

Cobb County Water System

Annual

WATER QUALITY REPORT

Report

January 2007 - December 2007

Cobb County Water System

The Cobb County Water System (CCWS) recognizes that protecting the environment in an urban setting is important and requires a comprehensive approach. Our goals include helping our county residents increase their understanding of water, sewer and stormwater issues, see what efforts are being made to protect the environment, and learn how they can take part in these efforts.

Cobb Water's education programs include:

- Watershed Stewardship (770) 528-8215
- Backflow Prevention (770) 528-3343
- Grease and Oil Recovery (770) 419-6430
- Partners in Education (770) 419-6295
- Stormwater Management (770) 419-6441
- Water Efficiency (770) 419-6244
- CMOM Program (770) 419-6359

To learn more about CCWS and these programs, please visit our website at www.cobbwater.org.

Other Important Contacts:

- Main Customer Service Line (770) 423-1000
Call Center
- 24/7 Water Restriction Information & Reporting Line
Call to leave a message (770) 419-6278
- 24/7 Emergency Service (770) 419-6201
Emergency Dispatch

Drought Update

Are we still in drought? Yes, we are. In North Georgia rainfall remains below normal; streams continue to be the lowest they have been in 50 years. Though we have had some rain, we need consistent soaking rain in order to make a long-term improvement. The climate prediction for our region is for an unusually hot and dry summer.

What can you do?

- Know the rules and view the Drought Response Plan at www.cobbcountyga.gov/drought-information.htm.
- Use alternate irrigation sources: rain water, A/C condensate, and water you catch as it heats up make a great way to protect your plants.
- Prioritize! Most grass will go dormant and come back when rain returns. Use limited water to save trees, shrubs and plants.
- Take a shorter shower. Cut back by one minute and save up to five gallons a day.

Why This Report?

The Cobb County Water System (CCWS) is committed to delivering to you, our customer, water of quality that meets or exceeds federal and state standards. We are pleased this 2008 Water Quality Report shows we are doing that. This report, also called the Consumer Confidence Report, covers the calendar year 2007. 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 clarify the information further. The CCWS's Water Quality Report is also posted on our Internet website at 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 it is vital to the health and well being of our community.

Who Provides My Water?

You are a customer of the CCWS, an agency of Cobb County Government. We distribute treated water to you and treat wastewater in a manner safe for 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 174,000 customer accounts representing over 689,000 residents in the CCWS's service area.

During 2002 the CCMWA and the Atlanta Regional Commission completed a source water assessment of potential sources of pollution that might impact our surface drinking water supplies. This information can help you understand the potential for contamination of your drinking water supplies and can be used to prioritize the need for

protecting drinking water sources.

A Source Water Assessment is a study and report which provides the following information: (1) Identifies the area of land that contributes the raw water used for drinking water; (2) identifies potential sources of contamination to drinking water supplies, and (3) provides an understanding of the drinking water supply's susceptibility to contamination.

For more information on this project visit the Source Water Assessment website at www.atlantaregional.com/swap/ or 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 was created by the Georgia State Legislature in 1951 for the purpose of providing potable water to Cobb County. The CCMWA operates two water treatment facilities having a total capacity of 136 million gallons per day.

The Wyckoff Treatment Plant located in northwestern Cobb County is supplied by Lake Allatoona, a Corps of Engineers impoundment of the Etowah River that also extends into Cherokee and Bartow counties. The Quarles Plant is in eastern Cobb County and draws its water directly from the Chattahoochee River. Flows in the River are controlled in large part by discharge from Lake Lanier, a second Corps of Engineers impoundment. Both of these watersheds upstream of the withdrawal points are entirely within the State of Georgia.

After treatment at these plants, water is transported to various areas within the County where it is fed into CCWS 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 then 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.

Health Related 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. EPA/CDC guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* are available from the EPA's ***Safe Drinking Water Hotline*** at 1 (800) 426-4791.

Water quality data for community water systems throughout the United States are available on the internet at www.waterdata.com.

Concerning Lead In Our Water

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. The CCWS is responsible for providing high quality drinking water, but cannot control the variety of materials used in home plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for thirty seconds to two minutes before using water for drinking or cooking.

If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline or at <http://www.epa.gov/safewater/lead>.

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 source 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 CCWS 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**.

What 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. These parasites are common in surface water, very difficult to kill and even a well-run water system may contain some live oocysts (in the case of *Cryptosporidium*) or cysts (in the case of *Giardia*). The U.S. Environmental Protection Agency is working to resolve several scientific issues that will allow it to set *Cryptosporidium* and *Giardia* safety standards.

The testing, performed at the raw (**untreated**) water intake on the Chattahoochee River, located immediately north of the 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. The treatment technique is designed 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 preceding **Why are there contaminants** section of this report.

Cryptosporidium Occurrences

Date	# of Oocysts/10 L
June 16, 1999	1
June 29, 1999	1
September 28, 1999	1
November 8, 1999	2

Giardia Occurrences

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 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:

Giardia Occurrences

Date	# of Cysts/10 L
January 14, 2005	2
February 14, 2005	1

Questions?

Contact Customer Services
(770) 423-1000

Send Written Correspondence:

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.

Learn more about Cobb County Water System at
www.cobbwater.org

How To Read This Report

The table shows the results of the Cobb County-Marietta Water Authority's water quality analysis. The table contains the name of each substance, the highest level allowed by regulation (MCL), the ideal goals for public health (MCLG), the usual sources of such contamination, footnotes explaining our finding, and key to units of measurement. Every regulated contaminant *that we detected* in the water, even in the most minute traces, is listed here.

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.

Definitions

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

BDL: Below Detection Limits

MCL (Maximum Contaminant Level): 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.

MCLG (Maximum Contaminant Level Goal): 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.

MRDL (Maximum Residual Disinfectant Level): 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.

MRDLG (Maximum Residual Disinfectant Level Goal): 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 Unit): measures the cloudiness of water.

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

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

Range: the highest to the lowest level detected.

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

Drinking Water Analysis Table

(Data in this report are furnished by the CCMWA)

Contaminant (Unit)	Date Tested	MCL	MCLG	Detected Level	Range	Major Sources	Violation
Inorganic Contaminants							
Fluoride ¹ (ppm)	03/19/2007	4	4	0.96	BDL-0.96	Erosion of natural deposits; water additive which promotes strong teeth.	No
Lead ² (ppb)	09/07/2005	AL=15	0	7	n/a	Corrosion of household plumbing systems.	No
Copper ³ (ppm)	08/24/2005	AL=1.3	0	0.03	n/a	Corrosion of household plumbing systems.	No
Nitrate (ppm)	03/13/2007	10	10	1.3	0.22 - 1.3	Runoff from fertilizer use; leaching from septic tanks; erosion of natural deposits.	No

Notes:

- 1 - Fluoride is added to water to help in the prevention of dental cavities (caries) in children.
- 2 - Of the 50 sites tested, none exceeded the action level. The next round of testing is due in 2008.
- 3 - Of the 50 sites tested, none exceeded the action level. The next round of testing is due in 2008.

Disinfection By -Products, By-Product Precursors and Disinfectant Residuals							
TTHM's (Total Trihalomethanes) (ppb)	05/10/2007	80	0	42.7	12.8 - 69.4 ¹	By-products of drinking water disinfection.	No
HAA5's (Total Haloacetic Acids) (ppb)	02/05/2007	60	0	23.5	11.1 - 35.0 ¹	By-products of drinking water disinfection.	No
TOC (Total Organic Carbon) (ppm)	07/03/2007	n/a	n/a	2.2	1.0 - 2.2	Decay of organic matter in the water withdrawn from sources such as lakes and streams.	No
Chlorite (ppm)	10/01/2007	1.0	0.8	0.49	0.065 - 0.49	By-product of drinking water disinfection.	No
Chlorine (Free) (ppm)	07/11/2007	MRDL = 4	MRDLG = 4	1.95	BDL ² - 1.95	Drinking water disinfectant.	No

Notes:

- 1 - This contaminant is regulated by the average concentration over a period of a year.
- 2 - Detection 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							
Total coliform bacteria (%)	03/2007	<5% positive samples (monthly)	0% positive samples (monthly)	.45% ¹	Highest Detected	Naturally present in environment.	No
	04/2007			.45% ²			
05/2007	1.31% ³						
09/2007	.88% ⁴						
11/2007	.45% ⁵						
E. coli bacteria (%)	09/2007	<5% positive samples (monthly)	0% positive samples (monthly)	.44% ⁶	.44%	Naturally present in environment.	No

Notes:

- 1) - 1 positive sample out of 223 samples tested during the month.
- 2) - 1 positive sample out of 223 samples tested during the month.
- 3) - 3 positive samples out of 229 samples tested during the month.
- 4) - 2 positive samples out of 226 samples tested during the month.
- 5) - 1 positive sample out of 223 samples tested during the month.
- 6) - 1 positive sample out of 226 samples tested during the month.

Turbidity							
Contaminant	Sample Date	MCL	MCLG	Level Found	Range	Typical Source	Violation
Turbidity ¹	05/24/2007	TT = 1 NTU	0	0.28	n/a	Soil Runoff	No
		TT = percentage of samples <0.3 NTU		100%	n/a		

Notes:

- 1 - 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 the effectiveness of disinfectants.