ANNUAL WATER QUALITY REPORT

Reporting Year 2025

Presented By

MADISON SUBURBAN UTILITY DISTRICT

PWS ID#: TN0000424

Este informe contiene información muy importante sobre su agua potable. Tradúzcalo o hable con alguien que lo entienda bien.

Our Commitment

We are pleased to present this year's annual water quality report. This report is a snapshot of last year's water quality covering all testing performed between January 1 and December 31, 2025. Included are details about your source of water, what it contains, and how it compares to standards set by regulatory agencies. Our constant goal is to provide you with a safe and dependable supply of drinking water. We want you to understand the efforts we make to continually improve the water treatment process and protect our water resources. We are committed to ensuring the quality of your water and providing you with this information because informed customers are our best allies.

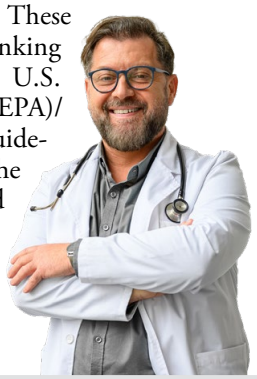
Source of My Water

A **source water assessment** has been conducted and is available, upon request, for review at the MSUD office.

Your water comes from the Cumberland River. As a surface water source, it has been rated as highly susceptible to potential contamination based on geological factors and human activities in the vicinity.

Important Health Information

Some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised 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. U.S. Environmental Protection Agency (U.S. EPA)/ Centers for Disease Control (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 or on U.S. EPA's website epa.gov/safewater.



How Do I Contact Madison Suburban Utility District?

Madison Suburban Utility District (MSUD) Business Office: 721 Myatt Drive. (615)-868-3201, Monday through Friday, 7:30 a.m. to 4:00 p.m. or visit msud.net.

Director of Operations: Jim Wade

After-hours emergencies or questions about this report or water quality? Call (615)-865-1636.

Substances That Could Be in Water

To ensure that tap water is safe to drink, U.S. EPA and the Tennessee Department of Environment and Conservation (TDEC) prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. U.S. Food and Drug Administration regulations establish limits for contaminants in bottled water, which must provide the same protection for public health. Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of these contaminants does not necessarily indicate that the water poses a health risk.

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 substances resulting from the presence of animals or from human activity. Substances 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, or wildlife;

Inorganic Contaminants, such as salts and metals, which can be naturally occurring or may 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 may also come from gas stations, urban stormwater runoff, and septic systems; and

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.

Hard Water vs. Soft Water

Hard water contains higher levels of naturally occurring minerals, primarily calcium and magnesium. These minerals are not harmful to human health and can even contribute beneficial nutrients. However, hard water can cause scale buildup in pipes, appliances, and fixtures. Soft water has lower mineral content and allows soap to lather more easily. It also helps extend the life of water heaters, washing machines, and plumbing fixtures. Hardness levels vary widely depending on local geology and groundwater conditions. Some households choose to install water softeners to reduce scaling and improve appliance efficiency. It is important to note that water hardness is a quality issue, not a safety concern. Both hard and soft water supplied by public water systems meet all health-based drinking water standards.

Microplastics in Drinking Water

Microplastics are tiny plastic particles smaller than a grain of rice that are now being detected in oceans, rivers, soils, and even the air. Scientists have also identified microplastics in drinking water supplies worldwide. These particles come from the breakdown of larger plastic products, synthetic clothing fibers, tire wear, and many everyday consumer items. Because plastics degrade slowly, microplastics are becoming increasingly widespread in the environment.

Modern water treatment processes, including filtration and sedimentation, remove a large portion of microplastics from source water. Advanced treatments, such as granular-activated carbon and membrane filtration, can further reduce microplastic levels.

Consumers interested in minimizing microplastic exposure can use certified drinking water filters, reduce single-use plastic consumption, and support responsible plastic recycling and waste reduction efforts.

THE MADISON Suburban Utility District

Quality Service

SINCE 1939

Test Results

Our water is monitored for many different kinds of contaminants on a very strict sampling schedule, and the water we deliver must meet specific health standards. Here, we only show those contaminants that were detected in our water (a complete list of all our analytical results is available upon request). Remember that detecting a contaminant does not mean the water is unsafe to drink; our goal is to keep all detects below their respective maximum allowed levels.

The state recommends monitoring for certain contaminants less than once per year because the concentrations of these contaminants do not change frequently.

REGULATED CONTAMINANTS

CONTAMINANT (UNIT OF MEASURE)	YEAR SAMPLED	MCL [MRDL]	MCLG [MRDLG]	AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
Chlorine (ppm)	2025	[4]	[4]	1.83	0.65–3.10	No	Water additive used to control microbes
Fluoride (ppm)	2025	4	4	0.54	0.49–0.62	No	Erosion of natural deposits; Water additive that promotes strong teeth; Discharge from fertilizer and aluminum factories
Nitrate (ppm)	2025	10	10	0.524	NA	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
Total Coliform Bacteria[2] [RTCR]	2025	TT (Trigger)	0	0	NA	No	Naturally present in the environment
Total Halocetic Acids [HAA5s][2] (ppb)	2025	60	NA	30	10–40	No	By-product of drinking water disinfection
Total Organic Carbon[1] (Removal ratio)	2025	TT greater than or equal to 25%	NA	47%	NA	No	Naturally present in the environment
Total Trihalomethanes [TTHMs][2] (ppb)	2025	80	NA	50	20–50	No	By-product of drinking water disinfection
Turbidity[3] (NTU)	2025	TT	NA	0.14	NA	No	Soil runoff
Turbidity (Lowest monthly percent of samples meeting limit)	2025	TT = 95% of samples meet the limit	NA	100%	NA	No	Soil runoff

Tap water samples were collected for lead and copper analyses from sample sites throughout the community

CONTAMINANT (UNIT OF MEASURE)	YEAR SAMPLED	AL	MCLG	AMOUNT DETECTED (90TH %ILE)	RANGE LOW-HIGH	SITES ABOVE AL/TOTAL SITES	VIOLATION	TYPICAL SOURCE
Copper (ppm)	2023	1.3	1.3	0.183	0.021–0.183	0/30	No	Corrosion of household plumbing systems; Erosion of natural deposits
Lead[4] (ppb)	2023	15	0	ND	ND–ND	0/30	No	Corrosion of household plumbing systems; Erosion of natural deposits

UNREGULATED CONTAMINANTS

CONTAMINANT (UNIT OF MEASURE)	YEAR SAMPLED	AMOUNT DETECTED	RANGE LOW-HIGH	TYPICAL SOURCE
Sodium[5] (ppm)	7/2/2025	9.01	NA	Erosion of natural deposits; Used in water treatment

[1] We met the treatment technique requirements for total organic carbon removal in 2025.
[2] Highest Locational Running Annual Average (LRAA) calculated quarterly.
[3] Turbidity is a measure of the cloudiness of the water. It is monitored because it is a good indicator of the effectiveness of the filtration system. We met the treatment technique requirement for turbidity with 100% of daily samples below the limit of 0.15 NTU.
[4] Level detected is 90th percentile. During the most recent testing, 0 out of 30 households sampled contained concentrations exceeding the action level (AL). Lead is not present in an amount sufficient enough to be detected by current laboratory equipment.
[5] Sodium is not subject to regulation by the EPA or the State of Colorado, as no Maximum Contaminant Level (MCL) has been established for this contaminant

2025 Tank Rehab Project

Tank Interior

Community Participation

The District's Board of Commissioners meets each month at the business office at 721 Myatt Drive. These meetings are open to the public with the specific dates and times listed at msud.net.

Definitions

90th %ile: The levels reported for lead and copper represent the 90th percentile of the total number of sites tested. The 90th percentile is equal to or greater than 90% of our lead and copper detections.

AL (Action Level): The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.

Herbicide: Any chemical(s) used to control undesirable vegetation.

LRAA (Locational Running Annual Average): The average of sample analytical results for samples taken at a particular monitoring location during the previous four calendar quarters.

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 a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for 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.

NA: Not applicable.

ND (Not detected): Indicates that the substance was not found by laboratory analysis.

NTU (Nephelometric Turbidity Units): Measurement of the clarity, or turbidity, of water. Turbidity in excess of 5 NTU is just noticeable to the average person.

Pesticide: Generally, any substance or mixture of substances intended for preventing, destroying, repelling, or mitigating any pest.

ppb (parts per billion): One part substance per billion parts water (or micrograms per liter).

ppm (parts per million): One part substance per million parts water (or milligrams per liter).

SMCL (Secondary Maximum Contaminant Level): These standards are developed to protect aesthetic qualities of drinking water and are not health-based.

TT (Treatment Technique): A required process intended to reduce the level of a contaminant in drinking water.

Lead in Home Plumbing

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. MSUD 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 it is used properly. Use only cold water for drinking, cooking, and making baby formula. Boiling 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, or 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 it tested, contact MSUD at (615) 865-1636. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available at epa.gov/safewater/lead.

The lead service line inventory (LSLI) (a requirement of the U.S. EPA and TDEC for all public water systems), which we asked our customers to complete, is a means of establishing an inventory to identify the materials of customer service lines connected to the public water distribution system past the meter and to your home or business. The purpose was to identify areas with the greatest potential for lead contamination of drinking water and those most in need of replacement. MSUD has detected no lead in our system. Our water mains are ductile iron and cast iron, with a small amount of polyvinyl chloride (PVC). Our service lines to our customers' meters are copper. MSUD is not responsible for plumbing from the meter to residences and businesses. This is why the LSLI is so important. The LSLI was completed at the end of 2024, and the finished service line inventory report can be found online at msud.net under the title Resources.