

2021

City of Killeen Drinking Water Quality Report (Consumer Confidence Report)

City of Killeen

• www.KilleenTexas.gov

• (254) 501-6500

Dear Water Customers:

The City of Killeen is pleased to present its 2021 Drinking Water Quality Report. This report is produced to provide you with important information regarding the quality of your drinking water in a comprehensive yet concise format.

Highly trained professionals perform extensive monitoring and testing of our water system throughout the year in compliance with federal and state regulations. These tests measure levels of chemical and biological contaminants to ensure that the water we provide to you is safe to drink. The following report details the results of tests performed by contaminant.

The City of Killeen recognizes the duty we have in delivering this essential resource and works diligently to provide reliable, regulated and responsible water service to you, our customer. We are proud to report that there were no water quality violations in 2021.

The Texas Commission on Environmental Quality (TCEQ) requires every community public water system to provide a consumer confidence report to its customers each year to help you become more knowledgeable about your drinking water. The Killeen 2021 Drinking Water Quality Report is hereby submitted for your review.

Drinking Water Source and Contaminant Information

The City of Killeen obtains its drinking water from Belton Lake, a surface water source located in Belton, Texas. The Texas Commission on Environmental Quality (TCEQ) has completed a Source Water Assessment of your source water to describe the susceptibility and types of constituents that may come into contact with your drinking water source based on human activities and natural conditions. The system from which we purchase our water, Bell County Water Control & Improvement District No. 1, received the assessment report. For more information on source water assessments and protection efforts in our system, contact the City of Killeen Water & Sewer Services Division. For more information about your sources of water, please refer to the Source Water Assessment Viewer available at <http://www.tceq.texas.gov/gis/swaview>. Further details about sources and source water assessments are available in Drinking Water Watch at <http://dww2.tceq.texas.gov/DWW/>.

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, through the ground or falls through the air, it accumulates naturally occurring minerals and, in some cases, chemical or biological substances resulting from the presence of animals or from human activity. Contaminants that may be present in source water before treatment include: microbes, inorganic contaminants, pesticides, herbicides, radioactive contaminants and organic chemical contaminants.

Drinking water, including bottled water, may be reasonably 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.

To ensure that tap water is safe to drink, the 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.

Many constituents (such as calcium, sodium or iron), which are often found in drinking water, can cause taste, color and odor problems. The taste and odor constituents are called secondary constituents and are regulated by the State of Texas, not the EPA. These constituents are not causes for health concerns but may greatly affect the appearance and taste of your water.

Special Notice for Elderly, Infants and Immuno-Compromised People

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons, such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, persons with HIV/AIDS or other immune system disorders, some elderly and infants can be particularly at risk of infections. These people should seek advice about drinking water from their health care providers. The 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 Water Drinking Hotline (800)426-4791.

Additional Water Quality Information

Bell County Water Control & Improvement District #1	(254)501-9243	www.wcid1.org
Texas Commission on Environmental Quality (TCEQ)	(512)239-1000	www.tceq.texas.gov
EPA Safe Drinking Water Hotline	(800)426-4791	www.water.epa.gov
Water Billing Questions	(254)501-7800	www.killeentexas.gov/utilitycollections
Water or Sewer Information/Problems/Emergencies	(254)501-6500	www.killeentexas.gov/water

En Español

Este informe incluye información importante sobre el agua potable. Para asistencia en español, o si tiene preguntas o comentarios sobre este informe, favor de llamar al (254)501-6500.

Public Participation Opportunities

CITY COUNCIL MEETINGS

2nd and 4th Tuesdays @ 5 p.m.
City Hall Council Chambers
101 N. College Street

CITY COUNCIL WORKSHOPS

1st and 3rd Tuesdays @ 5 p.m.
City Hall Council Chambers
101 N. College Street

More information about
cleanup efforts and events @
www.Facebook.com/KilleenTexas
& www.KilleenTexas.gov

Water Loss Audit Results

All public water suppliers are required to file a water loss report annually. The City of Killeen submitted its report to the Texas Water Development Board for the period of January through December 2021. The estimated loss of water for the 2021 calendar year was 945,278,646 gallons of water. Water loss occurs through water line breaks and leaks, inaccurate meter readings, theft and other causes. If you have questions about the water loss audit, please call (254)501-6500.

Backflow Prevention and Cross Connection Control

Under Texas Administrative Code (30 TAC, §290.46(j)), a customer service inspection is required for each service connection before continuous water service can be provided. A municipality is also required to have a backflow prevention program or a cross connection control program. No water connection from any public drinking water supply system shall be allowed to any residence or establishment where an actual or potential contamination hazard exists unless the public water facilities are protected from contamination. Under the Federal Safe Drinking Act of 1974, and the rules adopted by TCEQ under 30 TAC, Chapter 290, the water purveyor has the primary responsibility for preventing water from unapproved sources or any other substances from entering the public potable water system. For more information on backflow prevention and cross connection control, please call (254)501-6500, option 4.

Understanding Water Quality Test Results

The EPA requires water systems to test for up to 97 contaminants. The following pages contain tables that list federally regulated or monitored contaminants that have been found in your drinking water in calendar year 2021 (unless otherwise noted). Certain contaminants are monitored less than once per year because the concentrations do not change frequently.

DEFINITIONS & ABBREVIATIONS:

Maximum Contaminant Level (MCL) - The highest permissible level of a contaminant in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.

Maximum Contaminant Level Goal (MCLG) - The level of a contaminant in drinking water below which there is no known or expected health risk. MCLGs allow for a margin of safety.

Maximum Residual Disinfectant Level (MRDL) - The highest level of 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 (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 contamination.

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

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

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.

NTU - nephelometric turbidity units (a measure of turbidity)

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

ppm - parts per million, or milligrams per liter (mg/L)

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

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

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

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

ppb - parts per billion, or micrograms per liter (µg/L)

na - not applicable

Example Table

<i>Year(s) tests conducted</i>			<i>Below this level, no known health risks</i>					<i>How a contaminant may occur in drinking water</i>
Year Sampled	Contaminant	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Unit of Measure	Violation	Source of Contaminant
2017	Substance 1	0.05	0.02 - 0.11	2	4	ppm	N	Language provided by EPA
2017	Substance 2	100	60 - 100	150	150	ppb	N	May not apply in Killeen

Lowest to highest detected levels of contaminant

Highest level EPA allows in drinking water

Unit used for measuring contaminant

INORGANIC CONTAMINANTS

Year Sampled	Contaminant	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Unit of Measure	Violation	Source of Contaminant
2021	*Nitrate	0.26	0.16-0.26	10	10	ppm	N	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits

*Nitrate Advisory: Nitrate in drinking water at levels above 10 ppm is a health risk for infants of less than 6 months of age. High nitrate levels in drinking water can cause blue baby syndrome. Nitrate levels may rise quickly for periods of time because of rainfall or agriculture activity. If you are caring for an infant, you should ask for advice from your health care provider.

MAXIMUM RESIDUAL DISINFECTANT LEVEL

Year	Disinfectant	Average Level	Minimum Level	Maximum Level	MRDLG	MRDL	Unit of Measure	Source of Disinfectant
2021	Chloramine Residual	2.35	0.6	4.0	<4.0	4	ppm	<i>Disinfectant used to control microbes</i>

DISINFECTION BYPRODUCTS

Year	Contaminant	Highest Level Detected	Minimum Level	Maximum Level	MCL	Unit of Measure	Source of Contaminant
2021	Total Haloacetic Acids	23	3.5	39.6	60	ppb	<i>By-product of drinking water disinfection</i>
2021	Total Trihalomethanes	43	21.3	64.5	80	ppb	<i>By-product of drinking water disinfection</i>

UNREGULATED CONTAMINANTS

Year or Range	Contaminant	Average Level	Minimum Level	Maximum Level	Unit of Measure	Source of Contaminant
2021	Chloroform	12.5	5.1	21.8	ppb	<i>By-product of drinking water disinfection</i>
2021	Bromoform	2.4	1.4	8.3	ppb	<i>By-product of drinking water disinfection</i>
2021	Bromodichloromethane	15.4	8.4	24.1	ppb	<i>By-product of drinking water disinfection</i>
2021	Dibromochloromethane	10.1	6.1	16.3	ppb	<i>By-product of drinking water disinfection</i>

Unregulated contaminants are those for which the EPA has not established drinking water standards. The purpose of unregulated contaminant monitoring is to assist the EPA in determining the occurrence of unregulated contaminants in drinking water and whether future regulation is warranted.

LEAD AND COPPER

Collection Date	Contaminant	MCLG	90th Percentile	# of Sites Exceeding Action	Action Level	Unit of Measure	Violation	Source of Contaminant
2021	Lead	0	0	1	15	Ppb	N	<i>Erosion of natural deposits: Leaching from wood preservatives; Corrosion of household plumbing systems; erosion of natural deposits</i>
2021	Copper	1.3	0.08	0	1.3	ppm	N	<i>Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives</i>

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 (800) 426-4791 or at www.epa.gov/safewater/lead.

TOTAL COLIFORM BACTERIA

Maximum Contaminant Level Goal	Total Coliform MCL	Highest # of Positive Samples	Fecal Coliform or E. Coli MCL	Total # of Positive E. Coli or Fecal Coliform Samples	Violation	Source of Contaminant
0	5% of monthly samples are positive	5.7		0	N	<i>Naturally present in the environment</i>

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.

Level 1 Assessment

Level 1 Assessment definition

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 were found.

- Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other, potentially harmful, waterborne pathogens may be present or that a potential pathway exists through which contamination may enter the drinking water distribution system. We found coliforms indicating the need to look for potential problems in water treatment or distribution. When this occurs, we are required to conduct two assessment(s) to identify problems and to correct any problems that were found during these assessments.
- During the past year we were required to conduct two (2) Level 1 assessment(s). Two (2) Level 1 assessment(s) were completed. In addition, we were required to take two (2) corrective actions and we completed two (2) of these actions.

Level 1 Assessment triggered on 08/12/2021 due to a failure to collect all required repeat samples after a total coliform-positive result.

Level 2 Assessment

Level 2 Assessment definition

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 Escherichia coli (E.coli) maximum contaminant level (MCL) violation occurred and/or why total coliform bacteria were found on multiple occasions.

- During the past year one (1) Level 2 assessment was required to be completed for our water system. One (1) Level 2 assessment was completed. In addition, we were required to take two (2) corrective actions and we completed two (2) of these actions.

Level 2 Assessment triggered on 09/30/2021 due to not maintaining a minimum disinfectant residual in the distribution system.

VIOLATIONS TABLE

Violations
None

Notes
The City of Killeen received no water quality violations in 2021.

Water Quality Data Table

Contaminants	MCLG or MRDLG	MCL, TT, or MRDL	Detect In Your Water	Range		Sample Date	Violation	Typical Source
				Low	High			

Disinfectants & Disinfection By-products

There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants

Chloramine (as Cl2) (mg/L)	4	4	3.7	2	3.9	2021	No	Water additive used to control microbes
Haloacetic Acids (HAA5) (ppb)	NA	60	29.7	NA	NA	2021	No	By-product of drinking water chlorination
TTHMs [Total Trihalomethanes] (ppb)	NA	80	55.5	NA	NA	2021	No	By-product of drinking water disinfection
Total Organic Carbon (% Removal)	NA	TT	100	NA	NA	2021	No	Naturally present in the environment
Barium (ppb)	2	2	.0668	.0392	.0668	2021	No	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
Cyanide (ppb)	200	200	.04	NA	40	2021	No	Discharge from plastic and fertilizer factories; Discharge from steel/metal factories
Fluoride (ppb)	4	4	.25	.18	.25	2021	No	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories
Nitrite [measured as Nitrogen] (ppb)	10	10	.18	.09	.18	2021	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
Sodium (optional) (ppm)	NA		27.2	17.4	27.2	2021	No	Erosion of natural deposits; Leaching

Microbiological Contaminants

E. Coli (RTCR) - in the distribution system	0	Routine and repeat samples are total coliform positive and either is E. Coli - positive or system fails to take repeat samples following E. Coli positive routine sample or system fails to analyze total coliform positive repeat sample for E. Coli	0	NA	NA	2021	No	Discharge from plastic and fertilizer factories; Discharge from steel/metal factories
Total Coliform (RTCR)	NA	TT	NA	NA	NA	2021	No	Naturally present in the environment
Turbidity (NTU)	NA	0.3	100	NA	NA	2021	No	Soil runoff

Radioactive Contaminants

100% of the samples were below the TT value of 0.3. A value less than 95% constitutes a TT violation. The highest single measurement was .3. Any measurement in excess of 1 is a violation unless otherwise approved by the state

Atrazine (ppb)	3	3	.22	.1	.22	2021	No	Runoff from herbicide used on row crops
Acrylamide	NA	TT	NA	NA	NA	2021	No	Added to water during sewage/wastewater treatment