

# EASTSIDE UTILITY DISTRICT

## Water Quality Report – 2016

### Is my drinking water safe?

Yes, our water meets all Environmental Protection Agency (EPA) standards. We have conducted numerous tests for over 80 contaminants that may be found in drinking water. As shown in the following chart, we only detected 10 of these potential contaminants. All of the contaminants found were within safe levels according to EPA regulations.

### What is the source of my water?

Your water comes from the Tennessee River which is classified as a surface water source of supply. Our goal is to protect our water source 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 Eastside Utility District (EUD) water supply source rates as reasonably susceptible to potential contamination.

An explanation of the Tennessee SWAP report including the source water supply assessment summaries, susceptibility scorings and the overall TDEC report can be provided upon request from EUD or by viewing online at <https://www.tn.gov/environment/article/wr-wq-source-water-assessment>.

### 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 (800-426-4791).

Este informe contiene información importante acerca de su agua potable. Haga que alguien lo traduzca para usted, o hable con alguien que lo entienda.

**For more information about your drinking water, please call contact Richard Davis at 423-892-1308 or John Mullin at 423-892-2890 between 8:00 AM and 5:00 PM, Monday through Friday.**

### How can I get involved?

Our Board of Commissioners meets on the first Thursday of each month at 5:30 PM at 3018 Hickory Valley Road. To voice a concern at a meeting, one must call the EUD office by the previous Thursday to be placed on the meeting agenda.

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

To ensure the quality and safety of the water supplied to our customers, the State of Tennessee and EPA requires us to routinely test the water supplied for both "regulated" and "un-regulated" containments. We are pleased to inform you we are in compliance with all State and Federal water quality requirements. Copies of those test analysis are available upon request.

### 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, or it 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, are by-products of industrial processes and petroleum production, or 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 ensure that tap water is safe to drink both EPA and TDEC set regulations which limit the amount of certain contaminants in water provided by public water systems. Eastside Utility District's water treatment processes are designed to reduce any such substances to levels well below any health concern. The Food and Drug Administration (FDA) provides regulations for established limits on contaminants found in bottled water, which must provide the same level of 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 drinking water from their health care providers. EPA and CDC both provide guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbiological contaminants which 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. Eastside Utility District is responsible for providing high quality drinking water but we 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 System Security

We realize our customers are concerned about the security of their drinking water. We urge the public to be ever vigilant and report any suspicious activities at any of our facilities, including the treatment plant, pumping stations, tanks, fire hydrants, meter settings, etc., to 423-892-2890.

## Water Quality Data

### What does this chart mean?

- **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 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, 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.
- **AL** - Action Level, or the concentration of a contaminant which, when exceeded, triggers treatment or other requirements which a water system must follow.
- **Below Detection Level (BDL)** - laboratory analysis indicates that the contaminant is not present at a level that can be detected.
- **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.
- **Picocuries per liter (pCi/L)** - picocuries per liter is a measure of the radioactivity in water.
- **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 is a required process intended to reduce the level of a contaminant in drinking water.
- Beginning April 1, 2016 the revised Total Coliform rule replaced Total Coliform as a regulated contaminant with levels 1 & 2 assessments to be performed if violations occur. EUD had no violations of the regulated Total Coliform rule for 2016.
- **RRA** - Running Annual Average
- **HRAA** - Highest Running Annual Average of all sites tested.
- **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.

Regulated Contaminant	Violation Yes/No	Level Found	Range of Detections	Date of Sample	Unit of Measurement	MCLG	MCL	Likely Source of Contamination
<b>Total Coliform Bacteria</b> Jan thru Mar 31, 2016	N	0	0	Daily 2016	Colonies per 100 mL	0	Coliform bacteria in 5% of monthly sample	Naturally present in the environment
<b>Total Coliform Bacteria</b> Apr 1 thru Dec 31, 2016 (RTCR)	N	0	0	Daily 2016	Colonies per 100 mL	0	TT Trigger	Naturally present in the environment
<b>Turbidity<sup>1</sup></b>	N	0.19	0.03-0.19	Daily 2016	NTU	N/A	TT	Soil runoff
<b>Copper</b>	N	90 <sup>th</sup> % = 0.27	0.016 to 0.29	2014	ppm	1.3	AL=1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
<b>Fluoride</b>	N	0.73	0.66 to 0.79	Daily 2016	ppm	4	4	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
<b>Lead<sup>2</sup></b>	N	90 <sup>th</sup> % = 3.3	<1.0 to 38.0	2014	ppb	0	AL=15	Corrosion of household plumbing systems, erosion of natural deposits
<b>Sodium</b>	N	7.65	7.65	2016	ppm	N/A	N/A	Erosion of natural deposits; used in water treatment
<b>TTHM</b> [Total trihalomethanes]	N	39.9 HRAA	15.2-57.3	Quarterly	ppb	N/A	80	By-product of drinking water chlorination
<b>Haloacetic Acids</b> (HAA5)	N	24.35 HRAA	1.0-47.10	Quarterly	ppb	N/A	60	By-product of drinking water disinfection.
<b>Chlorine</b>	N	1.54 avg.	0.70-2.10	Daily 2016	ppm	MRDLG= 4	MRDL=4	Water additive used to control microbes.
<b>Total Organic Carbon<sup>3</sup></b>	N	1.15 RAA	0.598-1.55	Quarterly	ppm	TT	TT	Naturally present in the environment.
<b>Nitrate</b>	N	0.30	N/A	2016	ppm	10	10	Run-off from fertilizer, leaking septic tanks, erosion, natural deposits.

**Chart Footnotes:**

<sup>1</sup> We have met the treatment technique with 100% of the monthly samples below the Turbidity limit of 0.3 NTU. Turbidity is a measure of the clarity or cloudiness of water. We monitor it because it is a good indicator of the effectiveness of our filtration system.

<sup>2</sup> 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. During the most recent round of Lead and Copper testing, one of the 30 households sampled contained concentrations exceeding the action level. Additional information is available from the Safe Drinking Water Hotline (1-800-426-4791).

<sup>3</sup>The Treatment Technique requirements for Total Organic Carbon were met in 2016.

**Iron:** Iron occurs naturally in our raw water and occasionally accumulates in the distribution system. Iron shows up as "red" or "rusty" water at your tap. Although you do not want to drink water that is not clear, iron is not considered to be a hazard to your health. We test for iron daily and it is usually around 0.01 ppm. The aesthetic limit for iron is 0.3 ppm.

**Cryptosporidium:** Testing was conducted during the months of January through December 2016, to determine if there was a presence of cryptosporidium in our water distribution system and none was found.

**Pharmaceuticals:** 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 properly disposing of them at one of Hamilton County's permanent prescription drug take-back locations. For a list of locations please visit: <https://www.tn.gov/environment/article/sp-unwanted-pharmaceuticals>.

2016 Unregulated Contaminants	Entry Point to Water Distribution System		Water Distribution System Mean Resident Time	
	Level Found Average	Limits	Level Found Average	Limits
Dioxane	0.0891 ug/l	ND to 0.1033 ug/l	Not Tested	Not Tested
Hexavalent Chromium	0.0497 ug/l	0.035 to 0.064 ug/l	0.0757 ug/l	0.077 to 0.15 ug/l
Chlorate	146.8 ug/l	120 to 190.4 ug/l	<20 ug/l	ND to <20 ug/l
<b>METALS:</b>				
Chromium	<0.2 ug/l	ND to <0.2 ug/l	0.623 ug/l	0.278 to 1.3 ug/l
Cobalt	<1 ug/l	ND to <1 ug/l	<1 ug/l	ND to <1 ug/l
Molybdenum	<1 ug/l	ND to <1 ug/l	<1 ug/l	ND to <1 ug/l
Strontium	68.44 ug/l	58 to 77.315 ug/l	29.112 ug/l	22 to 39.336 ug/l
Vanadium	0.165 ug/l	ND to 0.31 ug/l	0.221 ug/l	ND to 0.23 ug/l

**Unregulated Contaminants:** Contaminants 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.