

# Annual Water Quality Report

January 2002 — December 2002

## Why This Report?

The Cobb County Water System is committed to delivering to you, our customer, water that meets or exceeds federal and state quality standards. We are pleased this 2002 Water Quality Report shows we are doing that. Our priority is to deliver safe water to your home or business each day. We make significant efforts to protect our water resources for both existing needs and future generations.

The following pages provide the drinking water analysis summary results of a continuous testing program. This analysis demonstrates the meeting or exceeding of the goals set by federal and state agencies to protect public health. Important definitions are provided to help further clarify the information. The Cobb Water Quality Report is also posted on the Cobb County Water System's Internet website [www.cobbwater.org](http://www.cobbwater.org). For additional information contact our Customer Service Division at (770) 423-1000.

The bottom line is we provide safe, quality drinking water to you 24 hours a day, seven days a week, 365 days a year because we know that safe, good drinking water is vital to the health and well being of our community.

## Who Provides My Water?

You are a customer of the Cobb County Water System, an agency of Cobb County Government. We distribute treated water to you and treat wastewater in a manner safe to our families and the environment.

The Water System purchases water from the Cobb County-Marietta Water Authority (CCMWA), a utility providing treated drinking water on a wholesale basis to other cities and counties in the region. CCMWA treats drinking water using state-of-the-art equipment and ensures water quality through continued monitoring and testing. Tap water is delivered to more than 156,000 customer accounts representing over 500,000 people in the Cobb Water System's service area.

During 2002 the CCMWA completed a comprehensive source water assessment of potential sources of water pollution to our surface drinking water supplies. Additionally, a wellhead protection plan of our groundwater supply was completed. The resulting information is important for understanding the potential for contamination of drinking water supplies. It is used to prioritize the need for protecting drinking water sources. For more information on this project visit the Source Water Assessment website at [www.atlantaregional.com/swap](http://www.atlantaregional.com/swap) or you can request information by mail from the Atlanta Regional Commission, Environmental Planning Division, 40 Courtland Street, NE, Atlanta, GA 30303, Attention: Matthew Harper.

## Where Does My Water Come From?

Your water comes from one of three sources. Most of the water is drawn from the Chattahoochee River and Lake Allatoona. In recent years, a supplemental groundwater (well) source has been tapped during peak demand times. These sources are located entirely in Georgia. The CCMWA has two plants that treat as much as 136 million gallons a day (MGD) of drinking water fed from the two bodies of surface water. *Quarles Treatment Plant* treats Chattahoochee River water, and *Wyckoff Treatment Plant* treats Lake Allatoona water. After treatment at the CCMWA plants, the finished water is fed to the Cobb County Water System's distribution lines and finally to your home or business.

## How Is My Water Treated?

The process begins by pumping untreated water from the river or lake into sedimentation basins where large particles are removed and the water is disinfected. The water is directed to a process called *flocculation* which is a gentle mixing of the water with a coagulant. This allows particles, called "floc", to form and settle, clarifying the water. Next the water is put through a filtration system where water flows through sand filters trapping even smaller particles. After filtration, chemicals are added for final disinfection. Except for chlorine and fluoride, every chemical used in the treatment process is removed before the finished water is distributed to you.

## Why Are There Contaminants?

The 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 and can pick up substances resulting from the presence of animals or human activity. There are contaminants that may be present in raw (untreated) water including: **microbial contaminants**, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations and wildlife; **inorganic compounds** 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; **pesticides and herbicides** which may come from sources such as agriculture, storm water runoff and residential uses; **organic chemical contaminants** including synthetic and volatile organics, which are by-products of industrial processes and petroleum production, or waste from gas stations, urban storm water runoff, and septic systems; and **radioactive contaminants** occurring naturally or resulting from gas and oil production and mining activities.

When there are contaminants, the U.S. Environmental Protection Agency (EPA) has set treatment methods to reduce them to levels that protect human health. CCMWA's laboratory continuously monitors water quality to be sure it is properly treated to EPA standards. In addition over 200 water samples throughout the Cobb County distribution system are taken randomly each month and tested.

Tap water is regulated by the EPA, which sets limits for the compounds that can be present in drinking water. 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 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 at 1 (800) 426-4791**.



## Concerning Lead in our water

Infants and young children are typically more vulnerable to lead (atomic symbol Pb) in drinking water than the general population. It is possible that lead levels at your home may be higher than those at other homes in the community as a result of materials used in your home's plumbing. In order to ensure the lowest possible lead levels, tap water should be flushed for thirty seconds to two minutes before using. If you are concerned about elevated lead levels in your home's water, you can have the water tested. Additional information is available from the EPA's Safe Drinking Water Hotline at **1 (800) 426-4791**. Contact the Cobb Extension Office at (770) 528-4070 for information regarding lead testing of your water for a nominal fee.

### How to read this report

The table shows the results of the Cobb County-Marietta Water Authority's laboratory analysis of your water during the period of January through December 2002. The table lists the name of each substance tested, the maximum level allowed in drinking water (MCL), the ideal goals for public health (MCLG), the amounts detected, and the range of levels detected. Also noted are the usual sources of such contamination and an explanation of our findings.

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

### What exactly are *Cryptosporidium* and *Giardia*?

*Cryptosporidium* [krip'.to.spor.id'.ê.um] and *Giardia* [jê.är'dê.e.jär'] are microscopic parasites found in surface waters (*rivers, lakes, streams or ponds*) especially when these waters contain a high amount of sewage or animal waste. If ingested through food or drink, they can cause symptoms that include diarrhea, nausea or stomach cramps. As other conditions can cause these same symptoms, a special laboratory test is needed to confirm the cause. Your tap water is continually tested and treated to prevent exposure to these parasites. ***Cryptosporidium* and *Giardia* have never been found in our treated drinking water.**

During testing of raw (untreated) water at the intake area on Lake Allatoona in 1999 and 2000, no *Cryptosporidium* and/or *Giardia* were detected. However, during testing of raw (untreated) water at the intake area on the Chattahoochee River north of Johnson Ferry Road, *Cryptosporidium* and/or *Giardia* were present in samples from several months during 1999.

The levels detected were not a violation and caused no health threat to the population. CCMWA's treatment process removes this contamination, so there was no need for precaution with our drinking water.

## Notice to People with Health Concerns

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 infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. EPA/CDC guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants, are available from the EPA's Safe Drinking Water Hotline at **1 (800) 426-4791**.

### Definitions

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

**Maximum Contaminant Level or MCL:**

The highest level of a contaminant that is allowed in drinking water. MCL's are set as close to the MCLG's as feasible using the best available treatment technology.

**Maximum Contaminant Level Goal or MCLG:**

The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLG's allow for a margin of safety.

**Maximum Residual Disinfectant Level or MDRL:**

The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbiological contaminants.

**Maximum Residual Disinfectant Level Goal or MRDLG:**

The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLG's do not reflect the benefits of the use of disinfectants to control microbial contaminants.

**n/a** not applicable.

**n/d** not detectable.

**NTU** nephelometric turbidity units (measures the cloudiness of water).

**ppm** parts per million (or milligram per liter which corresponds to one penny in \$10,000).

**ppb** parts per billion (or microgram per liter which corresponds to one penny in \$10,000,000).

**range** the highest to the lowest level detected.

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

Water quality data for community water systems throughout the United States are available on the internet at [www.waterdata.com](http://www.waterdata.com).

### MICROBIOLOGICAL CONTAMINANTS

Substance	Date Tested	Unit	Highest Level Allowed (MCL)	Ideal Goal (MCLG)	Amount Detected	Range	Likely Source(s)	Violation
Total Coliform Bacteria (TC)	3/02, 5/02	percent	Less than 5% positive samples during a monthly sampling period.	0% positive samples during a monthly sampling	0.5% <sup>a</sup>	n/a	Naturally present in the environment.	No
	8/02							
	9/02							

<sup>a</sup> 1 positive sample out of 213 samples tested during the month.

<sup>b</sup> 2 positive samples out of 216 samples tested during the month.

# Drinking Water Analysis Table

(Data in this report is furnished by the CCMWA)

## INORGANIC CONTAMINANTS

Substance	Date Tested	Unit	Highest Level Allowed (MCL)	Ideal Goal (MCLG)	Amount Detected	Range	Likely Source(s)	Violation
Fluoride <sup>1</sup>	7/14/02	ppm	4	4	1.1	0.82 - 1.1	Erosion of natural deposits; water additive which promotes strong teeth.	No
Lead	<b>***** IMPORTANT - SEE THE STATEMENT ON THE FAILURE TO MONITOR VIOLATION *****</b>							
Copper	<b>***** IMPORTANT - SEE THE STATEMENT ON THE FAILURE TO MONITOR VIOLATION *****</b>							
Nitrate	3/21/02	ppm	10	10	1.2	<0.2 - 1.2	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits.	No

<sup>1</sup> Fluoride is added to the drinking water to help in the prevention of dental cavities in children.

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

Total Trihalomethanes (TTHM's)	5/17/02	ppb	80	0	48.9	15.3 - 115.5	By-product of drinking water disinfection.	No
Total Haloacetic Acids (THAA's)	5/17/02	ppb	60	0	58.0	11.5 - 95.0	By-product of drinking water disinfection.	No
Total Organic Carbon (TOC)-Untreated Water	4/3/02	ppm	TT	n/a	2.3	1.6 - 3.4	Decay of organic matter in the water withdrawn from water sources such as lakes and streams.	No
Total Organic Carbon (TOC)-Treated Water	4/3/02	ppm	TT	n/a	1.4	0.9 - 1.8	Decay of organic matter in the water withdrawn from water sources such as lakes and streams.	No
Chlorite	12/2/02	ppm	1.0	0.8	0.30	<0.1 - 0.30	By-product of drinking water	No
Chlorine <sub>Free</sub>	4/2/02	ppm	MRDL = 4	MRDLG = 4	1.1	0.1 - 2.0	Drinking water disinfectant	No

## ICR CHEMICAL CONTAMINANTS

The Cobb County-Marietta Water Authority participated in a major drinking water quality testing program called the Information Collection Rule (ICR). In the following table are the results of testing of contaminants detected. This program terminated in 1998.

Total Aldehydes	1/28/98	ppb	not regulated	not regulated	5.0	3.7 - 5.0	By-product of drinking water disinfection.	n/a
Chloral hydrate	8/26/98	ppb	not regulated	not regulated	7.0	1.9 - 7.0	By-product of drinking water disinfection.	n/a
Chlorate	1/28/98	ppb	not regulated	not regulated	124.0	22 - 124.0	By-product of drinking water disinfection.	n/a
Chlorine dioxide	3/25/98	ppm	not regulated	not regulated	1.5	0.1 - 1.5	Drinking water disinfectant. Oxidant for contaminants.	n/a
Chlorite	3/25/98	ppb	not regulated	not regulated	136.0	20 - 136.0	By-product of drinking water disinfection.	n/a
Chloropicrin	5/27/98	ppb	not regulated	not regulated	1.9	n/d - 1.9	By-product of drinking water disinfection.	n/a
Total Haloacetonitriles	5/27/98	ppb	not regulated	not regulated	4.4	n/d - 4.4	By-product of drinking water disinfection.	n/a
Total Organic Halide (TOX)	4/29/98	ppb	not regulated	not regulated	254.0	94 - 254.0	By-product of drinking water disinfection.	n/a

## TURBIDITY

Turbidity <sup>2</sup>	1/10/02	NTU	<u>TT = 5 NTU</u> TT = percentage of samples <0.5 NTU	0	<u>0.28 NTU</u> 100 %	<u>n/a</u> n/a	Soil runoff.	No
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<sup>2</sup> Turbidity is a measure of the cloudiness of the water.

We monitor it because it is a good indicator of water quality. High turbidity can hinder effectiveness of disinfectants.

Our water system did not meet the technical monitoring provisions of the federally-mandated Lead and Copper Rule. This represents a procedural error and not a water quality issue. However, you, the customer, have a right to know what occurred and what is being done to correct the situation.

Contaminant	Required Sampling Frequency	Number of Samples Taken	When all samples should have been taken	When samples will be taken
Lead	50 samples/six months	49	July 2002 – September 2002	July 2003 – September 2003
Copper	50 samples/six months	49	July 2002 – September 2002	July 2003 – September 2003

We are required to monitor your drinking water for specific contaminants on a regular basis. Results of regular monitoring are an indicator of whether or not your drinking water meets health standards. During July 2002 through September 2002, we did not complete all monitoring or testing for lead and copper and therefore cannot be sure of the quality of our drinking water during that time.

***What happened?***

During the monitoring period between July 2002 and the end of September 2002, 50 water samples were required to be collected and tested for lead and copper. Samples are collected by Cobb County Water System (CCWS) customers, then analyzed by the Georgia Environmental Protection Division (GaEPD) certified laboratory. Due to a sampling error by one of the customer participants, one sample was collected improperly. This one sample was disqualified and resulted in a Failure to Monitor (FTM) violation.

***What is being done?***

Because of the FTM violation, all samples must be redone during the next round of sampling. In order to comply with regulations and ensure the health of our customers, measures are being taken to qualify the sample sites that will be used in this next round of testing, which occurs from June 2003 through September 2003.

***What should I do?***

While there is no immediate action that should be taken by the customer, it is always recommended that 1) only water from the cold-water tap be used for consumption and 2) the tap be flushed for a period of 30 seconds to 2 minutes before using if the tap has not been used for two hours or more.

Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.

**Questions?**  
**Call Customer Service**  
**(770) 423-1000**

Learn more about Cobb County Water System at

[www.cobbwater.org](http://www.cobbwater.org)

Send written correspondence to:  
*Cobb County Water System*  
*Water Quality Report*  
*660 South Cobb Drive*  
*Marietta, GA 30060*  
*FAX (770) 419-6478*  
*PWSID # 0670003*

**En Español**  
*Este informe contiene*  
*información muy importante.*  
*Tradúscalo o hable con un*  
*amigo quien lo entienda bien.*

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Distribution: July 1, 2003

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