



# Annual Report on Drinking Water Quality

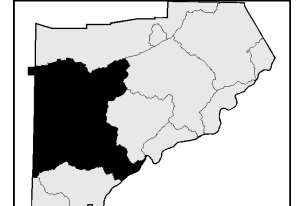
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## 2010

DOUGLASVILLE-DOUGLAS COUNTY WATER AND SEWER AUTHORITY

## Consumer Confidence Report

The Douglasville-Douglas County Water and Sewer Authority (WSA) is pleased to report, once again, that your community's drinking water has met or exceeded all safety and quality standards set by the State of Georgia and USEPA during this past year. WSA has been supplying Douglas County with the highest quality drinking water possible since 1986 and has never had a water quality violation in its history. Douglas County's drinking water supply is surface water drawn from the Dog River Reservoir located in western Douglas County and then treated at the Bear Creek Water Treatment Plant. This annual report, sometimes called a Consumer Confidence Report (CCR) or a Water Quality Report, gives us the opportunity to provide you with a detailed account of all the monitoring data gathered from water quality testing during 2009 which went into producing your award-winning drinking water.



### New Capacity is Expected to Meet Future Extreme Drought Conditions.

**Expansion of the Reservoir** — The completion of the Dog River Reservoir expansion project in early 2009 provided Douglas County residents with an additional 700 million gallons of raw water capacity. In 2007, the prolonged drought dropped the reservoir water level by 50% causing WSA to purchase as much as 70% of its daily water demands from the Cobb-Marietta Water Authority. The newly increased capacity should minimize the likelihood of this happening in the future and should meet our water needs for several decades to come.

**Expansion of the Water Treatment Plant** — The expansion of the Bear Creek Water Treatment Plant is well underway and should be completed in the summer of 2011. This \$40 million project will provide drinking water at the rate of 23 million gallons per day, up from the current 16 million gallons per day. The project will include 2 emergency generators at the Reservoir which, in conjunction with the generators at the Plant, will allow continued production and distribution of potable water during prolonged power outages.

### Dog River Reservoir Recreational Complex

Due to the tremendous amount of damage sustained by the September, 2009 flood, the Dog River Recreational Complex did not open this past March 1st as is customary. Good news! WSA is happy to report the Complex is now open with a brand new boat dock and pier and brand new johnboats. For all the details about the Complex, the fees, the regulations, hours of operation, and a map of the Reservoir, please visit our website at [www.ddcwsa.com](http://www.ddcwsa.com), click on "About Us" and print a Recreational Complex brochure.

### WaterFirst Designation

At the April, 2009 WSA Board meeting, the Georgia Department of Community Affairs officially designated WSA, the City and County, jointly, as the state's 15<sup>th</sup> WaterFirst Community, an exclusive group of communities committed to water stewardship. Communities are evaluated for WaterFirst honors based on watershed protection policies, stormwater master planning, water supply planning, water supply protection, water conservation, wastewater treatment systems and management, residual biosolids and water reclamation and reuse programs.

### Public Involvement Opportunities

For those interested in seeing firsthand how drinking water and wastewater are processed, free plant tours are offered. See our website at [www.ddcwsa.com](http://www.ddcwsa.com) for details.

If a clean environment and watershed is a concern of yours, every October WSA partners with a local Boy Scout Troop to clean up trash along several miles of Dog River, and public participation is encouraged.

WSA also, throughout the year, hosts seminars on such topics as rain barrel construction and composting.

If you would like more information about this report, the quality of your drinking water, or any aspect of WSA's operations, please contact Water Plant Superintendent, Steve Green, at (770) 949-7617 or [sgreen@ddcwsa.com](mailto:sgreen@ddcwsa.com) with specific questions. Please also visit our website at [www.ddcwsa.com](http://www.ddcwsa.com).

*The public is invited to attend the WSA Board Meetings held at 5:30 p.m. on the 2nd and 4th Tuesdays of each month and the work sessions held at 5:30 p.m. on the last Monday of each month.*

*WSA is a 4-time winner of the Award for Best Tasting Water in the Metro Atlanta Area and a host of additional awards. For a complete list of awards, please visit our website at [www.ddcwsa.com](http://www.ddcwsa.com)*

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## Testing the Quality of Drinking Water

To ensure that tap water is safe to drink, the U.S. Environmental Protection Agency prescribes regulations that limit the amount of certain contaminants in water provided by public utility systems. Food and Drug Administration



(FDA) regulations establish limits for contaminants in bottled water that must provide the same protection for public health.

WSA tests your drinking water continuously 24 hours a day, 7 days a week. Tests are conducted for chemicals and disease-causing microorganisms (bacteria and protozoa) in compliance with requirements set by the EPA and the EPD and under the supervision of State-certified operators or laboratory analysts.

The parasites, cryptosporidium and giardia, are source water contaminants that are common in surface water and very difficult to kill. Cryptosporidium has not been detected in the raw water supply. Giardia was detected in Dog River at 52.8 per 100L. Neither cryptosporidium nor giardia were detected in the treated drinking water.

For more information on giardia and cryptosporidium, and the diseases associated with these microorganisms, visit these websites: [www.cdc.gov/ncidod/diseases/crypto/cryptos.htm](http://www.cdc.gov/ncidod/diseases/crypto/cryptos.htm) and

[www.cdc.gov/ncidod/dpd/parasites/giardiasis/factsht\\_giardia.htm](http://www.cdc.gov/ncidod/dpd/parasites/giardiasis/factsht_giardia.htm)

## Test Results for Pharmaceuticals in the Water Supplies

While the concern about the detection of minute levels of pharmaceuticals in the drinking water sources (raw, untreated water) across the nation is new to the media, the drinking water industry has been monitoring it for some years now. Technology has advanced to the extent that it is now possible to detect levels of 1 part per billion or trillion. Test results taken from water samples from the Dog River Reservoir in February, 2008 identified three of the suspect pharmaceuticals at very minute levels. One was trans-Testosterone, a steroid hormone of the androgen group, at a level of one ten-millionth of a milligram per liter of water. To put this into perspective, the normal dose of aspirin is 500 milligrams. To consume just one milligram of this steroid, a person would have to drink a half gallon of the raw water per day for 14,477 years. The other two contaminants found in levels large enough to register on the test were Cotinine, a metabolic product of nicotine, and Fluoxetine (Prozac). Treated water (drinking water) was tested in March, 2008 and showed no detectable pharmaceuticals.



## Proper Medication Disposal



Although flushing unused, unneeded, or expired prescription drugs was once thought to be the proper method of disposal, it is not. The FDA (Federal Drug Administration) guidelines for the proper disposal are as follows:

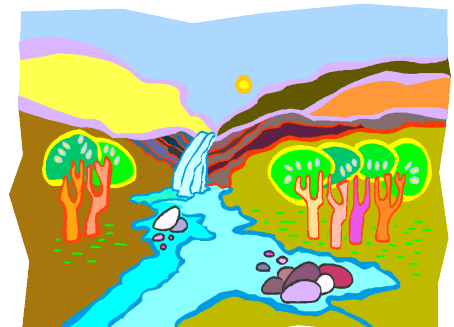
“Take unused, unneeded, or expired prescription drugs out of their original containers and throw them in the trash.

Mixing prescription drugs with an undesirable substance, such as used coffee grounds or kitty litter, and putting them in impermeable, non-descript containers, such as empty cans or sealable bags, will further ensure the drugs are not diverted. **Flush prescription drugs down the toilet ONLY if the label or accompanying patient information specifically instructs doing so.”**

## Why Are There Contaminants in Drinking Water?

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 animal or human activity. This polluted water continues to travel into rivers, lakes, streams, ponds, reservoirs, springs, and wells, all of which are the sources of drinking water whether it's from the tap, wells, or out of

a bottle. 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 Environmental Protection Agency's Safe Drinking Water Hotline (800-426-4791).



*The Best Way to Ensure Safe Water at the Tap is to Keep Our Source Water Clean.*

## What May be Present in Source Water Before It's Treated .....

**MICROBIAL CONTAMINANTS:** include viruses and bacteria which may come from agricultural livestock operations, septic systems, wastewater treatment plants, and wildlife.

**INORGANIC CONTAMINANTS:** include salts and metals which can be naturally occurring or result from urban stormwater runoff, indus-

trial or domestic wastewater discharges, oil and gas production, mining, or farming.

**PESTICIDES AND HERBICIDES:** may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses.

**ORGANIC CHEMICAL CONTAMINANTS:** include synthetic and volatile organic chemi-

cals, which are by-products of industrial processes and petroleum production, and also can come from gas stations, urban stormwater runoff, and septic systems.

**RADIOACTIVE CONTAMINANTS:** can be naturally occurring or be the result of oil and gas production and mining activities.

**NOTICE:** Although WSA's water meets all guidelines for quality, 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 from their health care providers about drinking water. 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 (800-426-4791).

## You may have been a witness to or a part of illicit discharges.

An illicit discharge is any discharge, not composed entirely of "stormwater" which is drained or poured into a storm drainage system. Many are unintentional household activities such as dumping yard waste, washing machine or dishwasher water, motor oil, kitchen grease, paint, weed killer, etc. into the yard or storm drain. Stormwater becomes polluted when rainwater runs off the land or soaks into the ground picking up these pollutants and debris.



### WHY IS THIS A PROBLEM?

Storm drains don't have a treatment system nor is there a treatment system for eliminating pollutants from the flow off rooftops, lawns, driveways, and streets before they enter directly into waterways and ultimately our water supply for drinking water. This is a critical problem not only in Douglas County, but nationwide. The pollutants cause health and water quality problems, harm to aquatic life, and the destruction of the natural habitat.

Within metropolitan Atlanta, including Douglas County, many streams and lakes fail to meet water quality standards due to polluted stormwater runoff, and if they were a public swimming pool, many of them would be closed. As a result, both federal and state governments have imposed mandatory regulations and requirements to improve water quality in our streams and rivers.

In compliance with the mandatory regulations and requirements imposed by the

federal and state governments, and in an effort to continue to bring our customers the best quality drinking water possible, WSA has adopted ordinances that prohibit pollutant discharges into the public storm system or local streams. Illicit discharges could now result in enforcement action.

### REPORTING ILLICIT DISCHARGES

Indications of an illicit discharge in stormwater: unusual color or cloudiness, the presence of a strong pungent or musty odor, floating debris, surface scum or foam, an oil sheen, and/or algae.

Report any occurrences of illicit discharges you witness along the roadside, in rest areas, parking lots, etc., including the dumping of waste/oil or other vehicle fluids and suspicious pipe outlets to ditches, to WSA. Call (770) 949-7617.

**Please be mindful, both  
at home and at work —  
Only Rain in the Drain!**

## Source Water Assessments

WSA and the Atlanta Regional Commission (ARC) completed a source water assessment to identify potential sources of surface water pollution to the Dog River Reservoir and to the Bear Creek Reservoir, a supplemental water supply source. Land use in these watersheds is primarily open/forest or agricultural crop land. In the Dog River watershed, which is 5.6% impervious surface, 57 potential individual sources of pollution were identified, while in the Bear Creek watershed, which has 9.7% impervious surface, 8 were identified. More information about the overall results and MEDIUM ranking of this assessment can be found on ARC's website at <http://www.atlantaregional.com/swap/> or you can request information by mail from: the Atlanta Regional Commission, Environmental Planning Division, 40 Courtland Street, NE., Atlanta, Georgia, 30303.

## How to Contact Us

**Main Office:** (770) 949-7617  
**After hours emergency:** (770) 942-6633  
**Customer Service Dept.:** (770) 920-3823  
**Web site:** [www.ddcwsa.com](http://www.ddcwsa.com)

**Lead and Your Water:** 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. WSA is responsible for providing high quality drinking water, but cannot control the variety of materials used in private-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>.

While WSA tests for hundreds of contaminants in your water, only a few were detected in 2009 & none pose a significant health risk. WSA also monitors for unregulated parameters to assist EPA in determining where certain contaminants occur & whether additional regulations may be necessary. All laboratory testing results are available for public inspection. For more information call 770- 949-7617. The results in these tables are from tests performed in the WSA & Georgia Environmental Protection Division's laboratories.

## HELPFUL HINTS

**Milligrams per Liter (mg/L):** one milligram per liter is equivalent to one minute in 2 years or one penny in 10 thousand dollars.

**Maximum Contaminant Level (MCL):** 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.

**Maximum Contaminant Level Goal (MCLG):** 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.

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

**Micrograms per Liter (ug/L):** one microgram per liter is equivalent to one minute in 2,000 years or one penny in 10 million dollars.

**ND: none detected**

**NA: not applicable**

**NTU: Nephelometric turbidity unit**

\*MCL based on rolling 4QRT average for all sample points.

\*\*Samples Collected June 1 - September 30, 2007.

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

### TABLE OF CONTAMINANTS

#### INORGANIC CONTAMINANTS

CONTAMINANT (units)	MCL	MCLG	Average Level Detected/Range Detected	Pass?	Major Sources
Fluoride (mg/L)	4	4	0.80 (0.54 - 1.08) mg/L	Y	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
Nitrate					

CONTAMINANT (units)	MCL	MCLG	Highest Level Detected/Range Detected	Pass?	Major Sources
Nitrate (mg/L)	10	0	0.20 mg/L (0.20 mg/L)	Y	Runoff from fertilizer use; leaching from septic tanks; sewage; erosion of natural deposits

#### LEAD AND COPPER MONITORING

CONTAMINANT (units)	AL***	MCLG	90th Percentile Value/Number of samples exceeding AL	Pass?	Major Sources
Lead (ug/L)	15***	0	2.5 ug/L (0 samples exceeded the AL)**	Y	Corrosion of household plumbing systems; erosion of natural deposits
Copper (ug/L)	1,300***	1,300	100 ug/L (0 samples exceeded the AL)**	Y	

#### VOLATILE ORGANIC CONTAMINANTS (UNREGULATED)

CONTAMINANT (units)	MCL	MCLG	Average and Level Detected	Pass?	Major Sources
Bromodichloromethane(ug/L)	NA	NA	7.0 ug/L	Y	By-product of drinking water chlorination
Chlorodibromomethane(ug/L)	NA	NA	1.4 ug/L	Y	By-product of drinking water chlorination
Chloroform (ug/L)	NA	NA	22 ug/L	Y	By-product of drinking water chlorination

#### VOLATILE ORGANIC CONTAMINANTS (REGULATED)

CONTAMINANT (units)	MCL	MCLG	Highest Rolling Average/Range Detected	Pass?	Major Sources
Total Trihalomethanes (ug/L)	80*	0	66.8 ug/L (22.2 - 127.6 ug/L)	Y	By-product of drinking water chlorination
Total Haloacetic Acids (ug/L)	60*	NA	44.8 ug/L (25.0 - 61.0 ug/L)	Y	By-product of drinking water chlorination

CONTAMINANT (units)	MCL	MCLG	Average Removal Level/Range Detected	Pass?	Major Sources
Total Organic Carbon	TT≥35%	NA	41% (21%-50%)	Y	Naturally present in environment, soil runoff

Percentage of total organic carbon removed.

#### TURBIDITY

PARAMETER	MCL	MCLG	Highest Level Detected/Lowest % of Samples < 0.30 NTU	Pass?	Major Sources
Turbidity (NTU)	TT	NA	0.30 100%	Y	Soil Runoff

Turbidity is the measure of the cloudiness of water and an indicator of water quality. High turbidity can hinder the effectiveness of disinfectants. Each month, 95 percent of turbidity samples must be less than or equal to 0.30 NTU. None may exceed 1 NTU.

#### MICROBIOLOGICAL CONTAMINANTS

CONTAMINANT	MCL	MCLG	Highest Monthly % of Positive Samples	Pass?	Major Sources
Total Coliform Bacteria	<5% positive samples during a monthly testing period	0 positive samples during a monthly testing period	1.0%	Y	Coliform bacteria are naturally present in the environment

#### FREE CHLORINE RESIDUAL

CONTAMINANT (units)	MCL	MCLG	Average Value	Pass?	Major Sources
Free Chlorine (mg/L)	4	NA	1.10 mg/L	Y	Chemical added for disinfection