

# Town of Jonesborough

## Jonesborough Water Quality Report 2019

Is my drinking water safe?

Yes, our water meets all of EPA's health standards.

What is the source of my water?

Your water, which is surface water, comes from the Nolichucky River. 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 source water 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 Kingsport Water System source is 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. 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. Community water systems are required to disclose the detection of contaminants; however, bottled water companies are not required to comply with this regulation. 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 hable con alguien que lo entienda bien

For more information about your drinking water,  
Please contact Mark Brumback at 423-753-1099.

How can I get involved?

The Board of Mayor and Aldermen meets on the 2<sup>nd</sup> Monday of each month. The meetings are at 7:00 P.M. at the City Hall Conference Room.

## 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, 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, can also come from gas stations, urban stormwater runoff, and septic systems.
- Radioactive contaminants, 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 City of Kingsport Water System's water treatment processes 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).

### 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, including treatment plants, pumping stations, tanks, fire hydrants, etc. to 753-1053.

### 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 Town of Jonesborough 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 Quality Data

Contaminant	Violation Yes/ No	Level Found	Range Detected	Date of Sample	Unit Measurement	MCL G	MCL	Likely Source of Contamination
Total Coliform Bacteria	NO	0.1%	NA	2019 Daily	Presence or Absence	0	presence of coliform bacteria in 5% of monthly samples	Naturally present in the environment
Turbidity <sup>1</sup>	NO	0.12	0.05- 0.32	2019	NTU	n/a	TT	Soil runoff
Copper	NO	90 <sup>th</sup> % = 0.031	0 of 50 samples above the action level	2019	ppm	1.3	AL=1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Fluoride	NO	0.64	0.0 – 1.60	2019	ppm	4	4	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
Lead <sup>2</sup>	NO	90 <sup>th</sup> %= .003	0 of 50 samples above the action level	2019	ppb	0	AL=15	Corrosion of household plumbing systems, erosion of natural deposits
Nitrate <sup>3</sup>	NO	0.296	NA	2019	ppm	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Sodium	NO	10.90	NA	2019	ppm	N/A	N/A	Erosion of natural deposits; used in water treatment
TTHM <sup>4</sup> [Total Trihalomethanes]	NO	54 - LRA A	24 – 84	2019	ppb	n/a	80	By-product of drinking water chlorination
Haloacetic Acids (HAA5)	NO	45 - LRA A	22 - 70	2019	ppb	N/A	60	By-product of drinking water disinfection.
Total Organic Carbon <sup>5</sup>	NO	.972- LRAA	0.66 – 1.16	2019	ppm	TT	TT	Naturally present in the environment.

Contamina nt	Violati on  Yes/ No	Leve l Fou nd	Range Detected	Date of Sampl e	Unit Measure me nt	MRD L G	MR DL	Likely Source of Contamination
Chlorine	NO	1.8 Annu al Avera ge	0.4 – 2.6	2019 daily	ppm	4	4	Water additive used to control microbes.

0 of 50 samples exceeded the action level for lead and/or copper.

## 2013 Unregulated Contaminant Monitoring

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 regulation is warranted. For additional information call the Safe Drinking Water Hotline at (800) 426-4791.

### Unregulated Monitoring – Water Treatment Plant Monitoring

Contaminant	Date of Sample	Unit	Average Level Detected	Range of Detection
Chromium	2013	ppb	0.075	ND – 0.30
Hexavalent Chromium	2013	ppb	0.073	0.048 – 0.10
Strontium	2013	ppb	107.5	100 - 110
Vanadium	2013	ppb	0.138	0.23 – 0.32

### Unregulated Monitoring – Distribution System Monitoring

Contaminant	Date of Sample	Unit	Average Level Detected	Range of Detection
Chlorate	2013	ppb	5.5	ND - 22
Chromium	2013	ppb	0.198	0.34 – 0.45
Hexavalent Chromium	2013	ppb	0.140	0.11 – 0.17
Strontium	2013	ppb	118	110 - 120
Vanadium	2013	ppb	0.308	0.27 – 0.38

## 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.*
- **TT** - *Treatment Technique or a required process intended to reduce the level of a contaminant in drinking water.*
- **LRAA** - *Locational Running Annual Average*

Monitoring of our source water indicated the presence of cryptosporidium in 1 out of 9 samples tested. Symptoms of infection include nausea, diarrhea, and abdominal cramps. Most healthy individuals are able to overcome the disease within a few weeks. However, immuno-compromised people have more difficulty and are at greater risk of developing severe, life threatening illness. Immuno-compromised individuals are encouraged to consult their doctor regarding appropriate precautions to take to prevent infection. For more information on Cryptosporidium, contact the Safe Drinking Water Hotline (800-426-4791).

100% of our samples met bacteriological requirements.

1. 100% of our samples were below the turbidity limit.
2. Infants and young children are typically more vulnerable to lead in drinking water than the general population.

It is possible that lead levels at your home may be higher than at other homes in the community as a result of materials used in your home's plumbing. If you are concerned about elevated lead levels in your home's water, you may wish to have your water tested and flush your tap for 30 seconds to 2 minutes before using tap water. Additional information is available from the Safe Drinking Water Hotline (1-800-426-4791).

3. Nitrate in drinking water at levels above 10 ppm is a health risk for infants of less than six months of age. High nitrate levels in drinking water can cause blue baby syndrome. Nitrate levels may rise quickly for short periods of time because of rainfall or agricultural activity. If you are caring for an infant you should ask advice from your health care provider.
4. While your drinking water meets EPA's standard for trihalomethanes, it does contain low levels. Some people who drink water containing trihalomethanes in excess of the MCL over many years may experience problems with their liver, kidneys, or central nervous systems, and may have an increased risk of getting cancer.
5. The treatment technique required for total organic carbon was met.

## Health Effects

### *Microbiological Contaminants:*

**Total Coliform.** Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other, potentially-harmful, bacteria may be present. Coliforms were found in more samples than allowed and this was a warning of potential problems.

**Turbidity.** Turbidity has no health effects. However, turbidity can interfere with disinfection and provide a medium for microbial growth. Turbidity may indicate the presence of disease-causing organisms. These organisms include bacteria, viruses, and parasites that can cause symptoms such as nausea, cramps, diarrhea, and associated headaches.

### *Inorganic Contaminants:*

**Copper.** Copper is an essential nutrient, but some people who drink water containing copper in excess of the action level over a relatively short amount of time could experience gastrointestinal distress. Some people who drink water containing copper in excess of the action level over many years could suffer liver or kidney damage. People with Wilson's Disease should consult their personal doctor.

**Fluoride.** Some people who drink water containing fluoride in excess of the MCL over many years could get bone disease, including pain and tenderness of the bones. Children may get mottled teeth.

**Lead.** Infants and children who drink water containing lead in excess of the action level could experience delays in their physical or mental development. Children could show slight deficits in attention span and learning abilities. Adults who drink this water over many years could develop kidney problems or high blood pressure.

**Nitrate.** Infants below the age of six months who drink water containing nitrate in excess of the MCL could become seriously ill and, if untreated, may die. Symptoms include shortness of breath and blue-baby syndrome.

**Picloram.** Some people who drink water containing picloram in excess of the MCL over many years could experience problems with their liver.

**TTHMs [Total Trihalomethanes].** Some people who drink water containing trihalomethanes in excess of the MCL over many years may experience problems with their liver, kidneys, or central nervous systems, and may have an increased risk of getting cancer. **HAA [Haloacetic Acids].** Some people who drink water containing haloacetic acids in excess of the MCL over many years may have an increased risk of getting cancer.

### **Lead and Copper :**

“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 Kingsport 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>.”

**Information on Lead:** Lead is a naturally occurring metal that for most of the 20<sup>th</sup> century was used regularly as a component of paint, piping, solder, brass, and gasoline. We no longer use lead in many of these products, but plumbing fixtures in older homes may still contain lead.

You can't see, smell, or taste lead in your water. Testing at the tap is the only way to measure the lead levels in your home or workplace. If you choose to have your tap water tested, be sure to use a properly certified laboratory. Testing usually costs between \$20 and \$100. Several private labs in the area will conduct this testing. For information on certified laboratories, call 423-224-2689.