

RAS Q-4

My Name is Sam Booher, I live in Augusta, GA. I am a retired Army Officer. Thank you for allowing me to express my concerns about the future flow of my Savannah River and its water quality.

The world is now facing a climate-driven shrinkage of river-based, water supplies.

In my travels overseas, I have witnessed the rising costs of food and energy. The availability of water, world wide is also becoming a critical issue. The world's rising urbanization and industrialization are both demanding an increase for water at a time when climate change is disrupting the worlds existing supply. 2/3rds of the world's population will be dealing with water shortages within the next 20 years. **America underestimates the political unrest world wide, coming with water shortages and high food prices. Water is ... the oil of the 21st century.**

The cleanest water in America flows off of our National Forests. Collectively, our public lands are by far the largest and most important water provider in the United States. America's National forests alone provide drinking water to more than 60 million Americans in 33 states. The main performance measures for land managers ought to be water quality and watershed function, but it is NOT. Look at how badly Georgia treats our own Chattahoochee National Forest watershed. And then State Government and GA Citizens wonder why we have water flow problems in Chattahoochee and Savannah River.

We now know where our water comes from.

So Who is Using all of Georgia's Water

A Stunning fact that NO ONE mentions to the public is that more than half of the surface water used by desperately water-short Georgia is taken for cooling power plants -- coal-fired and Nuclear. So Georgia's water crisis is really linked to its "Near Sighted" State Energy policy.

It takes a massive amount of water to produce energy and the demands for both are rising. Georgia's demands for energy and water supplies are on a collision course. Because of the need for coal burning and Nuclear power plants to cool their circulating systems, most of Georgia water goes up as steam or if returned to its river source, is near boiling hot. This year's drought threatened the cooling water for 24 nuclear power plants in the southeastern U.S. The Tennessee Valley Authority this past summer had to reduce the output from their nuclear power plant to avoid overheating the Tennessee River*. Someone has a criteria for the Tennessee River. What is the criteria for the Savannah River? How warm must the Savannah River flow before someone is going to require Southern Compoany to begin reducing their dumping of boiling hot circulating water from Plant Voegt.

The public has no idea as to when hot, is too hot, nor who will be monitoring river temperatures and low flow with the ability to "talk" about this problem with Southern Company.

Most historic battles over water in America have come from the demands of agriculture. But today it's the energy sector's needs that are negatively impacting current Georgia water policy. One difficulty the public faces is that there is no single Federal authority existing to coordinate energy and water usage. At least 20 federal agencies, along with a multitude of state and local governments, have a hand in water verse energy matter. "However, no one is in charge at any level of Government. Federal and State Energy planners assume we will have enough water. Water planners assume we will have enough energy." This inability to communicate these two subjects at the Federal and State level is going to make this problem much much worse. Equally important , The Public has no one State nor Federal agency we can talk with. Every government agency says "not us".

Unfortunately, water supplies are shrinking even as energy demands increase. "It appears America is finally serious and we are going to begin switching from foreign oil to using domestic energy. The problem is no one has considered how much additional water is going to be required to produce that domestic energy that will someday replace our dependence on foreign oil. But one example: It requires 600 gallons of water to grow enough corn to produce one gallon of ethanol

Climate concerns and declines in groundwater levels suggest that less fresh water, not more, will be available in Georgia's future. Available surface water supplies and groundwater tables are dropping at an alarming rate.

Some regions in America have seen groundwater levels drop as much as 900 feet over the past 50 years. The Savannah River in 1884 flowed at 15,000 cubic feet per sec.** Today it is averaging less than 6,000 cubic feet per sec and that figure is adjusted for past rain and drought periods. Water going over Clark Hill dam today is but 3,500 cubic feet per sec not the average 15,000 cubic ft per sec flow of the past. If we doubled Plant Vogtle river take-out loss due to steam, how will that impact future river flow? If we allow a doubling of near boiling hot water to return to a low flowing river how will that impact aquatic life and endangered fish? **No one has even studied those questions much less discuss the ramification with the public**

No one is responding to a lot of our questions and concerns. But Thanks you for being here and listening. I hope you are able to get some answers.

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* Newspaper articles

** USGS data

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