

City of Mebane
106 East Washington Street
Mebane, NC 27302

City of Mebane
2017 Annual Drinking Water Quality Report

Public Water System ID # 02-01-018

Report Date: April 20, 2018

City of Mebane

2017 Annual Drinking Water Quality Report

We are pleased to present to you this year's Annual Drinking Water Quality Report. This report is designed to inform you about the quality of the water and services we deliver to you every day. 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 Graham – Mebane Water Treatment Plant is staffed by trained, certified water treatment facility operators. Four people on staff hold the highest certification obtainable for water treatment facility operation in North Carolina. The staff works around the clock in order to provide a safe and dependable supply of water for our citizens. Please let us know if you have any questions or concerns regarding the City of Mebane's water supply.

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. 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 Mebane 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>.

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 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 can also come from gas stations, urban stormwater runoff, and septic systems; and radioactive contaminants, which can be naturally-occurring or be 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. FDA regulations establish limits for contaminants in bottled water, which must provide the same protection for public health.

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 is 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 the Graham – Mebane Reservoir 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 watershed and its delineated assessment area). The assessment findings are summarized in the following table:

Susceptibility of Sources to Potential Contaminant Sources (PCSs)

Source Name	Susceptibility Rating	SWAP Report Date
Graham-Mebane Lake	Moderate	July 2017

The Graham – Mebane Reservoir relative susceptibility rating was determined to be moderate. It is important to understand that a susceptibility rating is only a measure of the systems' *potential* to become contaminated by PCS's in the assessment area, and not an actual measure of water quality.

The complete SWAP Assessment report for Graham – Mebane Reservoir may be viewed on the Web at: https://www.ncwater.org/files/swap/SWAP_Reports/0201015_7_12_2017_85_11.pdf. Note that because SWAP results and reports are periodically updated by the PWS Section, the results available on this web site may differ from the results that were available at the time this CCR was prepared. If you are unable to access your SWAP report on the web, you may mail a written request for a printed copy to: Source Water Assessment Program – Report Request, 1634 Mail Service Center, Raleigh, NC 27699-1634, or email requests to swap@ncdenr.gov. Please indicate your system name, number, 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. If you have any questions about this report or concerning your water utility, please contact:

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This report shows the results of our monitoring for the period of January 1st to December 31st, 2017. The City of Mebane's test results have also been inserted for your reference. As guidance, the U.S. Environmental Protection Agency (USEPA) recommends that we only report those parameters that have a recognized limit for drinking water, and have been detected in the water tested. All of the City's water quality sampling during the calendar year 2017 was within water quality standards (MCL).

The City Council of the City of Mebane 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 your drinking water. The City of Mebane City Council meets on the first Monday of every month at 6:00 PM in the City of Mebane Municipal Building, 106 East Washington Street, Mebane, NC.

Protection of drinking water is everyone's responsibility. You can help protect your community's drinking water source(s) in several ways: (examples: dispose of chemicals properly; take used motor oil to a recycling center, volunteer in your community to participate in group efforts to protect your source, etc.).

We routinely monitor for over 150 contaminants in your drinking water according to Federal and State laws. The table on the following page list all the drinking water contaminants that we detected in the last round of sampling for each particular contaminant group. The presence of contaminants does not necessarily indicate that water poses a health risk. **Unless otherwise noted, the data presented in this table is from testing done January 1 through December 31, (2017).** The EPA and the State allow us to monitor for certain contaminants less than once per year because the concentrations of these contaminants are not expected to vary significantly from year to year. Some of the data, though representative of the water quality, is more than one year old.

In the following table, 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.
- Parts per billion (ppb) or Micrograms per liter* - one part per billion corresponds to one minute in 2,000 years, or a single penny in \$10,000,000.
- Picocuries per liter (pCi/L)* - picocuries per liter is a measure of the radioactivity in water.
- Nephelometric Turbidity Unit (NTU)* - nephelometric turbidity unit is a measure of the clarity of 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 must follow.
- Treatment Technique (TT)* - A treatment technique is a required process intended to reduce the level of a contaminant in drinking water.

Maximum Contaminant Level - 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 - The “Goal” (MCLG) is the level of a contaminant in drinking water below which there is no known or expected risk to health.

MCL's are set at very stringent levels. For example: a person would have to drink 2 liters of water every day for seventy years at the MCL level in order to have a one-in-a-million chance of having the potential health effect associated with a particular contaminant. Many of the regulated contaminants MCL's are set at this level.

<i>Disinfection Byproducts Contaminants</i>						
Contaminant (units)	MCL/MRDL	Your Water	Range	MCLG	MCL for RAA	Likely Source of Contamination
	Violation		Low			
	Y/N		High			
TTHM (ppb) [Total Trihalomethanes]	N	30	18-43	N/A	80	By-product of drinking water chlorination
HAA5 (ppb) [Total Haloacetic Acids]	N	23	14-35	N/A	60	By-product of drinking water disinfection

<i>Lead and Copper Contaminants</i>						
Contaminant (units)	Sample Date	Your Water	# of sites found above the AL	MCLG	MCL	Likely Source of Contamination
Copper (ppb) (90th percentile) Tested Every 3 Years	9/2017	ND	0	1300	AL=1300	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead (ppb) (90th percentile) Tested Every 3 Years	9/2017	ND	0	0	AL=15	Corrosion of household plumbing systems, erosion of natural deposits
Asbestos (MFL) Tested Every 9 Years	3/2011	ND	0	7	7	Decay of asbestos cement water mains; erosion of natural deposits

<i>Inorganic Contaminants</i>							
Contaminant (units)	Sample Date	MCL Violation	Your Water (AVG)	Range	MCLG	MCL	Likely Source of Contamination
		Y/N		Low High			
Fluoride (mg/l)	2017	N	0.46	0.14-0.81	4	4	Water Additive to promote strong teeth
Total Chlorine (mg/l)	2017	N	2.1	1.4-2.9	N/A	N/A	Water additive used to control microbes.
Monochloramines (mg/l)	2017	N	2.08	1.49-2.96	N/A	N/A	Water additive used to control microbes

<i>Microbiological Contaminants</i>					
Contaminant (units)	MCL Violation	Your Water	MCLG	MCL	Likely Source of Contamination
	Y/N				
Total Coliform Bacteria (Presence or Absence)	N	ND	0	one positive monthly sample	Naturally present in the environment
Fecal Coliform or E. coli (Presence or Absence)	N	ND	0	0 (Note: 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)	Human and animal fecal waste
Average Turbidity (NTU)	N	0.12	NA	Water must be less than 0.3 NTU 95% of time and cannot exceed 1.0 NTU.	Soil Runoff
Total Organic Carbon (PPM)	N	1.92	TT	N/A	Naturally present in the environment