

How Is My Water Treated and Purified?

The treatment process consists of a series of steps. First, raw water is drawn from Lake Lanier and sent to our reservoir. The water is then gravity fed into the plant, where lime, alum, polymer and chlorine are added as the water passes through a static mixer.

The addition of these substances cause small particles to adhere to one another (called floc), making them heavy enough to settle into a basin from which sediment is removed. Chlorine is then added for disinfection. At this point, the water is filtered through layers of fine coal and silicate sand. As smaller, suspended particles are removed, turbidity disappears and clear water emerges. Chlorine is added again as a precaution against any bacteria that may still be present. (We carefully monitor the amount of chlorine, adding the lowest quantity necessary to protect the safety of your water without compromising taste.) Finally, lime (used to adjust the final pH and alkalinity), fluoride (used to prevent tooth decay), and a corrosion inhibitor (used to protect distribution system pipes) are added before the water is pumped to sanitized underground reservoirs, water towers and into your home or business.

Lead in Drinking Water

Infants and young children are typically more vulnerable to lead in drinking water than the general population. It is possible that lead levels at your home may be higher than at other homes in the community as a result of materials used in your home's plumbing. If you are concerned about elevated lead levels in your home's water, you may wish to have your water tested and flush your tap for 30 seconds to 2 minutes before using tap water. Additional information is available from the Safe Drinking Water Hotline at (800) 426-4791.

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Este informe contiene información muy importante sobre su agua potable. Tradúzcalo o hable con alguien que lo entienda bien.

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ANNUAL WATER QUALITY REPORT

Water testing performed in 2006



Proudly Presented By:

BUFORD
WATERWORKS

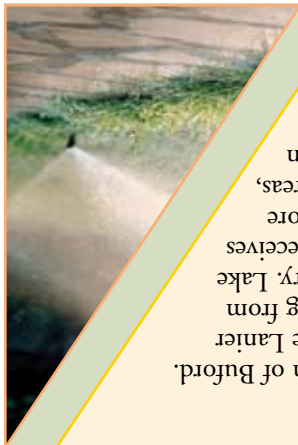
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Source Water Assessment

A source water assessment was conducted for the City of Buford in accordance with Georgia's Source Water Assessment and Protection Implementation Plan for Public Drinking Water Sources (2000). The assessment was completed through the Georgia Mountains Regional Development Center (GMRDC) as part of a larger source water assessment plan (SWAP) for the Lake Lanier Basin. The Lanier SWAP was managed with the overall goal of identifying potential risks that may affect the integrity of surface drinking water sources in the basin. Separate assessments were conducted for 13 existing and new municipal surface water intakes, and separate SWAP reports were produced for the nine individual water systems.

The source water assessment area for the City of Buford includes an inner management zone (IMZ) and an outer management zone (OMZ). The IMZ includes the entire subwatershed around Big Creek Cove, areas within a one-half-mile buffer all the way around the lake, and all areas within a seven-mile radius from the intake. The OMZ upstream of the intake includes all areas from the inner management zone plus the seven-mile radius from the intake. Several suburbs and urban areas are located within the City of Buford's IMZ and OMZ. Therefore, the types of point source potential contaminant sources (PCSs) identified are somewhat varied and include mostly gas stations, auto repair shops, marinas, and boat repair shops. Most point source PCSs ranked low, and the overall point source susceptibility rating for the intake is low. Of the PCS types that ranked high, the most common were marinas and gas stations. The marinas all ranked high; however, gas stations more often ranked low or medium priority. The high ranking for gas stations resulted from a particular station's location in relation to water or to the intake. The overall nonpoint susceptibility rating for the intake is medium. The majority of the nonpoint source PCSs ranked medium, with several ranked as high priority. Non-point source PCS types receiving a high rating were secondary road crossings or those near streams; sewer systems with a history of spills; septic systems; and urban land use. The watershed vulnerability rating for the Buford intake is low due to watershed size and lake size. Likewise, both the point and non-point source PCS/vulnerability analyses resulted in a low priority ranking.

A copy of Buford's source water assessment plan is available for inspection at Buford City Hall, Monday through Friday 9 a.m. to 5 p.m. You may obtain a copy for \$5 from the Georgia Mountains Regional Development Center, call Trifannie Hill at (770) 538-2626. Or you can download a free copy by going to www.GMRDC.org and following the links to the SWAP Web site.



Where Does My Water Come From?

The City of Buford receives its water supply from Lake Sidney Lanier, located just north of Buford. We also purchase a portion of our water from the Gwinnett County Water Plant. Lake Lanier is formed by the Buford Dam, which holds the Chatahoochee and Chastate rivers flowing from northern Georgia. Lake Lanier is the most visited Corps of Engineers' project in the country. Lake Lanier is a key element in terms of water supply: more than 60% of Georgia's population receives drinking water from the Chatahoochee system. Lake Lanier's watershed is composed of more than 1,000 square miles in 10 Georgia counties. The watershed contains heavily forested areas, with agriculture being the largest activity. Lake Lanier is very low in point source and runoff pollutants. The Buford Waterworks was built in 1934 to filter 500,000 gallons of drinking water per day. In 1965, it was increased to 1 million gallons per day. In 1994, the plant was high rated to 2 million gallons per day. We plan to grow with the future needs of our citizens.

Important Health Information

Some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised 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 may be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. The U.S. EPA/CDC (Centers for Disease Control and Prevention) guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the Safe Drinking Water Hotline at (800) 426-4791.



Community Participation

The Buford City Commissioners meet the first Monday of every month at 7 p.m. in the Commissioners Chambers at Buford City Hall. Your questions and concerns can be heard after the regular scheduled meetings. For more information, call Buford City Hall at (770) 945-6761 Monday through Friday 8 a.m. to 5 p.m.

Continuing Our Commitment

Once again we proudly present our annual water quality report. This edition covers all testing completed from January 1 through December 31, 2006. We are pleased to tell you that our compliance with all state and federal drinking water laws remains exemplary. As in the past, we are committed to delivering the best quality drinking water. To that end, we remain vigilant in meeting the challenges of source water protection, water conservation, and needs of all of our water users. For more information about this report, or for any questions relating to your drinking water, please call Cleveland Smith, Water Plant Superintendent, at (770) 932-7986.

Sampling Results

During the past year we have taken hundreds of water samples in order to determine the presence of any radioactive, biological, inorganic, volatile organic or synthetic organic contaminants. The table below shows only those contaminants that were detected in the water. Although all of the substances listed here are under the Maximum Contaminant Level (MCL), we feel it is important that you know exactly what was detected and how much of the substance was present in the water.

REGULATED SUBSTANCES				Buford Waterworks		Gwinnett County		VIOLATION	TYPICAL SOURCE
SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	MCL [MRDL]	MCLG [MRDLG]	AMOUNT DETECTED	RANGE LOW-HIGH	AMOUNT DETECTED	RANGE LOW-HIGH		
Bromate (ppb)	2006	10	10	NA	NA	5	5-5	No	By-product of drinking water disinfection
Chlorine (ppm)	2006	[4]	[4]	0.94	0.5-1.5	NA	NA	No	Water additive used to control microbes
Fluoride (ppm)	2006	4	4	0.85	ND-1.15	0.79	0.63-1.18	No	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories
Haloacetic Acids [HAA] (ppb)	2006	60	NA	15.85	11.9-21.3	17.7	9.6-35.7	No	By-product of drinking water disinfection
Nitrate+Nitrite (ppm)	2006	10	10	0.20	0.20-0.20	0.28	0.02-0.28	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
TTHMs [Total Trihalomethanes] (ppb)	2006	80	NA	33.42	16.9-61.6	25.1	20.5-34.6	No	By-product of drinking water disinfection
Total Coliform Bacteria (% positive samples)	2006	5% positive monthly samples	0	ND	NA	0.8	NA	No	Naturally present in the environment
Total Organic Carbon (ppm)	2006	TT	NA	1.2	0.82-1.7	NA	NA	No	Naturally present in the environment
Turbidity (NTU) ¹	2006	TT	NA	0.18	0.01-0.18	0.380	ND-0.380	No	Soil runoff
Turbidity (Lowest monthly percent of samples meeting limit)	2006	TT	NA	100	NA	96.49	NA	No	Soil runoff

Tap water samples were collected from sample sites throughout the community (BUFORD WATERWORKS)

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	ACTION LEVEL	MCLG	AMOUNT DETECTED (90 th tile)	SITES ABOVE ACTION LEVEL	VIOLATION	TYPICAL SOURCE
Copper (ppm)	2006	1.3	1.3	0.035	0	No	Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives

UNREGULATED SUBSTANCES							
Buford Waterworks				Gwinnett County			
SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	AMOUNT DETECTED	RANGE LOW-HIGH	AMOUNT DETECTED	RANGE LOW-HIGH	TYPICAL SOURCE	
Bromodichloromethane (ppb)	2006	3.4	3.4-3.4	1.6	1.6-1.6	By-product of drinking water disinfection	
Chlorodibromomethane (ppb)	2006	NA	NA	0.54	0.54-0.54	By-product of drinking water disinfection	
Chloroform (ppb)	2006	11	11-11	2.7	2.7-2.7	By-product of drinking water disinfection	

¹ Turbidity is a measure of the cloudiness of the water. It is monitored because it is a good indicator of the effectiveness of the filtration system.

Table Definitions

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

MCL (Maximum Contaminant Level): 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 (Maximum Contaminant Level Goal): 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 (Maximum Residual Disinfectant Level): 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 (Maximum Residual Disinfectant Level Goal): 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 contaminants.

NA: Not applicable

ND (Not detected): Indicates that the substance was not found by laboratory analysis.

NTU (Nephelometric Turbidity Units): Measurement of the clarity, or turbidity, of water. Turbidity in excess of 5 NTU is just noticeable to the average person.

ppb (parts per billion): One part substance per billion parts water (or micrograms per liter).

ppm (parts per million): One part substance per million parts water (or milligrams per liter).

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

Substances That Might Be in Drinking Water

To ensure that tap water is safe to drink, the U.S. EPA prescribes regulations limiting the amount of certain contaminants in water provided by public water systems. U.S. Food and Drug Administration 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 these contaminants does not necessarily indicate that the water poses a health risk.

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, in some cases, radioactive material; and substances resulting from the presence of animals or from human activity. Substances that may be present in source water include:

Microbial Contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, or wildlife;

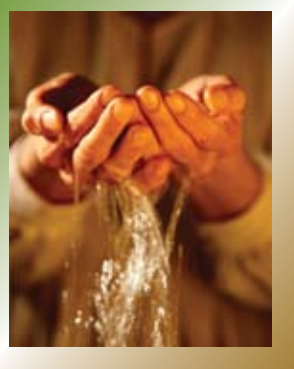
Inorganic Contaminants, such as salts and metals, which can be naturally occurring or may result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming;

Pesticides and Herbicides, which may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses;

Organic Chemical Contaminants, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and which may also come from gas stations, urban stormwater runoff, and septic systems;

Radioactive Contaminants, which can be naturally occurring or may be the result of oil and gas production and mining activities.

For more information about contaminants and potential health effects, call the U.S. EPA's Safe Drinking Water Hotline at (800) 426-4791.

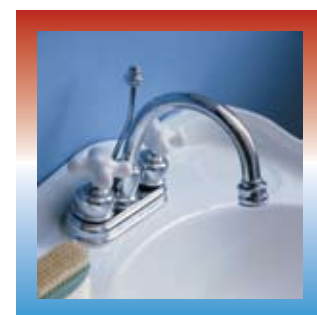


What Causes the Pink Stain on Bathroom Fixtures?

The reddish-pink color frequently noted in bathrooms on shower stalls, tubs, tile, toilets, sinks, toothbrush holders and on pets' water bowls is caused by the growth of the bacterium *Serratia marcescens*. *Serratia* is commonly isolated from soil, water, plants, insects, and vertebrates (including man). The bacteria can be introduced into the house through any of the above-mentioned sources. The bathroom provides a perfect environment (moist and warm) for bacteria to thrive.

The best solution to this problem is to continually clean and dry the involved surfaces to keep them free from bacteria. Chlorine-based compounds work best, but keep in mind that abrasive cleaners may scratch fixtures, making them more susceptible to bacterial growth. Chlorine bleach can be used periodically to disinfect the toilet and to help eliminate the occurrence of the pink residue. Keeping bathtubs and sinks wiped down using a solution that contains chlorine will also help minimize its occurrence.

Serratia will not survive in chlorinated drinking water.



Is It Safe to Drink Water from a Garden Hose?

Substances used in vinyl garden hoses to keep them flexible can get into the water as it passes through the hose. These chemicals are not good for you, nor are they good for your pets. Allow the water to run for a short time in order to flush the hose before drinking or filling your pet's drinking containers. Hoses made with food-grade plastic will not contaminate the water. Check your local hardware store for this type of hose.

