

# ***2019 Annual Drinking Water Quality Report*** ***City of Mount Airy***

Water System Number: 02-86-010

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

We are pleased to present to you this year's Annual Drinking Water Quality Report. This report is a snapshot of last year's water quality. Included are details about your source(s) of water, what it contains, and how it compares to standards set by regulatory agencies. 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 and to providing you with this information because informed customers are our best allies. **If you have any questions about this report or concerning your water, please contact Anthony Utt at 336-786-3595. We want our valued customers to be informed about their water utility. If you want to learn more, please attend any of our regularly scheduled Board of Commissioner Meetings. They are held at 2:00 pm on the first Thursday and at 6:00 pm on the third Thursday of each month at the Municipal building at 300 South Main Street.**

## **The City of Mount Airy's Drinking Water Meets or Exceeds All Federal and State Drinking Water Standards**

### **What EPA Wants You to Know**

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 Mount Airy 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.

**When You Turn on Your Tap, Consider the Source**

The City of Mount Airy operates two surface water treatment facilities. The F.G. Doggett Facility, located at 339 Doggett Water Plant Road, draws water from Stewarts Creek. The S.L. Spencer Facility, located at 426 Orchard Street, draws water from Lovills Creek. Each facility underwent a major upgrade between 1991 and 1995; and operators at each facility constantly upgrade and install the latest technologies in water treatment. This helps ensure that the City of Mount Airy is provided with the highest quality of water possible.

## Source Water Assessment Program (SWAP) Results

The North Carolina Department of Environmental Quality (DEQ), 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 Mount Airy 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 in the table below:

### Susceptibility of Sources to Potential Contaminant Sources (PCSs)

Source Name	Susceptibility Rating	SWAP Report Date
Stewarts Creek	Moderate	September 2017
Lovills creek	Moderate	September 2017

The complete SWAP Assessment report for the City of Mount Airy may be viewed on the Web at: <https://www.ncwater.org/?page=600> 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](mailto: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.

## Water Quality Data Tables of Detected Contaminants

We routinely monitor for over 150 contaminants in your drinking water according to Federal and State laws. The tables below 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, 2019.** 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.

**Unregulated contaminants are those for which EPA has not established drinking water standards. The purpose of unregulated contaminant monitoring is to assist EPA in determining the occurrence of unregulated contaminants in drinking water and whether future regulations are warranted.**

### Important Drinking Water Definitions:

**Not-Applicable (N/A)** – Information not applicable/not required for that particular water system or for that particular rule.

**Non-Detects (ND)** - Laboratory analysis indicates that the contaminant is not present at the level of detection set for the particular methodology used.

**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 (ug/L)** - One part per billion corresponds to one minute in 2,000 years, or a single penny in \$10,000,000.

**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 required process intended to reduce the level of a contaminant in drinking water.

**Maximum Residual Disinfection Level (MRDL)** – 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.

**Maximum Residual Disinfection Level Goal (MRDLG)** – 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.

**Locational Running Annual Average (LRAA)** – The average of sample analytical results for samples taken at a particular monitoring location during the previous four calendar quarters under the Stage 2 Disinfectants and Disinfection Byproducts Rule.

**Maximum Contaminant Level (MCL)** - 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 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.

## Tables of Detected Contaminants

### Turbidity\*

Contaminant (units)	Treatment Technique (TT) Violation Y/N	Your Water	MCLG	Treatment Technique (TT) Violation if:	Likely Source of Contamination
Turbidity (NTU) - Highest single turbidity measurement	N	0.09 NTU	N/A	Turbidity > 1 NTU	Soil runoff
Turbidity (NTU) - Lowest monthly percentage of samples meeting turbidity limits	N	100 %	N/A	Less than 95% of monthly turbidity measurements are ≤ 0.3 NTU	

\* Turbidity is a measure of the cloudiness of the water. We monitor it because it is a good indicator of the effectiveness of our filtration system. The turbidity rule requires that 95% or more of the monthly samples must be less than or equal to 0.3 NTU.

### Inorganic Contaminants

Contaminant (units)	Sample Date	MCL Violation Y/N	Your Water	Range		MCLG	MCL	Likely Source of Contamination
				Low	High			
Fluoride (ppm)	January 2019	N	0.67 ppm	0.59ppm	0.67ppm	4	4	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories

### Lead and Copper Contaminants

Contaminant (units)	Sample Date	Your Water	Number of sites found above the AL	MCLG	AL	Likely Source of Contamination
Copper (ppm) (90 <sup>th</sup> percentile)	September 2019	ND	0	1.3	AL=1.3	Corrosion of household plumbing systems; erosion of natural deposits
Lead (ppb) (90 <sup>th</sup> percentile)	September 2019	ND	0	0	AL=15	Corrosion of household plumbing systems; erosion of natural deposits

### Total Organic Carbon (TOC)

Contaminant (units)	TT Violation Y/N	Your Water (RAA Removal Ratio)	Range Monthly Removal Ratio Low - High	MCLG	TT	Likely Source of Contamination	Compliance Method (Step 1 or ACC#_)
Total Organic Carbon (removal ratio) (TOC)-TREATED	N	91.7 %	33.3% - 100%	N/A	TT	Naturally present in the environment	ACC 2

### Disinfectant Residuals Summary

Year Sampled	MRDL Violation Y/N	Your Water (highest RAA)	Range Low High	MRDLG	MRDL	Likely Source of Contamination
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Chlorine (ppm)	2019	N	1.58 ppm	0.78 ppm – 2.11 ppm	4	4.0	Water additive used to control microbes
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### Stage 2 Disinfection Byproduct Compliance - Based upon Locational Running Annual Average (LRAA)

Disinfection Byproduct	Year Sampled	MCL Violation Y/N	Your Water (highest LRAA)	Range		MCLG	MCL	Likely Source of Contamination
				Low	High			
TTHM (ppb)								
B01	2019	N	51.3 ppb	17 ppb	61 ppb	N/A	80	Byproduct of drinking water disinfection
B02	2019	N	49.8 ppb	21 ppb	65 ppb	N/A	80	
B03	2019	N	47.3 ppb	19 ppb	56 ppb	N/A	80	
B04	2019	N	53.0 ppb	24 ppb	65 ppb	N/A	80	
HAA5 (ppb)								
B01	2019	N	39.8 ppb	19 ppb	47 ppb	N/A	60	Byproduct of drinking water disinfection
B02	2019	N	40.0 ppb	26 ppb	48 ppb	N/A	60	
B03	2019	N	38.3 ppb	23 ppb	44 ppb	N/A	60	
B04	2019	N	38.3 ppb	23 ppb	48 ppb	N/A	60	

The PWS Section requires monitoring for other misc. contaminants, some for which the EPA has set national secondary drinking water standards (SMCLs) because they may cause cosmetic effects or aesthetic effects (such as taste, odor, and/or color) in drinking water. The contaminants with SMCLs normally do not have any health effects and normally do not affect the safety of your water.

### Other Miscellaneous Water Characteristics Contaminants

Contaminant (units)	Sample Date	Your Water	Range		SMCL
			Low	High	
Iron (ppm)	January 2019	0.086 ppm	ND	0.086 ppm	0.3 ppm
Sodium (ppm)	January 2019	7.8 ppm	7.6 ppm	7.8 ppm	N/A
Sulfate (ppm)	January 2019	24.4 ppm	ND	24.4 ppm	250 mg/L (ppm)
pH	January 2019	7.88	7.67	7.88	6.5 to 8.5
Manganese (UCMR4) (ppb)	February 2019	1.8 ppb	ND	1.8 ppb	50 ppb

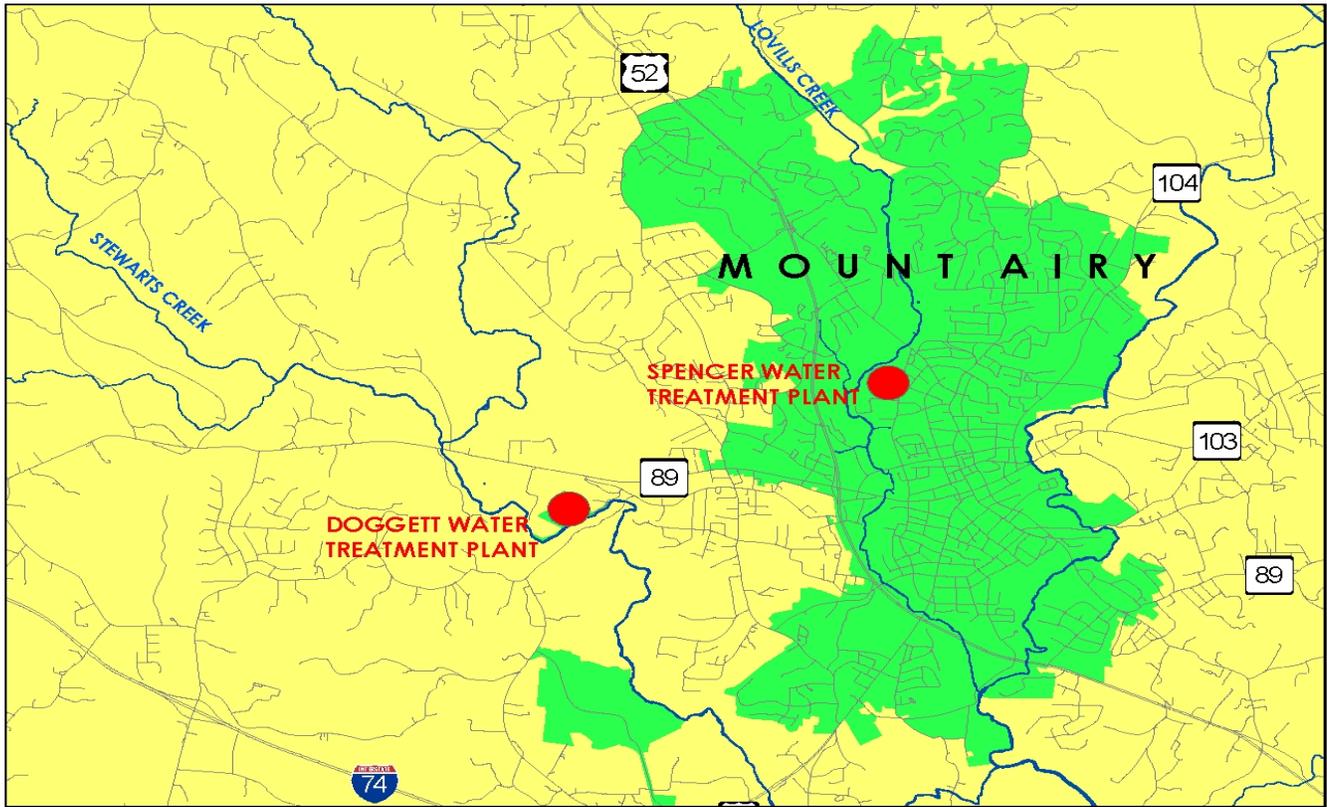
### Additional Monitoring of Other Contaminants

Unregulated contaminants are those for which EPA has not established drinking water standards. The purpose of unregulated contaminant monitoring is to assist EPA in determining the occurrence of unregulated contaminants in drinking water and whether future regulations are warranted.

**Fourth Unregulated Monitoring Rule (UCMR4)** - EPA uses the Unregulated Contaminant Monitoring Rule (UCMR) to collect data for contaminants that are suspected to be present in drinking water and do not have health-based standards set under the Safe Drinking Water Act (SDWA). For more information please contact the City of Mount Airy Water Treatment at 336-786-3595 or the EPA online at <https://www.epa.gov/dwucmr>

UCMR 4 Contaminate List	Sample Location	Sample Date	MCL Violation Y/N	Your Water	Range		MCL	Likely Source of Contamination
					Low	High		
HAA5	B01	2019	N	15.6 ppb	15.6 ppb	15.6 ppb	60 ppb	Byproduct of drinking water disinfection
	B02	2019	N	19.1 ppb	19.1 ppb	19.1 ppb	60 ppb	
	B03	2019	N	19.6 ppb	19.6 ppb	19.6 ppb	60 ppb	
	B04	2019	N	19.0 ppb	19.0 ppb	19.0 ppb	60 ppb	
HAA6Br	B01	2019	N	2.4 ppb	2.4 ppb	2.4 ppb		Byproduct of drinking water disinfection
	B02	2019	N	2.8 ppb	2.8 ppb	2.8 ppb		
	B03	2019	N	2.9 ppb	2.9 ppb	2.9 ppb		
	B04	2019	N	2.9 ppb	2.9 ppb	2.9 ppb		
HAA9	B01	2019	N	18.0 ppb	18.0 ppb	18.0 ppb		Byproduct of drinking water disinfection
	B02	2019	N	21.9 ppb	21.9 ppb	21.9 ppb		
	B03	2019	N	22.5 ppb	22.5 ppb	22.5 ppb		
	B04	2019	N	21.9 ppb	21.9 ppb	21.9 ppb		

\* Denotes Samples taken at the water source before the treatment process



City of Mount Airy Water Sources: Stewarts Creek, Lovills Creek

Member: American Water Works Association (AWWA)

North Carolina Water Works Operators Association (NCWOA)