

Cobb County Water System Annual Water Quality Report

January 2005 — December 2005

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 2005 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. 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. 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 your 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 170,000 customer accounts representing over 500,000 residents 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 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?

The Cobb County – Marietta Water Authority has two (2) surface water sources supplying two treatment facilities. The Wyckoff Treatment Division is supplied from Lake Allatoona, a Corps of Engineers impoundment in north Cobb, south Cherokee and south Bartow counties. The Quarles Treatment Division receives water from the Chattahoochee River. 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 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; **pesticides and herbicides** which may come from a variety of sources such as agriculture, storm water runoff and residential uses; **organic chemical contaminants** including synthetic (man-made) 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.

To ensure tap water is safe to drink, EPA sets limits on the amount of certain contaminants in water provided by public water systems. Food and Drug Administration (FDA) 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**.

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**.

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 2005. 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.

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.

Definitions

Action Level (AL):

The concentration of a contaminant which if exceeded, triggers treatment or other requirements that a water system must implement.

BDL Below Detection Limits

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 MRDL:

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.

What exactly are Cryptosporidium and Giardia?

The Cobb County – Marietta Water Authority 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. *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.**

The table below lists the occurrences of both parasites in 1999 testing of raw (untreated) water at the Chattahoochee River raw water intake north of Johnson Ferry Road. These were detected in raw water prior to treatment.

<i>Cryptosporidium</i> occurrences	
Date	# of Oocysts/10 L
June 16, 1999	1
June 29, 1999	1
September 28, 1999	1
November 8, 1999	2

<i>Giardia</i> occurrences	
Date	# of Cysts/10 L
September 28, 1999	19
October 12, 1999	9
October 25, 1999	10
November 8, 1999	10
November 22, 1999	6

During the same monitoring periods as the Chattahoochee River, the water at Lake Allatoona was tested. No oocysts or cysts were detected.

In order to comply with an upcoming federal regulation, the Cobb County – Marietta Water Authority has been monitoring for *Cryptosporidium* and *Giardia* in the raw water from both its water sources, the Chattahoochee River and Lake Allatoona. The monitoring was performed on both Lake Allatoona and the Chattahoochee River water sources monthly during 2005. No *Cryptosporidium* oocysts were detected at either source. *Giardia* cysts were detected in two of the twelve samplings. Again, **these organisms were detected in the water prior to treatment**. All of the occurrences were at the Chattahoochee River intake:

<i>Giardia</i> occurrences	
Date	# of Cysts/10 L
January 14, 2005	2
February 14, 2005	1

Drinking Water Analysis Table

(Data in this report is furnished by the CCMWA)

INORGANIC CONTAMINANTS								
Contaminant	Date Tested	Unit	Highest Allowed (MCL)	Ideal Goal (MCLG)	Detected Level	Range	Likely Sources	Violation
Fluoride ¹	2/18/2005	ppm	4	4	2.36	0.70 – 2.36	Erosion of natural deposits; water additive which promotes strong teeth.	NO
Lead ²	09/07/2005	ppb	AL =15	0	7	n/a	Corrosion of household plumbing systems.	NO
Copper ³	08/24/2005	ppm	AL =1.3	0	0.03	n/a	Corrosion of household plumbing systems.	NO
Nitrate	03/02/2005	ppm	10	10	0.49	0.30 – 0.49	Runoff from fertilizer use; leaching from septic tanks; erosion of natural deposits.	NO

Notes:
¹Fluoride is added to water to help in the prevention of dental cavities (caries) in children.
²Of the 50 sites tested, none exceeded the action level.
³Of the 50 sites tested, none exceeded the action level.

DISINFECTION BY-PRODUCTS, BY-PRODUCT PRECURSORS AND DISINFECTANT RESIDUALS								
Contaminant	Date Tested	Unit	MCL	MCLG	Detected Level	Range	Likely Sources	Violation
TTHM's <small>(Total Trihalomethanes)</small>	08/10/2005	ppb	80	0	69.9	12.3 – 98.4	By-products of drinking water disinfection.	NO
THAA's <small>(Total Haloacetic Acids)</small>	08/10/2005	ppb	60	0	35.9	8.6 – 46.3	By-products of drinking water disinfection.	NO
TOC <small>(Total Organic Carbon)</small>	09/12/2005	ppm	n/a	n/a	2.20	1.00 – 2.20	Decay of organic matter in the water withdrawn from sources such as lakes and streams.	NO
Chlorite	07/06/2005	ppm	1.0	0.8	0.38	0.09 – 0.38	By-product of drinking water disinfection.	NO
Chlorine _{Free}	12/29/2005	ppm	MRDL = 4	MRDLG = 4	2.08	BDL ¹ – 2.08	Drinking water disinfectant.	NO

¹Detection Limit for chlorine is 0.05 mg/L. Disinfection was confirmed by heterotrophic plate count. This is a method that measures total bacteria in a sample. The result was within acceptable limits.

MICROBIOLOGICAL CONTAMINANTS									
Contaminant	Date Tested	Unit	MCL	MCLG	Amount Detected	Range	Likely Source	Violation	
Total coliform bacteria	02/05 11/05	percent	Less than 5% positive samples during a monthly sampling period.	0% positive samples during a monthly sampling period	0.4% ^a 0.9% ^b	n/a	Naturally present in environment.	NO	

^a 1 positive sample out of 223 samples tested during the month
^b 2 positive samples out of 220 samples tested during the month

TURBIDITY								
Contaminant	MCL	MCLG	Level Found	Range	Sample Date	Likely source	Violation	
Turbidity ⁴	TT = 1 NTU	0	0.21	n/a	11/19/2005	Soil runoff.	NO	
	TT = percentage of samples <0.3 NTU		100%	n/a				

Note:
⁴Turbidity 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 the effectiveness of disinfectants.

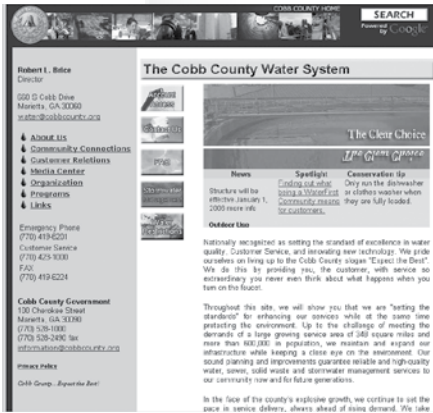
Update on the Cobb County Water System

Cobbwater.org Receives Face-lift

The Cobb County Water System is pleased to announce the renovation of our fully functional website located at www.cobbwater.org.

We hope that you will take a moment to visit our site for detailed information on the Cobb County Water System.

On the website, you will notice the vibrant page design, the easy to use navigation and directory system, and an overall expansion of services provided online. The site offers up to date information on public education programs, regulations, informational events, breaking news, and 24 hour access to your customer account where monthly payments can be securely made. Future additions to the site will include educational resources and the expansion of an "online library" of our materials to better serve you, the customer.



Cobb Water's Efficiency Plan

On January 1, 2006, Cobb County Water System introduced a new three tier water conservation based rate. The new rate bills customers at an increasing rate for water use over the base tier of 0-8,000 gallons of use. This rate schedule adjustment was mandated by the state of Georgia.

Georgia faces climatic and population growth issues that will impact the future of its water resources. To help address these issues Cobb County Water System has created the Water Efficiency Program. This program is designed to inform citizens about why conserving our water resources is vital; and provides methods to use water efficiently and save money on their water bills. Some of the services available to customers are:

- ♣ A new water bill designed to educate customers about their water use.
- ♣ A no-cost water saving retrofit kit distribution program.
- ♣ Traveling information displays throughout the County.
- ♣ Civic and school programs about water efficiency.
- ♣ At home water audit brochure.
- ♣ Showerhead give-aways throughout the year.

To take advantage of any of these programs or to get information on additional programs call the Water Efficiency Office at 770.419.6244.

Questions?

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

Learn more about Cobb County Water System at

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 Espanol

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

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