agree
- 4. Neither agree nor disagree
- 5. Moderately disagree
- 6. Strongly disagree
- 7. Don't know

100. If I conserve water, it just means more people will be able to move to my community. Do you agree or disagree that this is a reason preventing you from conserving water in Georgia?  
(READ SCALE AS NECESSARY; PROMPT FOR DEGREE)

MOREPPL 20:35

(CHECK ONLY ONE ANSWER)

- 1. Invalid answer. Select another. (GO TO QUESTION 100)
- 2. Strongly agree
- 3. Moderately agree
- 4. Neither agree nor disagree
- 5. Moderately disagree
- 6. Strongly disagree
- 7. Don't know

101. I don't think I am wasting water. Do you agree or disagree that this is a reason preventing you from conserving water in Georgia?  
(READ SCALE AS NECESSARY; PROMPT FOR DEGREE)

NOTWASTE 20:36

(CHECK ONLY ONE ANSWER)

- 1. Invalid answer. Select another. (GO TO QUESTION 101)
- 2. Strongly agree
- 3. Moderately agree
- 4. Neither agree nor disagree
- 5. Moderately disagree
- 6. Strongly disagree
- 7. Don't know

102. Now I am going to read a list of incentives to conserve water, and I would like to know if these incentives would make you likely or unlikely to adopt water conservation practices.

First, would rebate programs make you likely or unlikely to adopt water conservation practices? For instance, if you were to install an efficient water conservation system such as water saving toilets and washing machines you would receive money back from the state. (READ SCALE AS NECESSARY; PROMPT FOR DEGREE)

REBATE 20:37

(CHECK ONLY ONE ANSWER)

- 1. Invalid answer. Select another. (GO TO QUESTION 102)
- 2. Very likely
- 3. Somewhat likely
- 4. Neither likely nor unlikely
- 5. Somewhat unlikely
- 6. Very unlikely
- 7. Don't know

103. Would free water audits make you likely or unlikely to adopt water conservation practices? A free water audit is a survey you can take to assess your current water use at home, and the results can show you ways to incorporate water conservation measures into your home.

(READ SCALE AS NECESSARY; PROMPT FOR DEGREE)

H2OAUDIT 20:38

(CHECK ONLY ONE ANSWER)

- 1. Invalid answer. Select another. (GO TO QUESTION 103)
- 2. Very likely
- 3. Somewhat likely
- 4. Neither likely nor unlikely
- 5. Somewhat unlikely
- 6. Very unlikely
- 7. Don't know

104. Would free water conservation items make you likely or unlikely to adopt water conservation practices? Examples of these items are water-efficient showerheads, faucet devices, and hose nozzles. (READ SCALE AS NECESSARY; PROMPT FOR DEGREE)

FREEKITS 20:39

(CHECK ONLY ONE ANSWER)

- 1. Invalid answer. Select another. (GO TO QUESTION 104)
- 2. Very likely
- 3. Somewhat likely
- 4. Neither likely nor unlikely
- 5. Somewhat unlikely
- 6. Very unlikely
- 7. Don't know

105. Would conservation pricing make you likely or unlikely to adopt water conservation practices? Water conservation pricing is a formula used by the utility company to determine how much water you or your family should use based on the size of your family and charging you more if you use too much water and giving you a break if you use less water.

(READ SCALE AS NECESSARY; PROMPT FOR DEGREE)

CNSPRICE 20:40

(CHECK ONLY ONE ANSWER)

- 1. Invalid answer. Select another. (GO TO QUESTION 105)
- 2. Very likely
- 3. Somewhat likely
- 4. Neither likely nor unlikely
- 5. Somewhat unlikely
- 6. Very unlikely
- 7. Don't know

106. Next, I would like to know if any of the following incentives or penalties would make you likely or unlikely to conserve water.

NCNTIV

PRESS ENTER TO CONTINUE

## 107. RANDOMIZATION FOR INCENTIVES

NCNTRND 20:41

(CHECK ONLY ONE ANSWER)

- 1. Loop 1 (GO TO QUESTION 108)
- 2. Loop 2 (GO TO QUESTION 117)
- 3. Loop 1 (GO TO QUESTION 108)
- 4. Loop 2 (GO TO QUESTION 117)

SKIP TO QUESTION 126

108. First, would an increase in your current water costs  
make you likely or unlikely to conserve water?

(READ SCALE AS NECESSARY; PROMPT FOR DEGREE)

INCCOST 20:42

(CHECK ONLY ONE ANSWER)

- 1. Invalid answer. Select another. (GO TO QUESTION 108)
- 2. Very likely
- 3. Somewhat likely
- 4. Neither likely nor unlikely
- 5. Somewhat unlikely
- 6. Very unlikely
- 7. Don't know

109. What if a financial penalty would be imposed if you used  
water inappropriately? Would this make you likely or unlikely  
to conserve water? (READ SCALE AS NECESSARY; PROMPT FOR DEGREE)

INAPPUSE 20:43

(CHECK ONLY ONE ANSWER)

- 1. Invalid answer. Select another. (GO TO QUESTION 109)
- 2. Very likely
- 3. Somewhat likely
- 4. Neither likely nor unlikely
- 5. Somewhat unlikely
- 6. Very unlikely
- 7. Don't know

110. What if you received information and education about the types of things you can do to conserve water? Would this make you likely or unlikely to conserve water?  
(READ SCALE AS NECESSARY; PROMPT FOR DEGREE)  
CONSED 20:44  
(CHECK ONLY ONE ANSWER)

- 1. Invalid answer. Select another. (GO TO QUESTION 110)
- 2. Very likely
- 3. Somewhat likely
- 4. Neither likely nor unlikely
- 5. Somewhat unlikely
- 6. Very unlikely
- 7. Don't know

111. What about peer pressure from your neighbors? Would this make you likely or unlikely to conserve water?  
(READ SCALE AS NECESSARY; PROMPT FOR DEGREE)  
PEERPRSR 20:45  
(CHECK ONLY ONE ANSWER)

- 1. Invalid answer. Select another. (GO TO QUESTION 111)
- 2. Very likely
- 3. Somewhat likely
- 4. Neither likely nor unlikely
- 5. Somewhat unlikely
- 6. Very unlikely
- 7. Don't know

112. What about pressure from children? Would this make you likely or unlikely to conserve water?  
(READ SCALE AS NECESSARY; PROMPT FOR DEGREE)  
CHLDPRSR 20:46  
(CHECK ONLY ONE ANSWER)

- 1. Invalid answer. Select another. (GO TO QUESTION 112)
- 2. Very likely
- 3. Somewhat likely
- 4. Neither likely nor unlikely
- 5. Somewhat unlikely
- 6. Very unlikely
- 7. Don't know

113. What if you knew you were helping to protect wildlife and fisheries? Would this make you likely or unlikely to conserve water? (READ SCALE AS NECESSARY; PROMPT FOR DEGREE)

PROTFNW 20:47

(CHECK ONLY ONE ANSWER)

- 1. Invalid answer. Select another. (GO TO QUESTION 113)
- 2. Very likely
- 3. Somewhat likely
- 4. Neither likely nor unlikely
- 5. Somewhat unlikely
- 6. Very unlikely
- 7. Don't know

114. What if you knew that you were helping to improve water-based recreational opportunities, like swimming, boating activities and fishing? Would this make you likely or unlikely to conserve water? (READ SCALE AS NECESSARY; PROMPT FOR DEGREE)

RECOPP 20:48

(CHECK ONLY ONE ANSWER)

- 1. Invalid answer. Select another. (GO TO QUESTION 114)
- 2. Very likely
- 3. Somewhat likely
- 4. Neither likely nor unlikely
- 5. Somewhat unlikely
- 6. Very unlikely
- 7. Don't know

115. What if there was a possibility of increased watering restrictions being imposed by the state? Would this make you likely or unlikely to conserve water?

(READ SCALE AS NECESSARY; PROMPT FOR DEGREE)

INCRESTR 20:49

(CHECK ONLY ONE ANSWER)

- 1. Invalid answer. Select another. (GO TO QUESTION 115)
- 2. Very likely
- 3. Somewhat likely
- 4. Neither likely nor unlikely
- 5. Somewhat unlikely
- 6. Very unlikely
- 7. Don't know

116. Would you be likely or unlikely to conserve water if you knew the collective actions of individuals like yourself can have a significant impact on water conservation?  
(READ SCALE AS NECESSARY; PROMPT FOR DEGREE)  
IMPACT 20:50  
(CHECK ONLY ONE ANSWER)

- 1. Invalid answer. Select another. (GO TO QUESTION 116)
- 2. Very likely
- 3. Somewhat likely
- 4. Neither likely nor unlikely
- 5. Somewhat unlikely
- 6. Very unlikely
- 7. Don't know

SKIP TO QUESTION 126

=====

117. First, would you be likely or unlikely to conserve water if you knew water is a limited resource?  
(READ SCALE AS NECESSARY; PROMPT FOR DEGREE)  
LIMITED 20:51  
(CHECK ONLY ONE ANSWER)

- 1. Invalid answer. Select another. (GO TO QUESTION 117)
- 2. Very likely
- 3. Somewhat likely
- 4. Neither likely nor unlikely
- 5. Somewhat unlikely
- 6. Very unlikely
- 7. Don't know

118. Would you be likely or unlikely to conserve water if you knew a severe water supply crisis could happen during your lifetime? (READ SCALE AS NECESSARY; PROMPT FOR DEGREE)  
CRISIS 20:52  
(CHECK ONLY ONE ANSWER)

- 1. Invalid answer. Select another. (GO TO QUESTION 118)
- 2. Very likely
- 3. Somewhat likely
- 4. Neither likely nor unlikely
- 5. Somewhat unlikely
- 6. Very unlikely
- 7. Don't know

119. Would you be likely or unlikely to conserve water if you knew the health of your children was at stake?  
(READ SCALE AS NECESSARY; PROMPT FOR DEGREE)  
CHLDHLTH 20:53  
(CHECK ONLY ONE ANSWER)

- 1. Invalid answer. Select another. (GO TO QUESTION 119)
- 2. Very likely
- 3. Somewhat likely
- 4. Neither likely nor unlikely
- 5. Somewhat unlikely
- 6. Very unlikely
- 7. Don't know

120. Would you be likely or unlikely to conserve water if you knew you could help protect the quality of life for future generations? (READ SCALE AS NECESSARY; PROMPT FOR DEGREE)  
FUTURE 20:54  
(CHECK ONLY ONE ANSWER)

- 1. Invalid answer. Select another. (GO TO QUESTION 120)
- 2. Very likely
- 3. Somewhat likely
- 4. Neither likely nor unlikely
- 5. Somewhat unlikely
- 6. Very unlikely
- 7. Don't know

121. Would you be likely or unlikely to conserve water if you knew the health of the environment was at stake?  
(READ SCALE AS NECESSARY; PROMPT FOR DEGREE)  
ENVHLTH 20:55  
(CHECK ONLY ONE ANSWER)

- 1. Invalid answer. Select another. (GO TO QUESTION 121)
- 2. Very likely
- 3. Somewhat likely
- 4. Neither likely nor unlikely
- 5. Somewhat unlikely
- 6. Very unlikely
- 7. Don't know

122. Would you be likely or unlikely to conserve water if you knew your personal health was at stake?  
(READ SCALE AS NECESSARY; PROMPT FOR DEGREE)  
OWNHLTH 20:56  
(CHECK ONLY ONE ANSWER)

- 1. Invalid answer. Select another. (GO TO QUESTION 122)
- 2. Very likely
- 3. Somewhat likely
- 4. Neither likely nor unlikely
- 5. Somewhat unlikely
- 6. Very unlikely
- 7. Don't know

123. Would you be likely or unlikely to conserve water if you knew you could save money on your water bill?  
(READ SCALE AS NECESSARY; PROMPT FOR DEGREE)  
SAVEMNY 20:57  
(CHECK ONLY ONE ANSWER)

- 1. Invalid answer. Select another. (GO TO QUESTION 123)
- 2. Very likely
- 3. Somewhat likely
- 4. Neither likely nor unlikely
- 5. Somewhat unlikely
- 6. Very unlikely
- 7. Don't know

124. Would you be likely or unlikely to conserve water if you knew you had to spend money up-front on water efficient fixtures but were guaranteed long-term cost savings on your water bills?  
(READ SCALE AS NECESSARY; PROMPT FOR DEGREE)

UPFRONT 20:58

(CHECK ONLY ONE ANSWER)

- 1. Invalid answer. Select another. (GO TO QUESTION 124)
- 2. Very likely
- 3. Somewhat likely
- 4. Neither likely nor unlikely
- 5. Somewhat unlikely
- 6. Very unlikely
- 7. Don't know

SKIP TO QUESTION 126

=====

125. YOU DID NOT USE  
YOUR SPACE BAR

NOSPAC10

PRESS ENTER TO TRY AGAIN

126. What are your preferred methods of receiving information about water resources and things you can do to conserve water? (DNR LIST; CHECK ALL THAT APPLY)

GETINF 20:59-75

(CHECK ALL THAT APPLY)

- 1. Newspapers
- 2. TV
- 3. Radio
- 4. Magazines
- 5. Brochures mailed to your house
- 6. Water bill inserts
- 7. Information posted on billboards
- 8. Demonstrations
- 9. Public meetings or forums
- 10. Information fairs at malls or parks
- 11. School or classroom discussions
- 12. The Weather Channel
- 13. Internet/WWW
- 14. Listservs
- 15. Free water audits and water conservation demonstrations
- 16. Don't know
- 17. Other

IF (#126 = 0) GO TO #125

IF (#126 @ 17) GO TO #127

SKIP TO QUESTION 128

=====

127. ENTER OTHER METHOD OF RECEIVING INFORMATION.

GETINFST 21:1-240

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128. Great! We are just about through. The final questions are for background information and help us analyze the results.

DEMO

PLEASE PRESS ENTER TO CONTINUE...

129. Do you consider your place of residence to be a large city or urban area, a suburban area, a small city or town, or a rural area? (READ LIST AS NECESSARY)

RESIDE 21:241

(CHECK ONLY ONE ANSWER)

- 1. Invalid answer. Select another. (GO TO QUESTION 129)
- 2. Large city or urban area
- 3. Suburban area
- 4. Small city or town
- 5. Rural area (GO TO QUESTION 130)
- 6. DNR: REFUSED

SKIP TO QUESTION 131

=====

130. Do you live on a farm or ranch?

FARM 21:242

(CHECK ONLY ONE ANSWER)

- 1. Invalid answer. Select another. (GO TO QUESTION 130)
- 2. Yes
- 3. No
- 4. Don't know

131. How long have you lived in Georgia?

(ENTER 888 FOR REFUSED; 1 FOR LESS THAN ONE YEAR)

YRSLIVE 21:243-245

\_\_\_\_ years

LOWEST VALUE = 1

132. Were you born in Georgia?

NATIVE 21:246

(CHECK ONLY ONE ANSWER)

- 1. Invalid answer. Select another. (GO TO QUESTION 132)
- 2. Yes
- 3. No
- 4. Don't know
- 5. DNR: Refused



137. Are you a member of an environmental organization?

If yes: Which one(s)? (DNR LIST; CHECK ALL THAT APPLY)

ENVORG 22:10-21

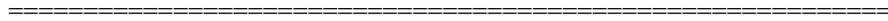
(CHECK ALL THAT APPLY)

- 1. No/None
- 2. National Audubon Society
- 3. Sierra Club
- 4. Nature Conservancy
- 5. Ducks Unlimited
- 6. National Wildlife Federation
- 7. Defenders of Wildlife
- 8. National Rifle Association
- 9. Safari Club International
- 10. Greenpeace
- 11. Don't know
- 12. Other

IF (#137 = 0) GO TO #136

IF (#137 @ 12) GO TO #138

SKIP TO QUESTION 140



138. ENTER OTHER ENVIRONMENTAL ORGANIZATION.

ENVORGST 23:1-240

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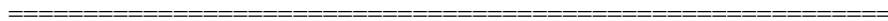


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SKIP TO QUESTION 140



139. YOU DID NOT USE

YOUR SPACE BAR

NOSPAC12

PRESS ENTER TO TRY AGAIN

140. Are you a member of a conservation organization?  
If yes: Which one(s)? (DNR LIST; CHECK ALL THAT APPLY)  
CNSORG 24:1-15  
(CHECK ALL THAT APPLY)

- 1. No/None
- 2. National Audubon Society
- 3. Sierra Club
- 4. Nature Conservancy
- 5. Ducks Unlimited
- 6. National Wildlife Federation
- 7. Defenders of Wildlife
- 8. Rocky Mountain Elk Foundation
- 9. National Rifle Association
- 10. Safari Club International
- 11. National Wild Turkey Federation
- 12. Greenpeace
- 13. PETA
- 14. Don't know
- 15. Other

IF (#140 = 0) GO TO #139  
IF (#140 @ 15) GO TO #141

SKIP TO QUESTION 143  
=====

141. ENTER OTHER CONSERVATION ORGANIZATION.  
CNSORGST 25:1-240

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

SKIP TO QUESTION 143  
=====

142. YOU DID NOT USE  
YOUR SPACE BAR  
NOSPAC13  
PRESS ENTER TO TRY AGAIN

143. Are you a member of a sportsmen's organization?

If yes: Which one(s)? (DNR LIST; CHECK ALL THAT APPLY)

SPTORG 26:1-18

(CHECK ALL THAT APPLY)

- 1. No/None
- 2. National Audubon Society
- 3. Sierra Club
- 4. Nature Conservancy
- 5. Ducks Unlimited
- 6. National Wildlife Federation
- 7. Defenders of Wildlife
- 8. Rocky Mountain Elk Foundation
- 9. National Rifle Association
- 10. Safari Club International
- 11. National Wild Turkey Federation
- 12. Buckmasters
- 13. Pheasants Forever
- 14. Whitetails Unlimited
- 15. Trout Unlimited
- 16. B.A.S.S.
- 17. Don't know
- 18. Other

IF (#143 = 0) GO TO #142

IF (#143 @ 18) GO TO #144

SKIP TO QUESTION 145

=====

144. ENTER OTHER SPORTSMEN'S ORGANIZATION.

SPTORGST 27:1-240

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145. What is the highest grade level you have completed in school?  
(READ LIST AS NECESSARY)

LEVED 27:241

(CHECK ONLY ONE ANSWER)

- 1. (DNR: Invalid answer. Select another.) (GO TO QUESTION 145)
- 2. Grades 1 - 12, but no HS diploma
- 3. High school graduate or equivalent
- 4. Some college or trade school
- 5. College graduate
- 6. Graduate or professional degree
- 7. (DNR: REFUSED)

146. What race or ethnic background do you consider yourself?  
(DNR LIST; CHECK ONLY ONE ANSWER)

RACE 27:242

(CHECK ONLY ONE ANSWER)

- 1. Invalid answer. Select another. (GO TO QUESTION 146)
- 2. Hispanic
- 3. White
- 4. African-American
- 5. Native-American
- 6. Asian-American
- 7. Don't know
- 8. Other (GO TO QUESTION 147)
- 9. DNR: REFUSED

SKIP TO QUESTION 148

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147. ENTER OTHER RACE.

RACEST 28:1-240

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148. Which of these categories best describes your total household income before taxes last year?

(READ SCALE)

INCOME 28:241

(CHECK ONLY ONE ANSWER)

- 1. (DNR: Invalid answer. Select another.) (GO TO QUESTION 148)
- 2. Less than \$20,000
- 3. \$20,000 to \$39,999
- 4. \$40,000 to \$59,999
- 5. \$60,000 to \$99,999
- 6. \$100,000 or more
- 7. (DNR: DON'T KNOW)
- 8. (DNR: REFUSED)

149. Which of these categories best describes your profession?

(READ LIST)

JOB 28:242-243

(CHECK ONLY ONE ANSWER)

- 1. Agriculture (ranching, farming, etc.)
- 2. City government
- 3. Construction
- 4. County government
- 5. Educator
- 6. Federal government
- 7. Homemaker
- 8. Manufacturing
- 9. Mining (miner/admin. for any mineral extraction co., etc.)
- 10. Nonprofit organization
- 11. Retail/Wholesale sales
- 12. State government
- 13. Student
- 14. Timber (employee/admin. for any timber/timber products co. etc.)
- 15. Tourism/Service (hotels/restaurant/tour co./outfitter/guide etc)
- 16. Unemployed
- 17. Other (GO TO QUESTION 150)
- 18. DNR: REFUSED

SKIP TO QUESTION 151

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150. ENTER OTHER TYPE OF WORK.

JOBST 29:1-240

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151. And finally, may I ask your age?

(ENTER ? FOR DON'T KNOW; ENTER 888 FOR REFUSED)

AGE 29:241-243

□□□□

LOWEST VALUE = 1

152. That's the end of the questionnaire, thank you very much for your time and cooperation!

(ENTER ANY ADDITIONAL COMMENTS; IN FIRST PERSON; 240 CHARACTERS)

END 30:1-240

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153. OBSERVE AND RECORD RESPONDENT'S GENDER

GENDER 30:241

(CHECK ONLY ONE ANSWER)

- 1. Invalid answer. Select another. (GO TO QUESTION 153)
- 2. Don't know
- 3. Male
- 4. Female

154. TIME INTERVIEW WAS COMPLETED

ENDTIME 30:242-246

□□□□□□

155. Please enter your initials in LOWERCASE ONLY!

INTVRINT 30:247-249

□□□□

2003 GADNR GA Residents Water Quantity Survey

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156. Enter the area code and telephone number of number dialed.

TELEPHON 31:1-10

|\_|\_|\_|-|\_|\_|\_|-|\_|\_|\_|\_|

LOWEST VALUE = 1

157. SAVE OR ERASE INTERVIEW.

DO NOT ERASE A COMPLETED INTERVIEW!

FINISH 31:11

(CHECK ONLY ONE ANSWER)

 1. Save answers (GO TO QUESTION 159) 2. Erase answers 3. Review answers (GO TO QUESTION 4)

158. ARE YOU SURE YOU WANT TO ERASE THIS INTERVIEW?

ONLY ERASE IF: CB, AM, NA, BZ

MAKESURE 31:12

(CHECK ONLY ONE ANSWER)

 1. No, do not erase the answers (GO TO QUESTION 157) 2. Yes, erase this interview

159. Date call was made

INTVDAT 31:13-20

|\_|\_|\_|\_|-|\_|\_|-|\_|\_|\_|

Year      Month    Day

SAVE IF (#157 = 1)