

2018 Annual Drinking Water Quality Report

Consumer Confidence Report (CCR)



(512) 312-0084

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www.ci.buda.tx.us

The Texas Commission on Environmental Quality (TCEQ) requires that all drinking water suppliers provide a water quality report to their customers on an annual basis to provide you with important information about your drinking water. This report is for the period of January 1 to December 31, 2018.

Public Participation Opportunities

City of Buda is dedicated to providing high quality drinking water to our citizens. The public is welcome to attend the Buda City Council meetings held the 1st and 3rd Tuesday of the month. The meetings are held in the Council Chambers at Buda City Hall located at 405 East Loop Street, Building 100. For information regarding this report contact: Blake Neffendorf, Water Resource Coordinator at 512-312-0084.

En Español

Este reporte incluye información importante sobre el agua para tomar. Para asistencia en español, favor de llamar al telefono (512) 312-0084.

Information about your Drinking Water

The sources of drinking water (both tap and bottled) 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 **Environmental Protection Agency (EPA) 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 and 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, EPA prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. United States Food and Drug Administration (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 contact **City of Buda Public Works at 512-312-2876**.

You may be more vulnerable than the general populations 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 **EPA Safe Drinking Water Hotline (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. The City is responsible for providing high quality drinking water, but the City 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>.

City of Buda's Water Supply

Our drinking water is obtained from both groundwater and surface water sources. Our groundwater comes from the Edwards Aquifer which currently produces 50% of our water supply. This water is treated at each individual well site within the City of Buda. The other 50% of our water production comes from Canyon Lake via the Guadalupe River. This water is treated at the San Marcos Surface Water Treatment Plant. The plant is owned by the City of San Marcos and operated by the Guadalupe Blanco River Authority (GBRA). For information regarding GBRA's water treatment processes, please call (512) 353-3888.

2018 Water Loss

In the water loss audit submitted to the Texas Water Development Board for the time period of January through December 2018, our system lost an estimated 18,900,886 gallons, or 4.09% of total production of water through main breaks, leaks, inaccurate metering, and other causes. The 5-year average for water loss within our system is 6.53%. The national average for water loss for water utilities is 16%. If you have any questions about the water loss audit, please call (512) 312-0084.

Future Water Planning and Projects

Our City has grown rapidly over the past decade. In order to ensure an adequate water supply for all residents in the decades to come, the City of Buda has partnered with several other area water providers to form the Alliance Regional Water Authority in order to bring in an additional source of water. Groundwater from the Carrizo-Wilcox Aquifer will be transmitted to the City of Buda beginning in 2023. This will provide the City with another supply option to further diversify our water supply. The City of Buda will also begin drilling an aquifer storage and recovery (ASR) pilot well in late 2019. This will allow the City to store excess water for use when supplies are limited due to drought or other potential emergency situations. Conserving

our existing supplies is one of the most cost-effective ways to prevent the need for adding additional supplies. City residents have done an excellent job in decreasing their daily water consumption over the past five years from an average of 138 gallons per capita per day in 2014 to 108 gallons per capita per day in 2018. In the Summer of 2019, customers will be able to view their hourly usage, allowing them to track their water usage and receive quick notification if a leak occurs which will help conserve water and save money.

2018 Water Quality Test Results

The TCEQ completed an assessment of your source water and results indicate that some sources are susceptible to certain contaminants. The sampling requirements for your water system is based on this susceptibility and previous sample data. Any detections of these contaminants will be found in this Consumer Confident Report. For more information on source water assessments and protection efforts at our system, contact Blake Neffendorf at (512) 312-0084.

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)
na:	not applicable.
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.

Lead and Copper	Date Sampled	MCLG	Action Level (AL)	90th Percentile	No. of Sites over AL	Units	Violation	Likely Source of Contaminant
Copper	08/30/2017	1.3	1.3	0.13	0	ppm	NO	Erosion of natural deposits; Leaching from wood preservatives; Corrosion of household plumbing systems.
Lead	08/30/2017	0	15	2	0	ppb	NO	Corrosion of household plumbing systems; Erosion of natural deposits.

Disinfectants and Disinfection By-Products	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contaminant
Haloacetic Acids (HAA5)	2018	19	2.9 – 31.8	No goal for the total	60	ppb	NO	By-product of drinking water disinfection
Total Trihalomethanes (TTHM)	2018	69	10.5 – 92.5	No goal for the total	80	ppb	NO	By-product of drinking water disinfection

* The value in the Highest Level or Average Detected column is the highest average of all TTHM sample results collected at a location over a year

*Fluoride is naturally occurring in our groundwater. The City does not add any Fluoride additives into the system.

Inorganic Contaminants	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Barium	2018	0.037	0.037 - 0.037	2	2	ppm	NO	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.
Fluoride*	2018	0.19	0.19 – 0.19	4	4.0	ppm	NO	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories
Nitrate (measured as Nitrogen)	2018	2	0.87 – 1.84	10	10	ppm	NO	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.

Radioactive Contaminants	Collection Date	Highest Level or Average Detected	Range of Individual Samples	MCLG	MCL	Units	Violation	Likely Source of Contamination
Combined Radium 226/228	06/09/2015	3.4	1.5 – 3.4	0	5	pCi/L	NO	Erosion of natural deposits.
Gross Alpha excluding Radon and Uranium	07/26/2017	3.1	3.1 – 3.1	0	15	pCi/L	NO	Erosion of natural deposits.

Volatile Organic Contaminants	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Ethylbenzene	2018	0.5	0 – 0.5	700	700	ppb	NO	Discharge from petroleum refineries.
Xylenes	2018	0.0021	0 – 0.0021	10	10	ppb	NO	Discharge from petroleum refineries; Discharge from chemical factories.

Type of Disinfection	Year	Average Level	Range of Levels Detected	MRDL	MRDLG	Units	Violation	Source
Free Chlorine	2018	0.96 mg/L	0.30 – 1.90	4	4	mg/L	NO	Chlorine Gas; water additive used to control microbes.

Disinfectant Residuals

Coliform Bacteria

MCLG	Total Coliform MCL	Highest Number of Positive	E. Coli or Fecal Coliform MCL	Total No. of Positive E. Coli or Fecal Coliform Samples	Violation (Y/N)	Likely Source of Contamination
0	1 positive monthly samples	1	0	0	NO	Naturally present in the environment.

San Marcos Water Treatment Plant Maximum Turbidity

	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec
Minimum (NTU)	0.02	0.02	0.03	0.02	0.02	0.02	0.02	0.02	0.01	0.01	0.01	0.01
Maximum (NTU)	0.03	0.03	0.04	0.07	0.05	0.09	0.07	0.04	0.04	0.05	0.05	0.06
Average Turbidity for 2018: 0.03 NTU												
Nitrate: 1.31 mg/L												