

North Elizabethton Water Co-Op Water Quality Report for 2016

Is my drinking water safe?

Yes, our water meets all of EPA's health standards. We have conducted numerous tests for over 80 contaminants that may be in drinking water. As you'll see in the chart on the back, we only detected 10 of these contaminants. We found all of these contaminants at safe levels.

What is the source of my water?

Your water is treated surfacewater, purchased from the Watauga River Regional Water Authority. Our goal is to protect our water from contaminants and we are working with the State to determine the vulnerability of our water source to **potential** contamination. The Tennessee Department of Environment and Conservation (TDEC) has prepared a Source Water Assessment Program (SWAP) Report for the untreated water sources serving this water system. The SWAP Report assesses the susceptibility of untreated water sources to **potential** contamination. To ensure safe drinking water, all public water systems treat and routinely test their water. Water sources have been rated as reasonably susceptible, moderately susceptible or slightly susceptible based on geologic factors and human activities in the vicinity of the water source. The North Elizabethton Water Co-Op sources rated as reasonably susceptible to potential contamination.

An explanation of Tennessee's Source Water Assessment Program, the Source Water Assessment summaries, susceptibility scorings and the overall TDEC report to EPA can be viewed online at <https://www.tn.gov/environment/article/wr-wq-source-water-assessment> or you may contact the Water System to obtain copies of specific assessments.

A source water assessment plan is available for your review by contacting Watauga River Regional Water Authority between 8:00 A.M. to 4:00 P.M. weekdays, at 423-543-2400.

Why are there contaminants in my water?

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).

Este informe contiene información muy importante. Tradúscalo o hable con alguien que lo entienda bien.

For more information about your drinking water, please call Bryon Trantham at 423-543-2400.

How can I get involved?

Our Water Board meets at 3:00 pm on the second Tuesday of every month at 386 Highway 91 Suite 1. Please feel free to participate in these meetings.

Is our water system meeting other rules that govern our operations?

The State and EPA require us to test and report on our water on a regular basis to ensure its safety. We have met all of these requirements. Results of unregulated contaminant analysis are available upon request. We want you to know that we pay attention to all the rules.

Other Information

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:

- 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.
- 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 and the Tennessee Department of Environment and Conservation prescribe regulations which limit the amount of certain contaminants in water provided by public water systems. The North Elizabethton Water Co-Op's water treatment processes from the WRRWA are designed to reduce any such substances to levels well below any health concern. FDA regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

Do I Need To Take Special Precautions?

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 under-gone 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 not only their drinking water, but food preparation, personal hygiene, and precautions in handling infants and pets 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).

Lead in Drinking Water

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 North Elizabethton Water Co-Op 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/lead/protect-your-family%23water%23water>

Water System Security

Following the events of September 2001, we realize that our customers are concerned about the security of their drinking water. We urge the public to report any suspicious activities at any utility facilities to 423-543-2400.

Pharmaceuticals In Drinking Water

Flushing unused or expired medicines can be harmful to your drinking water. Learn more about disposing of unused medicines at <https://www.tn.gov/environment/article/sp-unwanted-pharmaceuticals>



Water Quality Data

What does this chart mean?

- **MCLG** - Maximum Contaminant Level Goal, or 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.
- **MCL** - Maximum Contaminant Level, or 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. To understand the possible health effects described for many regulated constituents, 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 having the described health effect.
- **MRDL**: Maximum Residual Disinfectant Level or MRDL: The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for the 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.
- **AL** - Action Level, or the concentration of a contaminant which, when exceeded, triggers treatment or other requirements which a water system must follow.
- **Non-Detects (ND)** - laboratory analysis indicates that the contaminant is not present.
- **Parts per million (ppm) or Milligrams per liter (mg/l)** – explained as a relation to time and money as 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** - explained as a relation to time and money as 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.
- **RTCR** – Revised Total Coliform Rule. This rule went into effect on April 1, 2016 and replaces the MCL for total coliform with a Treatment Technique Trigger for a system assessment.
- **TT** - Treatment Technique, or a required process intended to reduce the level of a contaminant in drinking water.

Contaminant	Violation Yes/No	Level Detected	Range of Detections	Date of Sample	Unit Measurement	MCLG	MCL	Likely Source of Contamination
Total Coliform Bacteria	NO	0		2016		0	1 positive sample	Naturally present in the environment
Total Coliform Bacteria (RTCR)	No	0		2016		0	0	Naturally present in the environment
Turbidity ¹	No	0.08	0.01-0.08	2016	NTU	n/a	TT	Soil runoff
Copper*	No	90 th =0.199		2016	ppm	1.3	AL=1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead*	No	90 th =10.0		2016	ppb	0	AL=15	Corrosion of household plumbing systems, erosion of natural deposits
Sodium	No	4.54		2016	ppm	N/A	N/A	Erosion of natural deposits; used in water treatment
Nitrate (as Nitrogen)	No	0.354		2016	ppm	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
TTHM (Total trihalomethanes)	No	57.5 Annually		2016	ppb	n/a	80	By-product of drinking water chlorination
Haloacetic Acids (HAA5)	No	24.13 Annually		2016	ppb	N/A	60	By-product of drinking water disinfection.
Total Organic Carbon ²	No			2016	ppm	TT	TT	Naturally present in the environment.
Contaminant	Violation Yes/No	Level Detected	Range of Detections	Date of Sample	Unit Measurement	MRDL	MRDLG	Likely Source of Contamination
Chlorine	No	1.29 Avg.	1.0-1.7	2016	ppm	4	4	Water additive used to control microbes.

¹100% of our samples were below the turbidity limit. Turbidity is a measurement of the cloudiness of water. ²We met the treatment technique removal requirement for total organic carbon.*During the most recent round of Lead and copper testing, 1 out of 30 household samples contained concentrations exceeding the action level. 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. North Elizabethton Water Co-Op is responsible

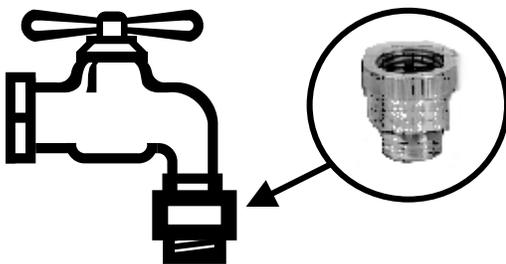
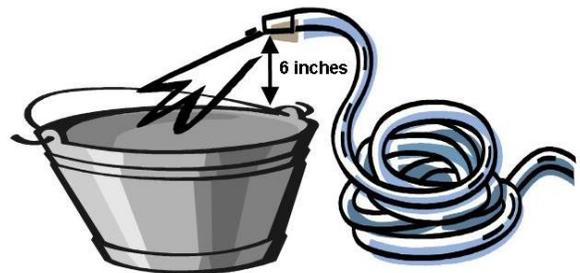
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CROSS-CONNECTION INFORMATION

North Elizabethton Water Co-Op makes every effort to ensure that our customers enjoy a continuous supply of safe drinking water. We appreciate the help of our customers to maintain the quality of our water supply.

Cross Connections can cause the water system to become contaminated. A cross connection is a link with the public water supply and a possible source of contamination. An example of a cross connection would be a garden hose submerged in a source of contamination such as a swimming pool, car radiator or other liquid. If a water main break should occur or if a fire pumper used a fire hydrant while the hose was submerged in a source of contamination, the contaminant could be pulled back into the public water supply. This occurrence, known as backflow, can be prevented.

One simple way to stop backflow is by using an air gap. An air gap can be created by arranging your hose so that the end is at least six inches above the top rim of the container it is being used to fill. This air gap will prevent the contaminant from being siphoned into the water supply.



Another method of preventing backflow with a garden hose is using a device known as a vacuum breaker. Vacuum breakers are inexpensive devices that can be screwed onto your outside faucet. These devices will prevent contaminants from being siphoned back into your plumbing and the public water system.

More hazardous cross connections or cross connections created with permanently installed plumbing may require more sophisticated devices known as reduced pressure backflow preventers. These devices are much more complicated and must be tested annually by certified testers.

For more information on preventing cross connections and protecting our water supply, contact the North Elizabethton Water Co-Op at 423-543-2400.

REMEMBER: Never submerge your garden hose in anything you would not want to drink!