Cryptosporidium and Giardia

The City of Austell participated in a major drinking water quality testing program called the Supplemental Information Collection Rule (SICR). Two of the contaminants tested for under this rule are the parasites *Cryptosporidium* and *Giardia* which have caused outbreaks of intestinal disease in the United States and abroad. These parasites are common in surface water and very difficult to kill and even a well-run water system may contact some live oocysts (in the case of *Cryptosporidium)* or cysts (in the case of *Giardia*). The United States Protection Agency is working to resolve several scientific issues that will allow it to set *Cryptosporidium* and *Giardia* safety standards. Our testing performed at the raw **(untreated)** water intake on the Chattahoochee River, located immediately north of Johnson Ferry Road crossing, revealed the presence of *Cryptosporidium* and/or *Giardia* in several months' samples. **These organisms were detected in the water prior to treatment.** Following is a table detailing these occurrences. Our treatment technique is designated and optimized to remove these contaminants, therefore no precaution about our drinking water is currently needed for the general public. See advice about special populations and a source for further information in the **Important Health Information** section.

Cryptosporidium		*Giardia*	
Date	Oocyst's Detected per 10/L	Date	Cyst's Detected per 10/L
June 16, 1999	01	September 28, 1999	19
June 29, 1999	01	October 12, 1999	09
September 28, 1999	01	October 25, 1999	10
November 8, 1999	02	November 8, 1999	10
		November 22, 1999	06

During the same monitoring periods at the Chattahoochee River, the water at Lake Allatoona was tested. No oocysts or cysts were detected. The Cobb County-Marietta Water Authority, during 2000, participated in another study sponsored by the American Water Works Association analyzing these parasites. This study was conducted at the Lake Allatoona raw water which supplies the Wyckoff Treatment Division. No *Cryptosporidium* and/or *Giardia* were detected in this study.

For More Information

For additional information or questions about this report, please contact the Austell Public Works at (770) 944-4325 between the hours of 8:00 AM and 5:00 PM, Monday through Friday.

Did you know? … a person can live more than a month without food, but only a week depending on conditions without water … it is possible for people today to drink water that was part of the dinosaur era **… American's drink more than one billion glasses of tap water per day** … 66% of the human body is water; 75% of the human brain is water … the average American uses over 100 gallons of water per day?

IMPORTANT HEALTH INFORMATION

Some people are more vulnerable to contaminants in drinking water than the general population. Immuno-comprised 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 can be particularly at risk from infections. These people should seek advice about drinking water from their healthcare providers. More information about the Environmental Protection Agency's guidelines on the appropriate means to lessen the risk of infection by *Cryptosporidium* or other microbial contaminants, and potential health effects can be obtained by Calling the Safe Drinking Water Hotline at (800) 426-4791.

Austell Water Facts and Tidbits

- Austell citizens and business consumed approximately 381,960,530 gallons of water in 2002, an average of about 1,046,467 gallons per day.
- In 2002, the average customer paid approximately $17.03 per month for water only.
- The City of Austell maintains over 30 miles of water distribution lines in its service area.
- Austell's water distribution system currently serves approximately 6,000 people.

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SYSTEM IDENTIFICATION NUMBER: CP6700001

Water quality data for community water systems throughout the United States is available on the Internet at http://www.waterdata.com/.

July 2003 • Number 4

CITY OF AUSTELL

2002 DRINKING WATER SUPPLY AND QUALITY REPORT

The Austell Public Works is pleased to present its 2002 Annual Water Quality Report. This presentation is in accordance with the Georgia Environmental Protection Division, and the National Primary Drinking Water Regulations, 40 CFR Part 141 Subpart O, of the Environmental Protection Agency, which requires all drinking water suppliers to provide the public with an annual statement describing the water supply and the quality of its water.

Austell's Water Supply

The City of Austell receives its surface water supply from Lake Allatoona and the Chattahoochee River. Both are located entirely in Georgia. The Cobb County-Marietta Water Authority has two plants that treat as much as 136 million gallons per day of drinking water fed from these two bodies of water. The James E. Quarles Treatment Plant on Lower Roswell Road treats water coming from the Chattahoochee River, while the Hugh A. Wyckoff Treatment Plant on Mars Hill Road in Acworth treats water coming from Lake Allatoona. The Cobb County-Marietta Water Authority also has one groundwater source, located off of Tritt Springs Trace in east Cobb County, periodically delivering water to a limited area around Post Oak Tritt Road. After treatment, the finished water is fed to the Austell Water System's distribution lines and finally to your home or business.

What's in Source Water?

Sources of drinking water worldwide (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 dissolves natural-occurring minerals and, in some cases, radioactive materials, and can pick up substances resulting from the presence of animals or from human activities. Contaminants that may be present in source water include: microbial contaminants; inorganic contaminants; pesticides and herbicides; organic chemical contaminants; and radioactive contaminants.

Lead in Your Drinking Water

Water delivered to your home or business is virtually lead-free when it is delivered from the treatment facility, but water can absorb lead from solder, fixtures, and pipes found in the plumbing of some buildings or homes. Mandated at-the-tap lead monitoring is conducted at various households around the City. Based on the results of three homes in 2001, the City of Austell met the established standard Lead Action Level (AL).

Infants and young children are typically more vulnerable to lead in drinking water than the general population. It is possible that lead levels at the customer's home may be higher than at other homes in the community as a result of materials used in their home's water, they may wish to have their water tested. In order to ensure the lowest possible lead levels, the home's tap should be flushed for 30 seconds to two minutes before using the water.

Residents interested in participating in the City's lead and copper program, and meet the following criteria, are encouraged to contact the Austell Public Works at (770) 944-4325 or e-mail to duane@austell.org.

Criteria: Home must have been constructed between 1982 and 1986 and contain copper lines that have not been modified.

IMPORTANT PHONE NUMBERS

- ***Austell Public Works*** (770) 944-4325
- ***Safe Drinking Water Hotline*** (800) 426-4791

FREQUENTLY ASKED QUESTIONS

At times I can detect chlorine odors in tap water. What can I do about it?

Chlorine odors may be more noticeable when the weather is warmer. Chlorine is a disinfectant and is added to the water to kill germs. The following are ways you can remove the chlorine and its odor from your drinking water.

- » Fill a pitcher and let it stand in the refrigerator overnight.
- » Fill a glass or jar with water and let it stand in the sunlight for 30 minutes.
- » Pour water from one container to another for about 10 times.
- » Heat the water to about 100 degrees Fahrenheit.

Once you remove the chlorine, be sure to refrigerate the water to limit bacterial growth.

At times, my drinking water often looks "milky" when first taken from a faucet, but then clear up. Why?

Air becomes trapped in the water as it makes its way through the distribution lines to your home. As a result, microbubbles of air can sometimes cause water to appear cloudy or milky. This condition is not a public health concern. The cloudiness is temporary and clears quickly after water is drawn from the tap and the excess air is released.

Sometimes my water is a rusty brown color. What is this?

Brown water is commonly associated with plumbing corrosion problems inside buildings and from rusting hot water heaters. If you have an ongoing problem with brown water, it is probably due to rusting pipes. It is recommended that you run your cold water for 2 to 3 minutes if it has not been used for an extended period of time. This will flush your line. You can avoid wasting water by catching your "flush" water in a container and using it to water your plants or for other purposes. In addition, brown water can result from street construction or water main work being done in the area. Any disturbance to the main, including the opening of a fire hydrant, can cause pipe sediment to shift, resulting in brown water. The settling time of the main will vary, depending on the size of the water main.

SAFE DRINKING WATER ... ITS EVERYBODY'S BUSINESS

How to read this table

This table shows the results of the Cobb County-Marietta Water Authority's laboratory analysis of your water during the period of January 2002 through December 2002. The table lists the name of each substance tested, the maximum level allowed in drinking water (MVL), the idea goals for public health (MCLG), the highest level detected, and the range of levels detected. Also noted is the usual source of our findings.

The Georgia Environmental Protection Division has determined that the concentration of certain water quality monitoring parameters does not frequently change within our system, therefore some of the data presented in this report are greater than one year old.

Definitions

AL – *Action Level: The concentration of a contaminant which trigger's treatment or other requirement which a water system must follow.*

MCL – *Maximum Contaminant Level: The highest level of a contaminant that is allowed in drinking water.*

MCLG – *Maximum Contaminant Level Goal: The "ideal" level of a contaminant in drinking water below which there is no known or expected harm or health.*

NTU – *Nephelometric Turbidty Unit: The amount of light disbursed as it passes through a column of water.*

ppb – *parts per billions (µg/L)*

ppm – *parts per million or milligrams (mg/L)*

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

► INORGANIC CONTAMINANTS

Contaminants	Test Date	Unit	MCL	MCLG	Detected Level	Range	Major Sources	Violation
Fluoride[1]	07/14/02	ppm	4	4	1.1	0.82 - 1.1	Erosion of natural deposits; water additive which promotes strong teeth	No
Nitrate	03/21/02	ppm	10	10	1.2	<0.2 - 1.2	Runoff from fertilizer use; leaching from septic tanks; erosion of natural deposits	No
Lead	IMPORTANT: SEE ENCLOSED STATEMENT ON FAILURE TO MONITOR VIOLATION							
Copper	IMPORTANT: SEE ENCLOSED STATEMENT ON FAILURE TO MONITOR VIOLATION							

► DISINFECTION BY-PRODUCTS, BY-PRODUCT PRECURSORS, AND DISINFECTANT RESIDUALS

Total Trihalomethanes	05/17/02	ppb	80	0	48.9	15.3 - 115.5	By-products of drinking water disinfection.	No
Total Haloacetic Acids	05/17/02	ppb	60	0	58.0	11.5 - 95.0	By-products of drinking water disinfection.	No
Total Organic Carbon—Untreated Water	04/03/02	ppm	TT	N/A	2.3	1.6 - 3.4	Decay of organic matter in the water withdrawn from sources such as lakes and streams	No
Total Organic Carbon—Treated Water	04/03/02	ppm	TT	N/A	1.4	0.9 - 1.8	Decay of organic matter in the water withdrawn from sources such as lakes and streams	No
Chlorite	12/02/02	ppm	1.0	0.8	0.3	<0.01 - 0.30	By-products of drinking water disinfection.	No
Chlorine—Free	01/24/02	ppm	MRDL = 4	MRDLG = 4	0.9	0.1 - 1.7	Drinking water disinfectant.	No

► TURBIDITY

Turbidity is a measure of the cloudiness of the water. The water is monitored because it is a good indicator of water quality. High turbidity can hinder the effectiveness of disinfection.

MCL	MCLG	Level Found	Range	Sample Date	Violation	Typical Source
TT – 5 NTU	0	0.28	N/A	01/10/02	No	Soil runoff
TT = percentage of samples < 0.5 NTU	0	100%	N/A	01/10/02	No	Soil runoff

► IRC CONTAMINANTS

*The City of Austell participated in a major drinking water testing program called the **Information Collection Rule (ICR).** In the following table are the results of testing of contaminants detected. The major sources of these contaminants are by-products of drinking water disinfection, with the exception of Free Chlorine, which the major source is a drinking water disinfectant and Chlorine Dioxide, which is a drinking water disinfectant and an oxidant for contaminants. There were no violations.*

Contaminant	Date Tested	Unit	MCL	MCLG	Detected Level	Range
Total Aldehydes	01/28/98	ppb	Not Regulated	Not Regulated	5.0	3.7 - 5.0
Chloropicrin	05/27/98	ppb	Not Regulated	Not Regulated	1.9	Not Detected - 1.9
Chloral Hydrate	08/26/98	ppb	Not Regulated	Not Regulated	7.0	1.9 - 7.0
Chlorine Dioxide	03/25/98	ppm	Not Regulated	Not Regulated	1.5	0.1 - 1.5
Chlorate	01/28/98	ppb	Not Regulated	Not Regulated	124	22 - 124
Total Haloacetilenenitriles	05/27/98	ppb	Not Regulated	Not Regulated	4.4	Not Detected - 4.4
Total Organic Halide (TOX)	04/29/98	ppb	Not Regulated	Not Regulated	254	94 - 254

► MICROBIOLOGICAL CONTAMINANTS

Contaminant	MCL	MCLG	Highest Level Detected	Average Level Detected	Violation
Total Coliform Bacteria	< 5% positive samples during a monthly sampling period	0% positive samples during a monthly sampling period	0.0%	0.0%	No
Escherichia coli (E. coli) Bacteria	< 5% positive samples during a monthly sampling period	0% positive samples during a monthly sampling period	0.0%	0.0%	No

[1]*Fluoride is added to water to help in the prevention of dental cavities (caries) in children.*

Source Water Assessment Project

A source water assessment is a study and report, unique to each water system that provides basic information used to provide drinking water.

The Source Water Assessments:

- Identify the area of land that contributes the raw water used for drinking water,
- Identify potential sources of contamination to drinking water supplies, and
- Provide an understanding of the drinking water supply's susceptibility to contamination.

For additional information on the Source Water Assessment Project, visit the Atlanta Regional Commission web site at:

http://www.atlantaregional.com/swap/

Health Information

To ensure tap water is safe to drink, the Environmental Protection Agency prescribes limits on the amount of certain contaminants in water provided by public water systems. The Food and Drug Administration regulations establish limits for contaminants in bottled water.

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. More information about contaminants and potential health effected can be obtained by call the Safe Drinking Water Hotline at 1-800-426-4791.

The sources of drinking water (both tap and bottled water) includes 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 radioactive material, and can pick up substances resulting from the presence of animals or from human activity. Contaminants that may be present in source water include:

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

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

(c) Pesticides and herbicides which may come from a variety of sources such as agriculture, storm water runoff, and residential uses.

(d) Organic chemical contaminants, including synthetic (man-made) and volatile organics, which are by-products of industrial processes and petroleum production, and can also come from gasoline stations, urban storm water runoff, and septic systems.

(e) Radioactive contaminants, which can be naturally-occurring or be the result of oil and gas production and mining activities.

Water Conservation

In or out of every drought, every resident can save hundreds of gallons of water every week by following these water-saving tips.

BATHROOM

» Do take short showers and save five to seven gallons a minute.

» Do fill the tub halfway and save ten to fifteen gallons.

» Do install water-saving toilets, showerheads, and faucet aerators. Place a plastic bottle filled with water in your toilet tank if you cannot switch to a low flow toilet.

» Do not run the water while shaving, washing your hands, or brushing your teeth. Faucets use two to three gallons per minute.

» Do not use the toilet as a wastebasket, and do not flush it unnecessarily.

KITCHEN AND LAUNDRY

» Do run the dishwasher and washing machine only when full.

» Do install faucet aerators.

» Do not let the water run while washing dishes. Kitchen faucets use two to three gallons per minute. Filling a basin only taken ten gallons to wash and rinse.

» Do not run water to make it cold. Have it chilled in the refrigerator, ready to drink.

EVERYWHERE

» Do repair leaky faucets and turn taps off tightly. A slow drip wastes fifteen to twenty gallons each day.

» Do not open fire hydrants.

OUTDOOR

» Do use a self-closing nozzle on your hose.

» Do not wash your sidewalk – sweep them clean.

» Do not over water your lawn or plants. Water before 9:00 am or after 7:00 pm.

VISIT OUR WEB SITE

www.austell.org