

Harriman Utility Board

Water Quality Report – 2018

Is my drinking water safe?

Yes, our water meets all of the Environmental Protection Agency's (EPA) health standards. In 2017, we conducted tests for over 50 contaminants that may be found in drinking water. The Table on the next page shows those contaminants that were detected January 1 through December 31, 2017, all of which were at safe levels. If you would like a complete list of all substances which we test, please call us at (865) 882-3242.

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. Food and Drug Administration (FDA) regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

What is the source of my water?

Your water comes from the Emory River, which is a surface water source within Morgan and Roane counties. The Emory River Watershed includes parts of Bledsoe, Cumberland, Fentress, Morgan, and Roane counties. A watershed can be defined as the entire land area that ultimately drains into a particular watercourse or body of water. We strive to protect our water from contaminants and work with the State to determine the vulnerability of our water supply to potential contamination. TDEC has prepared a Source Water Assessment Report for bodies of water supplying surface water systems. Water sources have been rated with high, moderate or low susceptibility based on the likelihood and character of releases from potential contaminant sources and human activities within the areas hydrologically upgradient of the raw water source. Our Water Source was rated as moderately susceptible. To ensure safe drinking water, all public water systems treat and routinely test their water.

Information on Tennessee's Source Water Assessment Program, including the Source Water Assessment Report, susceptibility scorings and the overall TDEC report submitted 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 us 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 EPA's Safe Drinking Water Hotline at (800-426-4791).

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.

How can I get involved?

The Harriman Utility Board meets at 7:00 p.m. on the last Monday of every month in the conference room of the main office located at 300 N. Roane Street in Harriman. Please feel free to participate in these meetings. You may view our web site at www.hub-tn.com for additional information.

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 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 at 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. Harriman Utility Board 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>.

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: <http://tdeconline.tn.gov/rxtakeback/>.

2017 WATER QUALITY DATA

Regulated Contaminants	MCLG	MCL	Level Detected	Range of detections	Violation Yes/No	Date of sample	Typical source of Contaminant
Total Coliform Bacteria (RTCR)	0	TT Trigger	0	N/A	No	2017	Naturally present in the environment.
Sodium (ppm)	N/A	N/A	6.34	N/A	No	2017	Erosion of natural deposits.
Turbidity ¹ (NTU)	N/A	TT (95% <0.3)	0.13 Avg.	0.03 – 0.28	No	2017	Soil runoff.
Total Organic Carbon ²	N/A	TT	N/A	N/A	No	2017	Naturally present in the environment.
Chlorine (ppm)	MRDLG 4.0	MRDL 4.0	1.62 Avg.	0.53 – 2.61	No	2017	Water additive used to control microbes.
Fluoride (ppm)	4	4	0.278 Avg.	0.136 – 0.409	No	2017	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories.
Nitrate (ppm)	10	10	0.177	N/A	No	2017	Runoff from fertilizer use; Leaching from septic tanks; Sewage; Erosion of natural deposits.
Radium 226 (pCi/l) ³	0	5	0.99	N/A	No	2014	Erosion of natural deposits.
Lead ⁴ (ppb)	0	AL=15	90 th % = 1.74	BDL – 6.5	No	2017	Corrosion of household plumbing systems; Erosion of natural deposits.
Copper ⁴ (ppm)	1.3	AL=1.3	90 th % = 0.164	0.0141–0.191	No	2017	Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives.
TTHMs [Total trihalomethanes] ⁵ (ppb)	N/A	80	66.53 (highest LRAA at Ind. Site)	14.6 – 92.4	No	2017	Byproduct of drinking water disinfection.
THAA'S [Total Haloacetic Acids] (ppb)	N/A	60	45.90 (highest LRAA at Ind. Site)	13.6 – 65	No	2017	Byproduct of drinking water disinfection.
Unregulated Contaminants ⁶	MCLG	MCL	Level Detected	Range of detections	Violation Yes/No	Date of sample	Typical source of Contaminant
Bromodichloromethane ⁵ (mg/l)	N/A	N/A	0.00713	N/A	No	2017	Byproduct of drinking water disinfection.
Chlorodibromomethane ⁵ (mg/l)	N/A	N/A	0.0013	N/A	No	2017	Byproduct of drinking water disinfection.
Chloroform ⁵ (mg/l)	N/A	N/A	0.0246	N/A	No	2017	Byproduct of drinking water disinfection.

- Notes:**
- ¹ We met the treatment technique for turbidity with 100% of monthly samples below the turbidity limit of 0.3 NTU.
 - ² We met the Treatment Technique requirements for Total Organic Carbon in 2017.
 - ³ EPA has established an MCL for combined radium-226 and radium-228 as 5 pCi/l. The combined value is determined by the addition of the results of the analysis for each.
 - ⁴ During the most recent round of lead and copper testing, 0 out of 30 households sampled contained concentrations exceeding the action level.
 - ⁵ TTHM measurements are the sum of concentrations of chloroform (CHCl₃), bromodichloromethane (BDCM), chlorodibromomethane (also known as dibromochloromethane DBCM), and bromoform (CHBr₃). 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.
 - ⁶ 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.

Abbreviations and Terms Used in this Report:

- AL – Action Level, or the concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.
- BDL – Below Detection Limit.
- HUB – Harriman Utility Board
- LRAA – Locational Running Annual Average, or the average of four consecutive quarters of sampling results, recalculated each new quarter.
- 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.
- 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.
- MRDL – Maximum Residual Disinfectant Level, or the highest level of 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, or 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.
- 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.
- Turbidity – Turbidity is a measure of the cloudiness of water. We measure it because it is a good indicator of the effectiveness of our filtration system.

Units of Measure:

- pCi/l – Radiological units in pico Curries per liter.
- ppm or mg/L – Parts per million or milligrams per liter, explained in terms of money as one penny in \$10,000.
- ppb or µ/L – Parts per billion or micrograms per liter, explained in terms of money as one penny in \$10,000,000.
- NTU – Nephelometric Turbidity Units—Turbidity is a measure of the clarity of the water. Turbidity in excess of 5.0 NTU's is just noticeable to the average person.

Cryptosporidium is a microbial parasite which is found in surface water throughout the U.S. Although Cryptosporidium can be removed by filtration, the most commonly used filtration methods cannot guarantee 100 percent removal. Monitoring of our source water (the Emory River) indicated the presence of cryptosporidium in 2 out of 12 samples tested (these tests are done prior to water treatment). Symptoms of cryptosporidium 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).