

ANNUAL WATER QUALITY REPORT

Reporting Year 2022



Presented By
**Mauriceville Municipal
Utility District**

Este reporte incluye información importante sobre el agua para tomar. Para asistencia en español, favor de llamar al telefono (409) 745-4882.

PWS ID#: TX1810144

Our Mission Continues

We are once again pleased to present our annual water quality report covering all testing performed between January 1 and December 31, 2022. Over the years, we have dedicated ourselves to producing drinking water that meets all state and federal standards. We continually strive to adopt new methods for delivering the best-quality drinking water to you. As new challenges to drinking water safety emerge, we remain vigilant in meeting the goals of source water protection, water conservation, and community education while continuing to serve the needs of all our water users. Please remember that we are always available should you ever have any questions or concerns about your water.

Mauriceville Municipal Utility District had no Texas Commission on Environmental Quality (TCEQ) violations in 2022.

Customer Service Inspection

TCEQ requires MMUD to perform customer service inspections under the following circumstances:

- All new construction
- Existing customers that have had substantial plumbing modifications
- Existing customers whenever there is a reason to suspect that a hazard or a source of contamination may be present

What Is Inspected?

- Direct or indirect connections, including fixtures inside the structure
- Connections that allow water that is used for condensing, cooling, or industrial processes to flow back to the public water system. In this context, an “industrial process” is defined as any use other than domestic consumption.
- Potential contamination hazards. Here are two examples of prohibited lead plumbing materials:
 - For plumbing that was installed on or after July 1, 1988, and prior to January 4, 2014, pipe or pipe fitting that contains more than 8.0 percent lead.
 - For plumbing that was installed on or after January 4, 2014, pipes or pipe fittings that contain more than 0.25 percent lead or solders and flux that contain more than 0.2 percent lead.

Why Are CSIs Required?

To prevent cross-connections and backflow from contaminating the community's water supply.

- cross connection: a physical connection between drinkable water and a liquid or gas that could make the water unsafe

to drink. Wherever there is a cross connection, there is a potential threat to public health from the liquid or gas contaminants.

- backflow: water flowing opposite to its intended direction, from either a loss of pressure in the supply lines or an increase in pressure on the customer's side. In either of these situations, if any affected customer's pipes include a cross-connection, contaminants could be drawn through it into that customer's pipes and, if the backflow continues, perhaps even into the water mains.

Examples of cross-connections and backflow:

- garden hose submerged in a pesticide mixture or a contaminated water source, such as a mud puddle
- a piped connection providing potable feed water to an industrial process, such as a cooling tower, or a submerged outlet of an irrigation system
- connections to firefighting equipment

An example of a cross-connection/backflow situation would be a customer connecting a chemical container to the water hose to spray the chemical on their garden. At the same time, someone else is in the house drawing drinking water from the faucet. The water system has a water main break, or a fire hydrant is accessed, both of which can cause a vacuum effect that draws the chemical into the water supply. The customer drinks the contaminated water, which has deadly consequences. The simplest way to avoid this is to install a hose bib vacuum breaker on the outside spigots. These are small, inexpensive devices with hose connections that are simply attached to spigots, threaded faucets, or wherever a hose, could be attached to introduce a contaminant.

Where Does My Water Come From?

Mauriceville Municipal Utility District (MMUD) has five well sites that all pull from the Gulf Coast Aquifer, a major aquifer paralleling the Gulf of Mexico coastline from the Louisiana border to the border of Mexico. It consists of several aquifers, including Jasper, Evangeline, and Chicot, which are composed of discontinuous sand, silt, clay, and gravel beds. The maximum total sand thickness of the Gulf Coast Aquifer ranges from 700 feet in the south to 1,300 feet in the north. Freshwater saturated thickness averages about 1,000 feet.

This information is provided by the Texas Water Development Board. Additional information can be obtained at <http://www.twdb.texas.gov/groundwater/aquifer/majors/gulf-coast.asp>.

Water Loss Audit

In the water loss audit submitted to the Texas Water Development Board during the year covered by this report, our system lost an estimated 43,224,585 gallons of water, which is 11.1 percent of water used. We continue to be grateful for our hardworking employees and our customers for helping us keep the water loss at a low percentage. If you have any questions about the water loss audit, please call (409) 745-4882.

QUESTIONS?

For more information about this report, or for any questions relating to your drinking water, please call Brad Haeggquist, Christy Davis, or Jeremy Walton at (409) 745-4882.

Community Participation

Board meetings are normally held every other month on the third Tuesday at 6:00 p.m. at our office at 15509 FM 1442, Orange. Please check our website, www.mauricevillemud.com, for updated dates and times.

Whenever there is a message or emergency involving the district system, we send out alerts directly to your cell phone or email. We would like to encourage our customers to sign up for alerts at www.mauricevillemud.com.

Important Health Information

TCEQ requires all Texas water and wastewater utilities to publish the following information to alert customers about potential problems that may occur in their systems.

You may be more vulnerable than the general population to certain microbial contaminants, such as *Cryptosporidium*, in drinking water. Infants, some elderly, or immunocompromised persons such as those undergoing chemotherapy for cancer; persons who have undergone organ transplants; those who are undergoing treatment with steroids; and people with HIV/AIDS or other immune system disorders can be particularly at risk from infections. You should seek advice about drinking water from your physician or health care providers. Additional guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* are available from the Safe Drinking Water Hotline at (800) 426-4791.



MMUD Initiated a 2-Percent Water Rate Decrease

Water rates decreased by 2 percent beginning May 1, 2022, for water used in May that was billed in June 2022. This amounts to over \$42,000 per year in savings for our customers. We have always done our best to keep rates as low as possible while still meeting all our utility district obligations. Our last rate increase was in 2009. We do not tax the district property owners, as most utilities do. To pay the bills, we must take care of our customers and conservatively spend our revenue. In November 2019, we returned \$67,360 to our customers by issuing each customer a one-time \$20 credit on their bill.

This decrease is further evidence that we work for the customers of our utility, and whenever possible, we will continue to look for ways to reduce rates in spite of ever-increasing material costs, new state operating mandates, and licensing fees. We are gaining about 100 customers a year, and as we continue to grow, we will share the costs among a wider group of people, which should ensure that our rates continue to be carefully controlled. While all the other surrounding utilities have recently increased, or will soon increase, their rates, we are reducing ours. Thank you for your business.

Lead in Home Plumbing

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 are responsible for providing high-quality drinking water, but we 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 two 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 <http://www.epa.gov/safewater/lead>.

Revisions to the Lead and Copper Rule

On December 16, 2021, U.S. EPA announced the development of a new regulation, Lead and Copper Rule Improvements, to better protect communities from exposure to lead in drinking water. The new lead and copper rule better protects communities from the risks of lead exposure by shielding children at schools and childcare facilities, getting the lead out of our nation's drinking water, and empowering communities through information.

Improvements under the new rule include:

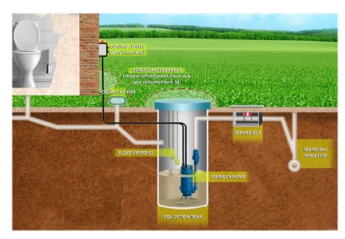
- Using science-based testing protocols to find more sources of lead in drinking water
- Establishing a trigger level to jump-start mitigation earlier and in more communities
- Driving more and more complete lead service line replacements
- For the first time, requiring testing in schools and childcare facilities
- Requiring water systems to identify and make public the locations of lead service lines

Water systems will be required to provide a complete inventory, including the service lines on the customer's side of the meter. This inventory must be completed by October 16, 2024. Inventories must include all service lines (public and private) connected to the public water distribution system and categorization of each service line or portion of the service line where ownership is split. MMUD has already begun an innovative approach to this inventory process with the aid of a geographic information system mapping program that will make this much less invasive for our customers. However, there will be instances where the district will be required to physically inspect the service lines of some customers. MMUD will be sending out crews to investigate all service lines outside of your residences and structures.

Surveys will be sent out to each customer soon to assist in the process. In many cases responses to these surveys will provide the district with the information necessary to satisfy the current TCEQ and U.S. EPA requirements. Customers can opt out of these surveys and inspections by making that choice on the survey. Under current TCEQ and U.S. EPA regulations, service lines that are not identified will be listed as lead and must be replaced. Please contact our office if you have questions or concerns about this process.

Caring for Your Grinder Pump

MUD's customers are connected to our pressurized sewer lines by a grinder pump system. Grinder pump systems have usage considerations that must be followed to function properly, similar to a septic system. The system requires maintenance. Malfunctions are possible. Any irregularity in the system will trigger a red light on the control panel box. Please call us if the light comes on.



Power Outages, Heavy Rain, and Natural Disasters – How Can You Help?

The district's water and wastewater systems remain operational during weather events. Your wastewater system, on your property, does not operate without power from your home or business. If our community loses power, please limit your water use. If you plan to evacuate during a weather event that could produce widespread flooding, please turn off the breaker to your pump before leaving. Areas that flood experience difficulties. If your grinder tank wastewater system is underwater or your neighborhood has been flooded, your wastewater system probably will not operate normally. When this happens, please turn off the breaker to your wastewater grinder system when you are not running water or flushing your toilets. This may prevent extensive repairs to your system. If your light comes on, please call us.

Routine Maintenance

Repairs on any wastewater system often result from flushing inappropriate materials down the toilet, pouring inappropriate materials down a drain, or placing inappropriate waste down the disposal, causing blockages. They can also result from situations beyond the property owner's control, such as excess stormwater entering the system, freezing temperatures, or regular wear and tear on system components. Learning the appropriate way to dispose of household waste protects the sewer system, keeps costs down, and protects the environment. It is also important to keep in mind that the pump is a machine and will require annual maintenance even if no inappropriate materials are placed into the system.

What NOT to Flush down the Toilet, Pour down a Drain, or Put down the Disposal:

- Syringes
- Feminine hygiene products, contraceptive devices, and diapers
- Wet wipes of any kind (even those claiming to be "flushable")
- Dental floss, cotton swabs, cotton balls, paper towels, and facial tissues
- Cooking or lubricating oils or grease and greasy foods
- Cat litter, eggshells, coffee grounds, and similar abrasive items
- Pills and other medications

Problems with Your System?

Please contact the district office 24 hours a day, seven days a week at (409) 745-4882 if you have any issues with your sewer system. If you call after hours or on the weekends, please select option 8 to be transferred to our on-call team.

Full article reference, edited and used with permission, from Lakeway MUD: <https://www.lakewaymud.org/update/caring-for-your-grinder-pump/>.

Substances That Could Be in Water

TCEQ and the U.S. Environmental Protection Agency (U.S. EPA) require all Texas water and wastewater utilities to inform customers of the following potential problems that may occur in their system.

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.

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 U.S. EPA's Safe Drinking Water Hotline at (800) 426-4791.

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 the result of oil and gas production and mining activities.

In order to ensure that tap water is safe to drink, U.S. EPA prescribes regulations that 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.

Contaminants may be found in drinking water that may cause taste, color, or odor problems. These types of problems are not necessarily causes for health concerns. For more information on taste, odor, or color of drinking water, please call (409) 745-4882.

Source Water Assessment

TCEQ completed an assessment of your source water, and results indicate that some of our sources are susceptible to certain contaminants. The sampling requirements for your water system are based on this susceptibility and previous sample data. Any detections of these contaminants will be found in this Consumer Confidence Report. For more information on source water assessments and protection efforts at our system, contact Brad Haeggquist, Christy Davis, or Jeremy Walton at (409) 745-4882.

Test Results

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

The percentage of total organic carbon (TOC) removal was measured each month, and the system met all TOC removal requirements set (unless a TOC violation is noted in the Violation column).

The state recommends monitoring for certain substances less than once per year because the concentrations of these substances do not change frequently. In these cases, the most recent sample data are included, along with the year in which the sample was taken. The state conducts quarterly sampling throughout our system. The district currently conducts 13 samples per month. These samples are also taken throughout our system. No violations for regulated substances occurred during 2022.

REGULATED SUBSTANCES

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	MCL [MRDL]	MCLG [MRDLG]	AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
Barium (ppm)	2022	2	2	0.0261	0.0261–0.0261	No	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Beta/Photon Emitters (pCi/L)	2022	50 ¹	0	4.5	ND–4.5	No	Decay of natural and human-made deposits
Chlorine (ppm)	2022	[4]	[4]	1.195	0.32–2.02	No	Water additive used to control microbes
Combined Radium (pCi/L)	2022	5	0	1.5	1.5–1.5	No	Erosion of natural deposits
Fluoride (ppm)	2021	4	4	0.99	0.99–0.99	No	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
Haloacetic Acids [HAAs]–Stage 1 (ppb)	2022	60	NA	16 ²	10.4–25.8	No	By-product of drinking water disinfection
Total Coliform Bacteria (positive samples)	2022	TT	NA	1	NA	No	Naturally present in the environment
TTHMs [total trihalomethanes]–Stage 1 (ppb)	2022	80	NA	60 ²	29.7–84.9	No	By-product of drinking water disinfection

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

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	AL	MCLG	AMOUNT DETECTED (90TH %ILE)	SITES ABOVE AL/TOTAL SITES	VIOLATION	TYPICAL SOURCE
Copper (ppm)	2020	1.3	1.3	0.237	0/30	No	Erosion of natural deposits; leaching from wood preservatives; corrosion of household plumbing systems
Lead (ppb)	2020	15	0	0.6	0/30	No	Corrosion of household plumbing systems; erosion of natural deposits

¹The MCL for beta particles is 4 millirems per year. U.S. EPA considers 50 pCi/L to be the level of concern for beta particles.

²Highest average of all sample results collected at a location over a year.

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 which a water system must follow.

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.

pCi/L (picocuries per liter): A measure of radioactivity.

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).

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

