NOTICE TO PUBLIC - REPORTING VIOLATION

IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER

Reporting Requirement Not Met for City of Greensboro

We are required to report the results of monitoring of your drinking water for specific contaminants on a regular basis. Results of regular monitoring are an indicator of whether or not your drinking water meets health standards. During the monthly compliance period beginning April 1, 2017, we did not report the results of monitoring for Total Coliform (routine sample) on time.

Our system failed to notify the state drinking water program as required by May 10, 2017. Although public health was not impacted, as our customers, you have a right to know what happened and what we did to correct the situation.

What should I do?
There is nothing you need to do at this time. You do not need to boil your water or take other actions.

What is being done?
While we did not notify the state as quickly as we should have, we have reported the results of monitoring for Total Coliform (routine sample) on May 18, 2017. We are no longer in violation.

Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.

For more information, please contact:

Responsible Person: Dell Harney	System Name: City of Greensboro	System Address: PO Box 3136
Phone Number: 336-373-7900	System Number NC0241010	System Address (City, State, Zip) Greensboro, NC 27402

Notice of Violation Date: May 31, 2017
Date Notice Distributed: June 19, 2017
Method of Distribution: 2016 Annual Drinking Water Quality Report

2016 DRINKING WATER QUALITY TEST RESULTS

Over 120 contaminants are regularly monitored in your drinking water according to Federal and State regulations to ensure the production of high quality water. The table lists all substances that were detected during the 2016 calendar year. All substances were below regulatory limits. The presence of contaminants does not necessarily indicate that your drinking water poses a health risk. For a more complete list of substances that were analyzed please visit our website at http://www.greensboro-nc.gov/water or call 336-373-7527.

SUBSTANCE OR CHARACTERISTIC	UNIT	HIGHEST LEVEL ALLOWED MCL	IDEAL GOAL MCLG	ANNUAL COMPLIANCE TESTS	AVERAGE OF ROUTINE TESTING	RANGE OF ROUTINE TESTING	POTENTIAL SOURCE OF SUBSTANCE
MONITORED LEAVING THE TREATMENT PLANT							
Aluminum	mg/L	SS	0.20	N/A	T 0.03 M 0.01	T <0.01-0.25 M <0.01- 0.11	Residual from the treatment process
Chloride	mg/L	SS	250	N/A	T 15.2 M 14.9	T 8.8-18.5 M 7.2-32.7	Naturally present in the environment; treatment process
Chlorine, Total residual [1]	mg/L	4.0 MRDL	4.0 MRDLG	N/A	T 3.2 M 3.1	T 2.0-3.9 M 2.1-3.7	Water additive used to control microbes
Chloramines as Chlorine	mg/L	4.0 MRDL	4.0 MRDLG	N/A	T 2.8 M 2.8	T 1.6-3.6 M 1.4-3.4	Water additive used to control microbes
Color	CU	SS	15	N/A	T 1 M 1	T <1-12 M <1-6	—
Fluoride	mg/L	4.0	2.0	T 0.55 M 0.07	T 0.62 M 0.11	T 0.11-0.98 M 0.06-0.15	Water additive which promotes strong teeth
Hardness, Total [2]	mg/L	N/R	—	N/A	T 60 M 41	T 27-86 M 25-71	Natural deposits and the treatment process
Iron	mg/L	SS	0.30	T <0.06 ND M <0.06 ND	T 0.02 M <0.01 ND	T <0.01-0.07 M <0.01-0.03	Plumbing corrosion and natural deposits
Manganese	mg/L	SS	0.05	T <0.01 ND M <0.01 ND	T <0.01 ND M <0.01 ND	T <0.01-0.01 M <0.01-0.01	Plumbing corrosion and natural deposits
Nitrate as Nitrogen	mg/L	10.0	10	T <1.0 ND M <1.0 ND	T 0.25 M 0.48	T 0.02-0.64 M 0.12-1.22	Fertilizer runoff
pH	SU	SS	6.5-8.5	T 7.5 M 7.5	—	T 7.0-8.9 M 7.1-8.8	—
Phosphorus, Total	mg/L	N/R	N/A	N/A	T 2.63 M 2.56	T 1.76-6.82 M 1.28-4.06	Fertilizer runoff; Corrosion control treatment
Sodium	mg/L	N/R	N/A	T 14.8 M 29.9	T 12.1 M 22.2	T 2.0-27.3 M 1.6-36.8	Mine waste, natural deposits
Sulfate	mg/L	SS	250	T 75 M 99	T 36 M 42	T 8-51 M 13-55	Naturally occurring minerals in the soil
Total Dissolved Solids (TDS)	mg/L	SS	500	N/A	T 119 M 127	T 42-153 M 66-205	Erosion of natural deposits; treatment process
Total Organic Carbon [3]	mg/L	TT	N/A	N/A	T 1.60 M 1.44	T 1.27-2.20 M 1.13-1.71	Naturally present in the environment
Turbidity [4]	NTU	TT	N/A	N/A	T 0.05 M 0.08	T 0.02-0.20 M <0.01-0.26 T 100% <0.30 M 100% <0.30	Soil runoff
Zinc	mg/L	SS	5.0	—	T <0.01 ND M <0.01 ND	T <0.01-0.02 M <0.01-0.02	Corrosion of plumbing fixtures; industrial waste
MONITORED IN THE DISTRIBUTION SYSTEM							
Chlorine, Total residual [5]	mg/L	4.0 MRDL	4.0 MRDLG	N/A	2.2	1.0-3.2	Disinfection additive used to control microbes
Total Coliform [6] (Presence/Absence)	—	5.0% positive	zero	N/A	0.65%	—	Naturally present in the environment
E. coli [7] (Presence/Absence)	—	zero	zero	N/A	0.00%	—	Human and animal fecal waste
Total Trihalomethanes TTHM [8]	µg/L	80	N/A	N/A	LRAA 45	10-65	By-product of drinking water disinfection
Total Haloacetic Acids HAA5 [9]	µg/L	60	N/A	N/A	LRAA 38	11-56	By-product of drinking water disinfection
AT THE CUSTOMER'S TAP							
Lead [10]	µg/L	15.0 AL	zero	98.15% of the homes tested were below AL. 90th percentile=<3		<3-19	Corrosion of household plumbing
Copper [10]	mg/L	1.30 AL	1.30	100% of homes tested were below AL. 90th percentile=0.07		<0.05-0.12	Corrosion of household plumbing

[1] Chlorine residual tested every two hours and monitored continuously on-line.
[2] Considered to be moderately soft (USGS standards established in 1962).
[3] Compliance based on 35% and 45% removal.
[4] 100% of monthly samples were <0.30. The EPA requirement is 95%. Combined filtered effluent used for compliance.
[5] Tested at each bacteriological sample site. There were 1871 samples tested in 2016.
[6] 2 of the 1871 monthly samples tested positive for Total Coliform bacteria. No violations occurred.
[7] The MCL is exceeded if a routine sample and repeat sample are Total Coliform positive, and one is also Fecal Coliform or *E. coli* positive. There were 1871 samples tested in 2016. There were zero positive *E. coli* samples.
[8] Some people who drink water containing trihalomethanes in excess of the MCL over many years may experience problems with their liver, kidneys, or central nervous systems, and may have an increased risk for getting cancer.
[9] Some people who drink water containing Haloacetic Acids in excess of the MCL over many years may have an increased risk for getting cancer.
[10] A minimum of 50 at-risk homes were tested from June 1 to September 30, 2015 by a state certified lab for lead and copper; all consumer complaints were tested for lead and copper by the Water Resources lab. The next round of compliance sampling will be done in 2018.

2016 UNREGULATED CONTAMINANT TABLE

The Unregulated Contaminant Monitoring Rule (UCMR3) list was developed by EPA, and includes compounds for potential regulation to determine their relative occurrence around the country. Data results of samples taken in 2016 are listed in the table below.

Contaminant	Unit	Townsend (Finished)	Mitchell (Finished)	Distribution
Chromium (VI)	ppb	<0.02-0.07	<0.02-0.05	<0.02-0.11
Chlorate	ppb	320-620	410-690	<10-710
1,4 Dioxane	ppb	<0.07	<0.07	<0.07-2.3
PFBS	ppt	3.2-5.4	5.9-6.7	<2-6
PFHpA	ppt	2.3-2.6	3.1-3.5	<2-3.9
PFHxS	ppt	11-15	17-23	<3-24
PFOS	ppt	25-28	29-47	<4-46
PFOA	ppt	3.6-4.9	4.9-6.2	<2-6.8

KEY ABBREVIATIONS USED IN THE TABLES

<: Less than symbol; below the detection limit of the instrument
AL: Action Level; the concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow
CU: Color Units
LRAA: Locational Running Annual Average at each of the twelve sampling sites in the distribution system
M: Mitchell Water Plant; located in central Greensboro, with source water supplied by Lake Brandt
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. A person would have to drink 2 liters of water every day at the MCL level for a lifetime to have a one-in-a-million chance of it affecting their health.
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; 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.
mg/L: Milligrams per Liter; equivalent to parts per million (ppm); corresponds to one penny in $10,000 or one minute in two years
N/A: Not Applicable; information not applicable/not required for the water system or for that rule
ND: Non-Detects; laboratory analysis indicates that the contaminant is not present at the level of detection set for the particular methodology used
N/R: Not Regulated; unregulated contaminants are those for which EPA has not established drinking water standards; used by EPA to determine the occurrence of the unregulated contaminant
NTU: Nephelometric Turbidity Unit; a measure of the clarity of water. Turbidity in excess of 5 NTU is just noticeable to the average person.
PFBS: Perfluorobutanesulfonic acid
PFHpA: Perfluoroheptanoic acid
PFHxS: Perfluorohexanesulfonic acid
PFOS: Perfluorooctane Sulfonate
PFOA: Perfluorooctanoic acid
ppb: Parts per billion; equivalent to Micrograms per liter (µg/L); corresponds to one minute in 2,000 years, or a single penny in $10,000,000
ppt: Parts per trillion; equivalent to Nanograms per liter (nanograms/L); corresponds to one minute in 2,000,000 years, or a single penny in $10,000,000,000
SS: Secondary Standards; non-enforceable guidelines for drinking water due to aesthetic considerations such as taste, color, and odor; substances are not considered a risk to human health at the established levels
SU: Standard Units
T: Townsend Water Plant; located northeast of Greensboro, with source water supplied by Lake Townsend
TT: Treatment Technique; a required process intended to reduce the level of a contaminant in drinking water
µg/L: Micrograms per Liter; equivalent to parts per billion (ppb); corresponds to one penny in $10,000,000 or one minute in 2,000 years

SOURCE WATER ASSESSMENT PROGRAM (SWAP) RESULTS

The North Carolina Department of Environmental Quality (NCDEQ), Public Water Supply (PWS) Section, Source Water Assessment Program (SWAP) conducted assessments for all drinking water sources across North Carolina. The purpose of the assessments was to determine the susceptibility of each drinking water source (well or surface water intake) to Potential Contaminant Sources (PCSs). The results of the assessment are available in SWAP Assessment Reports that include maps, background information, and a relative susceptibility rating of Higher, Moderate, or Lower. The relative susceptibility rating of each source for the City of Greensboro was determined by combining the contaminant rating (number and location of PCSs within the assessment area) and the inherent vulnerability rating (i.e., characteristics or existing conditions of the well or watershed and its delineated assessment area). The assessment findings are summarized below:

Susceptibility of Sources to Potential Contaminant Sources (PCSs)

Source Name	Susceptibility Rating	SWAP Report Date
Lake Brandt	Higher	July 2015
Lake Townsend	Higher	July 2015
Haw River	Moderate	July 2015

The complete SWAP assessment report for the City of Greensboro may be viewed on the web at: http://www.ncwater.org/pws/swap. Please note that because SWAP results and reports are periodically updated by the PWS Section, the results available on this website may differ from the results that were available at the time this Drinking Water Quality Report was prepared. To obtain a printed copy of this report, please mail a written request to: Source Water Assessment Program – Report Request, 1634 Mail Service Center, Raleigh NC 27699-1634. Please indicate your system name (City of Greensboro), Water System Number (02-41-010), and provide your name, mailing address and phone number. If you have any questions about the SWAP report please contact the Source Water Assessment staff by phone at 919-707-9098. It is important to understand that a susceptibility rating of "higher" does not imply poor water quality, only the system's potential to become contaminated by PCSs in the assessment area.

QUESTIONS AND PUBLIC INVOLVEMENT ARE WELCOME

Greensboro City Council meetings are held at 5:30 pm on the first and third Tuesday of each month in the Melvin Municipal Office Building at 300 West Washington Street.

If you have any questions about this report or concerns about your Greensboro City water quality, please contact the Water Quality Laboratory at 336-373-7527.

For questions about your water bill or your meter, please call 336-373-CITY (2489).

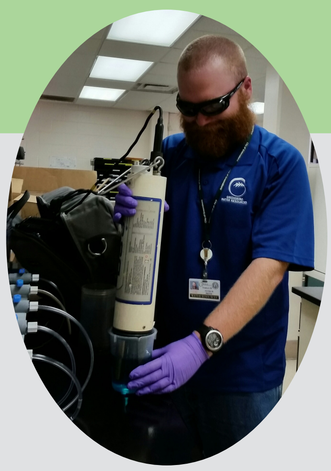
If you have well water and have questions about your water quality, contact Guilford County Environmental Health Department at 336-641-7613.

To learn more about Water Resources, visit: http://www.greensboro-nc.gov/water.

To report water main breaks, sanitary sewer backups, sewer overflows, or other system maintenance concerns, please call the Water Resources dispatcher at 336-373-2033.

For more drinking water information, visit EPA's website at http://water.epa.gov/dwstandardsregulations.

2016 Annual Drinking Water Quality Report



The City of Greensboro's 2016 Annual Drinking Water Quality Report contains important information about your drinking water. The Federal Safe Drinking Water Act requires all public water systems to provide this report to its customers annually. Our constant goal is to provide a safe and dependable supply of drinking water.

Look Inside for Details About:

- The Sources of Drinking Water
- Substances that were Detected in Your Drinking Water
- Water Resources Contact Information
- Notice to Public

En Español

Este informe contiene información muy importante. Haga que alguien lo traduzca para usted, o hable con alguien que lo entienda. Para información llame al 336-373-CITY (2489).

City of Greensboro 2016 Annual Drinking Water Quality Report

Water System Number 02-41-010

The City's Water Resources Department is proud to report that our drinking water is safe to drink and meets or surpasses all State and Federal (EPA) standards.

Townsend Water Treatment Plant

GREENSBORO'S WATER SOURCES

The City of Greensboro has three surface water sources: Lake Townsend, Lake Brandt and Lake Higgins. These lakes are located in northern Guilford County in the upper Cape Fear River Basin within a protected watershed. When full, Greensboro's three water reservoirs hold about eight billion gallons of water. Water from Lake Brandt is treated at the Mitchell Water Treatment Plant and water from Lake Townsend is treated at the Townsend Water Treatment Plant. Lake Higgins is used to refill Lake Brandt as needed.

Greensboro's water system served approximately 285,000 people with an average daily water demand of 33.8 million gallons per day in 2016. During 2016 the City of Greensboro purchased water from Reidsville, Burlington, Piedmont Triad Regional Water Authority, and Winston-Salem. To obtain Water Quality Reports from these systems, please contact the following:

City of Burlington	**336-222-5133**
City of Reidsville	**336-349-1070**
Piedmont Triad Regional Water Authority	**336-498-5510**
City of Winston-Salem	**336-945-1179**

WHAT EPA WANTS YOU TO KNOW

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 (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 Greensboro 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 from the Safe Drinking Water Hotline or at http://www.epa.gov/safewater/lead.

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).

WATER QUALITY PREVENTATIVE MAINTENANCE PROGRAM

In a continuing effort to improve water quality, the following regional water partners: Archdale, Burlington, Greensboro, High Point, Jamestown, Randleman, and the Piedmont Triad Regional Water Authority conducted a water quality preventative maintenance program from June 27 to August 3, 2016. The process involved a temporary disinfectant conversion from chloramines to free chlorine in order to optimize water quality in our distribution system. During the maintenance program water continued to meet Federal and State drinking water standards.

Mitchell Water Treatment Plant Clearwell

UNDERSTANDING CONTAMINANTS LISTED IN REPORT

All sources of drinking water, including tap and bottled, involve water that travels over a surface of the land or through the ground. The water dissolves naturally-occurring minerals and in some cases radioactive material, and can pick up substances resulting from the presence of animals or human activity.

Contaminants that may be present in untreated source water include:

- Microbial - viruses and bacteria from human, agricultural, or wildlife sources;
- Inorganic - salts and metals, which can be naturally-occurring or result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining or farming;
- Pesticides and herbicides - may come from urban stormwater runoff, residential uses and agricultural uses;
- Organic chemicals - synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, and septic systems;
- Radioactive materials - can be naturally-occurring or the result of oil and gas production and mining activities.

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. Food and Drug Administration (FDA) regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

ADDITIONAL MONITORING

We continued our two year monitoring program for *Cryptosporidium*. The samples taken from our source waters, Lake Townsend and Lake Brandt, were sent to a certified lab for analysis. There were no detectable levels (<1 oocysts/L) in each of the monthly samples.

Cryptosporidium is a microbial pathogen found in surface water throughout the U.S. Although filtration removes *Cryptosporidium*, the most commonly-used filtration methods cannot guarantee 100 percent removal. Current test methods do not allow us to determine if the organisms are dead or if they are capable of causing disease. Ingestion of *Cryptosporidium* may cause cryptosporidiosis, an abdominal infection. Symptoms of infection include nausea, diarrhea, and abdominal cramps. Most healthy individuals can overcome the disease within a few weeks. However, immuno-compromised people, infants and small children, and the elderly are at greater risk of developing life-threatening illness. We encourage immuno-compromised individuals to consult their doctor regarding appropriate precautions to take to avoid infection. *Cryptosporidium* must be ingested to cause disease, and it may be spread through means other than drinking water.

Synthetic Organic Chemical (SOC) results from our 2016 finished water samples, including Pentachlorophenol were all below the required reporting limits or non-detects. Pentachlorophenols are commonly used in industrial and manufacturing processes.