2021 Drinking Water Quality Report (Consumer Confidence Report)

FERN BLUFF
Municipal Utility District

7320 Wyoming Springs Dr. Round Rock, TX 78681
(512) 238-0606 www.fernbluffmud.org

The United States Environmental Protection Agency (EPA) requires that all drinking water suppliers provide a water quality report to their customers on an annual basis. This is the MUD's Annual Report Card and is intended to provide you with important information about your drinking water and the efforts made by the Fern Bluff MUD to provide safe drinking water.

¿En Español?
Este reporte incluye información importante sobre el agua potable. Para obtener una copia de esta información traducida al español, favor de llamar por teléfono a (512) 238-0606.

All Drinking Water May Contain Contaminants
When drinking water meets federal standards, there may not be any health-based benefits to purchasing bottled water or home treatment devices. 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.

Special Notice Required Language for ALL Public Water Supplies
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.

Secondary Constituents
Many constituents, such as calcium, sodium, or iron, which are often found in drinking water, can cause taste, odor, and color issues. The taste and odor are called secondary constituents and are regulated by the State of Texas, not EPA. These constituents are not causes for health concerns. Therefore, secondary constituents are not required to be reported in this document, but they may greatly affect the appearance and taste of your water.

Where Your Water Comes From
Fern Bluff MUD purchases its drinking water from the City of Round Rock. The Texas Commission on Environmental Quality (TCEQ) completed an assessment of the city's source water and results indicate that some of the sources are susceptible to certain contaminants. The sampling requirements for the water system are based on this susceptibility and previous sample data. Any detection of these contaminants will be found in this report. For more information on source water assessments and protection efforts in our water system, please contact Hector Alanis at (512) 238-0606. In addition, source water assessment information is available on Texas Drinking Water Watch at http://dww2.tceq.texas.gov/DWW/.

PUBLIC PARTICIPATION OPPORTUNITIES
The public is welcome to attend the Fern Bluff MUD Board of Directors meetings held the second Tuesday of each month at 7320 Wyoming Springs Dr. in Round Rock. For specific questions related to this report, please call (512) 238-0606 or email hector.alanis@fernbluffmud.org.

Our Drinking Water Meets or Exceeds All Federal (EPA) Drinking Water Requirements
The Fern Bluff MUD had no reporting, monitoring, maximum contaminant level exceedance or notification violations in 2020. This report is a summary of the quality of the water provided to our customers. The analysis was made using EPA required testing and is presented in the following pages.

WATER HARDNESS/WATER SOFTENERS

Many consumers have or consider installing water softeners. The water hardness in our water system ranges from 182-290 mg/L or approximately **11-17 grains per gallon**. While this level of hardness may cause minor aesthetic problems such as water spots and dry skin, it does not cause damage to your plumbing. The city routinely performs laboratory tests to measure the stability of the drinking water. The stability refers to whether the water is aggressive or depositional. Test results indicate that the drinking water, as delivered to your home, is stable.

Definitions and Abbreviations - The following tables contain scientific terms and measures, some of which may require explanation.

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

Action Level Goal (ALG): - The level of a contaminant in drinking water below which there is no known or expected risk to health. ALGs allow for a margin of safety.

Avg: - Regulatory compliance with some MCLs are based on running annual average of monthly samples.

Level 1 Assessment: - A Level 1 assessment is a study of the water system to identify potential problems and determine (if possible) why total coliform bacteria have been found in our water system.

Level 2 Assessment: - A Level 2 assessment is a very detailed study of the water system to identify potential problems and determine (if possible) why an E. coli MCL violation has occurred and/or why total coliform bacteria have been found in our water system on multiple occasions.

Maximum Contaminant Level or MCL: - 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.

Maximum Contaminant Level Goal or MCLG: - 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.

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 control of microbial contaminants.

Maximum residual disinfectant level goal or MRDLG: - 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.

MFL - million fibers per liter (a measure of asbestos)

mrem: - millirems per year (a measure of radiation absorbed by the body)

NTU - nephelometric turbidity units (a measure of turbidity)

pCi/L - picocuries per liter (a measure of radioactivity)

ppb: - micrograms per liter or parts per billion - or one ounce in 7,350,000 gallons of water.

ppm: - milligrams per liter or parts per million - or one ounce in 7,350 gallons of water.

ppq - parts per quadrillion, or picograms per liter (pg/L)

ppt - parts per trillion, or nanograms per liter (ng/L)

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

BACKFLOW PREVENTION

Fern Bluff MUD is ramping up its backflow prevention program! State law requires water systems to have a backflow prevention program to help prevent potentially dangerous backflow into the water system by way of swimming pools or irrigation systems. Please keep an eye out for future communication regarding this program. In the meantime, any backflow testing done to one of your devices can be reported to the MUD by your Backflow Prevention Assembly Tester online at **www.bsionlinetracking.com**

A NOTE ABOUT STORM WATER AND POLLUTION PREVENTION

The Fern Bluff MUD works to prevent pollution of our lakes, creeks, rivers, streams and aquifers. Storm water pollution can lead to contamination of these vital water sources and increase the cost of treating drinking water as well as adversely impacting the environment. Storm water pollution occurs when rainfall picks up and carries pollutants into local waterways and aquifers. **How can you help?** Never sweep leaves or grass clippings into streets or storm drains. Take used oil and home chemicals to a recycling center or to a household hazardous waste collection event. Follow directions on pesticides and fertilizers and avoid application when rain is forecast. If you have pets, pick up their waste and dispose of it properly to keep bacteria and parasites out of our creeks. Remember, our storm water drains to Brushy Creek.

HOUSEHOLD HAZARDOUS WASTE DISPOSAL (HHW)

The Fern Bluff MUD has joined with the City of Round Rock to make it easier and much more convenient for our residents to dispose of household hazardous waste. MUD residents will now be allowed to dispose of their HHW at the city's Deepwood drop-off facility on limited days. For more information on how to get your voucher, please visit our website: http://fernbluffmud.org/news/household-hazardous-waste-disposal-program/

Inorganics

Year	Constituent	High	Low	Average	MCL	MCLG	Units	Violation	Source of Constituent
2020	Aluminum	0.198	0.198	0.198	0.2	0.05 - 0.2	ppm	N	Erosion of natural deposits
2020	Barium	0.0439	0.0439	0.0439	2	2	ppm	N	Erosion of natural deposits
2020	Calcium	49.3	49.3	49.3	N/A	N/A	ppm	N	Erosion of natural deposits
2020	Cyanide	0.09	0.05	0.07	0.2	0.2	ppm	N	Discharge from steel/metal factories; Discharge from plastic and fertilizer factories.
2020	Fluoride	0.29	0.21	0.25	4	4	ppm	N	Erosion of natural deposits; water additive which promotes strong teeth.
2020	Magnesium	21.2	16.7	18.98	N/A	N/A	ppm	N	Erosion of natural deposits
2020	Manganese	<0.01	<0.01	<0.01	N/A	N/A	ppm	N	Erosion of natural deposits
2020	Nitrate (Surface Water)	0.20	0.09	0.145	10	10	ppm	N	Runoff from fertilizer use; Leachate from septic tanks, sewage; erosion of natural deposits
2020	Nitrate (Ground Water)	1.47	1.47	1.47	10	10	ppm	N	Runoff from fertilizer use; Leachate from septic tanks, sewage; erosion of natural deposits
2020	Nickel	0.0021	0.0016	0.00185	N/A	N/A	ppm	N	Erosion of natural deposits
2020	Potassium	2.56	2.56	2.56	N/A	N/A	ppm	N	Erosion of natural deposits
2020	Sodium	26.6	13.7	20.63	N/A	N/A	ppm	N	Erosion of natural deposits

Lead and Copper in Distribution System

Date	Constituent	MCLG	Sites Exceeding Action Level	90th Percentile	Action Level	Units	Violation	Source of Constituent
2019	Lead	0	0	<0.001	0.015	ppm	N	Corrosion of household plumbing systems; erosion of natural deposits.
2019	Copper	1.3	0	0.08	1.3	ppm	N	Erosion of natural deposits; Leaching from wood preservatives; Corrosion of household plumbing systems.

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 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 or at http://www.epa.gov/safewater/lead

Disinfectant Residuals

Year	Constituent	High	Low	Average	MRDL	MRDLG	Units	Violation	Source of Constituent
2020	Chloramine	3.40	0.54	2.24	4	<4	ppm	N	Water additive used to control microbes

Disinfection Byproducts

Year	Constituent	High	Range of Levels Detected	MCL	MCLG	Units	Violation	Source of Constituent
2020	Total Trihalomethanes	47	39.9 – 46.3	80	0	ppb	N	Byproduct of drinking water chlorination
2020	Haloacetic Acids	17	9.1 - 14.3	60	0	ppb	N	Byproduct of drinking water chlorination

Turbidity

Year	Constituent	High	Low	Average	MCL	MCLG	Units	Violation	Source of Constituent
2020	Turbidity	0.11	0.03	0.056	0.3	NA	NTU	N	Soil runoff.
Turbidity has no health effects. However, turbidity can interfere with disinfection and provide a medium for microbial growth. Turbidity may indicate the presence of disease-causing organisms. These organisms include bacteria, viruses and parasites that can cause symptoms such as nausea, cramps, diarrhea and associated headaches.									

Total Organic Carbon

Year	Constituent	High	Low	Average	MCL	MCLG	Units	Violation	Source of Constituent
2020	Source Water Total Organic Carbon	3.23	2.6	2.87	None established		ppm	N	Naturally occurring organic material. There is no health effect directly associated with TOC.
2020	Treated Water Total Organic Carbon	2.89	2.23	2.51	None established		ppm	N	Naturally occurring organic material. There is no health effect directly associated with TOC.

Coliform*

Year	Constituent	Highest % of Positive Samples	MCL	Units	Violation	Source of Constituent
2020	Total Coliform	0.00%	Presence in 5% or more of the monthly samples	Presence	N	Naturally present in environment
2020	Fecal Coliform	0.00%	Routine or repeat sample is coliform positive and one is also fecal positive	Presence	N	Naturally present in environment
Total coliform bacteria are used as indicators of microbial contamination of drinking water because testing for them is easy. While not disease-causing organisms themselves, they are often found in association with other microbes that are capable of causing disease. Coliform bacteria are hardier than many disease-causing organisms; therefore, their absence from water is a good indication that the water is microbiologically safe for human consumption. Fecal coliform bacteria and, in particular, E. coli, are members of the coliform bacteria group originating in the intestinal tract of warm-blooded animals and are passed into the environment through feces. The presence of fecal coliform bacteria (E. coli) in drinking water may indicate recent contamination of the drinking water with fecal material.						

Unregulated Contaminants

Year	Constituent	High	Low	Average	MCL	MCLG	Units	Violation	Source of Constituent
2020	Dibromochloromethane	24.5	15.7	19.6	None established		ppb	N	Unregulated contaminant, monitoring helps EPA determine where certain contaminants occur and whether those contaminants need to be regulated.
2020	Chloroform	6.8	3.8	5.5	None established		ppb	N	
2020	Bromoform	10.7	4.7	7.6	None established		ppb	N	
2020	Bromodichloromethane	15	9.0	12.7	None established		ppb	N	
2020	Hardness	208	160	188	None established		mg/L	N	Naturally occurring calcium and magnesium
2020	Langelier Saturation Index (LSI)	0.25	-0.05	0.12	None established		Index	N	LSI between -0.5 and 0.5 means the water is stable or balanced.

Radiochemicals

Year	Constituent	High	Low	Average	MCL	MCLG	Units	Violation	Source of Constituent
2017	Radium 228	<1.0	<1.0	<1.0	5	0	pci/L	N	Erosion of natural deposits.
2017	Gross beta emitters	<4.0	<4.0	<4.0	50	0	pci/L	N	Decay of natural and man-made deposits.
2017	Gross Alpha particles	<2.0	<2.0	<2.0	15	0	pci/L	N	Erosion of natural deposits.