









2012 Water Quality Report





About This Report:

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

This report is a summary of the quality of the water we provided our customers during 2012. 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 table that follows lists all of the federally regulated or monitored contaminants which 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 may 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.

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 informe incluye información importante sobre el agua potable. Si tiene preguntas o comentarios sobre éste informe en español, favor de llamar al tel. (254) 299-2489 -para hablar con una persona bilingüe en español.

Waco Water Quality Test Results

Inorganic C	ontaminants							
COLLECTION DATE OR YEAR	Contaminant	HIGHEST LEVEL DETECTED	MIN - MAX LEVELS	MCI	_/MCLG	UNITS	VIOLATION	LIKELY SOURCE OF CONTAMINATION
2012	Fluoride	0.82	0.74 - 0.82	4	4	ppm	No	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories.
2012	Nitrate	0.35	0.01 - 0.35	10	10	ppm	No	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits.
2011	Barium	0.25	0.015 - 0.25	2	2	ppm	No	Decay of natural and man-made deposits.
Residual Di	sinfectant Level							
COLLECTION DATE OR YEAR	DISINFECTANT	AVG LEVEL	Min - Max Levels	MRDI	_/MRDLG	Units	VIOLATION	LIKELY SOURCE OF CONTAMINATION
2012	Chloramines	2.26	0.55 - 3.57	4.0	<4.0	ppm	No	Disinfectant used to control microbes.
Disinfection	n Byproducts							
COLLECTION DATE OR YEAR	Contaminant	AVG LEVEL	Min - Max Levels	MCI	_/MCLG	Units	VIOLATION	LIKELY SOURCE OF CONTAMINATION
2012	Haloacetic Acids (HAA5)	12	4.8 - 23.8	60	no goal	ppb	No	By-product of drinking water disinfection
2012	Trihalomethanes (THMs)	26	11.7 - 49.9	80	no goal	ppb	No	By-product of drinking water disinfection
Radioactive	e Contaminants							
COLLECTION DATE OR YEAR	Contaminant	HIGHEST LEVEL DETECTED	Min - Max Levels	MCI	_/MCLG	Units	VIOLATION	LIKELY SOURCE OF CONTAMINATION
2011	Combined Radium 226/228	1	1 - 1	5	0	pCi/L	No	Erosion of natural deposits
Land and C								

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
2012	Lead	6.28	1	0	15	ppb	No	Erosion of natural deposits; Corro-
2012	Copper	0.414	2	1.3	1.3	ppm	No	sion of household plumbing systems

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 of the variety of materials 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

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Year		Limit	LEVEL DETECTED	VIOLATION	LIKELY SOURCE OF CONTAMINATION
2012	Highest single measurement	1 NTU	0.23 NTU	No	Soil Runoff
2012	Lowest monthly % meeting limit	0.3 NTU	100%	No	Soil Runoff
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Cryptosporidium Monitoring Information

Cryptosporidium is a microbial pathogen that may be found in water contaminated by feces. Although filtration removes Cryptosporidium, it cannot guarantee 100 percent removal nor can the testing methods determine if the organisms are alive and capable of causing cryptosporidiosis, an abdominal infection with nausea, diarrhea and abdominal cramps that may occur after ingestion of contaminated water. Monitoring in Lake Waco (untreated water) at the Lake Waco water intake structure was performed from October 2006 - September 2008. NO Cryptosporidium has been detected.

Total Coliform	า					
Year	Contaminant	Highest % of Positive Samples	MCL/	MCLG	VIOLATION	LIKELY SOURCE OF CONTAMINATION
2012	Total Coliform Bacteria	0.8%	5%	0%	No	Naturally present in the environment
2012	Fecal Coliform or E. Coli	0%	0%	0%	No	Naturally present in the environment

Abbreviations

NTU -	Nephelometric Turbidity Units (a measure of turbidity)
MFL -	million fibers per liter (a measure of asbestos)
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 $% \left(1,2,2,2,2,3,2,3,3,3,3,3,3,3,3,3,3,3,3,3,$
ppb -	parts per billion, or micrograms per liter (μ g/L), or one ounce in 7,350,000 gallons of water
ppt -	parts per trillion, or nanograms per liter
ppq -	parts per quadrillion, or picograms per liter
mrem -	millirems (a measure of radiation absorbed by the body)
na -	not applicable

avg - average, regulatory compliance with some MCLs are based on running annual average of monthly samples

Definitions

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.

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

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. Food and Drug Administration 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 naturallyoccurring 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.



WacoWater.com

Your City of Waco Water Department is online at www.wacowater.com. Online, you can pay your bill, read about current news and projects, find conservation tips, contact information and more. You can sign up for *e-bill and setup automatic recurring payments*, as well. Visit the website for more information.

Ways to Pay Your Water 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, 1110 S. Valley Mills Dr., 3801 N. 19th St., 1102 Speight Ave.

Stormwater Pollution Prevention

Anything on the ground when it rains may get washed into the storm drain system along with the rain. Unlike our wastewater, this stormwater runoff goes straight into our creeks, lakes and rivers without being treated. That makes disposing of oil and other chemicals properly extremely important. You wouldn't dump oil or pesticide straight into the river, but dumping these on the ground has the same end result. Remember, **Only Rain Down the Drain!**

The Texas Commission on Environmental Quality grants the city's storm water permit. This permit is administered by the Stormwater section of Water Utility Services and details steps the city will take to prevent and mitigate the impact "non-point source" pollutants have on our rivers, creeks and lakes.

For more information on stormwater pollution prevention, or to request a school visit or presentation, contact Stormwater Services at 254.750.1662.

Water Saving Tips :



- Water your lawn and outdoor plants in the morning or evening, when temperatures are cooler and there is less evaporation.
- Use a timer when watering to avoid forgetful over watering.
- Wash fruits and vegetables in a pan of water instead of under a running faucet.
- If you have a pool or spa, use a cover to decrease evaporation.
- Adjust your lawn mower to a higher setting. Taller grass helps soil hold more moisture.
- Collect rain water from your roof to water plants.
- Check pipes and faucets, indoors and out, for leaks on a regular basis.
- Shorten your showers by just a minute or two and save up to 150 gallons per month.
- Defrost food in the refrigerator instead of under running water.
- Wash dishes and clothes only when loads are full.
- Turn off the faucet while brushing your teeth or shaving.
- Use water-saving aerators on all of your faucets.

Water Conservation It's Just Good Common Sense

Conserving water not only saves you money, it's the right thing to do. Even doing small things to conserve water can go a long way towards ensuring a reliable water supply for years to come. Check out our water saving tips and be sure to try out our new online water conservation tool.



Online Water Conservation Tool

Online Waco Weather Data Can Help Determine How Much Water Your Grass Needs

HOW MUCH SHOULD YOU WATER YOUR LAWN?

There's no need to guess. You can access our Waco Weather Station Data and online conservation tool.

Access the online water conservation tool by visiting: www.wacowater.com/weatherstation

At the site, you can view current local weather data such as rainfall, soil moisture, temperature, wind speed and even solar radiation. All the data is collected at the new Water Utilities sponsored weather station located at Cottonwood Creek Golf Course.

This online tool will let you know exactly how much water your lawn currently needs. Just input your type of grass, amount of shade and sprinkler flow and the system calculates how long you need to run your sprinklers.

The weather station and online network is part of the TexasET Network, a project in partnership with the Irrigation Technology Center of AgriLIFE Extension, a part of Texas A&M University.



Utility Services

Designed and created in-house by Waco Water Utility Services staff. ©2012 For more information regarding this report contact: Jonathan Echols, (254) 750-8040



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