

# 2006 Water Quality Report for Columbus, Georgia

## SOURCE OF WATER

Columbus gets its water from a surface water source, the Chattahoochee River. Water is withdrawn from Lake Oliver under permit # GA2150000 at a point just above the dam. This provides the city with a safe and dependable supply of water.



## TREATMENT PROCESS

Alum is added to the water taken from the river to cause the finely divided mud particles to clump together so that the mud and other particles will settle to the bottom of the settling tanks by gravity. The clear water is then filtered and disinfected with chlorine to make the water biologically safe. The pH is adjusted by adding lime to make the water non-corrosive, and fluoride is added to help prevent dental cavities.

Dear Customer,

Columbus Water Works is pleased to present our tenth annual Water Quality Report. The report is designed to inform you about the quality of your drinking water, the source for your drinking water, the steps we take to ensure its quality, and the results of year-round water monitoring.

We are proud to inform you that Columbus Water Works did not have any violations of water quality parameters during 2006. Your drinking water is safe and has passed all tests for contaminants and purity, meeting or surpassing all federal and state drinking water standards.

*Billy G. Turner,*

**President of Columbus Water Works**

## ENSURING THE SAFETY OF YOUR DRINKING WATER

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 from human activity.

Contaminants that may be present in source water include:

**Microbial** - such as viruses and bacteria which may come from human, agricultural or wildlife sources.

**Inorganic** - such as salts and metals, which can be natural, from stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining or farming.

**Pesticides and herbicides** - which may come from agricultural, stormwater runoff or residential uses.

**Organic chemical** - which may come from industrial or domestic processes, stormwater runoff, and septic systems.

**Radioactive** - which can be naturally-occurring or the result of mining or other human activities.

In order to ensure that tap water is safe to drink, the Environmental Protection Agency (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 ANALYSIS

Regulated Substances							
Data collected from January 1, 2006 to December 31, 2006							
Substance Tested and Detected	MCL	MCLG	Amount Detected	Range of Detection	Sample Date	Does it Meet Standard?	Probable Source
Fluoride, ppm (a)	4	4	0.94	0.86 - 1.04	2006	Yes	Water additive which promotes strong teeth
Nitrate, ppm	10	10	0.45	N/A	2006	Yes	Runoff from fertilizer use
Chlorite, ppm	1	0.8	0.3	0.09 - 0.53	2006	Yes	By-product of drinking water disinfection
Haloacetic Acids (HAA), ppb (c)	60	N/A	33	12.8 - 34.0	2006	Yes	By-product of drinking water disinfection
Trihalomethanes * Total, (TTHM) ppb (c)	80	N/A	60	5.6 - 87.2	2006	Yes	By-product of drinking water disinfection
Total Organic Carbon, ppm	TT	N/A	1.52	1.2 - 1.8	2006	Yes	Naturally present in the environment
Turbidity, NTU (b)	$\frac{TT=1 \text{ NTU}}{TT = \text{Lowest monthly \% of samples} \leq 0.3 \text{ NTU}}$	$\frac{N/A}{0}$	$\frac{0.09}{100\%}$	N/A	2006	Yes	Soil run off
Substance Tested and Detected	MRDL	MRDLG	Amount Detected	Range of Detection	Sample Date	Does it Meet Standard?	Probable Source
Chlorine, ppm	4	4	1.94	1.80 - 2.10	2006	Yes	Water additive used to control microbes
Lead & Copper at Tap	AL	MCLG	Amount Detected	# of Sites found above AL	Sample Date	Does it Meet Standard?	Probable Source
Lead, ppb (d)	15	0	2.5	0 (51 sites sampled)	2004	Yes	Corrosion of household plumbing systems
Copper, ppm (d)	1.3	1.3	0	0 (51 sites sampled)	2004	Yes	Corrosion of household plumbing systems

\* Some people who drink water containing trihalomethanes in excess of MCL over many years may experience problems with their liver, kidneys, or central nervous systems, and may have an increased risk of getting cancer.

## Columbus Water Works Laboratory



Columbus Water Works performed more than 50,000 tests during the past year on your drinking water to assess its safety. Tests have been made on more than 160 water quality parameters



### Notice to immuno-compromised people

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 Safe Drinking Water Hotline (1-800-426-4791).

## Important Drinking Water Definitions

Term	Definition
AL	<b>Action Level (AL):</b> The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.
MCL	<b>Maximum Contaminant Level (MCL):</b> The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.
MCLG	<b>Maximum Contaminant Level Goal (MCLG):</b> The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.
MRDL	<b>Maximum Residual Disinfectant Level (MRDL):</b> The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.
MRDLG	<b>Maximum Residual Disinfectant Level Goal (MRDLG):</b> The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contamination.
NA	<b>Not Applicable</b>
NTU	<b>Nephelometric Turbidity Units:</b> Measurement of the clarity, or turbidity, of water.
ppm	<b>parts per million:</b> One part substance per million parts water (or milligrams per liter).
ppb	<b>parts per billion:</b> One part substance per billion parts water (or micrograms per liter).
TT	<b>Treatment Technique (TT):</b> A required process intended to reduce the level of a contaminant in drinking water.
≤	less than or equal to
≥	greater than or equal to
(a)	Fluoride is added in treatment to bring the natural level to the EPA optimum of 1 part per million.
(b)	Turbidity is a measure of the cloudiness of water. We monitor turbidity because it is a good indicator of water quality and the effectiveness of our filtration system.
(c)	This level is based on a system-wide 4-quarter running average of several samples, as required by EPA testing protocol.
(d)	Water from the treatment plant does not contain lead or copper. However under EPA test protocol, water is tested at the tap. Tap tests show that where a customer may have lead-soldered copper pipes, the water is not corrosive. This means the amount of lead or copper absorbed by the water is limited to safe levels. Flushing the line before drinking will ensure your safety.

### Source Water Assessment Plan (SWAP):

Columbus Water Works completed a Source Water Assessment Plan (SWAP) in March 2001. The purpose of the Plan is to identify potential sources of contamination throughout the watershed, and determine the risk (susceptibility) that the sources pose to the Columbus water supply intake. The source water for Columbus is the Chattahoochee River and the Chattahoochee River watershed above the source water intake. Water sources were rated on their susceptibility to becoming polluted, such as proximity to major roadways (fuel/chemical spills), railways and agricultural runoff. Some sources from where substances could be released to the river and make their way to the water intake, include a marina with fuel station, sewer lift stations and pipelines, commercial and industrial areas, residential lawns and a golf course. Based on the assessment, the overall susceptibility of the drinking water supply intake is rated LOW. A complete list of all potential Pollution Sources (PPS), their substances of concern, and the assessment methods is in the SWAP. For more information on SWAP contact William Kent, Environmental Compliance Manager at (706) 649 - 3490 or wkent@cwvga.org.



### 2006 AWARDS

Further evidence of the effort by Columbus Water Works employees to provide the best quality of water to you, our customers, is the recognition received from our peers:

North Columbus Water Treatment Facility Platinum Award  
*(Georgia Association of Water Professionals)*

Partnership for Safe Water Directors Award  
*(American Water Works Association)*

Laboratory Quality Assurance Achievement Award  
*(Georgia Association of Water Professionals)*

### What is Cryptosporidium?

*Cryptosporidium (Crypto)* is a protozoan parasite found in surface waters throughout the United States. Ingestion of crypto may cause an abdominal infection. Symptoms of infection include diarrhea, nausea, stomach cramps.

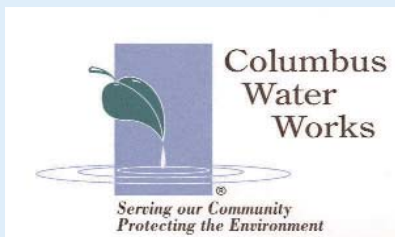
Columbus Water Works completed its monthly sampling in 2006 as required by the EPA. This was the last year of a 24-month required sampling period. During 2006, twelve monthly samples were analyzed and none of the samples indicated the presence of these organisms. In addition, our treatment process is designed to reduce the risk of contaminants from entering the water distribution system. ***Crypto* has never been found in the drinking water that goes to your tap.**

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 (1-800-426-4791).

Columbus Water Works  
Post Office Box 1600  
Columbus, Georgia 31902



## IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER



### 2006 Water Quality Report for Columbus, Georgia



#### Other Information Sources

Web sites with information  
about water quality:

<http://www.epa.gov>

<http://www.awwa.org>

<http://www.amwa.net>

<http://www.gaepd.org>

### ABOUT COLUMBUS WATER WORKS

The Operation of Columbus Water Works is conducted under the direction of the Board of Water Commissioners who are appointed by the Columbus Consolidated Government City Council. The Board holds regularly scheduled meetings at 1:30 PM on the second Monday of each month. The meetings are open to the public and are held at the Columbus Water Works business office located at 1421 Veterans Parkway, Columbus, Georgia 31901.

#### General Information

The Columbus Water Works business office is open weekdays except for holidays:

<b>Lobby hours</b>	<b>9 AM - 5 PM</b>
<b>Drive-thru hours</b>	<b>8 AM - 6 PM</b>
<b>Customer Service</b>	<b>(706) 649-3410</b>
<b>General Information/Emergencies</b>	<b>(706) 649-3400</b>
<b>Automated Account Information</b>	<b>(706) 649-3311</b>

#### Water Report Information

If you did not receive a mailed copy of this report and would like to be included in future mailings or for additional information about the quality of your drinking water contact

**Dr. Morton Reed,  
Laboratory Manager**  
at **(706) 649-3482**

or visit our website

[www.cwwga.org](http://www.cwwga.org)