

City of Georgetown

Providing the citizens of Georgetown with a safe, high quality, dependable supply of drinking water



2012 Annual Water Quality Report

Introduction

The City of Georgetown has compiled and is pleased to present to its citizens and customers the Annual Drinking Water Quality Report for State Water System ID# 2210001. This report covers the entire calendar year 2012, January 1 to December 31.

Test Results of Regulated Contaminants

Disinfectants and Disinfection By-Products	MCLG	MCL	Highest Level Detected	Range of Levels Detected	Violation	Likely Source of Contamination	Year Tested	
Haloacetic Acid HAA5 * (ppb)	0 No goal for the total	60	Highest QTR. RAA 35.0	9.17-64.39	No	By-product of drinking water chlorination	2012	
Total Trihalomethanes TTHM * (ppb)	0 No goal for the total	80	Highest QTR. RAA 57.0	34.43- 83.7	No	By-product of drinking water chlorination	2012	
Inorganic Contaminants	MCLG	MCL	Highest Level Detected	Range of Levels Detected	Violation	Likely Source of Contamination	Year Tested	
Fluoride (ppm)	4	4	ND	ND	No	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from aluminum and fertilizer factories	2012	
Nitrate (ppm) (measured as Nitrogen)	10	10	0.52	0 - 0.52	No	Run- off from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits	2012	
Radioactive Contaminants	MCLG	MCL	Highest Level Detected	Range of Levels Detected	Violation	Likely Source of Contamination	Collection Date	
Combined Radium 226/228 (pCi/L)	0	5	0.2	0 - 0.2	No	Erosion of natural deposits	04/09/2007	
Gross alpha excluding radon and uranium (pCi/L)	0	15	0.8	0.6 - 0.8	No	Erosion of natural deposits	04/09/2007	
Substance	MCLG	MCL	Level Found	Range	Sample Data	Violation	Possible Source	Year Tested
Total Organic Carbon (TOC)	0	TT	73.9% Removal / Year 45 - 50% Required	68.3 - 78.2	Monthly	No	Naturally present in the environment	2012

Substance	MRDLG	MRDL	Highest Qtr. Average	Range	Possible Source	Year Tested
Chloramines (ppm)	4	4	1.95	0.90 - 2.02	Water additive to control microbes. Water additive to control microbes	2012
Chlorine (ppm)	4	4	1.78	1.39 - 2.00		February 2012
Turbidity (NTU)	Limit (Treatment Technique)	Level Detected	Range	Violation	Likely Source of Contamination	Year Tested
Highest single measurement	1 NTU	0.37 NTU	.04-.37	No	Soil runoff.	2012
Lowest monthly % meeting limit	0.3 NTU	100%	.04-.37	No	Soil runoff.	2012

Lead and Copper	MCLG	Action Level (AL)	90 th Percentile	# Of sites above Action Level	Violation	Likely Source of Contamination	Date Sampled
Copper (ppm)	1.3	1.3	0.057	0 Range ND - 0.448	No	Erosion of natural deposits; Leaching from wood preservatives; Corrosion of household plumbing systems.	07/21/2010
Lead (ppb)	0	15	4.0	1 Range ND - 16	No	Corrosion of household plumbing; Erosion of natural deposits.	07/21/2010

*Not all sample results may have been used for calculating the Highest Level Detected because some results may be part of an evaluation to determine where compliance sampling should occur in the future.

If you would like information regarding this report, please contact the City of Georgetown's Water Treatment Plant at 843-545-4509.

Definitions: The tables above contain scientific terms and measures, some of which may require explanation.

*MCL (Maximum Contaminant Level) - the highest level of the 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 contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.

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

*ALG (Action Level Goal - The level of a contaminant in drinking water below which there is no known or expected risk to health. ALGs allow for a margin of safety.

*NTU (Nephelometric Turbidity Units) - this is an indicator of water clarity.

*p/L (picocuries/liter) - a measure of radiological contamination.

*MRDL (Maximum Residual Disinfectant Level) -the highest level of 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 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.

*N/A: Not Applicable *TT: Treatment Technique *RAA: Running Annual Average

*ND: Not Detectable *MGD: Million Gallons/Day

Avg: Regulatory compliance with some MCLs are based on running annual average of monthly samples.

*ppm: Parts per million or milligrams per liter - or one ounce in 7,350 gallons of water.

*ppb: Parts per billion or micrograms per liter - or one ounce in 7,350,000 gallons of water.

Assessment of Health Impact

- TTHMs (Total Trihalomethanes) and HHA (Haloacetic Acid)-Some people who over many years drink water containing Trihalomethanes in excess of the MCL may experience problems with the liver, kidneys, or central nervous system, and may have an increased risk of getting cancer.
- Dichloromethane-Some people who drink water containing dichloromethane in excess of the MCL over many years could have liver problems and may have an increased risk of getting cancer.
- MCLs are set at very stringent levels. To understand the possible health effects described for many regulated contaminants, a person would have to drink 2 liters of water everyday at the MCL level for a lifetime to have one in a million chance of having the described health effect.
- 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 Georgetown 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 drinking water, you may wish to have your 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 (1-800-426-4791) or at <http://www.epa.gov/safewater/lead>.

- 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 transplantation, 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 microbiological contaminants are available from the Safe Drinking Water Hotline (1-800-426-4791).

- The City of Georgetown Source Water Assessment Plan is available for review at the City of Georgetown Water Utilities Office or at the following website www.scdhec.net/water/HTML/SCREWTR.HTML#REPORTS.

Treatment Facility

The City of Georgetown Water Treatment Plant is located on Anthuan Maybank Drive. We currently produce a daily average of 1.572 MGD of safe drinking water with reserve capability to produce up to 5.2 MGD. Four state-licensed operators staff the plant.

Source of Drinking Water

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, 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 contaminants, such as viruses and bacteria, which may 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 water 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 storm water runoff, and residential uses.
- Organic chemical contaminants, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and can also come from gas stations, urban storm water runoff, and septic systems.
- Radioactive contaminants, which can be naturally occurring or be the result of oil and gas production and mining activities.

Water Source

The City of Georgetown Water Treatment Plant receives raw water from Pee Dee River via a canal that is owned and maintained by International Paper Company. The City of Georgetown also owns and maintains two wells.

Water Substance

Drinking water, including bottled water may reasonably be expected to contain small amounts of some contaminants. The presence of contaminants does not necessarily indicate that the 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.

In order to ensure that tap water is safe to drink, EPA prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. FDA regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

In 2012, the City of Georgetown detected only a very small number of the nearly 100 substances and elements regulated under the Safe Drinking Water Act in its drinking water supplies. Here is a summary of those substances detected:

Turbidity- Turbidity is a measurement of the clarity of the water. The City of Georgetown Water Treatment Plant has consistently produced water below the limit set by the EPA.

Hardness- If the amount of Calcium Carbonate is over 100 mg/l, the water is considered to be hard. Hard water can result in scale formation in the distribution system piping and requires more soap to produce a given amount of lather.

Lead and Copper- The City of Georgetown Water Treatment Plant has never had a significant amount of lead or copper detected within its water distribution system and meets EPA requirements. We are currently on a reduced monitoring program for lead and copper that has been approved by DHEC.

Trihalomethanes- Trihalomethanes (THMs) are by-products of the reaction of chlorine with naturally occurring organics in the raw untreated water. EPA has established a maximum contaminate limit (MCL) of 80 parts per billion.

Nitrates- Nitrates are formed when nitrogen-oxygen chemical units combine with various organic and inorganic compounds. The primary source of nitrates in the Pee Dee River is soil erosion and run off from fertilizer use.

Fluoride- Fluoride is a naturally occurring element produced by geologic deposits in groundwater supplies that helps prevent tooth decay. Because there are no naturally occurring levels of fluoride in the Pee Dee River, a small amount is added during the treatment process as recommended by the American Medical Association and the American Dental Association.

Total Organic Carbon (TOC)- Organic contaminants enter the Pee Dee River in rainfall runoff and during elevated river levels. Removal of the TOC in the raw water is necessary to prevent elevated THM levels in drinking water.

Chlorine- Chlorine is the disinfectant used to control microbial contaminants.

Chloramines- Chloramines are an alternative disinfectant formed by the reaction of hypochlorous acid (or aqueous chlorine) with ammonia.

Customer Assistance

For more information contact the City of Georgetown Water Utilities Monday through Friday between 9 and 5 at 545-4509 or 545-4500.

Este informe contiene información muy importante sobre su agua que usted bebe. Tradúzcalo ó hable con alguien que lo entienda bien.

Customer Service Locations:

Water Utilities @2377 Maybank Drive  Water Treatment Plant @ 2355 Maybank Drive  City Hall @ 120 North Fraser St.
The public is invited to attend monthly City Council Meetings the 3rd Thursday of each month at 5:30p.m. in the City Hall Council Chambers.