CITY OF WACO

2022 WATER QUALITY REPORT

We're committed to the protection of public health and to the quality management of water and wastewater services.

WACO WATER
Utility Services

About This Report

City of Waco drinking water meets or exceeds all federal and state drinking water requirements. The City of Waco Water Utility Services Department (Public Water System #1550008) is proud to maintain a Superior water quality rating from the Texas Commission on Environmental Quality (TCEQ).

This report is a summary of the quality of the water we provided our customers during 2022. The analysis was made by using data from the most recent U.S. Environmental Protection Agency (EPA) required tests. Our goal is that this information will help you become more knowledgeable about what's in your drinking water.

The tables that follow (pp. 3-4) list all of the federally regulated and/or monitored contaminants that have been found in your drinking water. The U.S. EPA requires water systems to test for up to 97 different contaminants.

Where Does Our Water Come From?

Waco's drinking water is 99% surface water with less than 1% coming from ground water sources. The primary source of drinking water for residents of the City of Waco and surrounding communities is Lake Waco, located within the City of Waco, with less than 1% coming from the Trinity Aquifer.

Source Water Assessment and Protection

The 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. Any detections of these contaminants will be found in this report. For more information on source water assessments and protection efforts in our system, contact the City of Waco Water Quality Lab at (254) 750-1662.

Special Notice

You may be more vulnerable than the general population to certain microbial contaminants, such as Cryptosporidium, in drinking water. Infants, some elderly or immunocompromised, 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 for infection. 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.

En Español

Este reporte incluye informacion importante sobre el agua para tomar. Si tiene preguntas o comentarios sobre ésteinforme en español, favor de llamar al (254) 299-2489 para hablar con una persona bilingüe en español.

Abbreviations

Avg: Regulatory compliance with some MCLs is based on running annual average of monthly samples

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

mrem: millirems (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)

ppm: parts per million, or milligrams per liter (mg/L), or one ounce in 7,350 gallons of water

ppb: parts per billion, or micrograms per liter (µg/L), or one ounce in 7,350,000 gallons of water

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

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

Definitions

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

Level 1 Assessment: A study of the water system to identify potential problems and determine (if possible) why total coliform bacteria were found in the water system.

Level 2 Assessment: 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 has occurred and/or why total coliform bacteria were found in the water system on multiple occasions.

Maximum Contaminant Level (MCL): 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): 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.

Drinking Water Standards

In order 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 that must provide the same protection for public health.

Water Sources

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. Contaminants that may be present in source water before treatment 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 stormwater 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 stormwater 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 stormwater runoff and septic systems
- Radioactive contaminants, which can be naturally-occurring or be the result of oil and gas production and mining activities

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 point of use 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 (1-800-426-4791).

Secondary Constituents

Contaminants may be found in drinking water that may cause taste, color, and 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 Waco Water Utility Services.

Water Loss

In the water loss audit submitted to the Texas Water Development Board for the time period of January - December 2021, the City of Waco water system lost an estimated 159,901,557 gallons of water. This is 1.8% of the total water system input volume.

Water loss from a system occurs, primarily, due to leaks and line breaks, customer meter inaccuracy, data handling errors and unauthorized usage.

If you have any questions about the water loss audit, you may call: (254) 299-CITY (2489).

WACO WATER QUALITY TEST RESULTS

Inorganic Contaminants

Collection Date or Year	Contaminant	Highest Level Detected	Min - Max Levels	MCL	MCLG	Units	Violation	LikelySource of Contamination
2022	Arsenic	3	2.5 - 2.6	0	10	ppb	No	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electonics production wastes
2022	Barium	0.0428	0.0425 - 0.0428	2	2	ppm	No	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
2022	Cyanide	120	120 - 120	200	200	ppb	No	Discharge from plastic and fertilizer factories; Discharge from steel/metal factories
2022	Fluoride	0.7	0.23 - 0.69	4	4	ppm	No	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
2022	Nitrate	0.42	0.1 - 0.42	10	10	ppm	No	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
2022	Selenium	3.1	0 - 3.1	50	50	ppb	No	Discharge from petroleum and metal refineries; erosion of natural deposits; discharge from mines

Residual Disinfectant Level

Collection Date or Year	Disinfectant	Avg Level	Min - Max Levels	MRDL	MRDLG	Units	Violation	LikelySource of Contamination
2022	Monochloramine	2.35	0.1 - 4.1	4.0	4.0	ppm	No	Disinfectant used to control microbes.

Disinfection Byproducts

Collection Date or Year	Contaminant	Highest Level Detected	Min - Max Levels	MCL	MCLG	Units	Violation	LikelySource of Contamination
2022	Bromate	4	0 - 9.92	10	0	ppb	No	By-product of drinking water disinfection
2022	Haloacetic Acids (HAA5)	16	8.7 - 22.5	60	No Goal	ppb	No	By-product of drinking water disinfection
		The value in the Highest Level Detected column is the highest average of all HAA5 sample results collected at a location over a year.						
2022	Trihalomethanes (TTHM)	47	25.8 - 54.4	80	No Goal	ppb	No	By-product of drinking water disinfection
		The value in the Highest Level Detected column is the highest average of all TTHM sample results collected at a location over a year.						

Synthetic Organic Contaminants

Collection Date or Year	Contaminant	Highest Level Detected	Min - Max Levels	MCL	MCLG	Units	Violation	LikelySource of Contamination
2022	Altrazine	0.12	0.1 - 0.12	3	3	ppb	No	Runoff from herbicide used on row crops

WACO WATER QUALITY TEST RESULTS (CONT'D)

Radioactive Contaminants

Collection Date or Year	Contaminant	Highest Level Detected	Min - Max Levels	MCL	MCLG	Units	Violation	LikelySource of Contamination
2017	Radium 226/228	1.5	1.5 - 1.5	5	0	pCi/L	No	Erosion of natural deposits

Lead and Copper

Action Level Goal (ALG): The concentration of a contaminant in drinking water below which there is no known or expected risk to health. ALGs allow for a margin of safety.
Action Level: The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

Year	Contaminant	90th Percentile	Sites Exceeding Action Level	MCLG	Action Level	Unit of Measure	Violation	LikelySource of Contamination
2021	Lead	1.4	1	0	15	ppb	No	Erosion of natural deposits; Corrosion of household plumbing systems; leaching from wood preservatives
2021	Copper	0.24	1	1.3	1.3	ppm	No	

HEALTH INFORMATION FOR LEAD

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 with 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 www.epa.gov/safewater/lead.

Turbidity

Year		Limit (TT)	Level Detected	Unit of Measure	Violation	Likely Source of Contamination
2022	Highest single measurement	1	0.28	NTU	No	Soil Runoff
2022	Lowest monthly % meeting limit	0.3	100%	NTU	No	

Turbidity is a measurement of the cloudiness of water caused by suspended particles. It is a good indicator of water quality and the effectiveness of filtration and disinfectants.

Coliform Bacteria

Year	Contaminant	Highest Number of Positive Samples	MCL	MCLG	Violation	LikelySource of Contamination
2021	Total Coliform Bacteria	2.2	5%	0%	No	Naturally present in the environment
2021	Fecal Coliform or E. Coli	0	0%	0%	No	Naturally present in the environment

Total Organic Carbon

The percentage of Total Organic Carbon (TOC) removal was measured each month and the system met all TOC removal requirements set.

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