

Harriman Utility Board

Water Quality Report – 2015

Is my drinking water safe?

Yes, our water meets all of Environmental Protection Agency's (EPA) health standards. In 2014, we conducted tests for over 50 contaminants that may be found in drinking water. As you'll see on the next page, we detected only 10 contaminants, all of which were at safe levels.

In order to ensure that tap water is safe to drink, EPA and the Tennessee Department of Environment and Conservation (TDEC) 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 the Emory River Watershed. The Emory River Watershed includes parts of Bledsoe, Cumberland, Fentress, Morgan, and Roane counties. 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 waters supplying surface water systems. To ensure safe drinking water, all public water systems treat and routinely test their water. 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.

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 http://www.tn.gov/environment/water/water-supply_source-assessment.shtml or you may contact the Harriman Utility Board to obtain copies of specific assessments.

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

The State and EPA requires us to test and report on our water on a regular basis to ensure its safety. We have always met all of these requirements. We want you to know that we pay attention to all the rules.

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 each month in the Harriman Utility Board conference room, located at the back entrance 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>.

For more information about your drinking water, please call John M. Poole at (865) 882-3242, ext. 229.

2014 WATER QUALITY DATA

Contaminant	MCLG	MCL	Level found	Range of detections	Violation	Date of sample	Typical source of Contaminant
Total Coliform	0	> 1 positive sample	0	N/A	N	2014	Naturally present in the environment
Sodium (ppm)	N/A	N/A	14.0		N	2014	Erosion of natural deposits
Turbidity* (NTU)	N/A	TT (95% <0.3)	.15 avg.	.04 – .28	N	2014	Soil runoff
Total Organic Carbon	TT	TT	**		N	2014	Naturally present in the environment
Chlorine (ppm)	MRDLG 4.0	MRDL 4.0	2.30 avg.	0.91 – 3.94	N	2014	Water additive used to control microbes
Fluoride (ppm)	4	4	0.61		N	2014	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories
Lead (ppb)	0	AL=15	90 th %= 1.7		N	2014	Corrosion of household plumbing systems; Erosion of natural deposits. Zero samples exceeded action level out of 30 samples taken.
Copper (ppm)	1.0	AL=1.3	90 th %= 0.14		N	2014	Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives. Zero samples exceeded action level out of 30 samples taken.
TTHMs [Total trihalomethanes] *** (ppb)	0	80	80.93 (highest LRAA at Ind. Site)	21.2 – 121.0	Y	2014	Byproduct of drinking water disinfection
THAA'S [Total Haloacetic Acids] (ppb)	0	60	44.5 avg.	14.6 – 92.8	N	2014	Byproduct of drinking water disinfection

* 100% of NTU's sampled were less than 0.3 NTU.

** We met the Treatment Technique requirements for Total Organic Carbon.

*** Harriman Utility Board started testing for compliance with the new Stage 2 DBP Rule in the 4th quarter of 2013. Under the Stage 2 DBP Rule, each of HUB's sampling sites is required to meet the MCLs for DBPs independently. In other words, if the LRAA at any location exceeds a MCL, HUB would be in violation of the Stage 2 DBP Rule. After testing in the 3rd quarter of 2014, HUB's LRAA for one of their four (4) sampling sites did exceed the MCL for TTHMs. The MCL for TTHMs is 80 ppb, and the LRAA for the site as of the 3rd quarter of 2014 was 80.93 ppb, which caused HUB to fall out of compliance. After receiving the lab results and becoming aware of the violation in August 2014, HUB quickly began working to resolve this issue. HUB, along with an engineering consulting firm CTI Engineers, Inc., evaluated the data and developed a plan of action to bring HUB back into compliance. HUB was able to reduce the disinfection residual leaving the water plant and improve tank turnover to improve the TTHMs at this sampling site. By the 4th quarter of 2014 the utility was once again in compliance and has not experienced a subsequent violation.

Abbreviations and Terms Used in this Report:

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

BDL – Below Detection Limit.

DBP – Disinfection Byproducts, a wide variety of chemicals that form when chlorine is added to drinking water during the treatment process. Chlorine is added to drinking water for disinfection purposes. THMs and HAAs are the most common DBPs found in chlorinated drinking water.

HUB – Harriman Utility Board

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.

TT – Treatment Technique, or a required process intended to reduce the level of a contaminant in drinking water.

TTHM or THM: 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. EPA establishes maximum contaminant levels using the assumption that if most people drink 2 liters of water containing disinfection byproducts in excess of the maximum contaminants level every day for 70 years, then 1 person in 10,000 may have an increased risk of cancer.

LRAA – Locational Running Annual Average, or the average of four consecutive quarters of sampling results, recalculated each new quarter.

Turbidity – Turbidity does not present any risk to your health. HUB monitors turbidity, which is a measure of the cloudiness of water, because it is a good indicator of the effectiveness of its filtration system.

Units of Measure:

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 NTUs is just noticeable to the average person.