



## 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 6 of these contaminants.

### What is the source of my water?

Your water is 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/program-areas/wr-water-resources/water-quality/source-water-assessment.html> 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 third 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 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 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

Lead can cause serious health effects in people of all ages, especially pregnant people, infants (both formula-fed and breastfed), and young children. Lead in drinking water is primarily from materials and parts used in service lines and in home plumbing. Watts Bar Utility District is responsible for providing high quality drinking water and removing lead pipes but cannot control the variety of materials used in the plumbing in your home. Because lead levels may vary over time, lead exposure is possible even when your tap sampling results do not detect lead at one point in time. You can help protect yourself and your family by identifying and removing lead materials within your home plumbing and taking steps to reduce your family's risk. Using a filter, certified by an American National Standards Institute accredited certifier to reduce lead, is effective in reducing lead exposures. Follow the instructions provided with the filter to ensure the filter is used properly. Use only cold water for drinking, cooking, and making baby formula. Boiling water does not remove lead from water. Before using tap water for drinking, cooking, or making baby formula, flush your pipes for several minutes. You can do this by running your tap, taking a shower, doing laundry or a load of dishes. If you have a lead service line or galvanized requiring replacement service line, you may need to flush your pipes for a longer period. If you are concerned about lead in your water and wish to have your water tested, contact Watts Bar Utility District at 800-882-5099. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available at <https://www.epa.gov/safewater/lead>.

### Lead Service Line Inventory

A Lead Service Line Inventory has been completed for our system and is accessible by contacting our office during regular business hours.

### 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://tdeconline.tn.gov/rxtakeback/>

# Watts Bar Utility – 2024 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. To understand the possible health effects described for many regulated constituents, a person would have to drink 2 liters of water every day at the MCL level for a lifetime to have a one-in-a-million chance of having the described health effect.
- 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 Report Results for 2024

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		2024		0	TT Trigger	Naturally present in the environment
Copper	No	90 <sup>th</sup> %= 0.18	0.0431-0.323	2024	ppm	1.3	AL=1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead <sup>1</sup>	No	90 <sup>th</sup> %= < 2.0	< 2.0 – 3.29	2024	ppb	0	AL=15	Corrosion of household plumbing systems, erosion of natural deposits
TTHM [Total trihalomethanes] <sup>2</sup>	No	60.48 Avg.	25.4-86.4	2024	ppb	N/A	80	By-product of drinking water chlorination
Haloacetic Acids (HAA5)	No	22.50 Avg.	22.50-45.90	2024	ppb	N/A	60	By-product of drinking water disinfection.
Contaminant	Violation Yes/No	Level Found	Range of Detections	Date of Sample	Unit Measurement	MRDL	MRDLG	Likely Source of Contamination
Chlorine	No	2.26 Avg.	0.80-2.26	2024	ppm	4	4	Water additive used to control microbes.

<sup>1</sup> During the most recent round of Lead and Copper testing, 0 out of 20 households sampled contained concentrations exceeding the action level and 0 out of 20 households sampled contained concentrations exceeding the action level. Exposure to lead in drinking water can cause serious health effects in all age groups. Infants and children can have decreases in IQ and attention span. Lead exposure can lead to new learning and behavior problems or exacerbate existing learning and behavior problems. The children of women who are exposed to lead before or during pregnancy can have increased risk of these adverse health effects. Adults can have increased risks of heart disease, high blood pressure, kidney, or nervous system problems

<sup>2</sup> 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.

## UCMR 5: Unregulated Contaminants:

Contaminant	Level Found	Range of Detections	Date of Sample	Unit Measurement
Perfluorobutanoic acid (PFBA)	0.0053	0.0053	4/24/24	ug/L
Perfluorobutanesulfonic acid (PFBS)	0.0055; 0.0033; 0.0040	0.0033-0.0055	1/22/24; 4/24/24; 7/17/24	ug/L

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.

# City of Kingston - 2024 Water Quality Data

**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: The highest level of disinfection allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for the control of microbial disinfectants.

**MRDLG:** Maximum Residual Disinfectant Level Goal: The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLG's do not reflect the benefits of the use of disinfectants to control microbial contaminants.

**RTCR:** Revised Total Coliform Rule. This rule went into effect April 1, 2016 and replaces the MCL for total coliform with a Treatment Technique Trigger for a system assessment.

Contaminants	MCLG In CCR Units	MCL in CCR Units	Level found in CCR Units	Range of Detections	Violations	Date of Sample	Typical Source of Contaminant
<i>Total Coliform Bacteria</i>	0	1 positive sample	0		NO	2024	Naturally present in the environment.
<i>Total Coliform Bacteria (RTCR)</i>	0	TT Trigger	0		NO	2024	Naturally present in the environment
Turbidity*	n/a	TT	0.25 NTU avg.	0.04 - 0.25 NTU	NO	2024	Soil run-off
Copper**	1.3	AL=1.3 ppm	90 <sup>th</sup> % = 0.160 ppm	0.010- 0.296	NO	2023	Corrosion of household plumbing systems; Erosion of natural deposits; leaching from wood preservatives
Lead**	0	AL=15 ppb	90 <sup>th</sup> %= 2.3 ppb	2.0-9.75	NO	2023	Corrosion of household plumbing systems; Erosion of natural deposits
<i>Fluoride</i>	2ppm	2ppm	0.56 ppm avg.	0.39 – 0.72	NO	2024	Erosion of natural deposits; water additives which promotes strong teeth; discharge from fertilizer and aluminum factories.
<i>Total Organic Carbons*** (TOCs)</i>	TT	TT	Achieved 38.0 % removal	Required 25% removal	NO	2024	Naturally present in the environment
<i>Chlorine</i>	MRDLG 4ppm	MRDL 4ppm	2.77 ppm monthly dist. avg.	1.6 – 3.7	NO	2024	Disinfectant / Water additive to control microbes.
<i>Sodium</i>	n/a	n/a	9.0 ppm avg.	9.0	NO	2024	N/A
<i>Total Trihalomethanes (THHMs)</i>	n/a	80ppb	36.4 ppb avg.	7.3 – 67.6	NO	2024	By-product of drinking water disinfection
<i>Total HaloAceticAcids (HAA5)</i>	n/a	60ppb	27.2 ppb avg.	9.1 – 44.4	NO	2024	By-product of drinking water disinfection

\***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. **We met the treatment technique for turbidity with 100% of monthly samples below the turbidity limit of 0.3 NTU.**

\*\* **Lead and Copper:** During the most recent round of lead and copper testing 0 out of 30 sites exceed the lead action level and 0 sites exceed the copper action level.

\*\*\***Total Organic Carbon:** We have met the TT (Treatment Technique) requirements for Total Organic Carbon in 2024.

## Abbreviations:

**PPB / ppb or micrograms/L:** parts per billion or micrograms per liter, explained in terms of money one penny in \$10,000,000.00

**PPM / ppm or mg/L:** parts per million or milligrams per liter, explained in terms of money one penny in \$10,000.00

**N/A / n/a:** not applicable.

**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.

**MFL:** million fibers per liter, used to measure asbestos concentration.

**AL:** action level, or the concentration of a contaminate which, when exceeded, triggers treatment or other requirements which a water system must follow.

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

**BDL:** Below Detection Limits.

## Lenoir City Utilities Board Water Plant #1 Water Quality Data 2024

Contaminant	Violation Yes/No	Level Detected	Range of Detections	Date of Sample	Unit Measurement	MCLG	MCL	Likely Source of Contamination
Total Coliform Bacteria	No	ND	ND	40 samples per month		0	Presence of coliform bacteria in 5% of monthly samples	Naturally present in the environment
Turbidity <sup>1</sup>	No	0.10	0.04 - 0.10	Continuous	NTU	n/a	TT	Soil runoff
Copper <sup>2</sup>	No	90% Tile = 0.0635	<0.001 To 0.208	2022	ppm	1.3	AL=1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives.
Fluoride	No	Avg. 0.347	0.291 -0.399	Quarterly 2024	ppm	4	4	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories.
Lead <sup>2</sup>	No	90% Tile = <1.0	BDL – 3.67	2022	ppb	0	AL=15	Corrosion of household plumbing systems, erosion of natural deposits
Sodium	No	5.31	5.31	2024	ppm	n/a	n/a	Erosion of natural deposits; used in water treatment
TTHM <sup>3</sup> [Total trihalomethanes]	No	LRAA 46.98	13.90 – 57.30	Quarterly 2024	ppb	n/a	80	By-product of drinking water chlorination
Haloacetic Acids (HAA5)	No	LRAA 30.03	10.00 – 50.60	Quarterly 2024	ppb	n/a	60	By-product of drinking water disinfection.
Total Organic Carbon <sup>4</sup>	No	1.192	0.971 – 1.58	Quarterly 2024	ppm	TT	TT	Naturally present in the environment
Nitrate	No	0.409	0.409	2024	ppm	10	10	Runoff from fertilizer use
Chlorine	No	2.1	1.8 – 2.1	Daily	ppm	4	4	Water additive used to control microbes.
Gross Alpha	No	0.168	0.168	2023	pCi/l	0	15 pCi/l	Erosion of natural deposits
Radium 228	No	0.538	0.538	2023	pCi/l	0	5 pCi/l	Erosion of natural deposits
Radium 226	No	-0.0473	-0.0473	2023	pCi/l	0	5 pCi/l	Erosion of natural deposits

- Turbidity is a measure of the cloudiness of the water. We monitor it because it is a good indicator of the effectiveness of our filtration system. We met the treatment technique for turbidity with 100% of monthly samples below the turbidity limit of 0.3 NTU.
- During the most recent round of lead and copper testing, 0 out of 30 households sampled contained concentrations exceeding the action level. 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. Lenoir City Utilities 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>
- Compliance is determined by a running annual average (RAA) of all sample results obtained quarterly at required sampling sites. Current monitoring meets requirements. 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.
- We met the Treatment Technique requirement for Total Organic Carbon in 2024.

### Unregulated Monitoring Data

Parameter	Level Detected	Likely Sources
Bromodichloromethane	0.00597 mg/l	By-product of chlorination of water
Chlorodibromomethane	0.000942	By-product of chlorination of water
Chloroform (Plant 1)	0.00744 mg/l	By-product of chlorination of water
Chloroform (Plant 2)	0.000535	By-product of chlorination of water

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.

## Lenoir City Utilities Board Water Plant #2 Water Quality Data 2024

Contaminant	Violation Yes/No	Level Detected	Range of Detections	Date of Sample	Unit Measurement	MCLG	MCL	Likely Source of Contamination
Total Coliform Bacteria	No	ND	ND	40 samples per month		0	Presence of coliform bacteria in 5% of monthly samples	Naturally present in the environment
Turbidity <sup>1</sup>	No	0.09	0.04 - 0.09	Continuous	NTU	n/a	TT	Soil runoff.
Copper <sup>2</sup>	No	90% Tile = 0.0635	<0.001 To 0.208	2022	ppm	1.3	AL=1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives.
Fluoride	No	Avg. 0.342	0.297 – 0.365	Quarterly 2024	ppm	4	4	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories.
Lead <sup>2</sup>	No	90% Tile = <1.0	BDL – 3.67	2022	ppb	0	AL=15	Corrosion of household plumbing systems, erosion of natural deposits.
Sodium	No	2.27	2.27	2024	ppm	n/a	n/a	Erosion of natural deposits; used in water treatment.
TTHM <sup>3</sup> [Total trihalomethanes]	No	LRAA 46.98	13.90 – 57.30	Quarterly 2024	ppb	n/a	80	By-product of drinking water chlorination.
Haloacetic Acids (HAA5)	No	LRAA 30.03	10.00 – 50.60	Quarterly 2024	ppb	n/a	60	By-product of drinking water disinfection.
Nitrate	No	1.44	1.44	2024	ppm	10	10	Runoff from fertilizer use
Chlorine	No	2.2	1.8 – 2.2	Daily	ppm	4	4	Water additive used to control microbes.
Gross Alpha	No	0.421	0.421	2023	pCi/l	0	15 pCi/l	Erosion of natural deposits
Radium 228	No	0.181	0.181	2023	pCi/l	0	5 pCi/l	Erosion of natural deposits
Radium 226	No	0.115	0.115	2023	pCi/l	0	5 pCi/l	Erosion of natural deposits

1. Turbidity is a measure of the cloudiness of the water. We monitor it because it is a good indicator of the effectiveness of our filtration system. We met the treatment technique for turbidity with 100% of monthly samples below the turbidity limit of 0.3 NTU.
2. During the most recent round of Lead and copper testing, 0 out of 30 households sampled contained concentrations exceeding the action level. 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. Lenoir City Utilities 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>
3. Compliance is determined by a running annual average (RAA) of all sample results obtained quarterly at required sampling sites. Current monitoring meets requirements. 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.

## 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. To understand the possible health effects described for many regulated constituents, a person would have to drink 2 liters of water every day at the MCL level for a lifetime to have a one-in-a-million chance of having the described health effect.
- **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. 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.
- **Million Fibers per Liter (MFL)** - million fibers per liter is a measure of the presence of asbestos fibers that are longer than 10 micrometers.
- **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.
- **pCi/l** - Radiological units in picocuries per liter.
- **BDL** - Below Detection Limit.



# First Utility District of Knox County

## 2024 Water Quality Data

CONTAMINANT	VIOLATION	LEVEL	RANGE OF DETECTION	SAMPLE DATE	UNIT	MCLG	MCL	LIKELY SOURCE OF CONTAMINATION
Turbidity <sup>4</sup>	No	0.228	0.02-.021	2024	NTU	N/A	TT-95% <0.3	Soil runoff
Asbestos	No	BDL	N/A	2022	MFL	7	7	Decay of asbestos cement water mains; erosion of natural deposits
Copper <sup>1</sup>	No	90th percentile 0.0243	BDL-0.135	2022	PPM	1.3	AL=1.3	Corrosion of household plumbing systems; leaching from wood preservatives
Fluoride	No	0.500	0.480-0.520	2024	PPM	4	4	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
Lead <sup>1</sup>	No	90th percentile 1.0	BDL-2.67	2022	PPB	0	AL=15	Corrosion of household plumbing systems, erosion of natural deposits
Sodium	No	8.77	N/A	2024	PPM	N/A	N/A	Erosion of natural deposits; used in water treatment
Total Trihalomethanes (TTHM) <sup>2</sup>	No	LRAA-45.8	20.0-59.0	2024	PPB	N/A	80 RAA	By-product of drinking water chlorination
Haloacetic acids	No	IRAA 30.9	12.5-42.8	2024	PPB	N/A	60 RAA	By-product of drinking water chlorination
Total Organic Carbon (TOC) <sup>3</sup>	No	1.19	1.10-1.63	2024	PPM	TT	TT	Naturally present in the environment
Gross Alpha	No	1.41	<1.3-3.9	12/2016	pCi/l	0	15pCi/l	Erosion of natural deposits
Radium 226	No	-0.116	<0.2-2.6	12/2016	pCi/l	0	5pCi/l	Erosion of natural deposits
Chlorine	No	1.84	0.2-2.0	2024	PPM	4	4	Water additive used to control microbes
Nitrate	No	0.711	0.711	2024	PPM	10	10	Runoff from fertilizer use

1. Lead can cause serious health effects in people of all ages, especially pregnant people, infants (both formula-fed and breastfed), and young children. Lead in drinking water is primarily from materials and parts used in service lines and in home plumbing. First Utility District is responsible for providing high quality drinking water and removing lead pipes but cannot control the variety of materials used in the plumbing in your home. Because lead levels may vary over time, lead exposure is possible even when your tap sampling results do not detect lead at one point in time. You can help protect yourself and your family by identifying and removing lead materials within your home plumbing and taking steps to reduce your family's risk. Using a filter, certified by an American National Standards Institute accredited certifier to reduce lead, is effective in reducing lead exposures. Follow the instructions provided with the filter to ensure the filter is used properly. Use only cold water for drinking, cooking, and making baby formula. Boiling water does not remove lead from water. Before using tap water for drinking, cooking, or making baby formula, flush your pipes for several minutes. You can do this by running your tap, taking a shower, doing laundry or a load of dishes. If you have a lead service line or galvanized requiring replacement service line, you may need to flush your pipes for a longer period. If you are concerned about lead in your water and wish to have your water tested, contact First Utility District at 865-966-9741. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available at <https://www.epa.gov/safewater/lead>.
2. Compliance is determined by a running annual average (RAA) of all sample results obtained quarterly at required sampling sites. Current monitoring meets requirements.
3. The treatment technique for Total Organic Carbon was met for 2024.
4. The treatment technique for Turbidity was met in 100 % of samples for 2024. Turbidity is a measure of the cloudiness of water. We monitor it because it is a good indicator of the effectiveness of our filtration system.

# First Utility District of Knox County 2024 Water Quality Data

## LEAD LINE SERVICE INVENTORY

FUD completed a lead line service inventory in compliance with TDEC and the EPA. View here:  
<https://www.fudknox.org/wp-content/uploads/FUD-service-inventory.pdf>

## EXPLANATION OF POSSIBLE SOURCE WATER CONTAMINANTS

CONTAMINANTS	EXAMPLES	CAUSES
Microbial	Viruses & Bacteria	Sewage treatment plants, septic systems, agricultural livestock operations, and wildlife
Inorganic	Salts & Metals	Can be naturally occurring or result from urban stormwater, runoff, industrial and domestic wastewater discharges, oil and gas production, mining or farming
Pesticides & Herbicides	Chemicals used to control pests or weeds	Agriculture, urban stormwater, runoff, and residential uses
Organic Chemical	Synthetic & Volatile Organic Chemi-cals (VOCs)	Byproduct of industrial processes and petroleum production, gas stations, urban stormwater runoff, septic systems
Radioactive		Naturally occurring or the result of oil and gas production and mining activities

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.

PARAMETERS	RANGE LEVEL DETECTED
Perfluorobutanesulfonic Acid	0.0023-0.0064ug/L (average 0.0045ug/L)
Perfluorohexanoic Acid	0.0019-0.0030ug/L (average 0.002325ug/L)

Unregulated contaminants are those that 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.

## TERMS & DEFINITIONS

- **Action Level (AL)** is the concentration of a contaminant which, when exceeded, triggers treatment or other requirements which a water system must follow.
- **Below Detectable Limits (BDL)** indicates parameters was below detection limits.
- **Million Fibers per Liter (MFL)** is a measure of the presence of asbestos fibers that are longer than 10 micrometers.
- **Maximum Contaminant Level Goal (MCLG)** is 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.
- **Maximum Contaminant Level (MCL)** is 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. To understand the possible health effects described for many regulated constituents, a person would have to drink 2 liters of water every day at the MCL level for a lifetime to have a one-in-a-million chance of having the described health effect.
- **Maximum Residual Disinfectant Level (MRDL)** is 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.
- **Maximum Residual Disinfectant Goal (MRDLG)** is 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.
- **Nephelometric Turbidity Unit (NTU)** is a measure of the clarity of water. Turbidity in excess of 5 NTU is just noticeable to the average person.
- **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 yrs. 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 yrs. or a single penny in \$10,000,000.
- **Picocuries per Liter (pCi/l)** is a measurement of radioactivity in water.
- **Treatment Technique (TT)** is a required process intended to reduce the level of a contaminant in drinking water.