2020 Annual
Water Quality Report

Soddy Daisy and Sale Creek Filter Plants
Soddy Daisy, Tennessee
PWS ID: TN0000169

Este informe contiene información importante acerca de su agua potable. Haga que alguien lo tradúzca para usted, ó hable con alguien que lo entienda.
This report contains important information about your drinking water. Have someone translate it for you if needed.

About North West Utility District

North West Utility District was formed after Soddy Daisy Falling Water Utility District, Mowbray Mountain Water District and Sale Creek Water District merged as one consolidated utility district. The office is located on Dayton Pike in Soddy Daisy, Tennessee. The district employs approximately twenty professionals between the filter plant, the maintenance department and the office and administrative staff. The District is governed by a seven-member board. The North West Utility District Board of Commissioners terms are staggered with all members serving a 4-year term. Meetings will be held on the 3rd Tuesday of every month. Please feel free to participate in these meetings. Vacancies on the Board of Commissioners are appointed by the Hamilton County Mayor. 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.

John "Jack" Cain

President, 4-year term thru January 2025

Jeffrey Templeton

Commissioner, 4-year term thru December 2021

Bill McGriff

Vice President, 4-year term thru January 2024

Hugh Coulter

Commissioner, 4-year term thru January 2024

Jim Farmer

Secretary, 4-year term thru December 2021

Steve Michael

Commissioner, 4-year term thru January 2025

Phyllis Marr

Commissioner, 4-year term thru December 2021

How to Contact Us

For more information about this report, or for any questions relating to your drinking water, please call Steve Roark, NWUD Plant Manager at 423-332-1339. For questions about your water bill, please call our Customer Service Office at (423) 332-2427.

Share This Report

Landlords, businesses, schools, hospitals and other groups are encouraged to share this important water quality information with water users at their location who are not customers of North West Utility District. Additional copies of this report are available by contacting us at 423-332-2427 or you may request a copy at our office.

Water Security

Following the events of September 11th, 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, tanks, fire hydrants, etc. to 423-332-2427 or contact 911.

Source Water Information

Soddy Daisy and Mowbray customer's water is surface water and comes from the Soddy Lake, northeast of town. Our Sale Creek customer's water is ground water from wells and comes from a Cambrian/Ordovician type aquifer. Our goal is to protect our water from contaminants and we are working with the State to determine the vulnerability of our water to potential contamination. 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 Soddy Daisy and Sale Creek sources are rated as reasonably susceptible to potential contamination.

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.

Protecting Our Water Supply – Backflow Prevention

North West Utility District has a backflow prevention program that ensures proper installation and maintenance of hundreds of backflow prevention devices throughout our system. These devices ensure hazards originating on the customer's properties and from temporary connections do not impair or alter the quality of water in our distribution system. For more information about North West Utility District's Backflow Prevention Program please contact our Cross Connection Specialists, James Wilson at james@nwud.net or 423-332-2427.

Flushing unused or expired medicines can be harmful to your drinking water. Learn more https://www.tn.gov/environment/program-areas/opsp-policy-and-sustainable-practices/community-programs-and-services/unwanted-household-pharmaceuticals-takeback-program.html

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 may 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 EPA's Safe Drinking Water Hotline (800) 426-4791.

Substances Expected to be in Drinking 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 call the U.S. Environmental Protection Agency's Safe Drinking Water Hotline (800) 426-4791.

In order to ensure that tap water is safe to drink, U.S. Environmental Protection Agency (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. U.S. Food and Drug Administration (FDA) regulations establish limits for contaminants in bottled water which must provide the same protection for public health. North West Utility District's water treatment processes are designed to reduce any such substances to levels well below any health concern.

The source of drinking water (both tap water and bottled water) includes 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 include:

- **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 may be the result of oil and gas production and mining activities. For more information about contaminants and potential health effects, call the U.S. EPA's Safe Drinking Water Hotline at (800) 426-4791.

Water Information Sources

- **North West Utility District:** http://www.nwud.net/
- **Tennessee Department of Environment and Conservation:** www. tn.gov/environment
- **United States Environmental Protection Agency:** www.epa.gov/safewater
- **Safe Drinking Water Hotline:** (800) 426-4791
- **American Water Works Association:** https://www.awwa.org/

How to Read the Water Quality Data Table

North West Utility District conducts extensive monitoring to ensure that your water meets all water quality standards. The results of our monitoring are reported in the following tables. While most monitoring was conducted in 2020, certain substances are monitored less than once per year because the levels do not change frequently. For help with interpreting this table, see the "Table Definitions" section.

Starting with a **Substance**, read across. **Year Sampled** is usually in 2020 or year prior. **MCL** shows the highest level of substance (contaminant) allowed. **MCLG** is the goal level for that substance (this may be lower than what is allowed). **Amount Detected** represents the measured amount (less is better). **Range** tells the highest and lowest amounts measured. A **Yes** under **Compliance Achieved** means that the government requirement was met. **Typical Source** tells where the substance usually originates.

Table Definitions and Abbreviations

- **AL (Action Level):** The concentration of a contaminant that, if exceeded, triggers treatment or other requirements that a water system must follow.
- **BDL:** Below Detection Limit
- **LRAA (Local Running Annual Average):** Average of the past four most recent quarterly data
- **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.
- **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.
- **MRDL (Maximum Residual Disinfectant Level):** The highest level of disinfectant routinely allowed in drinking water. Addition of a disinfectant is necessary for control of microbial contaminants.
- **MRDLG (Maximum Residual Disinfectant Level Goal):** The level of 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 contamination.
- **mrem/year:** Millirems per year (a measure of radiation absorbed by the body.
- **NA:** 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.
- **ppm (parts per million) or mg/L (milligrams per liter):** One part substance per million parts water, or milligrams per liter, explained in terms of money as one penny in $10,000.
- **ppb (parts per billion) or µg/L (micrograms per liter):** One part substance per billion parts water, or micrograms per liter, explained in terms of money as one penny in $10,000,000.
- **TT (Treatment Technique):** A required process intended to reduce the level of a contaminant in drinking 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.

Water Quality Statement

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. Food and Drug Administration (FDA) regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

During the past year, the water delivered to your home or business met or exceeded all state and federal drinking water requirements for all but 2 parameters (explanation below). For your information, we have compiled a list in the tables, showing what substances were detected in your drinking water during 2020. We feel it is important that you know exactly what was detected and how much of the substance was present in the water.

Explanation of violation- A monitoring requirement was not met during the previous year and therefore violated drinking water requirements over the past year. Even though these were not emergencies, as our customers, you have a right to know what happened and what we did to correct these situations. The wording below in *italics* is required language from the EPA.

We are required to monitor your drinking water for specific contaminants on a regular basis. Results of regular monitoring are an indicator of whether or not our drinking water meets health standards. During the 3rd quarter of 2020 we failed to monitor for Total Trihalomethanes and Total Haloacetic Acids per our Stage 2 LRAA Monitoring Plan and therefore cannot be sure of the quality of your drinking water during that time.

Please share this information with all other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this posting this notice in a public place or distributing copies by hand or mail.

There is nothing you need to do at this time. The table below lists the contaminants we did not test according to our monitoring plan during a recent compliance period, how often we are supposed to sample, how many samples we are supposed to take, when samples should have been taken, and the date on which samples were (or will be) taken.

Contaminant	Required sampling frequency	Number of samples required	Required sampling week	When samples were taken
Total Trihalomethanes	Quarterly	4	7/15/2020	6/29/2020
Total Haloacetic Acids	Quarterly	4	7/15/2020	6/29/2020

The samples were mistakenly collected during a prior week and because our monitoring plan requires the sample to be collected during the week of 7/15/2020 a violation resulted. In the future the operators will be more diligent in collecting samples during the appropriate timeframe. We apologize for this mistake. The water sampled before and after the required monitoring period were within compliance but we did not collect a sample during the 3rd quarter therefore we cannot affirm the results during this period.

2020 WATER QUALITY DATA (PWS ID # TN0000169)

Soddy Daisy & Mowbray Areas –

Substance (units)	Year Sampled	MCLG	MCL	Amount Detected	Range	Compliance Achieved	Typical Source
E.Coli [1]	Jan. 2020 – Dec. 2020	0	TT	0	0 - 1	Yes	Naturally present in the environment
Turbidity [2] (NTU)	2020	NA	TT	0.09	0.01 - 0.09	Yes	Soil runoff
Chlorine [3] (ppm)	2020	MRDLG = 4	MRDL=4	2.05 (avg) 2.70 (max)	0.80 - 2.70	Yes	Water additive used to control microbes
Nitrate (ppm)	2020	10	10	1.19	1.19	Yes	Runoff from fertilizer use; Leaching from septic tanks; sewage; Erosion of natural deposits
Sodium (ppm)	2020	NA	NA	4.55	4.55	Yes	Erosion of natural deposits; used in water treatment

Sale Creek Areas –

Substance (units)	Year Sampled	MCLG	MCL	Amount Detected	Range	Compliance Achieved	Typical Source
E.Coli [1]	Jan 2020 – Dec 2020	0	TT	0	0 - 1	Yes	Naturally present in the environment
Turbidity [2] (NTU)	2020	NA	TT	0.04	0.02 – 0.20	Yes	Soil runoff
Chlorine [3] (ppm)	2020	MRDLG = 4	MRDL=4	3.0 (avg) 3.30 (max)		Yes	Water additive used to control microbes
Nitrate (ppm)	2020	10	10	1.13		Yes	Runoff from fertilizer use; Leaching from septic tanks; sewage; Erosion of natural deposits
Sodium (ppm)	2020	NA	NA	4.18		Yes	Erosion of natural deposits; used in water treatment
Atrazine	2020	3	3	BDL	BDL	Yes	Runoff from herbicide used on row crops

Combined System –

Substance (units)	Year Sampled	MCLG	MCL	Amount Detected	Range	Compliance Achieved	Typical Source
TTHM [5] [Total trihalomethanes]	2020	NA	80	25	10.4 - 52.4	No	By-product of drinking water chlorination
HAA5 [5] [Haloacetic acids]	2020	NA	60	21	8.19 – 40.6	No	By-product of drinking water disinfection

[1] System is in compliance for E.Coli MCL unless it has E.coli positive repeat sample for total coliform positive routine sample, total coliform positive repeat sample for an E.coli positive routine sample, system fails to collect all required routine samples, or system fails to test all positive total coliform samples for E.Coli.

[2] 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. During 2019, 100% of all samples taken to measure turbidity met water quality standard of less than 0.3 NTU

[3] Chlorine levels as measured in the distribution system.

[4] 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. 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)

[5] Disinfection by-products value reported for "amount detected" is the maximum Locational Running Annual Average. Because a sample was not collected during the 3rd quarter at the correct time, compliance was not achieved. The range includes all samples analyzed during 2020. Some people who drink water containing trihalomethanes in excess of the MCL over many years could have problems with their liver, kidneys, or central nervous systems and may have an increased risk of getting cancer.

Lead and Copper Sampling
Soddy Daisy & Mowbray Areas –

Substance (units)	Year Sampled	Action Level	MCLG	Amount Detected (90th %tile)	Range of Detections	Compliance Achieved	Typical Source
Copper (mg/l)	2020	1.3	1.3	0.0963 mg/l	0.00192 – 0.311 mg/l	Yes	Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives
Lead (mg/l)	2020	0.015	0	0.00211 mg/l	ND – 0.0542 mg/l[6]	Yes	Corrosion of household plumbing systems; Erosion of natural deposits

Sale Creek Areas –

Substance (units)	Year Sampled	Action Level	MCLG	Amount Detected (90th %tile)	Range of Detections	Compliance Achieved	Typical Source
Copper (mg/l)	2020	1.3	1.3	0.593 mg/l	0.0441 – 1.26 mg/l	Yes	Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives
Lead (mg/l)	2020	0.015	0	0.001 mg/l	ND – 0.0209 mg/l[6]	Yes	Corrosion of household plumbing systems; Erosion of natural deposits

[6] 2 sites were resampled due to a high initial level. The original sample was .0542 mg/l and the resample was 0.00216 mg/l. The other site was originally 0.0209 mg/l and the resample was below detectable levels. It is believed that both sites were incorrectly sampled on the first round. After the resampling, 0 out of 60 households sampled contained concentrations exceeding the action level.

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. We take steps to reduce the potential for lead to leach from your pipes into the water. This is accomplished by adding a corrosion inhibitor to the water leaving our treatment facilities. There are steps that you can take to reduce your household's exposure to lead in drinking water. North West 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 (800-426-4791) or at http://www.epa.gov/safewater/lead.

Sanitary Survey

NWUD's water system scored 99% on the 2019 State of Tennessee Sanitary Survey conducted by the Tennessee Department of Environment and Conservation. This is a thorough annual inspection by our Division of Water Resources Inspectors and covers all areas of water operations and lets us all know we are operating efficiently and within published guidelines. We appreciate our Inspectors help and guidance in our everyday operations. We commend our staff for their efforts. We did not receive a score in 2020 due to COVID19 but we remained in contact with our local inspectors regarding the water system.

Serv-Line Water Bill / Line Protection

On 6/1/2015, NWUD initiated a water leak protection plan for residential water bills up to $1,000. This plan replaced our former leak adjustment policy. The plan currently allows for one leak adjustment per year. You may also purchase a water line protection insurance plan that will cover the cost of replacing your water line up to $10,000 with no deductible or limit on occurrences. Irrigation meters /lines are not covered in either plan. The initial water bill protection plan is $1.80/mo. If you opt out of this program, you will no longer be eligible for a leak adjustment after 6/1/15. Customers must voluntarily sign up for the Water Line Protection/replacement policy @ $4.00/month.

Water Conservation and Tips

You can play a role in conserving water and saving yourself money in the process by becoming conscious of the amount of water your household is using and by looking for ways to use less whenever you can. It is not hard to conserve water. Here are a few tips:

- Automatic dishwashers use 15 gallons for every cycle, regardless of how many dishes are loaded.
- Turn off the tap when brushing your teeth.
- Check every faucet in your home for leaks. Just a slow drip can waste 15 to 20 gallons a day. Fix it and you can save almost 6,000 gallons per year.
- Check your toilets for leaks by putting a few drops of food coloring in the tank. Watch for a few minutes to see if the color shows up in the bowl. It is not uncommon to lose up to 100 gallons a day from an invisible toilet leak. Fix it and you save more than 30,000 gallons a year.
- Use your water meter to detect hidden leaks. Simply turn off all taps and water using appliances. Then check the meter after 15 minutes. If it moved, you have a leak.
- The most common signs that your faucet or sink is affecting the quality of your drinking water are discolored water, sink or faucet stains, a buildup of particles, unusual odors or tastes, and reduced flow of water.
- Kitchen sink and drain- Hand washing, soap scum buildup, and the handling of raw meats and vegetables can contaminate your sink. Clogged drains can lead to unclean sinks and backed up water in which bacteria (i.e. pink and black colored slime growth) can grow and contaminate the sink area and faucet, causing a rotten egg odor. Disinfect and clean the sink and drain area regularly and flush with hot water.
- Water filtration & treatment devices- A smell of rotten eggs can be a sign of bacteria on the filters or in the treatment system. The system can also become clogged over time so regular filter replacement is important.