

# City of Dallas Water System CCMWA Consecutive System 2010 Annual Water Quality Report

This is an annual report on the quality of water delivered by the Cobb County – Marietta Water Authority. This report meets the federal Safe Drinking Water Act (SDWA) requirements for the “Consumer Confidence Report (CCR)” and contains information on the source of our water, its constituents, and the health risks associated with any contaminants.

Safe water is vital to our community. Please read this report carefully, and if you have any questions, contact Tina Clark at (770) 443-8117.

## Overview

### Water Source

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.

During 2002 the Cobb County – Marietta Water Authority and the Atlanta Regional Commission completed a source water assessment itemizing potential sources of water pollution to 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:

- Identifies the area of land that contributes the raw water used for drinking water,
- Identifies potential sources of contamination to drinking water supplies, and
- 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 <http://www.atlantaregional.com/swap/> or you can request information by mail from the ARC:

Attn: Matthew Harper  
Environmental Planning Division  
Atlanta Regional Commission  
40 Courtland Street, NE  
Atlanta, GA 30303

## An explanation of the Water Quality Data Table

The table shows the results of our water quality analyses. Every regulated contaminant ***that we detected*** in the water, even in the minutest traces, is listed here. 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 a key to units of measurement. Definitions of MCL, MCLG, AL, and TT are important:

**Maximum Contaminant Level (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 (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.

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

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

**Maximum Residual Disinfectant Level (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 (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.

**The data presented in this report are from the most recent testing done in accordance with regulations.**

Key to Table	
AL – Action Level	ppm – parts per million or milligrams per liter (mg/L)
MCL – Maximum Contaminant Level	ppb – parts per billion or micrograms per liter (µg/L)
MCLG – Maximum Contaminant Level Goal:	TT – Treatment Technique
NTU – Nephelometric Turbidity Unit	n/a – not applicable
MRDL – Maximum Residual Disinfectant Level	n/d – not detected
MRDLG – Maximum Residual Disinfectant Level Goal	BDL – Below Detection Limits

### Tables of Contaminants

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

Inorganic Contaminants								
Contaminant	Date Tested	Unit	MCL	MCLG	Detected Level	Range	Major Sources	Violation
Fluoride <sup>1</sup>	06/07/10	ppm	4	4	1.02	0.0-1.02	Erosion of natural deposits; water additive which promotes strong teeth	NO
Lead <sup>2</sup>	07/15/08	ppb	AL = 15	0	9.7	N/A	Corrosion of household plumbing systems.	NO
Copper <sup>3</sup>	09/03/08	ppm	AL =1.3	0	0.032	N/A	Corrosion of household plumbing systems.	NO
Nitrate	03/16/10	ppb	10	10	0.48	0.39-0.48	Runoff from fertilizer use; leaching from septic tanks; erosion of natural deposits	NO

**Notes:**

- <sup>1</sup>Fluoride is added to water to help in the prevention of dental cavities (caries) in children.
- <sup>2</sup>Of the 50 sites tested, 3 exceeded the action level. The next round of testing is due in 2011.
- <sup>3</sup>Of the 50 sites tested none exceeded the action level. The next round of testing is due in 2011.
- <sup>4</sup>Nitrate and Nitrite are measured together.

Disinfection By-Products, By-Product Precursors and Disinfectant Residuals								
Contaminant	Date Tested	Unit	MCL	MCLG	Detected Level	Range	Major Sources	Violation
TTHM's (Total Trihalomethanes)	02/04/10	ppb	80	0	44.0	14.8-82.3	By-products of drinking water disinfection	NO
THAA's (Total Haloacetic Acids)	02/04/10	ppb	60	0	26.0	10.8-35.1	By-products of drinking water disinfection	NO
TOC (Total Organic Carbon)	09/07/10	ppm	TT	N/A	2.10	1.0-2.1	Decay of organic matter in the water withdrawn from sources such as lakes and streams	NO
Chlorite	01/04/10	ppm	1.0	0.8	0.51	0.13-0.51	Byproduct of drinking water disinfection	NO
Chlorine <sub>Free</sub>	02/08/10	ppm	MRDL = 4	MRDLG = 4	2.14	BDL(2)-2.14	Drinking water disinfectant	NO

<sup>1</sup>. This contaminant is regulated by the average concentration over a period of a year.

<sup>2</sup>. 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.

Turbidity							
Contaminant	MCL	MCLG	Level Found	Range	Sample Date	Violation	Typical source
Turbidity <sup>4</sup>	TT = 1 NTU	0	0.16	N/A	12/03/10	NO	Soil runoff
	TT = percentage of samples <0.3 NTU		100%	N/A			

**Note:**  
<sup>4</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 the effectiveness of disinfectants.

Microbiological Contaminants					
Contaminant	MCL	MCLG	Highest level detected (%)	Average detected level (%)	Violation
Total coliform bacteria	<5% positive samples during a monthly sampling period	0% positive samples during a monthly sampling period	0	0	0
<i>Escherichia coli</i> ( <i>E. coli</i> ) bacteria	<5% positive samples during a monthly sampling period	0% positive samples during a monthly sampling period	0	0	0

## Unregulated Contaminants – *Cryptosporidium* spp. and *Giardia lamblia*

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. Our 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. Our 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 below in the **Required Additional Health Information** section.

<b><i>Cryptosporidium</i> occurrences</b>		<b><i>Giardia</i> occurrences</b>	
<b>Date</b>	<b># of Oocysts/10 L</b>	<b>Date</b>	<b># of Cysts/10 L</b>
June 16, 1999	1	September 28, 1999	19
June 29, 1999	1	October 12, 1999	9
September 28, 1999	1	October 25, 1999	10
November 8, 1999	2	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:

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

### Required Additional Health Information

To ensure tap water is safe to drink, EPA prescribes limits on the amount of certain contaminants in water provided by public water systems. The Food and Drug Administration (FDA) regulations establish limits for contaminants in bottled water.

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.**

The sources of drinking water (both tap water 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 radioactive material, and can pick up substances resulting from the presence of animals or from human activity. Contaminants that may be present in source water include:

- a) Microbial contaminants such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations and wildlife.
- b) 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.
- c) Pesticides and herbicides which may come from a variety of sources such as agriculture, storm water runoff, and residential uses.
- d) Organic chemical contaminants, including synthetic (man-made) and volatile organics, which are by-products of industrial processes and petroleum production, and can also come from gasoline stations, urban storm water runoff, and septic systems.
- e) Radioactive contaminants, which can be naturally-occurring or be the result of oil and gas production and mining activities.

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 people, 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](http://www.waterdata.com).

For the person(s) responsible for preparing the system's report, information about this report can be obtained from Tina Clark at the City of Dallas 770-443-8117.

City of Dallas-Microbiological results for 2009	Number of coliform-positive samples	Number of samples collected	% Total coliform-positive samples	Number of <i>E. coli</i> -positive samples	Number of samples collected	% <i>E. coli</i> -positive samples
Jan-10	0	8	0.00%	0	8	0.0%
Feb-10	0	8	0.00%	0	8	0.0%
Mar-10	1	11	0.125%	0	11	0.0%
Apr-10	0	8	0.00%	0	8	0.0%
May-10	0	8	0.00%	0	8	0.0%
Jun-10	0	8	0.00%	0	8	0.0%
Jul-10	0	8	0.00%	0	8	0.0%
Aug-10	0	8	0.00%	0	8	0.0%
Sep-10	0	8	0.00%	0	8	0.0%
Oct-10	0	8	0.00%	0	8	0.0%
Nov-10	0	8	0.00%	0	8	0.0%
Dec-10	0	8	0.00%	0	8	0.0%
	<b>Highest detected total coliform level</b>		<b>0.125%</b>	<b>Highest detected <i>E. coli</i> level</b>		<b>0.0%</b>

### **Required Additional Health Information**

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 City of Dallas is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 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>.