



## WATTS BAR UTILITY DISTRICT

### 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 11 of these contaminants.

### What is the source of my water?

Your water is groundwater and purchased surface water. 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 Watts Bar 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/article/wr-wq-source-water-assessment.shtml> 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 Wesley Barger at 800.882.5099.**

### How can I get involved?

Our Water Board meets on the second Thursday of each month at 5:00 pm at 4535 Watts Bar Hwy. Please feel free to participate in these meetings. The Commissioners of Watts Bar Utility District serve four year terms. Vacancies on the Board of Commissioners are filled by appointment by the Rhea Co. Mayor from a list of three nominees. Decisions by the Board of Commissioners on customer complaints brought before the Board of Commissioners under the District's 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.

### 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 naturally-occurring minerals and, in some cases, radioactive material, travels over the surface of the land or through the ground, it dissolves 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 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. Watts Bar 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 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 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. The Watts Bar 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/lead/protect-your-family%23water%23water>

### 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 800-882-5099.

**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>

# Watts Bar Utility - 2018 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.
- **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.
- 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.

## Water Quality Data for 2018

Contaminant	Violation Yes/No	Level Found	Range of Detections	Date of Sample	Unit Measurement	MCLG	MCL	Likely Source of Contamination
Total Coliform Bacteria (RTCR)	No	0		2018		0	TT Trigger	Naturally present in the environment
Turbidity <sup>2</sup>	No	0.40	0.01 - 0.40	2018	NTU	n/a	TT	Soil runoff
Copper <sup>3</sup>	No	90 <sup>th</sup> %= 0.087		2018	ppm	1.3	AL=1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead <sup>3</sup>	No	90 <sup>th</sup> %= 2.02		2018	ppb	0	AL=15	Corrosion of household plumbing systems, erosion of natural deposits
Sodium	No	11.2		2017	ppm	N/A	N/A	Erosion of natural deposits; used in water treatment
TTHM [Total trihalomethanes]	No	25.25	11.8-36.5	2018	ppb	n/a	80	By-product of drinking water chlorination
Haloacetic Acids (HAA5)	No	22.43	5.27-13.6	2018	ppb	N/A	60	By-product of drinking water disinfection.
Total organic carbon (TOC) <sup>2</sup>	No		.54-.9	2018	ppm	TT	TT	Naturally present in the environment
Nitrate	No	.37		2018	ppm	10.0	10.0	Fertilizer use, septic tanks, erosion of natural deposits
Contaminant	Violation Yes/No	Level Found	Range of Detections	Date of Sample	Unit Measurement	MRDL	MRDLG	Likely Source of Contamination
Chlorine	No	1.79 Avg.	.40-2.3	2018	ppm	4	4	Water additive used to control microbes.

<sup>1</sup>All repeat samples were negative for coliform bacteria. <sup>2</sup>99% of our samples were below the turbidity limit of 0.3 NTU. Turbidity is a measurement of the cloudiness of water. We measure turbidity because it is a good indicator of the effectiveness of our treatment process. <sup>3</sup>During the most recent round of Lead and Copper testing, 0 out of 20 households sampled for lead contained concentrations exceeding the action level, and 0 out of 20 households sampled contained concentrations exceeding the copper action level.

<sup>2</sup>The treatment technique for TOC was met for 2018. <sup>4</sup> Tetrachloroethylene. Some people who drink water containing tetrachloroethylene in excess of the MCL over many years could have problems with their liver, and may have an increased risk of getting cancer <sup>3</sup>Alpha emitters. Certain minerals are radioactive and may emit a form of radiation known as alpha radiation. Some people who drink water containing alpha emitters in excess of the MCL over many years may have an increased risk of getting cancer.

## Athens Utilities Board – 2018 Water Quality Table

Parameter	Units	Year Performed	AUB Result	HUC Result	Regulatory Limit MCL	Goal MCLG	Source
<b>REGULATED AT THE WATER TREATMENT PLANT</b>							
Turbidity	NTU	2018	0.15	0.28	TT	TT	Soil Runoff. We monitor it because it is a good indicator of the effectiveness of our filtration system.
Range			0.05-0.15	0.02-0.28			
Fluoride	ppm	2018	0.55 avg.	0.67 avg.	4.0	4.0	Additive that promotes strong teeth; Erosion of natural deposits
Range	ppm		0.50-0.62	0.59-0.67			
Nitrate	ppm	2018	1.27	0.315	10.0	10.0	Fertilizer use, septic tanks, erosion of natural deposits
Total Organic Carbon	ppm	2018	0.34 avg.	0.89 avg.	TT	TT	Naturally present in the environment. We met the Treatment Technique requirements for Total Organic Carbon in 2018.
Range			0.25-0.6	0.52-0.96			
Sodium	ppm	2018	5.21	3.06	-	-	Erosion of natural deposits
Gross Alpha	pCi/L	2015	3.1	-	15	-	Erosion of natural deposits.
Atrazine	ppb	2017	-	0.1	3	3	Runoff from herbicide used on row crops
2,4 - D	ppb	2017	-	0.5	70	70	Runoff from herbicide used on row crops
<b>REGULATED IN DISTRIBUTION SYSTEM AND CUSTOMER TAP</b>							
Total Coliform Bacteria (# positive samples)		2018	0*	0	5	5	Naturally present in the environment
Total Trihalomethanes	ppb	2018	59.2	26.8	80	0	By-product of drinking water chlorination
Range	ppb		1.0-96.5	20.5-26.8			
Haloacetic Acids -5	ppb	2018	49.7	21	60	0	By-product of drinking water chlorination
Range	ppb		22.9-59.8	15.8-21			
Chlorine	ppm	2018	1.28 avg.	2.1	MRDL=4	MRDL=4	Water additive used to control microbes
Range	ppm		0.6-2.3	0.9-2.1			
Lead (90%)	ppb	2018	1.1	n/a	15	15	Corrosion of household plumbing. 0 of the 30 samples tested were above EPA's action level (see special note below)
Copper (90%)	ppm	2018	.397	n/a	1.3	1.3	Corrosion of household plumbing. 0 of the 30 samples tested was above EPA's action level
<b>UNREGULATED CONTAMINANT MONITORING</b>							
Manganese	ppb	2018	-	10.3 avg	-	-	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.
Range	ppb		-	7.04-12.8			
Haloacetic Acids -6	ppb	2018	-	2.09 avg.	-	-	
Range	ppb		-	1.29-3.54			
Haloacetic Acids - 9	ppb	2018	-	35.6	-	-	
Range	ppb		-	13.5-63.3			

The following definitions and explanations may help you understand more fully the data in this table:

- **MCL** – “Maximum Contaminant Level.” The highest level of a contaminant that is allowed in drinking water. MCL’s are set as close to the MCLG’s as feasible using the best available treatment technology.
- **MCLG** – “Maximum Contaminant Level Goal.” The level of a contaminant below which there is no known or expected risk to health. MCLGs allow for a margin of safety.
- **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.
- **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.
- **ppb** = parts per billion **ppm** = parts per million **pCi/L**=Picouries per liter.
- **TT** – “Treatment Technique.” A required process intended to reduce the level of a contaminant in drinking water.
- **NTU** – This stands for “Nephelometric Turbidity Units” and measures the clarity of the water. We monitor it because it is a good indicator of the effectiveness of our filtration system. The EPA has two requirements: (1) The maximum level found must be less than 1 NTU; and (2) The level must be under 0.3 NTU 95% of the time.
- **HUC** - Hiwassee Utilities Commission – AUB purchases 35% of the water distributed to customers from HUC.
- AUB conducts water quality testing daily and has tested your water for many substances not included in the table such as pesticides, herbicides, metals, and solvents. None of these substances were detected using prescribed EPA analytical methods.

**Special Note:** 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. Athens Utilities Board is responsible for providing high-quality drinking water, but cannot control the variety of materials used in home 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>.

**Special Note:** 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.

**\*Special Note:** Athens Utilities Board is required to monitor your drinking water for specific contaminants on a regular basis. Results of regular monitoring are an indicator of whether your drinking water meets health standards. On scheduled days every month, we collect samples throughout our distribution system and test for a variety of contaminants. In February 2019, we missed a day of required monitoring for total coliform bacteria and corresponding samples for free chlorine. All other samples throughout the system during the month were free of any coliform bacteria, so we are confident that your drinking water was safe, and there have been no indications otherwise. Still, we want to be overly cautious in saying that because we missed a sampling day we cannot be certain of the quality of your drinking water on that day.

We have updated AUB’s monthly sample collection protocol and quality assurance standards to ensure we don’t miss a scheduled sampling day in the future.

Feel free to share this information with others who drink AUB water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can post this notice in a public place or distribute copies by hand or mail.

## Loudon Utilities 2018 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	2018	Naturally present in the environment
Turbidity	n/a	TT (99% <0.3 NTU)	0.43 NTU	0.02-0.47 NTU	no	2018	Soil runoff
Sodium	n/a	n/a	7.25 ppm	4.92-7.25 ppm	no	2018	n/a
Copper**	1.3 ppm	AL=1.3 ppm	0.164 ppm (90th %)	0.0067 – 0.434 ppm	no	2018	Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives.
Fluoride	4 ppm	4 ppm	0.578 ppm	0.49 – 0.68 ppm	no	2018	Erosion of natural deposits; Water additive which promotes strong teeth.
Lead**	0	AL=15 ppb	0.5 ppb (90 <sup>th</sup> %)	<0.5 –5 ppb	no	2018	Corrosion of household plumbing systems; Erosion of natural deposits.
TTHMs [Total trihalomethanes]	0	80 ppb	43.7 ppb	11.9-68.3 ppb	no	2018	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
Haloacetic Acids	0	60 ppb	37.0 ppb	14.4-56.5 ppb	no	2018	By-product of drinking water disinfection
Cryptosporidium	0		0 oocysts	0 oocysts per L	no	2018	Naturally present in the environment
Chlorine	MRDLG=4.0 ppm	MRDL=4.0 ppm	2.7 ppm	2.0-2.7 ppm	no	2018	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 2018

**About the data:** Most of the data presented in this table is from testing done between January 1, 2018 and December 31, 2018. 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.