



# City of Newton - 2021 Annual Drinking Water Quality Report

Water System Number: 01-18-015

[www.newtonnc.gov](http://www.newtonnc.gov)

We are pleased to present the 2021 Annual Drinking Water Quality Report. Our goal is to provide a safe and dependable supply of drinking water to our customers. We want you to understand the efforts we make to continually improve the water treatment process and to protect our water resources. We are committed to ensuring the quality of your water remains high and to providing you with this information because informed customers are our best allies. The City of Newton takes pride in delivering high quality drinking water to our customers. If you have any questions about this report or have concerns with your water, please contact our WTP superintendent at 828-695-4312.

There were no violations for 2021

## 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. City of Newton 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.

## Newton's Outstanding Resource Water

The Jacob Fork River is the primary water source for Newton's drinking water. The Jacob Fork flows from South Mountain approximately 20 miles over solid bedrock where it is well-oxygenated and most volatile contaminants are removed. The Jacob Fork River has no commercial or city discharge facilities located along its 20-mile stretch upstream from Newton, adding to the purity of the water. Our intake from this pristine water source is at Jacob Fork Park on NC Hwy 10. The Jacob Fork River is classified as an Outstanding Resource Water (ORW) by the NC Department of Environmental Quality.

## Source Water Assessment Program (SWAP) Results

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 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 Newton 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	Inherent Vulnerability Rating	Contaminant Rating	Susceptibility rating	SWAP Report Date
Jacob Fork/ Catawba River	Higher	Lower	Moderate	September 2020
City Lake	Higher	Lower	Moderate	September 2020

The complete SWAP Assessment report for the City of Newton may be viewed at: [https://www.ncwater.org/SWAP\\_Reports/NC0118015\\_SWAP\\_Report-20200909.pdf](https://www.ncwater.org/SWAP_Reports/NC0118015_SWAP_Report-20200909.pdf). 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 available at the time this CCR was prepared. If you are unable to access your SWAP report online, 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, and instead refers to 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 table below lists all the drinking water contaminants that we detected in the last round of sampling for the 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, 2021.** 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.

### Tables of Detected Contaminants

#### Microbiological Contaminants in the Distribution System -

For systems that collect *less than 40* samples per month)

Contaminant (units)	MCL Violation Y/N	Your Water	MCLG	MCL*	Likely Source of Contamination
Total Coliform Bacteria (presence or absence)	N	0	0	One positive monthly sample	Naturally present in the environment
Fecal Coliform or <i>E. coli</i> (presence or absence)	N	0	0	0	Human and animal fecal waste

\*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

#### Inorganic Contaminants

Contaminant (units)	Sample Date	MCL Violation Y/N	Your Water	Range Low High	MCLG	MCL	Likely Source of Contamination
Barium (ppm)	3/11/21	N	.0160	N/A	2	2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Fluoride (ppm)	3/11/21	N	.46	N/A	4	4	Erosion of natural deposits; water additive which promotes strong teeth.

### Turbidity\*

Contaminant (units)	Treatment Technique (TT) Violation Y/N	Your Water	Treatment Technique (TT) Violation if:	Likely Source of Contamination
Turbidity (NTU) - Highest single turbidity measurement	N	0.10 NTU	Turbidity > 1 NTU	Soil runoff
Turbidity (NTU) - Lowest monthly percentage (%) of samples meeting turbidity limits	N	100%	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.				

### Nitrate/Nitrite Contaminants

Contaminant (units)	Sample Date	MCL Violation Y/N	Your Water	Range Low High	MCLG	MCL	Likely Source of Contamination
Nitrate (as Nitrogen) (ppm)	8/13/21	N	0.26	N/A	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Nitrite (as Nitrogen) (ppm)	8/13/21	N	ND	N/A	1	1	

### Lead and Copper Contaminants

Contaminant (units)	Sample Date	Your Water	# of sites found above the AL	MCLG	AL	Likely Source of Contamination
Copper (ppm) (90 <sup>th</sup> percentile)	June 2021	0.299 (Highest Detected)	0	1.3	1.3	Corrosion of household plumbing systems; erosion of natural deposits
Lead (ppm) (90 <sup>th</sup> percentile)	June 2021	0	0	0	0.015	

### 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 (TOC)-TREATED	N	2.86	1- 2.86	N/A	TT	Naturally present in the environment	ACC2

### Disinfectants and Disinfection Byproducts Contaminants – (Feb/May/Aug/Nov)

Contaminant (units) / Locations	MCL/MRDL Violation Y/N	Your Water LRAA (Stage 2)	Range Low High	MCLG	MCL
TTHM (ppb) Site B01	N	19	9-25	0	80
TTHM (ppb) Site B02	N	21	12-31	0	80
TTHM (ppb) Site B03	N	31	16-44	0	80
TTHM (ppb) Site B04	N	27	13-47	0	80
HAA5 (ppb) Site B01	N	25	16-43	0	60
HAA5 (ppb) Site B02	N	24	16-41	0	60
HAA5 (ppb) Site B03	N	24	13-36	0	60
HAA5 (ppb) Site B04	N	24	10-39	0	60

## Disinfectant Residual Summary

Contaminant (units)	MRDL Violation Y/N	Highest RAA	Range		MRDLG	MRDL	Likely Source of Contamination
			Low	High			
Chlorine (ppm)	N	1.38	.073	1.89	4	4	Water additive used to control microbes

## Other Contaminants

Contaminant	
Synthetic Organic Contaminants (SOCs) Pesticides & Herbicides	None Detected
Volatile Organic Contaminants (VOCs)	None Detected

## 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.

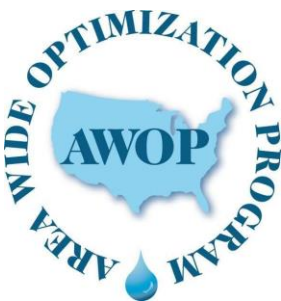
**Treatment Technique (TT)** - A required process intended to reduce the level of a contaminant in drinking water.

**Maximum Residual Disinfection Level 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.

**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 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.



North Carolina has 131 surface water treatment plants. The City of Newton is one of only three plants in the state that has exceeded the federal and state water quality requirements and has received the Area Wide Optimization Program (AWOP) award every year since its inception in 2003. In 2021, Newton marked 18 consecutive years of delivering some of the highest quality drinking water in North Carolina.

- For questions about your water bill, please call 828-695-4301.
- To report water main breaks, sanitary sewer backups, sewer overflows, or other system maintenance concerns, please call 828-695-4310.
- For more drinking water information, visit EPA's website at [water.epa.gov/dwstandardsregulations](http://water.epa.gov/dwstandardsregulations).