CITY OF BELTON
2022 WATER QUALITY REPORT

Consumer Confidence Report **PWS No. TX0140002**

The City of Belton is pleased to present the 2022 Annual Water Quality Report.

This report is intended to provide citizens of Belton with important information about Belton's drinking water, and the efforts made by the water system to provide safe drinking water. In this report are details about where Belton's water comes from, what it contains, and how it compares to standards set by regulatory agencies.

Este reporte incluye informacion importante sobre el agua para tomar. Para asistencia en español, favor de llamar al telefono (254) 933-5823.

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New one million gallon water tank was placed into service May 2023.

EPA Statement about Drinking Water Quality

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.

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. FDA regulations establish limits for contaminants in bottled water, which must provide the same protection for public health.

Public Works employee manually flushes fire hydrant which helps assure water quality. Hydrants are flushed monthly throughout the city.

Origin of Belton's Drinking Water

For its drinking water, the City of Belton purchases and distributes treated lake surface water. The City purchases most of its drinking water from Bell County Water Control and Improvement District #1, which treats Lake Belton water. A small portion of the City's water is purchased from Central Texas Water Supply Corporation, which treats water from Stillhouse Hollow Lake. The two sources of water are on separate water systems and are not blended together.

Special Precautions for Vulnerable Populations

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.

Belton's Water Quality

The EPA and State of Texas sets regulations that limit the amount of certain substances in drinking water, and they also define where and how often samples for each substance must be collected and analyzed. Belton routinely tests its water system to verify compliance with EPA and State standards. Data presented in this report is from the most recent testing done in accordance with the regulations.

The State of Texas requires the City to monitor for certain contaminants less than once per year because the concentrations of these contaminants are not expected to vary significantly from year to year, or the system is not considered vulnerable to this type of contamination. Therefore, some of the data may be more than one year old. If no data is presented for a contaminant, it means it was not detected.

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 us at (254) 933-5823.

Automatic flush assemblies are used throughout the city to assure water delivered to customers is the highest quality. The flush assemblies are programmed to operate at various times of the day and night.

Potential Contaminants that may be found in Belton's Drinking Water

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 byproducts 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.

2022 Water Quality Test Results — City of Belton

Total Organic Carbon

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 violations section. TOC has no health effects. However, TOC provides a medium for the formation of disinfection by-products. These by-products include trihalomethanes (THMs) and haloacetic acids. (HAAs).

Disinfection By-Products	Collection Date	Highest Level Detected	Range of Individual Samples	MCLG	MCL	Units	Violation	Likely Source of Contamination
Haloacetic Acids (HAA5)	2022	24	7.7 - 22	No goal for the total	60	ppb	No	By-product of drinking water disinfection.
*The value in the Highest Level or Average Detected column is the highest average of all HAA5 sample results collected at a location over a year.								
Total Trihalomethanes (TTHM)	2022	51	34 - 50.9	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.								

Inorganic Contaminants

Inorganic contaminants, such as nitrate, are substances that can be found in water sources and have the potential to affect water quality and human health. Nitrate is a form of nitrogen that naturally occurs in soil, water, and plants. While small amounts of nitrate are generally not harmful, elevated levels can pose risks, particularly in drinking water supplies.

Inorganic Contaminants	Collection Date	Highest Level Detected	Range of Individual Samples	MCLG	MCL	Units	Violation	Likely Source of Contamination
Nitrate (measured as Nitrogen)	2022	ND	ND	10	10	ppm	No	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits.

Disinfection Residuals

The City is required to maintain a minimum level of disinfectant to kill microbes that can potentially cause health problems.

Disinfectant Residual	Year	Average Level	Range of Levels Detected	MRDL	MRDLG	Units of Measure	Violation	Likely Source of Contamination
Total Chlorine	2022	2.87	0.9 - 4.7	4	4	ppm	No	Water additive used to control microbes.
*There is no violation for high chlorine levels as the running average is less than the MRDL.								

2022 Water Quality Test Results Continued — City of Belton

Lead and Copper

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 of Belton is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. When water has been sitting for several hours, you can minimize the potential for lead exposure by flushing the tap for 30 seconds to two minutes before using water for drinking or cooking. For those concerned about lead in water, you may wish to have the 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.

Lead and Copper	Date Sampled	MCLG	Action Level (AL)	90th Percentile	Number of Sites Over AL	Unit	Violation	Likely Source of Contamination
Copper	2022	1.3	1.3	0.072	0	ppb	No	Erosion of natural deposits; Leaching from wood preservatives; Corrosion of household plumbing systems.
Lead	2022	0	15	1.1	0	ppm	No	Corrosion of household plumbing systems; erosion of natural deposits.

*There are no violations for lead and copper levels as 90th Percentile was under the Action Level.

Water quality refers to the chemical, physical, and biological characteristics of water that determine its suitability for various purposes and its impact on human health. It is crucial to assess and maintain high water quality standards to ensure the availability of clean and safe water for drinking.

Monitoring and managing water quality involves regular sampling, testing, and analysis to identify and quantify various parameters, including pH, temperature, dissolved oxygen, turbidity, and the presence of specific contaminants. These measurements help in understanding the overall health of water bodies and implementing appropriate measures to protect and restore water quality.

City of Belton employee analyzing daily water residuals for water quality.

2022 Water Quality Test Results Continued — City of Belton

Unregulated Contaminants Monitoring

Belton sampled a series of unregulated contaminants as required by the Fourth Unregulated Contaminant Monitoring Rule for Assessment Monitoring. Unregulated contaminants are those for which EPA has not established drinking water standards. The purpose of unregulated containment monitoring is to assist EPA in determining the occurrence of unregulated contaminants in the drinking water and whether future regulation is warranted. The City of Belton participated in the first two quarterly samples, which were taken between October 2018 and September of 2019.

Sample Location in Water System	Contaminant	Avg Level	Min Level	Max Level	Min Reporting Level
Entry Point	Manganese	0.75	ND	0.97	0.4 (µg/L)
Maximum Chlorine Residual Time in the Distribution System	Bromochloroacetic Acid	5.04	ND	11.0	0.3 (µg/L)
	Bromodichloroacetic Acid	2.56	ND	4.8	0.5 (µg/L)
	Chlorodibromoacetic Acid	1.06	ND	2.1	0.3 (µg/L)
	Monobromoacetic Acid	0.22	ND	1.6	0.3 (µg/L)
	Dibromoacetic Acid	1.88	ND	5.0	0.3 (µg/L)
	Dichloroacetic Acid	6.02	ND	14.0	0.2 (µg/L)
	Trichloroacetic Acid	3.39	ND	6.6	0.5 (µg/L)

Germanium (0.3)
Butylated hyoxyanisole (0.03)
O-Toluidine (0.007)
Quinoline (0.02)
1-Butanol (2.0)
2-Methoxyethanol (0.4)

2 Propen-1-ol (0.5)
Tribromoacetic acid (2.0)
Monochloroacetic acid (2.0)
a-BHC (0.01)
Chlorpyrifos (0.03)
Dimethipin (0.2)

Ethoprop (0.03)
Oxyfluorfen (0.05)
Profenofos (0.3)
Permethrin (0.04)
Tebuconazole (0.2)
Tribufos (0.07)

Total Microsystins (0.3)
Anatoxin-A (0.03)
Cylindropermopsin (0.09)

Abbreviations and terms

Action Level (AL): The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow
AVG: Regulatory compliance with some MCLs are based on running annual average of monthly samples
BCWCID: Bell County Water Control and Improvement District #1
CTWSC: Central Texas Water Supply Corporation
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 and 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 (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 (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 (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 (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 containments.
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 (µg/L)
ppm: milligrams per liter or parts per million – or one ounce in 7,350 gallons of water (mg/L)
ppq: part 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

2022 Water Quality Test Results — Bell County Water Control and Improvement District No. 1 (BCWCID No. 1)

Disinfection By-Products	Collection Date	Highest Level Detected	Range of Individual Samples	MCLG	MCL	Units	Violation	Likely Source of Contamination
Haloacetic Acids (HAA5)	2022	14	14.4 - 14.4	No goal for the total	60	ppb	No	By-product of drinking water disinfection.
*The value in the Highest Level or Average Detected column is the highest average of all HAA5 sample results collected at a location over a year.								
Total Trihalo-methanes (TTHM)	2022	37	36.9 - 36.9	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.								

Inorganic Contaminants	Collection Date	Highest Level Detected	Range of Individual Samples	MCLG	MCL	Units	Violation	Likely Source of Contamination
Arsenic	2022	2	0 - 2	0	10	ppb	No	Erosion of natural deposits; runoff from orchards; runoff from glass and electronics.
Barium	2022	0.0668	0.0347 - 0.0668	2	2	ppm	No	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits.
Cyanide	2022	170	120 - 170	200	200	ppb	No	Discharge from plastic and fertilizer factories; discharge from steel/ metal factories.
Fluoride	2022	0.2	0.18 - 0.23	4	4	ppm	No	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories.
Nitrate (measured as Nitrogen)	2022	0.21	0.06 - 0.21	10	10	ppm	No	Runoff from fertilizer use; leaching from septic tanks, sewage/ erosion of natural deposits.
Selenium	2022	3	0 - 3	50	50	ppb	No	Discharge from petroleum and metal refineries; erosion of natural deposits; discharge from mines.

2022 Water Quality Test Results Continued — BCWCID No. 1

Synthetic Organic Contaminants including Pesticides and Herbicides	Collection Date	Highest Level Detected	Range of Individual Samples	MCLG	MCL	Units	Violation	Likely Source of Contamination
Atrazine	2022	0.21	0 - 0.21	3	3	ppb	No	Runoff from herbicide used on row crops.

Lead and Copper	Date Sampled	MCLG	Action Level (AL)	90th Percentile	Number of Sites Over AL	Unit	Violation	Likely Source of Contamination
Copper	2020	1.3	1.3	0.026	0	ppm	No	Erosion of natural deposits; leaching from wood preservatives; corrosion of household plumbing systems.

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. Turbidity is a measure of the cloudiness of the water caused by suspended particles and is an indicator of water quality and the effectiveness of the filtration system and disinfectants.

Public Works staff recently toured BCWCID No. 1 water treatment facility.

Turbidity	Level Detected	Limit (Treatment Technique)	Violation	Likely Source of Contamination
Highest single measurement	0.8 NTU	1.0 NTU	No	Soil runoff.
Lowest monthly % meeting limit	100%	0.3 NTU	No	Soil runoff.

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 violations section.

2022 Water Quality Sample Results — Central Texas Water Supply Corporation

Disinfection By-Products	Collection Date	Highest Level Detected	Range of Individual Samples	MCLG	MCL	Units	Violation	Likely Source of Contamination
Chlorite	2022	0.563	0.0789 - 0.563	0.8	1	ppm	No	By-product of drinking water disinfection.
Haloacetic Acids (HAA5)	2022	17	11.8 - 21.7	No goal for the total	60	ppb	No	By-product of drinking water disinfection.
*The value in the Highest Level or Average Detected column is the highest average of all HAA5 sample results collected at a location over a year.								
Total Trihalo-methanes (TTHM)	2022	38	26.7 - 41.9	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.								

Inorganic Contaminants	Collection Date	Highest Level Detected	Range of Individual Samples	MCLG	MCL	Units	Violation	Likely Source of Contamination
Barium	2022	0.0375	0.0283 - 0.0375	2	2	ppm	No	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits.
Cyanide	2022	70	20 - 70	200	200	ppb	No	Discharge from plastic and fertilizer factories; discharge from steel/metal factories.
Fluoride	2022	0.2	0.22 - 0.24	4	4	ppm	No	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories.
Nitrate (measured as Nitrogen)	2022	0.06	0 - 0.06	10	10	ppm	No	Runoff from fertilizer use; leaching from septic tanks, sewage/ erosion of natural deposits.

Radioactive Contaminants	Collection Date	Highest Level Detected	Range of Individual Samples	MCLG	MCL	Units	Violation	Likely Source of Contamination
Beta/photon Emitters	2022	5.6	5.6 - 5.6	0	50	pCi/L*	No	Decay of natural and man-made deposits.
*EPA considers 50 pCi/L to be the level of concern for beta particles.								

2022 Water Quality Sample Results Continued — Central Texas Water Supply Corporation

Synthetic Organic Contaminants including Pesticides and Herbicides	Collection Date	Highest Level Detected	Range of Individual Samples	MCLG	MCL	Units	Violation	Likely Source of Contamination
Atrazine	2022	0.13	0 - 0.13	3	3	ppb	No	Runoff from herbicide used on row crops.

Turbidity	Level Detected	Limit (Treatment Technique)	Violation	Likely Source of Contamination
Highest single measurement	0.6 NTU	1.0 NTU	No	Soil runoff.
Lowest monthly % meeting limit	100%	0.3 NTU	No	Soil runoff.

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 violations section.

Cross-Connection

The Texas Commission on Environmental Quality (TCEQ) requires all public water systems to maintain a cross-connection program that protects the distribution system's drinking water.

Backflow prevention assemblies are mechanical devices that are required to be installed if a home or business has a lawn irrigation system, per City Ordinance 2017-37. The backflow prevention assembly prevents contaminants from entering the drinking water from a sudden loss in water pressure.

For more information on the cross-connection program, please visit www.beltontexas.gov/departments/public_works/environmental_programs.php

Water Conservation Tips

- Find and repair water leaks.
- Inspect irrigation systems for broken sprinkler heads.
- Use a sink plug when washing dishes by hand.
- Turn off the water while shaving or brushing teeth.
- Only wash full loads in the dishwasher and washing machines.
- Use a garden hose nozzle on water hose.
- Sweep driveways and sidewalks instead of hosing with water.

Water Loss Audit

In the water loss audit submitted to the Texas Water Development Board for January 2022 through December 2022, the City's water loss percentage was an estimated 9.94% or 140,488,972 gallons.

Water losses include an estimate of water consumed but not measured, physical losses from the distribution system prior to reaching the customer destination, and unreported losses not known or qualified. Water losses also include fire hydrant flushing and fire fighting water use. Typical water losses for distribution systems are 5% to 20%.

For more information on the water loss audit, please contact (254) 933-5823.

Do your part, be water smart!

The city encourages public involvement. By taking part in local decision-making processes, advocating for important causes, and raising awareness about pertinent issues, you contribute to shaping the future of your community.

Contact Us

City of Belton
PO Box 120
Belton, Texas 76513
(254)933-5823

Visit us on the web at
www.beltontexas.gov

Public Participation Opportunities – City Council Meetings

Date: 2nd and 4th Tuesdays of each month

Time: 5:30 PM

Location:
Harris Community Center
401 N. Alexander
Belton, Texas 76513

When it rains, it drains!

Rain water runoff enters directly into lakes, creeks, and rivers.

Anything dumped or dropped on the ground adds to the concern. Items that enter the storm water system enter waterways used for swimming, fishing, hunting, and drinking.

Clean water is everyone's responsibility. Together we can make a difference for cleaner water for drinking, swimming, and fishing.

Here's how:

1. Help keep pollution out of storm drains.
2. Never fertilize when rain is forecast.
3. Blow or sweep grass clipping back onto the lawn.
4. Clean up after pets.
5. Practice good car care.
6. Dispose of household hazardous waste using the At Your Door program.
7. Never throw trash on the ground.