

Bon Aqua-Lyles Utility District Water Quality Report for 2017

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 9 of these contaminants. We found all of these contaminants at safe levels.

What is the source of my water?

Your water, which is surface water, comes from the Piney River and The Water Authority of Dickson. 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 Bon Aqua-Lyles Utility District 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/program-areas/wr-water-resources/water-quality/source-water-assessment.html> 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. 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 Todd Cash at 931-670-3142.

How can I get involved?

Our Water Board meets on the Third Thursday at 6:00 p.m. at the utility office. 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 storm water 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 storm water 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 storm water 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. Bon Aqua-Lyles Utility District'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 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 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. Bon Aqua-Lyles Utility District 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>

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 931-670-3957.

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>

Dangers of Cross Connections

Over the next few months, the warm weather will bring people outdoors to working in their yard and gardens and begin getting swimming pools ready. Bon Aqua-Lyles Utility District would like to ensure that our customers are aware of the dangers of associated with these activities. A garden hose submersed in any liquid or attached to certain devices used to spray {pesticides or herbicides} forms a cross connection, a situation where a possible source of contamination is directly linked to our public water system. If the end of your hose is connected to a chemical container, swimming pool or other contaminate during a water main break or fire, the substance can be siphoned back into the water system. This

condition, known as siphonage, could cause a public health hazard. Devices are available to prevent this problem; however the best solution is to always be careful how you use your hose. Please help us provide a safe supply of water to all customers. Remember; never stick your hose in anything you wouldn't want to drink. For information on cross connections and how to protect against them, call David Conner at 931-670-4718.

Board of Commissioners

The Commissioners of the Bon Aqua-Lyles Utility District serve four year terms. Vacancies on the Board of Commissioners are filled by the Hickman County Mayor from a list of three nominees certified by the Board of Commissioners under the Districts customer complaint policy may be reviewed by the Utility Management Review board of the Tennessee Department of Environment and Conservation pursuant to Section 7-82-702-(7) of Tennessee Code Annotated.

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.
- **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.
- **Picocuries per liter (pCi/L)** - picocuries per liter is a measure of the radioactivity in water.
- **Millirems per year (mrem/yr)** - measure of radiation absorbed by the body.
- **Million Fibers per Liter (MFL)** - million fibers per liter is a measure of the presence of asbestos fibers that are longer than 10 micrometers.
- **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.
- **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.

Contaminant	Violation Yes/No	Level Detected	Range of Detections	Date of Sample	Unit Measurement	MCLG	MCL	Likely Source of Contamination
Total Coliform Bacteria (RTCR)	No	1		2017		0	TT Trigger	Naturally present in the environment
Turbidity ¹	No	.11	.03-.11	2017	NTU	N/A	TT	Soil runoff
Copper ²	No	90%= .0331		2015	ppm	1.3	AL=1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Fluoride	No	.44 Avg.	.30-.59	2017	ppm	4	4	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
Lead ²	No	90%=.5		2015	ppb	0	AL=15	Corrosion of household plumbing systems, erosion of natural deposits

Sodium	No	5.83		4/10/17	ppm	N/A	N/A	Erosion of natural deposits; used in water treatment
TTHM [Total Trihalomethanes]	No	48.7	14.2-65.0	2017	ppb	N/A	80	By-product of drinking water chlorination
Haloacetic Acids (HAA5)	No	45.2	11.6-78.1	2017	ppb	N/A	60	By-product of drinking water disinfection.
Total Organic Carbon ³	No	TT		2017	ppm	TT	TT	Naturally present in the environment.
Chlorine	No	1.88 Avg.	0.8-2.2	2017	ppm	4	4	Water additive used to control microbes.

¹100% of our samples were below the turbidity limit.

²During the most recent round of Lead and Copper testing, only 0 out of 20 households sampled contained concentrations exceeding the action level.

³We have met all treatment technique requirements for Total Organic Carbon removal.

These test results are from The Water Authority of Dickson County.

CONTAMINANT	VIOLATION YES/NO	LEVEL DETECTED	RANGE OF DETECTIONS	DATE OF SAMPLE	UNIT OF MEASURE	MCLG	MCL	LIKELY SOURCE OF CONTAMINANT
Turbidity	No	0.20 MAX	0.03-0.20	2017	NTU	N/A	TT	• Soil runoff.
Total Organic Carbon	No	1.66 MAX	0.50-1.66	2017	ppm	N/A	TT	• Soil runoff.
Total Coliform Bacteria	No	0	0	2017		0	<2	• Normally present in environment.

INORGANIC CONTAMINANTS

Chlorine	No	2.31 AVG	0.49-3.80	2017	ppm	4.0	4.0	• Additive used to control microbes.
Fluoride	No	0.68 AVG	0.02-0.97	2017	ppm	4.0	4.0	• Erosion of natural deposits. • Additive promotes strong teeth.
Nitrate	No	0.36 MAX	0.10 – 0.36	10/03/17	ppm	10.0	10.0	• Soil runoff from fertilizer.
Sodium	No	11.0 MAX	4.8 – 11.0	6/07/17	ppm	N/A	N/A	• Erosion of natural deposits.

VOLATILE CONTAMINANTS

Total Trihalomethanes	No	34 AVG	15-75	2017	ppb	80 ppb	80 ppb	• By-product of chlorination.
Haloacetic Acid	No	38 AVG	18-70	2017	ppb	60 ppb	60 ppb	• By-product of chlorination.
Chlorobenzene	No	0.586		08/15/17	ppb	100 ppb	100 ppb	• chemical and agricultural factory discharge • Storm water runoff

LEAD AND COPPER

Lead	No	0.5*		2017	ppb	0	AL-15	• Corrosion of plumbing. • Erosion of natural deposits.
Copper	No	0.165*		2017	ppm	1.3	AL-1.3	• Corrosion of plumbing. • Erosion of natural deposits. • Leaching of wood preservatives.

***90th percentile**

Cryptosporidium: A microbial parasite which is found in surface water throughout the United States. Although *Cryptosporidium* can be removed by filtration, the most commonly used filtration methods cannot guarantee removal. Monitoring our raw water source indicated the presence of *Cryptosporidium* in 2 out of 36 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 a greater risk of developing severe, life threatening illness. Immuno-compromised individuals are encouraged to consult their doctors regarding appropriate precautions to take to prevent infection. For more information on *Cryptosporidium*, contact the Safe Drinking Water Hotline (800-426-4791).