Loudon Utilities 2017 Water Quality Report

Is my drinking water safe?

Yes, our water meets all of the State of Tennessee's and the USEPA's health standards. In 2016, numerous tests were conducted for a variety of contaminants that may be present in drinking water. As seen from the chart below, of the contaminants detected, all were at safe levels.

What is the source of my water?

Water for the Loudon system is obtained from the Tennessee River. The water is processed and tested at the water filtration plant and distributed to the system.

Water for the Piney system is obtained from Clear Branch Spring. The water is processed and tested at the Piney Filtration plant and distributed to the system.

The Tennessee Department of Environment & Conservation has prepared a Source Water Assessment Program Report for the untreated water sources. The 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 geological factors and human activities in the vicinity of the water source. Our rating is reasonably susceptible. An explanation of the Tennessee Source Water Assessment Program, the Source Water Assessment summaries, susceptibility scorings, and the overall TDEC report to EPA can be viewed 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?

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 insure 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. FDA regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

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).

How can I get involved?

Loudon Utilities Board's regularly scheduled meetings are held at 4:30 p.m. on the second and fourth Mondays of each month at the City of Loudon / Loudon Utilities offices located at 201 Alma Place, Loudon, Tennessee. Please feel free to participate in these meetings.

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

Loudon Utilities meets State and EPA requirements for regular testing and reporting to insure water quality and safety.

Other Information

All water treatment plant operators have earned certification by the State of Tennessee for competency in plant operations.

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 drinking water 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, there is a heightened concern regarding water system security. We have completed vulnerability studies of the water system in an attempt to make it more secure. We ask the public to help us by reporting any suspicious activities at utility facilities, including treatment plants, pumping stations, tanks, fire hydrants, etc., to Loudon Utilities at (865) 458-2091.

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. Loudon Utilities 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.

Think before you flush!

Flushing unused or expired medicines can be harmful to your drinking water. Properly disposing of unused or expired medication helps protect you and the environment. Keep medications out of Tennessee's waterways by disposing in one of our permanent pharmaceutical take back bins. There are nearly 100 take back bins located across the state, to find a convenient location please visit: https://www.tn.gov/environment/article/sp-unwanted-pharmaceuticals

For more information about your drinking water, please call us at (865) 458-2091

Water Quality Data

What does this chart mean?

AL: Action Level. The concentration of a contaminant which, when exceeded, triggers treatment or other requirements which a water system must follow.

MCLG: Maximum Contaminant Level Goal. 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. 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.

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.

MRDL: Maximum Residual Disinfectant Level. 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.

n/a: Not applicable.

NTU: Nephelometric Turbidity Unit, used to measure cloudiness in drinking water.

ppb: Parts per billion or micrograms per liter, explained in terms of money as one penny in $10,000,000.

ppm: Parts per million or milligrams per liter, explained in terms of money as one penny in $10,000

TT: Treatment Technique. A required process intended to reduce the level of a contaminant in drinking water.

Contaminant	MCLG	MCL	Level found	Range of detections	Violation	Date of sample	Typical source of Contaminant
Total Coliform Bacteria	0	Present in 5% of samples taken	0	0	no	2016	Naturally present in the environment
Turbidity	n/a	TT (95% <0.3 NTU)	0.48 NTU	0.02-0.48 NTU	no	2016	Soil runoff
Sodium	n/a	n/a	7.0 ppm		no	2016	n/a
Copper**	1.3 ppm	AL=1.3 ppm	0.17 ppm (90th %)	0.0082 – 0.19 ppm	no	2015	Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives.
Fluoride	4 ppm	4 ppm	0.44 ppm	0.37 – 0.50 ppm	no	2016	Erosion of natural deposits; Water additive which promotes strong teeth.
Lead**	0	AL=15 ppb	1.1 ppb (90^{th} %)	<1.0 – 4.3 ppb	no	2015	Corrosion of household plumbing systems; Erosion of natural deposits.
TTHMs [Total trihalomethanes]	0	80 ppb	42.3 ppb	13.7 – 65.1 ppb	no	2016	By-product of drinking water disinfection
Arsenic	n/a	10 ppb	< 1.0 ppb		no	2012	Erosion of natural deposits; runoff from orchards; glass and electronics production waste
Tetrachloroethene	0	5 ppb	0.503 ppb		no	2016	Discharge from factories and dry cleaners
Haloacetic Acids	0	60 ppb	30.8 ppb	13.4 – 57.2 ppb	no	2016	By-product of drinking water disinfection
Total Organic Carbons ***	n/a	TT	1.33 ppm	1.09 – 1.75 ppm	no	2016	Naturally present in the environment
Cryptosporidium	0		0 oocysts	0 oocysts per L	no	2016	Naturally present in the environment
Chlorine	MRDLG= 4.0 ppm	MRDL=4.0 ppm	1.60 ppm	0.3 – 3.1 ppm	no	2016	Water additive used to control microbes

**Zero (0) out of thirty (30) sites sampled had a concentration exceeding the lead or copper action level.

*** The Treatment Technique requirements for Total Organic Carbon were met in 2016

About the data: Most of the data presented in this table is from testing done between January 1, 2016 and December 31, 2016. We monitor for some contaminants less than once per year, and for those contaminants, the date of the last sample is shown in the table.

Turbidity: Turbidity does not present any risk to your health. We monitor turbidity, which is a measure of the cloudiness of water, because it is a good indicator that our filtration system is functioning properly.

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.

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.