

A close-up photograph of water being poured from a glass pitcher into a clear glass. The water is captured in mid-pour, creating a dynamic splash and bubbles. The background is softly blurred, showing a wooden surface and another glass. The overall color palette is dominated by blues and browns, with the white text providing a sharp contrast.

ANNUAL
WATER
QUALITY
REPORT
REPORTING YEAR 2018

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 pleased to present our annual water quality report covering all testing performed between January 1 and December 31, 2018. We are committed to providing safe, high-quality water services to our community, while maintaining a standard of excellence in customer service and environmental conservation.

Please remember that we are always available should you ever have any questions or concerns about your water.

Important Health Information About Water

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; those 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 provider. 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.

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. This water supply is 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 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 www.epa.gov/safewater/lead.



Where Does My Water Come From?

Mauriceville Municipal Utility District has five (5) water well sites that all pull from the Gulf Coast Aquifer. The Gulf Coast Aquifer is a major aquifer paralleling the Gulf of Mexico coastline from the Louisiana border to the border of Mexico. It consists of several aquifers, including the Jasper, Evangeline, and Chicot aquifers, 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. (Information provided by Texas Water Development Board: <http://www.twdb.texas.gov/groundwater/aquifer/majors/gulf-coast.asp>)

Community Participation

Monthly board meetings are normally held on the 3rd Tuesday of each month, beginning at 6:30 p.m., at our office at 15509 FM 1442, Orange, TX 77632. Please check our Web site for updated dates and times: www.mauricevillemud.com.

Source Water Assessment

Surface water is by its nature susceptible to contamination, and there are numerous potential contaminant sources, including agricultural runoff, oil/gas wells, inadequate septic systems, leaking underground storage tanks, and road and rail bridge crossings.

TCEQ completed an assessment of our source water, and results indicate that some of our sources are susceptible to certain contaminants. The sampling requirements for our water system are based on this susceptibility and previous sample data. We currently sample 11 sites monthly, and the state has a field sample quarterly. Any detection of these contaminants will be found in this Consumer Confidence Report. For more information on source water assessments and protection efforts at our system, please contact Brad Haeggquist at (409) 745-4882.

General Information About Drinking Water

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 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 storm water 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 storm water 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 storm water 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, the 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 that 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 the taste, odor, or color of drinking water, please contact the system's business office.

FOG (Fats, Oils, and Grease)

You may not be aware of it, but every time you pour fat, oil, or grease (FOG) down your sink (e.g., bacon grease), you are contributing to a costly problem in the sewer collection system. FOG coats the inner walls of the plumbing in your house as well as the walls of underground piping throughout the community. Over time, these

greasy materials build up and form blockages in pipes, which can lead to wastewater backing up into parks, yards, streets, and storm drains. These backups allow FOG to contaminate local waters, including drinking water.

Exposure to untreated wastewater is a public health hazard. FOG discharged into septic systems and drain fields can also cause malfunctions, resulting in more frequent tank pump-outs and other expenses.

Communities spend billions of dollars every year to unplug or replace grease-blocked pipes, repair pump stations, and clean up costly and illegal wastewater spills. Here are some tips that you and your family can follow to help maintain a well-run system now and in the future:

NEVER:

- Pour fats, oil, or grease down the house or storm drains.
- Dispose of food scraps by flushing them.
- Use the toilet as a waste basket.

ALWAYS:

- Scrape and collect fat, oil, and grease into a waste container such as an empty coffee can, and dispose of it with your garbage.
- Place food scraps in waste containers or garbage bags for disposal with solid wastes.
- Place a wastebasket in each bathroom for solid wastes like disposable diapers, creams and lotions, and personal hygiene products including nonbiodegradable wipes.



We remain vigilant in delivering the best-quality drinking water

QUESTIONS?

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

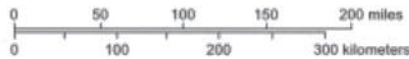
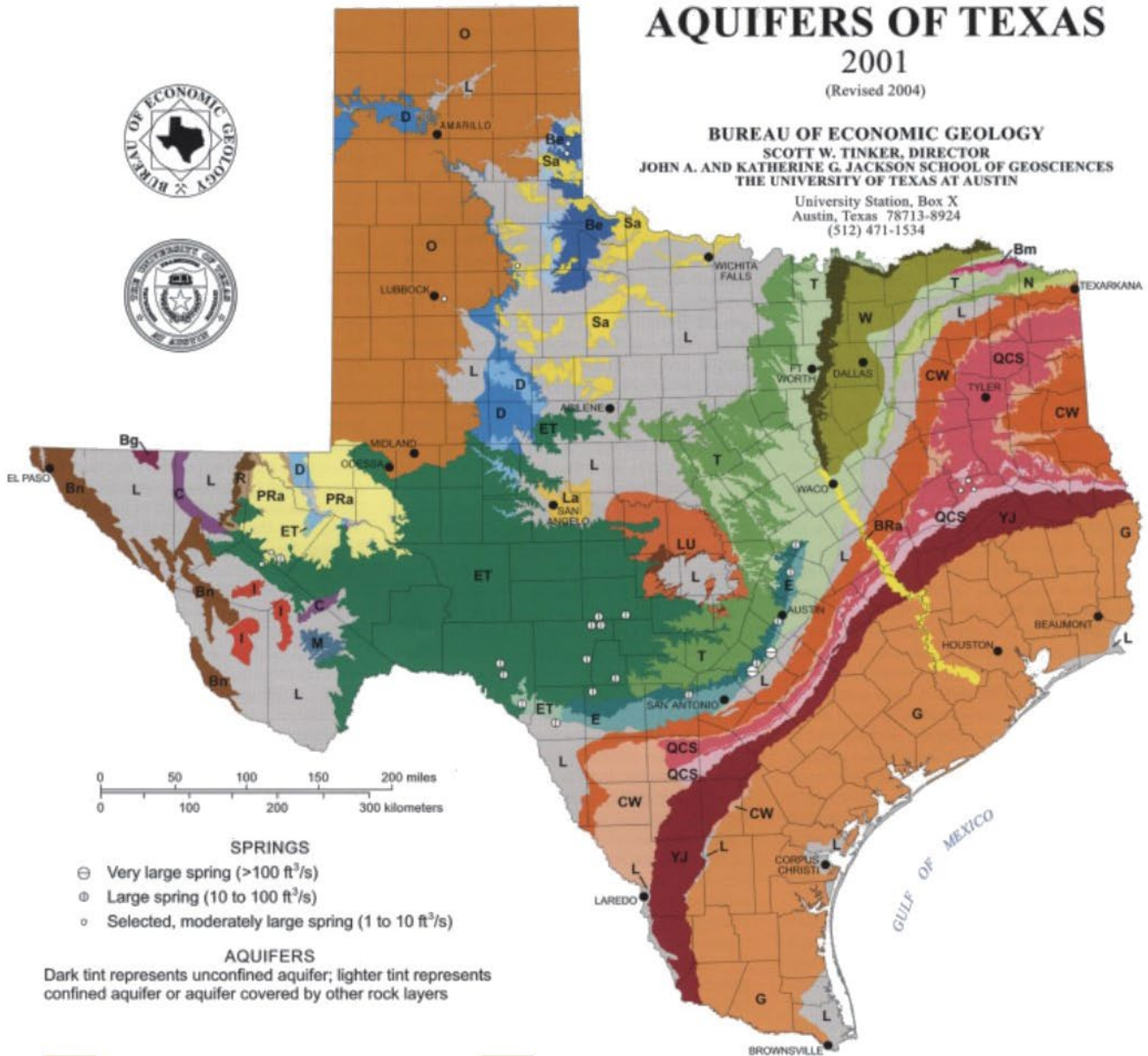
AQUIFERS OF TEXAS

2001

(Revised 2004)

BUREAU OF ECONOMIC GEOLOGY
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SPRINGS

- ⊖ Very large spring (>100 ft³/s)
- ⊙ Large spring (10 to 100 ft³/s)
- Selected, moderately large spring (1 to 10 ft³/s)

AQUIFERS

Dark tint represents unconfined aquifer; lighter tint represents confined aquifer or aquifer covered by other rock layers

- | | | |
|--|---|--|
| BRa Brazos River alluvium | N Nacatoch | Bg Bone Spring–Victorio Peak |
| La Lipan alluvium | W Woodbine (overlies Trinity) | M Marathon |
| Sa Seymour alluvium* | Bm Blossom | LU Llano Uplift (Hickory, Ellenburger–San Saba, Marble Falls) |
| PRa Pecos River alluvium* (overlies Rustler) | ET Edwards-Trinity (Plateau)* | L Local aquifers of varying quantity and quality |
| O Ogallala* (overlies Dockum, High Plains Edwards-Trinity, Rita Blanca) | E Edwards (Balcones Fault Zone)* | |
| Bn Bolson (Hueco-Mesilla* and West Texas) | T Trinity* | |
| G Gulf Coast* (Catahoula, Jasper, Evangeline, Chicot) | D Dockum | |
| I Igneous | Be Blaine | |
| YJ Yegua-Jackson (overlies Queen City and Sparta) | R Rustler | |
| QCS Queen City and Sparta (overlie Carrizo-Wilcox) | C Capitan Reef Complex | |
| CW Carrizo-Wilcox* | | |

*Major aquifer



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Aquifer units are generalized from the Texas Water Development Board digital database of major and minor aquifers of Texas.

About Our Violation

Each month Mauriceville Municipal Utility District takes 11 water samples from our system for testing. At the end of January 2018, we sampled 11 sites in the rain. Two of the samples were contaminated. We re-sampled the contaminated sites again, sampled up stream, sampled downstream, and at all operating well sites because of the 2 contaminated samples. All new samples came back absent of contamination. We were unaware that, because we had two contaminated samples, we were required to sample each operating well site twice during the following 24-hour period. This is the violation as shown on this report. All 11 samples for the rest of the year came back absent of any contamination.

VIOLATION:	Triggered Source Monitoring and Report Violation: Groundwater rule – <i>E. Coli</i>
HEALTH EFFECTS:	Fecal coliforms and <i>E. coli</i> are bacteria whose presence indicate that the water may be contaminated with human or animal wastes. Microbes in the wastes can cause short-term effects, such as diarrhea, cramps, nausea, headaches, or other symptoms. They may pose a special healthy risk for infants, young children, and people with severely compromised immune systems.
VIOLATION TYPE:	Monitor GWR Triggered/Additional, Major
VIOLATION BEGIN:	01/01/2018
VIOLATION END:	01/31/2018
VIOLATION EXPLANATION:	Mauriceville Municipal Utility District, PWS ID#: TX1810144, failed to collect the required number (2 in 24-hour period) of triggered source bacteriological samples for fecal indicator monitoring of the groundwater system during January 2018. This monitoring is required by the Texas Commission on Environmental Quality’s “Drinking Water Standards” and the federal “Safe Drinking Water Act,” Public Law 95-523. Triggered source samples are used to monitor water quality and indicate if the water is free of fecal indicator bacteria. Following a positive routine total coliform result in our distribution system, our water system is required to submit one triggered source sample for every active groundwater well source. Failure to collect all required triggered source samples is a violation of the monitoring requirements and we are required to notify you of this violation.

What Should I do?

There is nothing you need to do at this time. There were no health or safety risks for our customers.

What is being done?

We sampled the required number of wells (Well 2 Bilbo Rd, Well 3 Hwy 2802, and Well 5 FM 1130) that were running at the time of the distribution total coliform positive on 2/1/2018. The violation has been returned to compliance with the TCEQ.

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 77,724,735 gallons of water in 2018. If you have any questions about the water loss audit, please call the Mauriceville Municipal Utility District 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 show only 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 state recommends monitoring for certain substances less often 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 percentage of Total Organic Carbon (TOC) removal was measured each month, and the system met all TOC removal requirements set.

NOTE: No violations for regulated substances during 2018.

REGULATED SUBSTANCES

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	MCL [MRDL]	MCLG [MRDLG]	AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
Barium (ppm)	2017	2	2	0.0915	0.0361–0.0915	No	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
Chlorine (ppm)	2018	[4]	[4]	1.12	0.13–1.6	No	Water additive used to control microbes
Combined Radium (pCi/L)	2018	5	0	1.5	1.5–1.5	No	Erosion of natural deposits
Fluoride (ppm)	2018	4	4	0.94	0.94–0.94	No	Erosion of natural deposits; Water additive that promotes strong teeth; Discharge from fertilizer and aluminum factories.
Haloacetic Acids [HAA5] ¹ (ppb)	2018	60	NA	14	0–20.6	No	By-product of drinking water disinfection
Nitrate (ppm)	2018	10	10	0.01	0–0.01	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
TTHMs [Total Trihalomethanes] ² (ppb)	2018	80	NA	46	5.2–75.5	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	VIOLATION	TYPICAL SOURCE
Copper (ppm)	2018	1.3	1.3	0.274	0	No	Erosion of natural deposits; Leaching from wood preservatives; Corrosion of household plumbing systems.
Lead (ppb)	2018	15	0	0.68	0	No	Corrosion of household plumbing systems; Erosion of natural deposits.

¹The value in the Amount Detected column is the highest average of all HAA5 sample results collected at a location over a year.

²The value in the Amount Detected column is the highest average of all TTHMs sample results 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 that, if exceeded, triggers treatment or other requirements that 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

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).