City of Graham

2013 Drinking Water Quality Report

PWS ID# NC0201015

We're pleased to present to you this Annual Drinking Water Quality Report. This report is designed to inform you about the quality of the water and service we deliver to you everyday. Our constant goal is to provide you with a safe and dependable supply of drinking water. We want you to understand the efforts we make to continually improve the water treatment process and protect our water resources. We are committed to ensuring the quality of your water. Our water source is the Graham-Mebane reservoir. This is a surface water supply that goes through a series of treatment processes at the Graham-Mebane Water Treatment Plant before being pumped into the distribution system for use in homes, commercial establishments and industries.

The City of Graham is pleased to report that our drinking water is safe and meets all federal and state requirements.

If you have any questions about this report or concerning your water utility, please contact:

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City of Graham employees routinely monitor for contaminants in your drinking water according to Federal and State Regulations. This report shows the results of our monitoring for the period of January 1st to December 31st , 2013

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**.

Some people may be more vulnerable to contaminants in drinking water than the general population. Immune-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 microbiological 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 Graham is responsible for providing high quality 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 Stafe Drinking Water Hotline or at **http://www.epa.gov/safewater/lead**.

The City Council of the City of Graham is the authority that determines infrastructure funding and the council members, under advisement of the City's management staff, make other decisions that affect the water supply and the quality of the drinking water. The City of Graham City Council meets on the first Tuesday of every month at 7:00pm in the City of Graham Municipal Building, 201 South Main Street.

In the table on the following page you will find many terms and abbreviations you might not be familiar with. To help you better understand these terms we've provided the following definitions.

Non-Detects (ND) Laboratory analysis indicates that the constituent is not present

Parts per million (ppm) or Milligrams per liter (mg/l) One part per million corresponds to one minute in two years or a single penny in $10,000.00

Parts per billion (ppb) or Micrograms per liter (µ/l) One part per billion corresponds to one minute in 2,000 years or a single penny in $10,000,000.00

Picocuries per liter (pCi/L) Picocuries per liter is a measure of the radioactivity in water

Nephelometric turbidity Units (NTU) Nephelometric turbidity unit is a measure of the clarity of the water. Turbidity in excess of 5 NTU is just noticeable to the average person.

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

Treatment Technique (TT) A treatment technique is a required process intended to reduce the level of a contaminant that is allowed in drinking water.

Maximum Contaminant Level (MCL) The "Maximum Allowed" (MCL) is 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 "GOAL" (MCLG) is the level of a contaminant in the drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.

Maximum Residual Disinfection Level (MRDL) The highest level of a disinfectant allowed in drinking water. There is convincing that addition of a disinfectant is necessary for control of microbial contaminants.

Maximum Residual Disinfection Level Goal (MRDLG) the level of a drinking water disinfectant below which there is no know or expected risk to health. MRDLG's do not reflect the benefits of the use of the disinfectants to control microbial contaminants.

MCL's are set at very stringent levels. To continue to meet these regulations, in 2003 the City of Graham completed a facility upgrade at the Graham-Mebane Water Treatment Plant. Chloramines are added as part of our disinfection process in order to reduce the level of Trihalomethanes and HaloAcetic Acids, which are disinfection by-products of chlorine. Compliance of this new DBP rule commenced January 2004. In addition to construction of a new facility, the existing facility was upgraded to give us the ability to treat up to 12 million gallons per day.

The North Carolina Department of Environment and Natural resources (DENR), 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 Report 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 Graham was determined by combining the contaminant rating "**Lower"** and the inherent vulnerability rating of **"Moderate"**. The assessment findings are summarized in the table below:

Susceptibility of Sources to Potential Contaminant Sources (PCSs)

Source Name	Susceptibility Rating
Graham-Mebane Lake	**Moderate**

The complete SWAP Assessment report for City of Graham may be viewed on the Web at http://www.deh.enr.state.nc.us/pws/swap 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 or email request to swap@ncmail.net. Please indicate you system name, PWSID, 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 (191) 715-2633.

It is important to understand that a susceptibility rating of "higher" **does not** imply poor water quality, only the system potential to become contaminated by PCS's in the assessment area.

"What's in My Water"

Regulated Contaminant Units	***Year Sampled***	***MCL***	***MCLG***	***Level Detection***	***Violation***	***Typical Source***
Total Coliform Bacteria (Colonies/100 ml)	2013	Present in 5% of Samples	0	N/D	NO	Naturally present in the environment
Turbidity (NTU)	2013	TT	N/A	# .034 * .04 -.22	NO	Soil Runoff
Copper (ppm)	2013	1.3	1.3	** .103	NO	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Fluoride (ppm)	2013	4	4	.69 * .61 -.80	NO	Erosion of natural deposits; water assistive which promotes strong teeth; discharge from fertilizer and aluminum factories
Lead (ppb)	2013	15 (AL)	0	** <0.003	NO	Corrosion of household plumbing systems. Erosion of natural deposits.
TTHMs (ppb)	2013	80	N/A	# 40.1 * 22 - 80	NO	By-product of chlorinated water
HAA (ppb)	2013	60	N/A	# 37.0 * 25 - 105	NO	
Chloramines (ppm)	2013	MRDL = 4	MRDLG = 4	# 2.6 * 1.2 - 5.0	NO	Water additive to control microbes
Total Organic Carbon	2013	TT	N/A	# 1.38 * 2.04 - 4.05	NO	Naturally present in the environment

Our water system used Step 1 as the method to comply with the disinfectant byproducts treatment technique requirements. For compliance the level detected column must be greater than or equal to 1

NOTE: (* range from low to high, # annual average of results, ** 90th percentile level)

We are pleased to inform you that the City of Graham met all state and Federal requirements for the year of 2013. The compliance period for testing under the new Stage 2 Disinfection Byproducts (DBP) rule began October, 2013. A Stage 2 Disinfection Byproducts (DBP) extension request was submitted in July 2013, which provided information showing that capital improvements are in process which are likely to improve DBP compliance. As such, this request has been approved. This extension is effective immediately and extends the stage 2 implementation date for a period of 2 years.

Many more contaminants were tested in this reporting period but they were **not detected (ND)** by laboratory analysis. The following information summarizes the type and number of contaminants that were **not detected:**

Microbiological Contaminants: One hundred eighty (180) water samples were tested for Total Coliform Bacteria, Fecal Coliform and *E. Coli* throughout the water system. These contaminants were not detected in any sample.

Inorganic Contaminants: Water was tested on other inorganic regulated contaminants in addition to the one's listed in the table. All were below detection.

Volatile Organic Contaminants: Water was tested on other regulated Volatile Organic contaminants in addition to the one's listed in the table. All were below detection.

Synthetic Organic Contaminants: Water was tested on other unregulated Synthetic Organic contaminants in addition to the one's listed in the table. All were below detection.

Unregulated Contaminants Monitoring Regulation: Assessment monitoring performed on Unregulated contaminants were below detection limits.

The Graham-Mebane Water Treatment Plant is staffed by trained, certified water treatment facility operators. We take pride in our profession and our staff is committed to providing a safe dependable supply of water for our citizens. Please let us know if you have any questions or concerns regarding the City of Graham water supply.

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Graham City Council

Jerry Peterman, MAYOR

Jimmy Linens, MAYOR PRO TEM

Chip Turner, Councilmember

Jim Albright, Councilmember

Lee Kimrey, Councilmember