January 2006 - December 2006

Cobb County Water System Annual Water Quality Report

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 2007 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 clarify the information further. 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 it 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 and the Atlanta Regional Commission completed a comprehensive source water assessment of potential sources of water pollution to our surface drinking water supplies. 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.

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 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.

Where Does My Water Come From?

The Cobb County – Marietta Water Authority has two 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 Chattachoochee 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.

Update on the Cobb County Water System

In order to help customers save water and money, the Water Efficiency Program is announcing a new initiative that encourages customers to maintain their yards with a minimum amount of water. During irrigation season up to 65% of drinking water in Cobb County can be used on outdoor watering. Not only does this affect our delivery system by putting a strain on infrastructure, but many people are actually damaging their yards. Over watering is the number one killer of plants, not drought. The habit of shallow watering every other day actually creates weak water dependent plants unlikely to survive any adverse conditions.

Give them an inch...Grow a yard! gives customers information and materials to help them achieve the beautiful landscapes they want while saving water, and raising healthier plants. Neighborhoods can become *Give them an inch...Grow a yard!* Communities by having Water System staff come out and give a presentation on efficient outdoor water use or by distributing our educational material.

Local businesses can become *Give them an inch...Grow a yard!* Partners by carrying our educational materials for their customers.

To find out more on how to help your neighborhood or local business become a *Give them an inch... Grow a Yard!* Partner or Community visit http://www.cobbwater.org/efficiency.htm

To contact the Cobb County Water Efficiency office,
Call: (770) 419-6244 or
email: kathy.nguyen@cobbwater.org.

Our 2006 achievements:

Organization

- Achievement Award (National Association of Counties)
  Awarded in recognition of an innovative program which contributes to and enhances county government in the United States.
- Public Education Program of the Year (GAWP)
  Awarded for an exemplary public education program that promotes understanding of the water and wastewater industry and the importance of protecting our water resources.
- Distribution System of the Year (GAWP)
  Awarded to the System Maintenance Division for Outstanding Operation of a Water Distribution System in the category of Large Systems (Over 50,000 Customers).
- Wastewater Collections Award (GAWP)
  Awarded for outstanding operation of a Wastewater collection system in the category of large systems (more than 50,000 customers).

Facilities

- R.L. Sutton - Platinum Award (GAWP)
  For 7 consecutive years of complete and consistent NPDES Permit Compliance.
- Northwest - Platinum Award (GAWP)
  For 5 consecutive years of complete and consistent NPDES Permit Compliance.
- Noonday - Gold Award (GAWP)
  For complete and consistent NPDES Permit Compliance.

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 information muy importante. Traduscalo o hable con un amigo quien lo entienda bien.

Distribution: May 2007

Annual Water Quality Report
January 2006 — December 2006

Cobb County Water System
Water Quality Report
660 South Cobb Drive
Marietta, GA 30060-3113

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 2006. The table lists the name of each substance tested, the highest level allowed in drinking water (MCL), the ideal goals for public health (MCLG), the amounts detected (even the smallest traces), 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.

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

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.**

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.

Drinking Water Analysis Table

(Data in this report is furnished by the CCMWA)

Contaminant (Unit)	Date Tested	MCL	MCLG	Detected Level	Range	Likely Sources	Violation
INORGANIC CONTAMINANTS							
Fluoride[1] (ppm)	02/08/2006	4	4	0.98	0.61- 0.98	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)	03/13/2006	10	10	0.98	0.30 – 0.98	Runoff from fertilizer use; leaching from septic tanks; erosion of natural deposits.	NO
DISINFECTION BY-PRODUCTS, BY-PRODUCT PRECURSORS AND DISINFECTANT RESIDUALS							
TTHM's (Total Trihalomethanes) (ppb)	08/09/2006	80	0	50.1	15.1 - 73.8	By-products of drinking water disinfection.	NO
THAA's (Total Haloacetic Acids) (ppb)	05/10/2006	60	0	30.7	11.4 – 68.3[4]	By-products of drinking water disinfection.	NO
TOC (Total Organic Carbon) (ppm)	12/07/2006	n/a	n/a	1.6	1.10 – 1.60	Decay of organic matter in the water withdrawn from sources such as lakes and streams.	NO
Chlorite (ppm)	10/02/2006	1.0	0.8	0.37	0.14 – 0.37	By-product of drinking water disinfection.	NO
Chlorine (Free) (ppm)	06/13/2006	MRDL = 4	MRDLG = 4	2.4	BDL[5] – 2.4	Drinking water disinfectant.	NO
MICROBIOLOGICAL CONTAMINANTS							
Total coliform bacteria (%)	01/06 04/06 07/06 09/06 12/06	< 5% positive samples (monthly)	0% positive samples (monthly)	0.45%[6] 0.91%[7] 1.36%[8] 0.45%[6] 0.45%[6]	Highest Detected: 1.36%	Naturally present in environment.	NO
TURBIDITY							
Turbidity[9] (NTU)	08/19/2006	TT = 1 NTU	0	0.18	n/a	Soil runoff.	NO
		TT = percentage of samples <0.3 NTU		100%	n/a		

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.
4 - This contaminant is regulated by the average concentration over a period of a year. The single value greater than the MCL is not a violation because during that monitoring period the eight sites monitored averaged 30.7 ppb.
5 - 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.
6 - 1 positive sample out of 220 samples tested during the month.
7 - 2 positive samples out of 220 samples tested during the month.
8 - 3 positive samples out of 220 samples tested during the month.
9 - 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.

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.

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 **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	
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:

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