Dandridge Water System Water Quality Report for 2024

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. We found all of these contaminants at safe levels.

What is the source of my water?
Your water, which is surface water and groundwater, was purchased from the City of Jefferson City, Knoxville Utilities Board, and Newport Utilities. 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 Dandridge Water System source from Jefferson City is rated as moderately susceptible to potential contamination and the KUB source is rated as reasonably susceptible.
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 Systems to obtain copies of specific assessments. A wellhead protection plan is available for your review by contacting Jefferson City Water Dept. at 865-475-6617 between 9:00 am to 3:00 pm weekdays and KUB at 865-524-2911 weekdays 9:00am to 4:00pm. And Newport Utilities at 423-625-2800

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 Tana Benson at 865-397-3696.

How can I get involved?
Our BMA Meetings are on the second Tuesday of each month at Public Works Building, W. Hwy 25/70 at 6:00 p.m. Please feel free to participate in these meetings.
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. Jefferson City 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. Dandridge Water System 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 Dandridge Water System at 865-397-3696. 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.

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/

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 865-397-3696.

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.
- 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.
- Below Detection Level (BDL) - laboratory analysis indicates that the contaminant is not present at a level that can be detected.

Dandridge Water System
2024 Water Quality Data

Contaminant	Violation Yes/No	Level Detected	Range of Detections	Date of Sample	Unit Measurement	MCLG	MCL	Likely Source of Contamination
Total Coliform Bacteria (RTCR)	No	1		2024		0	TT Trigger	Naturally present in the environment
Copper[1]	No	90th% = 0.204	0.00629-0.45	2023	ppm	1.3	AL=1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead[1]	No	90th% = < 1.0	< 1.0-2.04	2023	ppb	0	AL=15	Corrosion of household plumbing systems, erosion of natural deposits
TTHM [Total trihalomethanes]	No	32.8 Annual	32.8*	2024	ppb	n/a	80	By-product of drinking water chlorination
Haloacetic Acids (HAA5)	No	27.2 Annual	27.2*	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	MRDLG	MRDL	Likely Source of Contamination
Chlorine	No	1.50	0.80-2.20	2024	ppm	4	4	Water additive used to control microbes.

[1] 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 for copper 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. The lead level is the lowest the lab can detect accurately.

*We are only required to collect one sample from a single location.

Knoxville Utilities Board
2024 Water Quality Data

INORGANIC MONITORING

Parameter	Range or Level Detected	MCLG	MCL	Likely Source in Drinking Water
Barium	25 ppb	N/A	2000 ppb	Discharge of drilling wastes and metal refineries; erosion of natural deposits
Nitrate	0.42 ppm	10 ppm	10 ppm	Runoff from fertilizer use; leaching from septic tanks; sewage; erosion of natural deposits
Fluoride	0.41 - 0.66 ppm (average 0.58 ppm)	4 ppm	4 ppm	Erosion of natural deposits; water additive, which promotes strong teeth; discharge from fertilizer and aluminum factories
Sodium	11 ppm	N/A	N/A	Used in treatment process

ORGANIC AND DISINFECTION BYPRODUCT MONITORING

Parameter	Range or Level Detected	MCLG or MRDLG	MCL or MRDL	Likely Source in Drinking Water
Total Organic Carbon (Source)[1]	1.9 - 3.2 ppm (average 2.4 ppm)	N/A	TT	Naturally present in the environment
Total Organic Carbon (Tap)[1]	1.2 - 2.0 ppm (average 1.5 ppm)	N/A	TT	Naturally present in the environment
Total Trihalo-methanes (THM)	Maximum LRAA: 45 ppb[2] Individual site range: 16 to 65 ppb	N/A	80 ppb	Byproduct of drinking water chlorination
Haloacetic Acids (HAA)	Maximum LRAA: 33 ppb[2] Individual site range: 16 to 40 ppb	N/A	60 ppb	Byproduct of drinking water chlorination
Chlorine Dioxide	0.10 - 0.14 ppm (average 0.10 ppm)	MRDLG = 0.8 ppm	MRDL = 0.8 ppm	Water additive used to control microbes
Chlorine	Maximum Running Annual Average: 1.7 ppm (range: 0.1 – 2.5 ppm)	MRDLG = 4 ppm	MRDL = 4 ppm	Water additive used to control microbes
Chlorite	0.02 - 0.08 ppm (average 0.02 ppm)	0.8 ppm	1 ppm	Byproduct of drinking water disinfection

TURBIDITY MONITORING

Parameter	Range or Level Detected	MCLG	MCL	Likely Source in Drinking Water
Turbidity[3]	0.02 - 0.09 NTU	N/A	TT	Soil Runoff

LEAD AND COPPER MONITORING

Parameter	90th Percentile Level (Range Detected)	MCLG	MCL	Likely Source in Drinking Water
Copper	0.158 ppm (0.0024 - 0.251 ppm)	1.3 ppm	AL=1.3 ppm	Corrosion of household plumbing systems
Lead[4]	1.0 ppb (0.5 - 2.3 ppb)	0 ppb	AL=15 ppb	Corrosion of household plumbing systems

ADDITIONAL MONITORING[5]

Parameter	Average Level Detected
Alkalinity	74 ppm
Aluminum	31 ppb
Calcium	24 ppm
Chloride	18 ppm
Conductivity	218 µmhos/cm
Hardness	91 ppm

PFAS and Lithium Monitoring

EPA periodically requires utilities to monitor for some specific unregulated contaminants that do not have established drinking water standards. KUB monitored for 30 chemical contaminants including 29 PFAS compounds, as well as Lithium. Only one reportable PFAS compound was detected during 2024 and was well below the EPA proposed Health Advisory level. Health advisories are non-regulatory and reflect EPA's assessment of the best available peerreviewed science at levels where adverse health effects are not anticipated to occur. 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.

Iron	5 ppb
Orthophosphate	0.93 ppm
pH	7.3 Standard Units
Sulfate	14 ppm
Total Dissolved Solids	150 ppm
Zinc	87 ppb

UNREGULATED MONITORING DATA

Parameter	Level Detected	EPA Proposed Health Advisory Level
Perfluorobutanesulfonic acid (PFBS)	0.0037 ppb	2.0 ppb

Newport Utilities Board
2024 Water Quality Data

Total Coliform Bacteria	NO	0		2024		0	TT Trigger	Naturally present in the environment
Turbidity[1]	NO	0.11	.01-.11	2024	NTU	n/a	TT	Soil runoff
Copper	NO	90th%= 0.116		2024	ppm	1.3	AL=1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Fluoride	NO	0.584	0.46-0.76	2024	ppm	4	4	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
Lead[2]	NO	90th%= 1.0	1.0 – 2.98	2024	ppb	0	AL=15	Corrosion of household plumbing systems, erosion of natural deposits
Sodium	NO	5.68		2024	ppm	n/a	n/a	Erosion of natural deposits; used in water treatment
TTHM [Total trihalomethanes][4]	NO	62	19-104	2024	ppb	n/a	80	By-product of drinking water chlorination
Haloacetic Acids (HAA5)	NO	28	9.75-34.9	2024	ppb	n/a	60	By-product of drinking water disinfection.
Total Organic Carbon[5]	NO	54% removal	54 -66% removal	2024	ppm	TT	TT 35% removal	Naturally present in the environment.
Chlorine	NO	1.9	0.5-2.9	2024	ppm	4	4	Water additive used to control microbes.

1. 100 % of our samples were below the turbidity limit. 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 process.
2. During the most recent round of 2024 lead and copper testing, 0 out of 30 households sampled contained concentrations exceeding the action level. 1.0 ppb is the lowest the lab can detect accurately. 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 or behavior problems. The children of women who are exposed to lead before or during pregnancy can have an increased risk of these adverse health effects. Adults can have increased risks of heart disease, high blood pressure, kidney, or nervous system problems.
3. Newport Utilities completed the Lead Service Line Inventory in 2024. To obtain a copy please call customer service at (423)625-2800 or (423)6252852.
4. 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 system, and may have an increased risk of getting cancer.
5. We met the Treatment Technique for Total Organic Carbon in 2024.

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 indicated the presence of cryptosporidium in 3 out of 24 samples tested. Symptoms of 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)*

City of Jefferson City
2024 Water Quality Data

Contaminant	Violation Yes/No	Level Detected	Range of Detections	Date of Sample	Unit Measurement	MCLG	MCL	Likely Source of Contamination
Total Coliform Bacteria	No	0		2024		0	0	Naturally present in the environment
Turbidity[1]	No	0.08	0.01-0.08	2024	NTU	n/a	TT	Soil runoff
Copper	Yes	90th % = 0.469	0.0017-0.894	2024	ppm	1.3	AL=1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Fluoride	No	0.60 0.43 Avg.	0.00-0.60	2024	ppm	4	4	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
Lead**	Yes	90th % = 4.80	0.09-15.3	2024	ppb	15	AL=15	Corrosion of household plumbing systems, erosion of natural deposits
Nitrate (as Nitrogen)	No	2.29	2.29*	2024	ppm	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Sodium	No	9.04	9.04*	2024	ppm	N/A	N/A	Erosion of natural deposits; used in water treatment
TTHM [Total trihalomethanes]	No	9.84	8.46-9.84	2024	ppb	N/A	80	By-product of drinking water chlorination
Haloacetic Acids (HAA5)	No	5.41	4.61-5.41	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	MRDLG	MRDL	Likely Source of Contamination
Chlorine	No	2.25	1.35-3.60	2024	ppm	4	4	Water additive used to control microbes.

*We are only required to collect one sample from a single location.

**During the most recent round of Lead and Copper testing, only 1 out of 80 households sampled contained concentrations exceeding the action level. 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. Additional information is available from the Safe Drinking Water Hotline (1-800-426-4791). 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.

[1]100% of our samples were below the turbidity limit. 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.