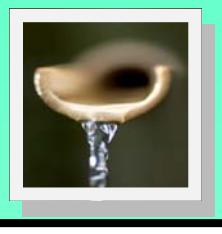


Water Is Life
AUGUSTA UTILITIES

2011 Drinking Water Quality Report

A Message From The Director

We are pleased to present this report on the quality of Augusta's drinking water for 2011. Again, you will see in this report that Augusta's treated water continues to exceed all federal and state drinking water standards. We are proud to inform you that all of Augusta's treatment plants won either Gold or Platinum awards for perfect regulatory compliance in 2011.

We continue to strive to improve our efficiency and customer service; these goals are central to the ongoing reorganization of Augusta Utilities. We also continue to plan and build for the future with the update of Augusta Utilities' Master and Business Plans and the construction of infrastructure improvements at Fort Gordon.

We are blessed with abundant and high quality water, and you can do your part to sustain this valuable resource by employing the water saving tips listed in this brochure. As always, if you have a question or concern about any of our services, please contact the professionals at Augusta Utilities. You can contact me at ***(706) 312-4160*** *or* ***twiedmeier@augustaga.gov*** *with your comments or suggestions. We are proud to serve you!*

Tom Wiedmeier P.E.
Director

Where does our water come from?

The City of Augusta customers are fortunate because we enjoy an abundant water supply from 2 sources. The Highland Avenue Water Treatment Facility draws water from the Savannah River. The water is pumped via the Historic Augusta Canal Pumping Station to our reservoirs, which hold about 125 million gallons of water. The Max Hicks Plant gets water from the Savannah River as well, and provides 15 million gallons of water to our customers in South Richmond County. Our second water source comes from the Crutaceous Aquifer hundreds of feet below ground in South Augusta. Combined, our treatment plants provide about 15.5 billion gallons of drinking water every year.

Water Conservation Tips

Water conservation measures are an important first step in protecting our water supply. Such measures save the supply of our source water and save you money by reducing your water bill. Here are a few suggestions:

Indoor conservation tips:

- Fix leaky faucets, pipes, toilets, etc.
- Replace old fixtures with water saving devices
- Wash only full loads of laundry
- Do not use toilet for trash disposal
- Take shorter showers
- Turn off faucet while brushing teeth

Outdoor conservation tips:

- Use mulch around drought-tolerant plants and shrubs
- Repair leaks in faucets, hoses and sprinklers
- Install a rain sensor if you have an in-ground irrigation system
- Connect to reclaimed water for irrigation

N. Max Hicks Water Treatment Plant
2010 Georgia State Plant of the Year

Conserve Water by Stopping Leaks

Unseen or unfixed, leaks can drip hundreds, even thousands, of gallons of water wastefully down the drain. A little detective work several times a year can catch these water thieves in the act and put them out of circulation. This detective work can also result in money in your pocket. A small (0.5 gallons per minute) leak can result in additional water and sewer costs of $240 per month.

Faucets– Most leaks result from worn washers in household faucets and showerheads. These faucets, as well as seldom used taps in the basement or storage rooms, should be checked periodically. Worn washers or "O" rings usually cause faucet leaks. Repairing faucet leaks is easy. All one needs to do is turn off the supply line to that faucet, replace the washer, and turn on the line again. Any good do-it-yourself book will offer advice to help you with this simple task.

Toilets– The toilet is one of the most common water wasters but its leaks tend to be less noticeable that faucet leaks. To determine if your toilet is leaking, look at the toilet bowl after the tank has stopped filling. If water is still running into the bowl, or if water can be heard running, your toilet is leaking.

Most toilet leaks occur at the overflow pipe or at the plunger ball inside the tank. To locate a toilet leak, remove the tank lid and flush. The water level should come up to about half an inch or so below the overflow pipe. Adjust the float level control screw, if necessary, so the valve shuts off the water at that level. If the valve itself is leaking, you may need a plumber to fix it.

Although water may not be seen or heard running, your toilet may have a silent leak. To test for a silent leak, drop a small amount of food coloring into the tank. DO NOT FLUSH! Wait for about 5 minutes. If the food coloring appears in your toilet bowl, your toilet has a silent leak. It is probably located around or in the plunger ball or flapper valve at the bottom of the tank. These leaks are also easy to fix with parts from your hardware store.

Outside Taps and Irrigation Systems– Check the outside taps for leaking water, particularly during the summer sprinkler season. A hose mistakenly left dribbling away in the grass or garden can waste thousands of gallons of water over the course of a summer. Remember to close outside faucets tightly every time you shut off the water.

Automatic sprinkler systems require special consideration. Adjust the sprinkler heads so that water is directed to areas that require watering. Grass cannot grow on driveways! Also know how to override timers. One need not irrigate during a rainstorm or for several days thereafter. A healthy lawn can withstand several weeks of less than normal rainfall. Additionally check your water meter to see if water is entering the irrigation system when it should not be doing so. Small leaks in the underground system can result in many gallons of water being wasted.

Substances Found in Tap Water

Sources of drinking water (both tap and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals, and in some cases, radioactive material. It can pick up substances resulting from the presence of animals or from human activity. Contaminants that may be present in source water include:

Microbial contaminants– such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.

Inorganic contaminants-such as salts and metals, which can be naturally occurring or result from urban storm water runoff, industrial, or domestic wastewater discharges, oil and gas production, mining or farming.

Pesticides and herbicides– which may come from a variety of sources such as agricultural, urban storm water runoff, and residential uses.

Organic chemical contaminants– including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and can also come from gas stations, urban storm water runoff, and septic systems.

Radioactive contaminants– which can be naturally occurring or be the result of oil and gas production and mining activities.

To ensure that tap water is safe to drink, the Georgia Environmental Protection Division (EPD) and U.S. Environmental Protection Agency (EPA) prescribe regulations that limit the amount of certain contaminates in water provided by public water systems. The Food and Drug Administration and Georgia EPD regulations establish limits for contaminants in bottled water that must provide the same protection for public health. All drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the EPA's Safe Drinking Water Hotline (**800-426-4791**)

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and some infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. EPA/Centers for Disease Control and Prevention (CDC) guidelines on lowering the risk of infection by cryptosporidium and other microbial contaminants are available from the Safe Drinking Water Hotline. (**800-426-4791**).

Source Water Assessment

The Federal Safe Drinking Water Act was amended in 1996 and required states to develop and implement source water assessment programs to analyze existing and potential threats to the quality of public drinking water throughout the state. Parsons Engineering Science, Inc. was contracted by Augusta Utilities Department to assess susceptibility of the source water intake in 2001.

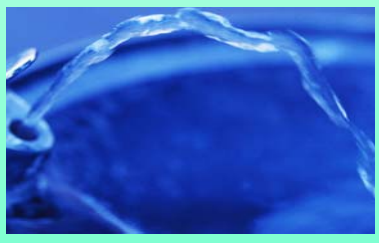
The susceptibility matrix showed more than half of the potential pollutant sources in the study area are ranked low priority. Based on the potential pollutant source rankings developed according to the USEPA guidelines and engineering principles, the overall susceptibility of the intake was determined to be low. In addition, the water quality samples collected as part of the information collection rule (ICR) indicated the source water is free of biological contaminants. This ranking means that according to protocol set by the USEPA, the intake has an overall low susceptibility to the sources of pollution documented. Considering potential for contamination by various pollutant sources, this is the most favorable ranking that the intake can receive.

Awards

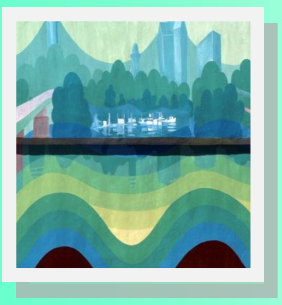
During 2011, our surface water and groundwater plants again won the Georgia Association of Water Professionals (GAWP) Platinum and Gold Awards for operating the entire year without a single regulatory violation. This is just another example of our entire working staff working hard to provide you, our customers, with safe quality drinking water.

UCMR Data Availability

Unregulated Contaminant Monitoring Regulation sampling was conducted by Augusta Utilities department during 2008, results of which were non-detects. Unregulated Contaminants are those that don't yet have a drinking water standard set by USEPA. The purpose of monitoring these contaminants is to help EPA decide whether the contaminants should have a standard. As an Augusta Utilities customer, you have a right to know that this data is available. If you are interested in examining the results, please contact the Water Quality Manager by calling 706-821-4237.



Water testing performed in 2011– PWS ID # GA2450000



2011 WATER TESTING RESULTS

Substance	Year	MCL	MCLG	Groundwater Plants Amount Low-High	Highland Plant Amount Low-High	Hicks Plant Amount Low-High	Violation	Source
Fluoride (ppm)	2011	4	4	0.19 - 1.19	0.14-1.17	0.20 - 0.96	no	Erosion of natural deposits; water additive that promotes strong teeth; discharge from fertilizer and aluminum factories
Chlorine (ppm)	2011	4	4	1.19 - 2.12	1.01 - 1.86	0.72 - 1.99	no	Water additives used to control microbes
Nitrates (ppm)	2011	10	10	0.72 - 2.0	N/D	N/D	no	Runoff from fertilizer; leaching from septic tanks; sewage; erosion of natural deposits
Total Organic Carbon (ppm)	2011	TT	N/A	N/D	1.1 - 1.7	1.2 - 2.0	no	Naturally present in the environment
Total Trihalomethanes (ppm)	2011	0.08		0.01 - 0.02	0.04 - 0.05	0.02 - 0.025	no	By-product of drinking water disinfection
Total Haloacetic Acids (ppm)	2011	0.06	N/A	0.006 - 0.007	0.03- 0.05	0.012 - 0.014	no	By-product of drinking water disinfection
Turbidity (NTU)	2011	TT		N/D	0.07 - 0.37	0.25 - 1.33	no	Soil runoff
Total Coliform (count per 100 mLs)	2011	< 5%	0	0	0	0	no	Commonly present in the environment; human and animal waste

Tap water samples were collected for lead and copper analysis from 50 homes throughout the service area.

Substance	Year	Action Level	MCLG	Amount detected (90th Percentile)	Homes Above Action Level	Violation	Source
Copper (ppb)	2010	1,300	1,300	160	0	No	Corrosion of household plumbing systems; erosion of natural deposits leaching from wood preservatives
Lead (ppb)	2010	15	0	2.5	1	No	Corrosion of household plumbing systems; erosion of natural deposits leaching from wood preservatives
Alpha Emitters (pCi/L)	2007	15	0	<2	<2	No	Erosion of natural deposits of certain radioactive materials
Radium (226 & 228) (pCi/L)	2007	5	0	<2	<2	No	Decay of natural manmade deposits of certain radioactive materials

Initial Distribution System Evaluation (IDSE)

Augusta Utilities Department conducted IDSE monitoring in 2007-2008 and the results of analysis appear in the table below. This evaluation was sampling required by the USEPA to determine the range of total trihalomethanes and haloacetic acids in the system for future regulations. The samples are not used for compliance, and may have been collected under non-standard conditions and the EPA requires that the data be reported. Please contact the Water Quality Manager if you have questions.

IDSE REPORTING				
Contaminant	Average Level	Minimum Level	Maximum Level	Unit of measure
Total Haloacetic Acids	0.02	N/D	0.053	ppm
Total Trihalomethanes	0.03	N/D	0.055	ppm

Table of Definitions

Action Level (AL): The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.

Initial Distribution System Evaluation (IDSE): An important part of Stage 2 Disinfection By-Products Rule (DBPR). The IDSE is a one time study conducted by water systems to identify distribution locations with high concentrations of THMs and HAAs. Water systems will use results from the IDSE, in conjunction with their Stage 1 DBPR compliance monitoring data, to select compliance monitoring locations for the Stage 2 DBPR.

Maximum Contaminant Level (MCL): The highest level of a contaminant that is allowed in Drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.

Maximum Contaminant Level Goal (MCLG): The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.

N/A: Not Applicable

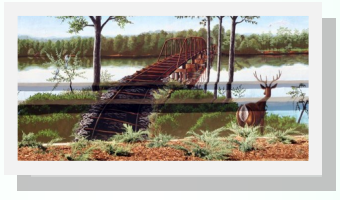
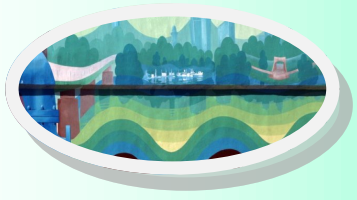
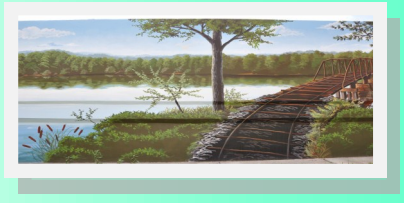
N/D: means not detected and indicates that the substance was not found by laboratory analysis.

Nephelometric Turbidity Unit (NTU): Measure of the clarity of water. Turbidity in excess of 5 NTU is just noticeable to the average person.

Picocurie per liter (pCi/L): Measure of the radioactivity in water

Parts per billion (ppb) or Micrograms per liter (µg/L): One part by weight of analyte to 1 billion parts by weight of the water sample.

Parts per million (ppm) or Milligrams per liter (mg/L): One part by weight of analyte to 1 million parts by weight of the water sample.

Treatment Technique (TT): A required process intended to reduce the level of a contaminant in drinking water.

Scenes from " The Wall "