

# Lone Oak Utility District

## 2021 Water Quality Report

**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 will see in the chart on the next page, we only detected 10 of these contaminants. We found all of these contaminants at safe levels.

**What is the source of my water?** Your water, which is true ground water, comes from the Chickamauga watershed, a Cambrian-Ordovician carbonate underground aquifer. Our goal is to protect your water from contaminants. We constantly work with the State of Tennessee to determine the vulnerability of our water source to **potential** contamination. Tennessee's 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. Lone Oak Utility District's sources are 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 <https://www.tn.gov/environment/program-areas/wr-water-resources/water-quality/source-water-assessment.html> or you may contact Tom Bockman at Hixson Utility District at 423.877.3513 between 8am and 4pm Monday through Friday, or TDEC at 1.888.891.8332 to obtain copies of specific assessments.

Your water comes from natural underground sources owned by Hixson Utility District and is withdrawn at two different well fields. The high natural water quality at both Cave Springs and Walker's Corner well fields meet EPA standards to avoid filtration. A Wellhead Protection Plan is available for your review by contacting Tom Bockman at 423.877.3513

**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).

The sources of drinking water (both tap 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 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, mining, farming, industrial or domestic wastewater discharges, oil and gas production, mining and farming.
- Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban stormwater runoff and/or 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. 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 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 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 at 800 . 426 . 4791.

### How can I get involved?

Our Water Board meets on the third Thursday during the second month of each quarter at 9:30 am at Walden's Ridge Utility District located at 3900 Taft Highway, Signal Mountain TN. 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

**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. Lone Oak 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 thirty (30) seconds to two (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 at 800.426.4791 or at <https://www.epa.gov/safewater/lead>

**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 of our utility facilities, including treatment plants, pumping stations, tanks, fire hydrants, etc. to 423 . 886 . 2683.

**For more information about your drinking water, please call our office at 423 . 886 . 2683.**

**Este informe contiene información muy importante. Tradúscalo o hable con alguien que lo entienda bien.**

# 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.
- **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.
- **Millirems per year (mrem/yr)** - measure of radiation absorbed by the body.
- **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.
- **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.

## Tests Performed By Walden's Ridge Utility District for Lone Oak Utility District

Contaminant	Violation Yes/No	Level Found	Range of Detections	Date of Sample	MCLG	MCL	Likely Source of Contamination
Total Coliform Bacteria (RTCR)	No	0	0	2021	0	<5%	Naturally present in the environment
Chlorine	No	0.8 average	0.6 – 0.9 ppm	2021	4 ppm	4 ppm	Water additive used to control microbes
TTHM – Total Trihalomethanes	No	14.6 ppb		11/11/2021	N/A	80 ppb	By-product of drinking water chlorination
Haloacetic Acids (HAA5)	No	3.38 ppb		2/12/2021	N/A	60 ppb	By-product of drinking water chlorination
Lead*	No	90th % 0.5 ppb	DBL – 0.0 ppb	2019	AL Goal = 0 ppb	AL = 15 ppb	Corrosion of household plumbing systems, erosion of natural deposits
Copper*	No	90th % 0.393 ppm	0.016 - 0.456 ppm	2019	AL Goal = 1.3 ppm	AL = 1.3 ppm	Corrosion of household plumbing systems: erosion of natural deposits: leaching from wood preservatives

\*12 samples were taken for the year with no samples testing positive.

\*\*During the most recent round of lead and copper testing, 0 out of 12 households sampled contained concentrations exceeding the action level.

## Tests Performed By Hixson Utility District

Lead	No	90th % = BDL	BDL – 8.13 ppb	2020	AL = 15 ppb	AL = 15 ppb	Corrosion of household plumbing systems, erosion of natural deposits
Copper	No	90th % = 0.593 ppm	0.0167 – 0.652 ppm	2020	AL = 1.3ppm	AL = 1.3 ppm	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Fluoride	No	0.74 ppm	0.62 – 0.74 ppm	2021	4 ppm	4 ppm	Erosion of natural deposits; water additive that promotes strong teeth; discharge from fertilizer and aluminum factories
Nitrate	No	0.818 ppm	0.474–0.818 ppm	2021	10 ppm	10 ppm	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Alpha Emitters	No	1.4 pCi/l	1.36 – 1.4 pCi/l	2014	0	15 pCi/l	Erosion of natural deposits
Combined Radium	No	0.96 pCi/l	BDL – 0.96 pCi/l	2014	0	5 pCi/l	Erosion of natural deposits
Sodium (ppm)	No	1.34 ppm	1.26 – 1.34 ppm	2021	N/A	N/A	Erosion of natural deposits; used in water treatment
Barium	No	0.025 ppm	0.0132 – 0.025 ppm	2021	2	2	Discharge of drilling waste, discharge from metal refineries. Erosion from natural deposits.
Turbidity (NTU)*	No	0.81 NTU	0.1 – 1.0 NTU	2021	N/A	TT	Soil runoff