WATER QUALITY REPORT

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 2018. 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. 3-5) 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?

Our 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, 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 éste informe 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.

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 on multiple occasions.

Maximum Contaminant Level (MCL) - 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) - 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 2018, the City of Waco water system lost an estimated 742,427,292 gallons of water. This is 7.3% 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	Likely Source of Contamination
2018	Barium	0.0401	0.04 - 0.0401	2	2	ppm	No	*Decay of natural and man-made deposits*
2018	Cyanide	230	140 - 230	200	200	ppb	No	*Discharge from plastic and fertilizer factories; Discharge from steel/metal factories*
2018	Fluoride	0.9	0.8 - 0.87	4	4	ppm	No	*Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories*
2018	Nitrate	0.15	0.15 - 0.15	10	10	ppm	No	*Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits*

Residual Disinfectant Level

Collection Date or Year	Disinfectant	Avg Level	Min - Max Levels	MRDL/ MRDLG		Units	Violation	Likely Source of Contamination
2018	Monochloramine	2.4	0.5 - 4.0	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	Likely Source of Contamination
2018	Bromate	3	0 - 10.3	10	0	ppb	No	*By-product of drinking water disinfection*
2018	Haloacetic Acids (HAA5)	20	7.7 - 34.6	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.							
2018	Trihalomethanes (TTHM)	48	18.2 - 47.9	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	Likely Source of Contamination
2018	Atrazine	0.2	0.18 - 0.2	3	3	ppb	No	*Runoff from herbicide used on row crops*

Total Organic Carbon

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

WACO WATER QUALITY TEST RESULTS (CONT)

Radioactive Contaminants

Collection Date or Year	Contaminant	Highest Level Detected	Min - Max Levels	MCL/MCLG		Units	Violation	Likely Source 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	Likely Source of Contamination
2018	Lead	2.6	2	0	15	ppb	No	*Erosion of natural deposits; Corrosion of household plumbing systems; leaching from wood preservatives*
2018	Copper	0.14	0	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 wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure are available from the Safe Drinking Water Hotline or at http://www.epa.gov/safewater/lead.

Turbidity

Year		Limit (TT)	Level Detected	Unit of Measure	Violation	Likely Source of Contamination
2018	Highest single measurement	1	0.24	NTU	No	*Soil Runoff*
2018	Lowest monthly % meeting limit	0.3	100%	NTU	No	*Soil Runoff*

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.

Coliform Bacteria

Year	Contaminant	Highest Number of Positive Samples	MCL/MCLG		Violation	Likely Source of Contamination
2018	Total Coliform Bacteria	2	5%	0%	No	*Naturally present in the environment*
2018	Fecal Coliform or E. Coli	0	0%	0%	No	*Naturally present in the environment*

CITY OF HEWITT WATER QUALITY TEST RESULTS*

*Information in the tables below has been included in this report because the City of Waco temporarily received some water (to serve the Old Lorena Rd. / Spring Valley Rd. area) from the City of Hewitt, during 2018.

Inorganic Contaminants

Collection Date or Year	Contaminant	Highest Level Detected	Min - Max Levels	MCL	MCLG	Units	Violation	Likely Source of Contamination
2017	Barium	0.0703	0.0703 - 0.0703	2	2	ppm	No	*Decay of natural and man-made deposits*
2017	Fluoride	0.97	0.97 - 0.97	4	4	ppm	No	*Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories*
2017	Selenium	3.3	3.3 - 3.3	50	50	ppb	No	*Discharge from petroleum and metal refineries; Erosion of natural deposits; Discharge from mines*

Radioactive Contaminants

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

Synthetic Organic Contaminants

Collection Date or Year	Contaminant	Highest Level Detected	Min - Max Levels	MCL	MCLG	Units	Violation	Likely Source of Contamination
2018	Di(2-ethylhexyl) adipate	1.6	0 - 1.6	400	400	ppb	No	*Discharge from chemical factories*
2018	Di(2-ethylhexyl) phthalate	1	0 - 1.7	0	6	ppb	No	*Discharge from rubber and chemical factories*

Volatile Organic Contaminants

Collection Date or Year	Contaminant	Highest Level Detected	Min - Max Levels	MCL	MCLG	Units	Violation	Likely Source of Contamination
2018	Xylenes	0.0009	0 - 0.0009	10	10	ppm	No	*Discharge from petroleum factories; Discharge from chemical factories*

WATER CONSERVATION TIPS

A few small changes can add up to make a big difference!

- **Take shorter showers.** A five minute shower uses only 4 - 5 gallons of water.
- **Use water-efficient shower heads and faucet aerators.** They're cheap and can save up to 500 gallons/month.
- **Check your faucets and shower heads for leaks.** One drip every second adds up to five gallons/day!

WACOWATER.COM

You can pay your bill, sign up for ***e-bill***, setup automatic-recurring payments, check current news about projects or service outages, find conservation tips and any available opportunities for public participation and involvement, all online at: ***www.wacowater.com***.

Precious the Water Drop

Ways to pay your bill:

Online at: www.wacowater.com

By phone: 299-CITY (2489)

At the City of Waco Water Office:

425 Franklin Avenue, Waco, Texas 76701
Lobby: (Mon-Fri) 9 a.m. to 5 p.m.
Drive-Thru: (Mon-Fri) 7:30 a.m. to 5:30 p.m.

At your Neighborhood HEB:

9100 Woodway Dr., 1301 Wooded Acres Dr., 801 N. IH-35, 1821 S. Valley Mills Dr., 3801 N. 19th St.

BUILDING WACO

CAPITAL IMPROVEMENT PROGRAM

Follow these projects and more at: www.BuildingWaco.com

The new WMARSS Transfer Lift Station is well underway. The project involves building a completely new lift station facility, bypassing and removing the La Salle Ave. Lift Station, improved odor control, and the installation of a new forcemain to the central wastewater treatment plant.

The second of two new ground storage tanks, at Herring Ave. and 32nd St., is near completion. The new tanks, each with a capacity of 2 million gallons, replace the 100-year-old Hillcrest Ground Storage Tank.

The new, 2 million-gallon Owen Ln. Tower is now complete. The new composite tank replaced the 60-year-old steel tank, improving system redundancy and increasing storage capacity for west Waco.

City of Waco Water Utility Services
P.O. Box 2570
Waco, TX 76702-2570
(254) 299-CITY (2489)
www.wacowater.com

Designed by Waco Water Utility Services
For more information about this report, contact Jonathan Echols, (254) 750-8416