



2016 WATER QUALITY REPORT

Water System ID #TX1010027



In 2016, your water quality surpassed all state and federal requirements for drinking water.

How and Why We Test Your Water

Where to Get More Information

When requesting information about the City of West University Place's water system, use our number (TX1010027), which is the number assigned to our water system by the U.S. Environmental Protection Agency (EPA).

Visit the EPA's water information site at www.epa.gov/safewater/.

You may also call the EPA's Safe Drinking Water Hotline at 1-800-426-4791.

Water quality information for the State of Texas may be accessed via the Texas Commission on Environmental Quality (TCEQ) at www.tceq.state.tx.us. Previous years' water quality reports for the City of West University Place are available at www.westutx.gov > Departments & Services > Public Works > Operations Division.

You are welcome to contact Patrick Walters, Operations Superintendent for the City of West University Place, with questions about your water. He may be reached at 713-662-5839 or PWalters@westutx.gov.



En Español

Este reporte incluye información importante sobre el agua para tomar. Si tiene preguntas o discusiones sobre este reporte, favor de llamar al tel. 713-662-5846 para hablar con una persona bilingue en español.

Testing frequency

The City of West University Place tests your water daily, weekly, monthly, quarterly, yearly and at greater intervals for as many as 97 constituents. In 2016, we performed 4,457 individual tests on your water. Testing intervals are determined by state and federal regulatory agencies. The purpose of testing is to make sure your water quality remains within safe levels as determined by the U.S. Environmental Protection Agency (EPA).

Who tests the water

Technicians who are licensed by the Texas Commission on Environmental Quality (TCEQ) collect water samples from wells, storage facilities, points in the distribution system and residents' homes. Much of our testing is done in the field, although some samples are sent to a state-licensed laboratory for analysis.

What we test for

In general, we test for the following substances: biological (such as viruses and bacteria); inorganic (such as salts and metals); organic (such as chemicals from industrial or petroleum use); radioactive, which occur naturally or result from oil/gas production and mining activities; and pesticides and herbicides. The tests also check levels of inorganic ions (nitrate, nitrite, fluoride, phosphate, sulfate, chloride and bromide) that are essential for human health in small quantities, but that in larger quantities can cause unpleasant taste and odor—or even illness.

How substances enter the water

As rain and other water travels over land and sinks through the ground into aquifers, the water dissolves certain naturally occurring minerals and breaks down naturally occurring radioactive materials. This water may also pick up dissolved substances resulting from the presence of plants, animals or human activity.

Who sets the regulations

To ensure that your water is safe to drink, the U.S. EPA regulates tap water, and the U.S. Food and Drug Administration (FDA) regulates bottled water. 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.

You may get more information about drinking water standards and the potential health effects of water constituents by calling the EPA's Safe Drinking Water Hotline at 1-800-426-4791.

Test Results

The water provided by the City of West University Place met or surpassed all state and federal requirements for drinking water in 2016. There were no violations of the federal Safe Drinking Water Act.

The table on the facing page shows the results of our water-quality analyses. Every contaminant we detected in the water, even in the minutest traces, is listed here. The table contains the name of each substance and the amount detected, together with numbers that show the highest level allowed by regulation (MCL) and the ideal goal for public health (MCLG).

While we did see the presence of volatile organic contamination (listed on the chart under "Disinfection By-Products"), this is a by-product of disinfecting the water with chlorine. Chlorine is still the most widely accepted and best available technology for disinfecting drinking water.

YOUR WATER SOURCE

Your water in 2016 was a blend of ground and surface water, with an annual target of 50% of each.

The ground water comes from two water wells owned and operated by the City of West University Place. The wells pump water from about 560 feet down, drawing from the Evangeline Aquifer located in the Gulf Coastal Sands.

The surface water is purchased from the City of Houston's East Water Purification Plant #3. Because the City of Houston draws the water it sells to our utility from surface sources (e.g., lakes or reservoirs), it tests regularly for cryptosporidium, a pathogen that causes a diarrheal illness. No cryptosporidium was found in the City of Houston's drinking water in 2016.

According to West U's Source Water Assessment (2006 completion), "Our source waters' contamination opportunities are rare and protection levels are high."

West U's water continues to be rated "Superior" (the highest designation possible) by the Texas Commission on Environmental Quality. We have received this designation continuously since 1943.

2016 TEST RESULTS

Meet/Standard Quality Standard	Constituent Unit of Measurement	Test Date	Highest Detected Level	Range of Analytical Results	Regulatory Limit (MCL)	Regulatory Limit Goal (MCLG)	Likely Sources of Constituent
Meet	Bacteriological - Coliform and E.coli	2016	0				
Meet	Total chloramine, ppm	2016	4.2	0.50 - 4.2	MRDL-4	MRDLG-4	Water additive used to control microbes
N/A	Chloroform, ppb	2016	20.7	9.6 - 20.7	N/A	N/A	By-product of drinking water disinfection
N/A	Bromodichloromethane, ppb	2016	5.5	2.9 - 5.5	N/A	N/A	By-product of drinking water disinfection
N/A	Dibromochloromethane, ppb	2016	3.4	1.0 - 3.4	N/A	N/A	By-product of drinking water disinfection
N/A	Bromoform, ppb	2016	1.0	1.0 - 1.0	N/A	N/A	By-product of drinking water disinfection
N/A	Monochloroacetic Acid, ppb	2016	5.3	2.0 - 5.3	N/A	N/A	By-product of drinking water disinfection
N/A	Dichloroacetic Acid, ppb	2016	17.2	2.5 - 17.2	N/A	N/A	By-product of drinking water disinfection
N/A	Trichloroacetic Acid, ppb	2016	6.6	2.1 - 6.6	N/A	N/A	By-product of drinking water disinfection
N/A	Monobromoacetic Acid, ppb	2016	<1.0	<1.0 - <1.0	N/A	N/A	By-product of drinking water disinfection
N/A	Dibromoacetic Acid, ppb	2016	2.1	<1.0 - 2.1	N/A	N/A	By-product of drinking water disinfection
N/A	Bromochloroacetic Acid, ppb	2016	5.5	2.9 - 5.5	N/A	N/A	By-product of drinking water disinfection
N/A	Dalapon Acid, ppb	2016	1.0	1.0 - 1.0	N/A	N/A	By-product of drinking water disinfection
N/A	Calcium, ppm	2016	38.7	36.6 - 38.7	N/A	N/A	By-product of drinking water disinfection
N/A	Magnesium, ppm	2016	5.09	4.70 - 5.09	N/A	N/A	By-product of drinking water disinfection
N/A	Potassium, ppm	2016	3.21	2.94 - 3.21	N/A	N/A	By-product of drinking water disinfection
N/A	Nickel, ppm	2016	0.002	0.0012 - 0.0015	N/A	N/A	By-product of drinking water disinfection
N/A	Sodium, ppm	2016	45.0	35.0 - 45	N/A	N/A	By-product of drinking water disinfection
Meet	Arsenic, ppb	2016	0.19	0.0024 - 0.19	0.010	0.010	Erosion of natural deposits; runoff
Meet	Barium, ppm	2016	0.161	0.125 - 0.161	2.0	2.0	By-product of drinking water disinfection
Meet	Iron, ppm	2016	0.72	0.036 - 0.072	N/A	N/A	By-product of drinking water disinfection
Meet	Manganese, ppm	2016	0.010	0.0060 - 0.0101	0.05	0.05	By-product of drinking water disinfection
Meet	Nitrate, ppm	2016	0.45	0.45 - 0.45	10	10	Runoff from fertilizer, septic tank, sewage
Meet	Atrazine, ppb	2016	0.19	0.19 - 0.19	3.0	3.0	Runoff from herbicide used on row crops
Meet	Turbidity - City of Houston Treatment Plant	2016	0.31	0.1 - 0.31	1.0	1.0	Soil runoff
Meet	Fluoride, ppm	2016	0.29	0.1 - 0.29	4.0	4.0	Erosion of natural deposits; discharge from fertilizer and aluminum factories

Testing shows fluoride levels at 0.29 parts per million (ppm)—less than the 0.7 ppm generally found in the Houston area; it is also markedly less than the EPA “Primary” limit of 4 ppm and less than one-quarter of the preferred “Secondary” limit of 2 ppm. Fluoride exists naturally in water, but it is adjusted to achieve a range of 0.6 - 1.0 ppm in most communities to prevent tooth decay; the range is due in part to regional differences in the amounts of water consumed. In Houston’s warmer climate, where even more water is consumed, the optimum target lies at the low end of the range.

Lead & Copper 2016		Test Date	90th Percentile	Samples Collected	Action Level	Sites Exceeding Action Level	Source of Contaminant
Meet	Copper, ppm	2016	0.88	30	1.3	1	Corrosion of household plumbing
Meet	Lead, ppb	2016	0.2	30	15	0	Corrosion of household plumbing

MISSION STATEMENT

We are entrusted by the people of West University to supply high quality water for consumption and fire protection, at a reasonable cost, while conserving and protecting our drinking water resources for present and future generations.



INFORMATION FOR TEST RESULTS

- These test dates reflect the most recent testing done in accordance with regulations.
- The City of West University Place is participating in gathering data under the Unregulated Contaminant Monitoring Rule (UCMR) to help the EPA to determine the occurrence of possible drinking water contaminants. If unregulated contaminants were detected, they are shown in this table. This data may also be found on EPA's website at <http://www.epa.gov/safewater/data/ncod.html>, or you can call the Safe Drinking Water Hotline at 1-800-426-4791.
- Bromodichloromethane, Chloroform and Dibromochloromethane are in a chemical group called trihalomethanes. Even though none of these is individually regulated, they are regulated as a group: the total trihalomethane amount should not exceed 80 ppb.

KEY

ppb	Parts per billion
ppm	Parts per million
MCL	Maximum Contaminant Level – the highest level of a contaminant that is allowed in drinking water. MCLs are set as low to the goals as feasible using the best available treatment technology.
MCLG	Maximum Contaminant Level Goal – 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.
MRDL	Maximum Residual Disinfectant Level
MRDLG	Maximum Residual Disinfectant Level Goal
Action Level	The concentration of a contaminant that, if exceeded, triggers treatment or another requirement that a water system must follow.
Turbidity	A measurement of particles in the water



*West University monitors for chlorine residual
24 hours a day*

Why Monitor for Chlorine Residual?

- EPA and TCEQ regulations.
- Ensure continued disinfection of water in the distribution system.
- Maintain the quality of drinking water.
- Determine problems and find solutions quickly.
- Ensure safe drinking water for consumers.

Additional Health Information

FLUORIDE

Testing shows fluoride levels at 0.29 parts per million (ppm)—less than the 0.7 ppm generally found in the Houston area; it is also markedly less than the EPA “Primary” limit of 4 ppm and less than one-quarter of the preferred “Secondary” limit of 2 ppm. Fluoride exists naturally in water, but it is adjusted to achieve a range of 0.6 - 1.0 ppm in most communities to prevent tooth decay; the range is due in part to regional differences in the amounts of water consumed. In Houston’s warmer climate, where even more water is consumed, the optimum target lies at the low end of the range.

IMMUNE SYSTEM DISORDERS

Some people may be more vulnerable than others to constituents in drinking water. Immunocompromised persons such as those with cancer undergoing chemotherapy, those who have undergone organ transplants, those with HIV/AIDS or other immune system disorders, some elderly and infants can be particularly at risk from infections. These people should seek drinking water advice from their health care providers.

LEAD

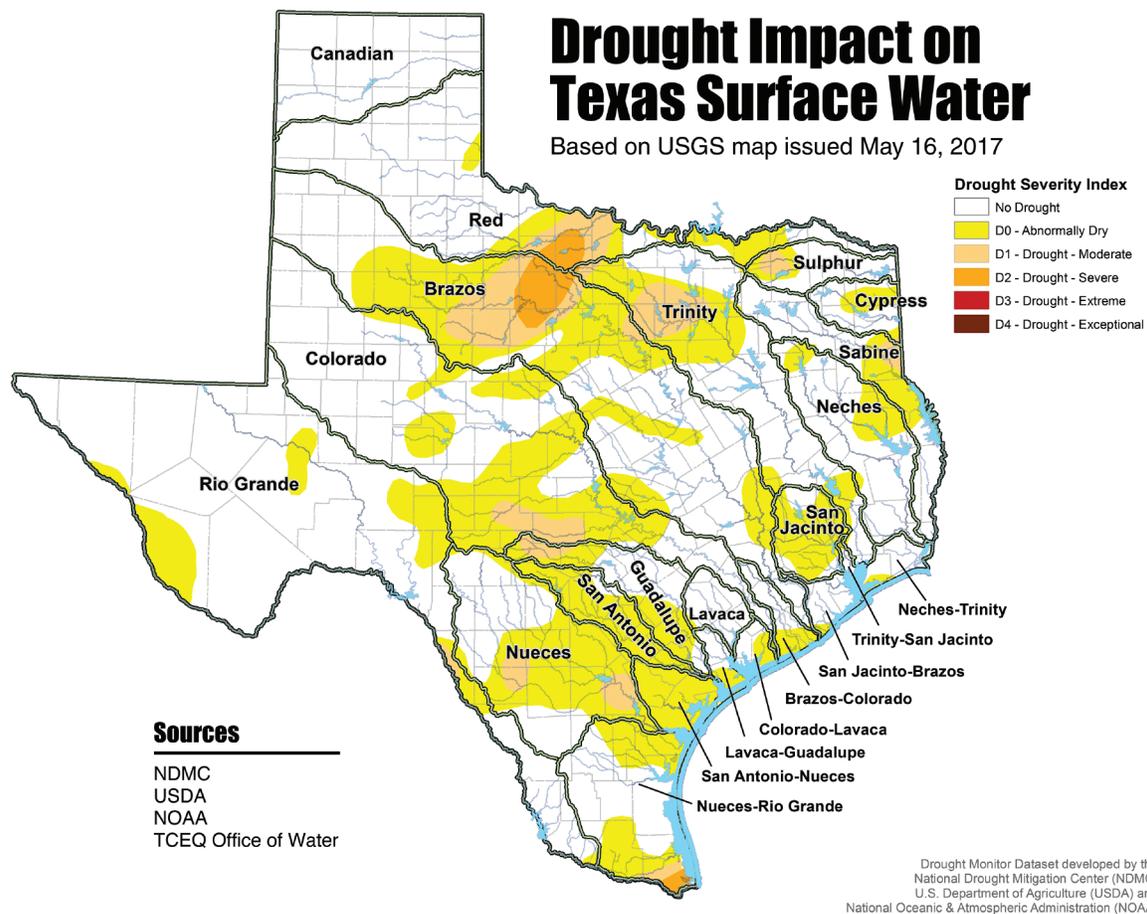
If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. It is possible that lead levels at your home may be higher than at other homes in the community as a result of materials used in your home’s plumbing. When your water has been sitting in the water lines 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 elevated lead levels in your home’s water, you may wish to have your water tested. Call the Safe Drinking Water Hotline (1-800-426-4791) for more information, or search at <http://www.epa.gov/safewater/lead>.

TURBIDITY

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. The organisms include bacteria, viruses and parasites that can cause symptoms such as nausea, cramps, diarrhea and associated headaches.

Drought Impact on Texas Surface Water

Based on USGS map issued May 16, 2017



CITY OF WEST UNIVERSITY PLACE DROUGHT CONTINGENCY PLAN How The City Will Handle A Water Shortage

Be prepared to conserve water should drought conditions create water shortages.

Several years ago, the City implemented a four-step Drought Contingency Plan that remains in place today. We always follow the first step—reminding you to conserve water each summer—but you might want to familiarize yourself with all four steps:

1. ANNUAL CONSERVATION REMINDER. Each spring, the City reminds water customers to conserve water. Users are urged to reset their water irrigation timers to water earlier in the day...to check faucets for leaks...to readjust sprinkler heads...and to run washing machines and dishwashers only when full. This is good water stewardship—an important step to avoiding water shortages during summer.

2. VOLUNTARY USE RESTRICTIONS. If the demand for water rises to a certain threshold (65% of pumping capacity for three consecutive days), the City will ask users to voluntarily conserve more water—including not watering outside between the hours of 5 a.m. and 10 p.m.

3. MODERATE WATER USE RESTRICTIONS. When water supplies drop significantly or when customer demand begins to require 70% pumping capacity for three consecutive days, users will be banned from outside watering (landscapes, washing cars) between 10 a.m. and 7 p.m. Pools will not be filled. Most fountains and ponds will not be filled. Hydrants will not be flushed unless needed for public health, safety and welfare. Parks and green zone watering will be restricted to between 8 p.m. and 5 a.m. Non-essential uses of water (hosing down sidewalks, using water for dust control, etc.) will be prohibited. Full restrictions are listed at the City's website at www.westutx.gov (click on City Departments > Public Works > Operations).

4. CRITICAL WATER USE RESTRICTIONS. If water supplies and/or demand reach certain critical thresholds or if water supplies become contaminated, then severe restrictions will occur, including a ban on all outdoor water use or irrigation, regardless of time of day. Police and other personnel will enforce the bans. This stage of the plan will end when all conditions listed as “triggering events” have ceased to exist for five days.





City of West University Place
Public Works Operations
3826 Amherst
West University Place, TX 77005

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West U Operator Paul King flushing one of 347 fire hydrants in West U

Why Flush?

- Restores disinfectant residual.
- Reduces bacterial growth.
- Dislodges biofilms.
- Removes sediment and deposits.
- Eliminates taste and odor problems.



Water and Sewer Capital Project Fund

The capital projects in the 2016 budget are the continuation of the projects started, but not completed, in prior years with an additional appropriation of \$525,000 for the following:

- Wastewater treatment plant outfall relocation (\$125,000)
- Bissonnet water line replacement (\$150,000)
- Wastewater treatment plant clarifier rehabilitation (\$250,000)

Continuation of prior year projects (\$1,305,000) rounds out the estimated total expenditures of \$1,830,000 for 2016.

