



Annual Water Quality Report January 2011 – December 2011

Why This Report?

The Powder Springs Water System is committed to delivering to you, our customer, water that meets or exceeds federal and state quality standards. We are pleased to announce that this 2011 Water Quality Report shows we are doing that. Our priority is to deliver safe water to your home or business each day. 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. For additional information, you may contact our office at 770-943-8010.

Who Provides My Water?

You are a customer of the Powder Springs Water System. We distribute treated water to you and collect wastewater in a manner safe to your families and to the environment. The City of Powder Springs 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 7000 customer accounts representing approximately 14,000 people in the Powder Springs Water System's service area.

During 2002, the CCMWA, and the Atlanta Regional Commission (ARC), 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 request information by mail from the ARC at: Atlanta Regional Commission, 40 Courtland St., NE, Atlanta, GA 30303; Attn: Matthew Harper, Environmental Planning Division.

Where Does My Drinking 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.

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.

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 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 and farming

Pesticides and Herbicides, 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

Radioactive Contaminants, occurs 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 12 water samples throughout the Powder Springs distribution system are taken randomly each month and tested.

In order to ensure tap water is safe to drink, the EPA prescribes regulations which limit 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 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 may be obtained by calling the EPA's Safe Drinking Water Hotline at 1-800-426-4791.

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**.

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 Powder Springs 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 for the Safe Drinking Water Hotline or at <http://www.epa.gov/safewater/lead>.

Unregulated Contaminants - Cryptosporidium spp.

Cryptosporidium is a microbial pathogen found in surface water throughout the United States. Testing is currently being performed on **untreated** water from the intakes located at Chattahoochee River and Allatoona Lake for the presence of Cryptosporidium. The results for 2011 are below.

Location	Date	Results	Units
Chattahoochee River	July 2011-December 2011	0	Organisms/sample
Allatoona Lake	July 2011-December 2011	0	Organisms/sample

How To Read This Report

The Drinking Water Analysis Table shows the results the water quality analyses. Every regulated contaminant that CCMWA 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 below are important.

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

Definitions

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 health risk. 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.

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

Drinking Water Analysis Table
(Data in this report is furnished by the CCMWA)

Inorganic Contaminants								
Substance	Date Tested	Unit	(MCL)	(MCLG)	Amount Detected	Range	Major Source(s)	Violation
Fluoride*	2011	ppm	4	4	0.94	0.0-0.94	Erosion of natural deposits; water additive which promotes strong teeth	NO
Lead**	2011	ppb	AL=15	0	2.5	n/a	Corrosion of household plumbing systems	NO
Copper***	2011	ppm	AL = 1.3	0	0.027	n/a	Corrosion of household plumbing systems	NO
Nitrate/Nitrite****	2011	ppm	10	10	0.89	0.27-0.89	Runoff from fertilizer use; leaching from septic tanks; erosion of natural deposits	NO

NOTES:

- *Fluoride is added to water to help in the prevention of dental cavities (caries) in children
- **Of the 50 sites tested, 1 exceeded the action level. The next round of testing is due in 2014.
- ***Of the 50 sites tested, none exceeded the action level. The next round of testing is due in 2014.
- ****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)	2011	ppb	80	0	37.0	15.2-79.3*	By-products of drinking water disinfection	NO
HAA5's (haloacetic acids)	2011	ppb	60	0	21.0	8.3-49.6*	By-products of drinking water disinfection	NO
TOC (total organic compounds)	2011	ppm	TT	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	2011	ppm	1.0	0.8	0.43	0.05-0.43	By-product of drinking water disinfection	NO
Chlorine (free)	2011	ppm	MRDL = 4	MRDLG = 4	2.2	BDL 2.2	Drinking water disinfectant	NO

NOTES:

- *This contaminant is regulated by the average concentration over a period of a year.

Turbidity

Contaminant	MCL	MCLG	Level Found	Range	Sample Data	Violation	Typical Source
Turbidity*	TT = 1 NTU	0	0.18	n/a	2011	NO	Soil Runoff
	TT = percentage of samples <0.3 NTU		100%	n/a			

NOTES:

- *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 level detected (%)	Violation
Total Coliform Bacteria	<5% positive samples during a monthly sampling period	0% positive samples during a monthly sampling period	0.00%	0.00%	NO
Escherichia coli (E. coli bacteria)	<5% positive samples during a monthly sampling period	0% positive samples during a monthly sampling period	0.00%	0.00%	NO

Saving Water Outdoors

- Raise the lawnmower blade to at least three inches, or to its highest level. A higher cut encourages grass roots to grow deeper, shades the root system and hold soil moisture
- Use mulch to retain moisture in the soil. Mulch also helps control weeds that compete with landscape plants for water.
- Plant native and/or drought-tolerant grasses, ground covers, shrubs and trees. Once established, they do not need water as frequently and usually will survive a dry period without watering. They also require less fertilizer or herbicides.
- Group plants together based on similar water needs.

Saving Water Indoors

- Never pour water down the drain when there may be another use for it. Use it to water indoor plants or gardens.
- Make sure your home is leak-free. Check your water meter when you are certain that no water is being used. If the meter reading changes, you have a leak!
- Repair dripping faucets by replacing washers. One drop per second wastes 2,700 gallons of water per year.
- Place a bucket in the shower to catch excess water to water plants.
- In the shower, turn the water on to get wet; turn it off to lather up; then turn it back on to rinse off. Repeat when washing your hair.
- Operate automatic dishwashers and clothes washers only when they are fully loaded or set the water level for the size of load you are washing.
- Store drinking water in the refrigerator. Don't let the tap run while you are waiting for water to cool.
- Do not use running water to thaw meat or other frozen foods. Defrost food overnight in the refrigerator or use the defrost setting on your microwave.
- Do not waste water waiting for it to get hot. Capture it for other uses such as plant and garden watering.
- Do not let water run while brushing your teeth, washing your face or shaving.

For further information, please visit the following websites:

Conservation Ideas & Tips: www.conservewatergeorgia.net

Georgia EPD Watershed Protection Branch: www.gaepd.org/Documents/index_water.html

Metropolitan North Georgia Water Planning District: www.northgeorgiawater.com/html/88.htm

City of Powder Springs Water Department Conservation Information: www.cityofpowdersprings.org/index.aspx?NID=391

En Español

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

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