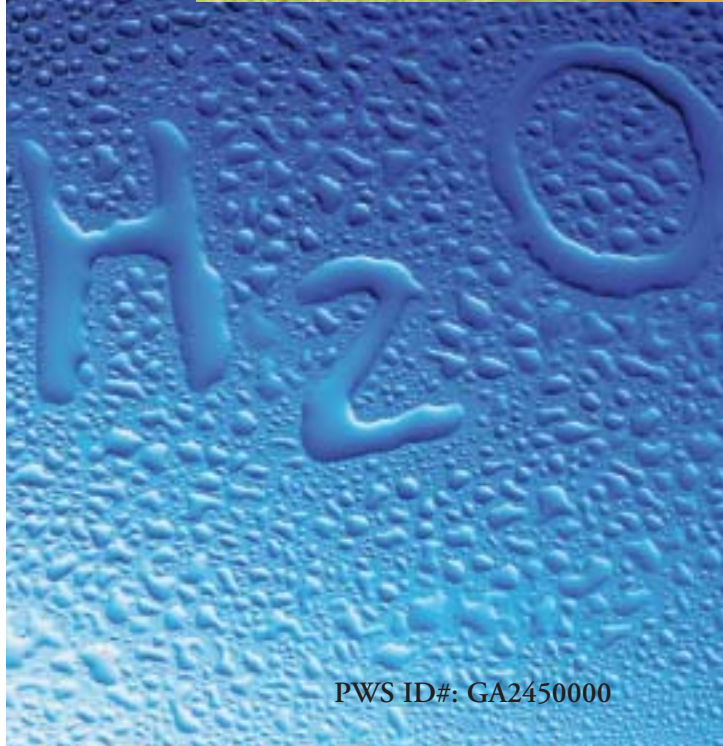




*Water testing performed in 2004*

## Annual Water Quality Report



PWS ID#: GA2450000

## Continuing Our Commitment

At the Augusta Utilities Department we have adopted the following vision statement: "Continually working for you to meet the challenges of providing water and wastewater services, the life of a growing community." Our commitment to you, our customer, is to provide water to your home or business that complies with all state and federal requirements. We are pleased to be able to share with you that once again we have met that commitment for a full year, from January through December 2004. Did you keep last year's report? The Georgia Water and Pollution Control Association gave it the award of "best in state." Regardless of whether we win that designation this year, we want you to know that we are committed to excel not only in providing safe water but also in communicating with you. Our



aim is to create a report that you will want to read and that will provide you with worthwhile information.

N. Max Hicks, P.E.,  
*Director, Augusta Utilities  
Department*

## Important Health Information

Some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised 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 infants may be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. The U.S. EPA/CDC (Centers for Disease Control and Prevention) guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the Safe Drinking Water Hotline at (800) 426-4791.



## Working Hard for You

Our new, state-of-the-art N. Max Hicks Water Treatment Plant is scheduled to start operating in early 2005. The new plant will furnish Augusta's south side with 15 million gallons of quality water daily. In addition, our Highland Avenue Filter Plant is scheduled for expansion and improvements slated to begin in 2005.

Our 2003 Annual Water Quality report was judged the best in the state for large water plants by the Georgia Water & Wastewater Association. The award was presented at their annual conference held in Columbus, Georgia.

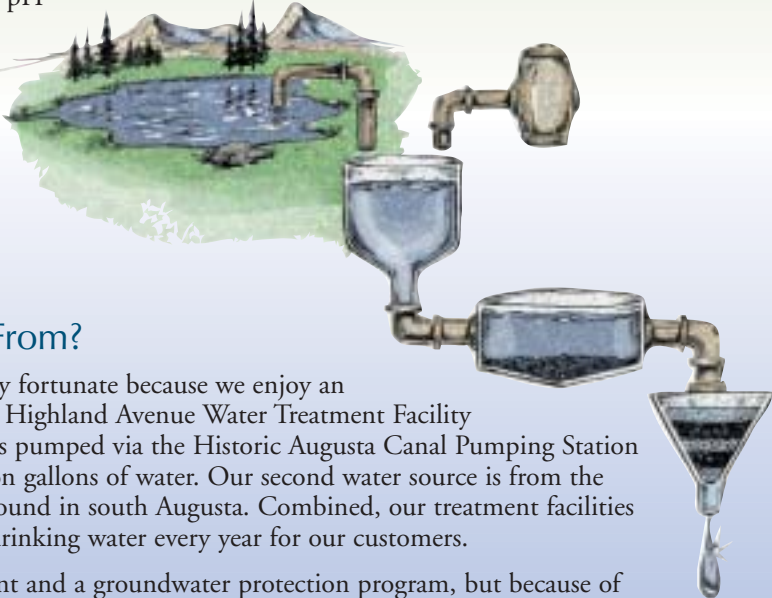
Once again our filter and groundwater plants won the Gold Award, also presented by GW&PCA, for excellence in water quality and for having no federal or state monitoring violations during 2003. Both systems have also won the Gold award for 2004, which will be presented at this year's GW&PCA spring conference.



## How Is My Water Treated and Purified?

The treatment process for surface water consists of a series of steps. First, raw water is drawn from our reservoir and sent to a mixing tank where chlorine is added to pre-disinfect the water. Then, aluminum sulfate and polymer are added to the mixture. The addition of these substances causes small particles to adhere to one another (called floc), making them heavy enough to settle out as the water slowly moves from one end of the basin to the other. At the end of the basin, the clear water travels over weirs and into flumes that take the water to the filters. The water is then filtered through layers of anthracite, gravel and silicate sand. As smaller, suspended particles are removed, turbidity disappears and clear water emerges. Chlorine is added again as a precaution against any bacteria that could form in the distribution system. (We carefully monitor the amount of chlorine, adding the lowest quantity necessary to protect the safety of your water without compromising taste.) Finally, lime (used to adjust the final pH and alkalinity), fluoride (used to prevent tooth decay), and a corrosion inhibitor (used to protect distribution system pipes) are added before the water is pumped to sanitized, underground clear wells, water tanks, and into your home or business.

For our groundwater we have production wells that remove water and send it to a facility where the water is treated. The first step is aeration, which is used to remove volatile organics from the water. Next we add lime for pH adjustment, fluoride to reduce tooth decay, chlorine for disinfection, and, last, a polymer for corrosion control. The water then moves through a contact or mixing chamber and then into the clear well, where it is held until needed and pumped out into the distribution system for customer consumption.



## Where Does My Water Come From?

The City of Augusta's water customers are very fortunate because we enjoy an abundant water supply from two sources. The Highland Avenue Water Treatment Facility draws water from the Savannah River, which is pumped via the Historic Augusta Canal Pumping Station to our reservoirs, which hold about 125 million gallons of water. Our second water source is from the Crutaceous Aquifer hundreds of feet below ground in south Augusta. Combined, our treatment facilities provide roughly 15.5 billion gallons of clean drinking water every year for our customers.

We have completed a source water assessment and a groundwater protection program, but because of security reasons we are prohibited from making them available to the public at large. If you need to find out more about the source water assessment, please feel free to contact Brantley Kuglar at (706) 842-1925.

## Community Participation

You are invited to participate in our public forum and voice your concerns about your drinking water. We meet the first and third Tuesday of each month beginning at 2 p.m. on the eighth floor of the municipal building.

For more information about this report, or for any questions relating to your drinking water, please call Brantley Kuglar, Water Production Superintendent, at (706) 842-1925.

## Sampling Results

During the past year we have taken hundreds of water samples in order to determine the presence of any radioactive, biological, inorganic, volatile organic or synthetic organic contaminants. The table below shows only those contaminants that were detected in the water. Although all of the substances listed here are under the Maximum Contaminant Level (MCL), we feel it is important that you know exactly what was detected and how much of the substance was present in the water. (*Cryptosporidium* and Radon were not detected in our water in 2004.)

REGULATED SUBSTANCES				Groundwater		Surface Water		VIOLATION	TYPICAL SOURCE
SUBSTANCE (UNITS)	YEAR SAMPLED	MCL	MCLG	AMOUNT DETECTED	RANGE LOW-HIGH	AMOUNT DETECTED	RANGE LOW-HIGH		
Fluoride (ppm)	2004	4	4	0.82	0.34-1.3	0.84	0.8-1.19	No	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories
Haloacetic Acids (HAAs) (ppb)	2004	60	NA	0.23	ND-0.92	30.58	27.68-34.75	No	By-product of drinking water disinfection
Nitrate (ppm)	2004	10	10	0.86	0.59-2	ND	NA	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
Total Organic Carbon (ppm)	2004	TT	NA	NA	NA	1.3	1.1-1.5	No	Naturally present in the environment
TTHMs [Total Trihalomethanes] (ppb)	2004	80	NA	0.84	0.37-1.4	48.91	34.2-60.5	No	By-product of drinking water disinfection
Turbidity <sup>1</sup> (NTU)	2004	TT	NA	NA	NA	0.49	0.16-0.49	No	Soil runoff

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

SUBSTANCE (UNITS)	YEAR SAMPLED	ACTION LEVEL	MCLG	AMOUNT DETECTED (90th%TILE)	HOMES ABOVE ACTION LEVEL	VIOLATION	TYPICAL SOURCE
Copper (ppb)	2004	1,300	1,300	110	0	No	Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives
Lead (ppb)	2004	15	0	2.6	0	No	Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives

<sup>1</sup>Turbidity is a measure of the cloudiness of the water. We monitor it because it is a good indicator of the effectiveness of our filtration system. During the reporting year, 100% of all samples taken to measure turbidity met water quality standards.

### Table Definitions

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

**MCL (Maximum Contaminant Level):** 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.

**MCLG (Maximum Contaminant Level Goal):** 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.

**NA:** Not applicable

**ND:** Not detected

**NTU (Nephelometric Turbidity Units):** Measurement of the clarity, or turbidity, of water.

**ppb (parts per billion):** One part substance per billion parts water (or micrograms per liter).

**ppm (parts per million):** One part substance per million parts water (or milligrams per liter).

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





## Substances That Might Be in Drinking Water

To ensure that tap water is safe to drink, the U.S. EPA prescribes regulations limiting the amount of certain contaminants in water provided by public water systems. U.S. Food and Drug Administration regulations establish limits for contaminants in bottled water, which must provide the same protection for public health. Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The

presence of these contaminants does not necessarily indicate that the water poses a health risk.

The sources of drinking water (both tap water 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 can acquire naturally occurring minerals, in some cases, radioactive material; and substances resulting from the presence of animals or from human activity. Substances 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, or wildlife;

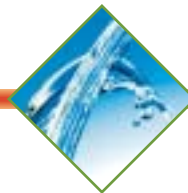
**Inorganic Contaminants**, such as salts and metals, which can be naturally occurring or may result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming;

**Pesticides and Herbicides**, which may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses;

**Organic Chemical Contaminants**, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and which may also come from gas stations, urban stormwater runoff, and septic systems;

**Radioactive Contaminants**, which can be naturally occurring or may be the result of oil and gas production and mining activities.

For more information about contaminants and potential health effects, call the U.S. EPA's Safe Drinking Water Hotline at (800) 426-4791.

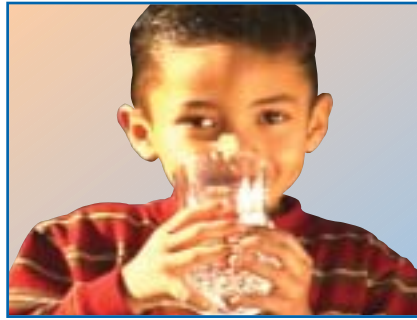


## Monitoring Waivers

Augusta-Richmond CO WS (GA2450000) has complied with all base-monitoring requirements for the parameters listed below. The chemical analytical results of this system's water samples demonstrate that the water system's distributed drinking water complies with the chemical monitoring requirements of the Georgia Rules for Safe Drinking Water. Also, the Vulnerability Assessments prepared by EPD show that this water system's raw water does not have a high potential risk of pollution. This water system is hereby issued chemical monitoring waivers for the below listed synthetic organic compounds from January 1, 2002, to midnight December 31, 2004. It is also issued chemical monitoring waivers for the below listed inorganic compounds from January 1, 2002, to midnight December 31, 2010.

*Synthetic Organic Compounds:* Alachlor, Aldicarb Sulfone, Aldicarb Sulfoxide, Atrazine, Benzo (A) Pyrene, Carbofuran, Chloradane, Dalapon, Di (2-Ethylhexyl) Adipate, Dibromochloropropane (DBCP), Dinoseb, Diquat, Di (2-Ethylhexyl) Phthalate, Endothall, Endrin, Ethylene Dibromide (EDB), Glyphosate, Heptachlor, Heptachlor Epoxide, Hexachlorobenzene, Hexachlorocyclopentadiene, Lindane, Methoxychlor, Oxyaryl (Vydate), Pentachlorophenol, Picloram, Polychlorinated Biphenyls (PCBs), Simazine, 2,4-D, Toxaphene, 2,4,5-TP (Silvex), 2,3,7,8 - TCDD (Dioxin).

*Inorganic Compounds:* Asbestos and Cyanide.



## Lead in Drinking Water

Lead is a naturally occurring element in our environment. Consequently, our water supply is expected to contain small, undetectable amounts of lead. However, most of the lead in household water usually comes from the plumbing in your own home, not from the local water supply. The U.S. EPA estimates that more than 40 million U.S. residents use water that can contain lead in excess of EPA's Action Level of 15 ppb.

Lead in drinking water is a concern because young children, infants and fetuses appear to be particularly vulnerable to lead poisoning. A dose that would have little effect on an adult can have a big effect on a small body. On average, it is estimated that lead in drinking water contributes between 10% and 20% of the total lead exposure in young children.



*Our new lab*

All kinds of water, however, may have high levels of lead. We maintain our drinking water supply at an optimum pH and mineral content level to help prevent corrosion in your home's pipes. To reduce lead levels in your drinking water you should flush your cold-water pipes by running the water until it becomes as cold as it will get (anywhere from 5 seconds to 2 minutes or longer) and use only water from the cold-water tap for drinking, cooking, and especially for making baby formula. Hot water is likely to contain higher levels of lead.

For more information, please contact National Lead Information Center at (800) 424-LEAD and the Safe Drinking Water Hotline at (800) 426-4791.