

Annual Water Quality Report

January 2003— December 2003

Cobb County Water System

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 2003 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. 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 159,000 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 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 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**.

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 ¹	6/26/03	ppm	4	4	1.14	0.72 - 1.14	Erosion of natural deposits; water additive which promotes strong teeth.	No
Lead ²	9/09/03	ppb	AL=15	0	2.6	n/a	Corrosion of household plumbing systems.	No
Copper ³	8/27/03	ppm	AL=1.3	0	0.04	n/a	Corrosion of household plumbing systems.	No
Nitrate	5/14/03	ppm	10	10	0.54	< 0.20 - 0.54	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits.	No

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

² Of the 50 sites tested, 1 exceeded the action level.

³ Of the 50 sites tested, none exceeded the action level.

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

Total Trihalomethanes (TTHM's)	8/13/03	ppb	80	0	58.0	20.1 - 105.5	By-product of drinking water disinfection.	No
Total Haloacetic Acids (THAA's)	8/13/03	ppb	60	0	41.1	7.3 - 96.7	By-product of drinking water disinfection.	No
Total Organic Carbon (TOC)	12/1/03	ppm	n/a	n/a	2.0	1.5 - 2.0	Decay of organic matter in the water withdrawn from water sources such as lakes and streams.	No
Chlorite	3/5/03	ppm	1.0	0.8	0.40	<0.1 - 0.40	By-product of drinking water disinfection.	No
Chlorine _{Free}	7/16/03	ppm	MRDL = 4	MRDLG = 4	1.89	0.01 - 1.89	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
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

MICROBIOLOGICAL CONTAMINANTS

Total Coliform Bacteria (TC)	10/03	percent	Less than 5% positive samples during a monthly sampling period.	0% positive samples during a monthly sampling	0.5% ^a	n/a	Naturally present in the environment.	No
	11/03				0.9% ^b			
	12/03				1.4% ^c			

^a 1 positive sample out of 213 samples tested during the month.

^b 2 positive samples out of 216 samples tested during the month.

^c 3 positive samples out of 219 samples tested during the month.



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 2003. 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.

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 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.

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.

What exactly are *Cryptosporidium* and *Giardia*?

Cryptosporidium [krip'.to.spor.id'.e.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. During the same period none were detected in the area of the Lake Allatoona raw water intake.

Cryptosporidium Occurrences	Giardia Occurrences
6/16/99 - 1 oocyst/10L	9/28/99 - 19 cysts/10L
6/29/99 - 1 oocyst/10L	10/12/99 - 9 cysts/10L
9/28/99 - 1 oocyst/10L	10/25/99 - 10 cysts/10L
11/8/99 - 2 oocyst/10L	11/8/99 - 10 cysts/10L
	11/22/99 - 6 cysts/10L

The table below lists the occurrences of both parasites at Cobb County intakes as a result of 2003 monitoring undertaken at both Cobb County water sources to comply with an upcoming federal regulation. All listed occurrences were at the Chattahoochee River intake; there were none at the Lake Allatoona intake. These were detected in raw water prior to treatment.

Cryptosporidium Occurrences	Giardia Occurrences (continued)
7/14/03 - 1 oocyst/10L	9/22/03 - 2 cysts/10L
Giardia Occurrences	10/13/03 - 1 cyst/10L
7/14/03 - 1 cyst/10L	11/17/03 - 6 cysts/10L
8/18/03 - 1 cyst/10L	12/15/03 - 5 cysts/10L

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.

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

TURBIDITY

Substance	Date Tested	Unit	Highest Level Allowed (MCL)	Ideal Goal (MCLG)	Amount Detected	Range	Likely Source(s)	Violation
Turbidity ⁴	6/29/03	NTU	TT = 5 NTU TT = percentage of samples <0.5 NTU	0	0.37 NTU 100 %	n/a n/a	Soil runoff.	No

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 effectiveness of disinfectants.

Recognizing a Decade of Accomplishment

Providing safe drinking water and wastewater collection and treatment services to nearly 160,000 customer accounts is our business. While Cobb Water is an agency of the Cobb County Government, our operations are supported solely through our revenues and not from tax dollars.

We work to meet your needs today and plan to meet Cobb County's needs into the future. The Cobb County Water System is highly recognized for its unique operational and financial position around the country. Examples include the U.S. Environmental Protection Agency awarding the South Cobb Water Reclamation Facility as the best in the nation in 2003 (>10 mgd category) and the Water System maintaining its triple AAA financial rating from the three national bond rating agencies.

Through proactive operations and capital maintenance programs, Cobb Water provides services to our customers with competitive and reasonable rates. A 2003 survey of 16 Atlanta region public water utilities looked at the monthly water and wastewater bill for a residential customer with 7,000 gallons of usage. With monthly bills ranging from \$34.90 to \$83.00, the Cobb Water bill was the fourth lowest at \$47.72. We're looking to keep it that way.

Finally, Cobb Water is committed to its important role of public education and protecting the environment. We continue to support such programs as waterSmart, Adopt-A-Stream, Partners in Education, Backflow Prevention, Grease & Oil Recovery and Stormwater Management. We encourage your interest and participation in these programs.

We thank you for being our customer.

Georgia Water Conservation Plan

In 2003, the Georgia Department of Natural Resources adopted a State Drought Management Plan that includes outdoor water use schedules for drought and non-drought periods. Since then a voluntary outdoor water use schedule was initiated that applies to homeowners and businesses served by local governments and water utilities:

- Odd-numbered addresses water on Tuesdays, Thursdays, and Sundays (no hourly limits);
- Even-numbered or unnumbered addresses water on Mondays, Wednesdays, and Saturdays (no hourly limits).
- No outdoor water use on Fridays.

It is anticipated that by early summer 2004, the State will establish mandatory restrictions for non-commercial outdoor water use. Water utilities, including Cobb Water, will be expected to support enforcement. The severity of restrictions will relate to weather conditions.

We ask for your cooperation and support in protecting our water resources, and that you monitor the status of outdoor water use restrictions through the news media.

The official state web site for information on the drought is www.georgiadrought.org.

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.
Traduscalo o hable con un
amigo quien lo entienda bien.*

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