

City of West University Place

# 2017 Annual Water Quality Report

*Water System ID #TX1010027*

# In 2017, your water quality surpassed *all* state and federal requirements for drinking water.

## Annual Water Quality Report for the period of January 1 to December 31, 2017.

This report is intended to provide you with important information about your drinking water and the efforts made by the water system to provide safe drinking water. For more information regarding this report contact *The City of West University Place* at (713) 662-5873.

### En Español

Este reporte incluye informacion importante sobre el agua para tomar. Si tiene preguntas o discusiones sobre este reporte, favor de llamar al siguiente telefono (713) 662-5845 para hablar con una persona bilingue en español.

For more information about your sources of water, please refer to the Source Water Assessment Viewer available at [www.tceq.texas.gov/giswview](http://www.tceq.texas.gov/giswview) or Drinking Water Watch at [dww2.tceq.texas.gov/DWW/](http://dww2.tceq.texas.gov/DWW/).

## 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 2017, we performed over a thousand 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).

## Sources of Drinking Water

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.

## Information about Source Water Assessments

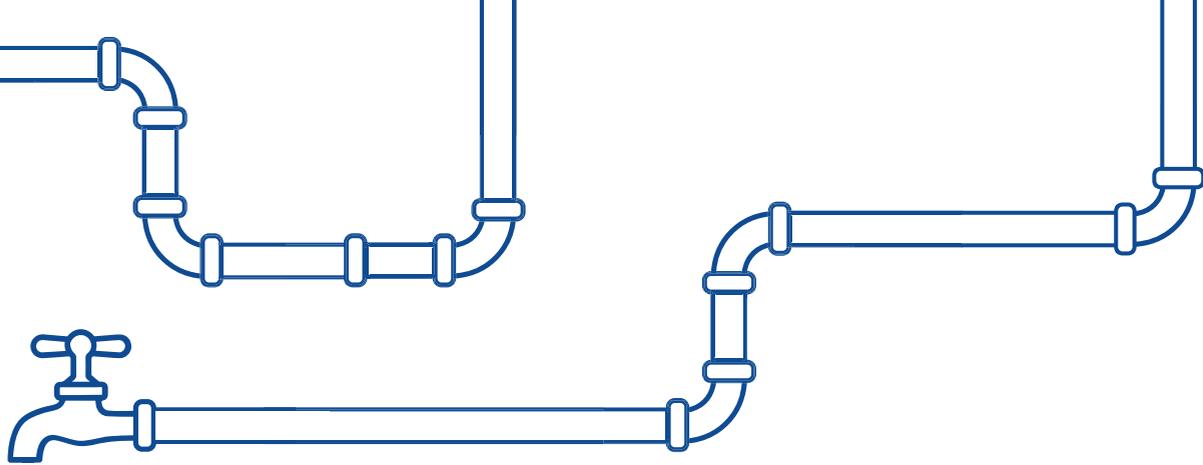
Texas Commission on Environmental Quality (TCEQ) has completed a Source Assessment for all drinking water systems that own their sources. The report describes the susceptibility of types of constituents that may come into contact with your drinking water source based on human activities and natural conditions. The system(s) from which we purchase our water received the assessment reports.

For more information on source water assessments and protection efforts at our system, contact The City of West University Place.

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.

In order to ensure that tap water is safe to drink, EPA prescribes regulations which limit the number 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. 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 the system's business office.

More information about contaminants and potential health effects can be obtained by calling the *EPAs Safe Drinking Water Hotline* at (800) 426-4791.



### 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 natural occurring or result from urban storm water runoff, industrial or domestic waste-water 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 by-products 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.

Additional guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* are available at the Safe Drinking Water Hotline at **(800) 426-4791**.

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](http://www.epa.gov/safewater/lead).

## Additional Health Information

- Fluoride**  
Testing shows fluoride levels at 0.34 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.
- Gross Alpha Emitters**  
Certain minerals are radioactive and may emit a form of radiation known as alpha radiation. Some people who drink water containing alpha emitters in excess of the MCL over many years may have an increased risk of getting cancer.
- Immune System Disorders**  
You may be more vulnerable than the general population to certain microbial contaminants, such as *Cryptosporidium*, 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.
- 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.
- Uranium**  
Some people who drink water containing uranium in excess of the MCL over many years may have an increased risk of getting cancer and kidney toxicity.

Call the **Safe Drinking Water Hotline (800) 426-4791** for more information, or search at [www.epa.gov/safewater/lead](http://www.epa.gov/safewater/lead).

# This reflects the most recent testing done in accordance with regulations.

The water provided by the City of West University Place met or surpassed all state and federal requirements for drinking water in 2017. There were no violations of the federal Safe Drinking Water Act.

The tables show 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 (indicated on the chart as “By-Products of drinking water disinfection,” 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.

The City of West University Place is participating in gathering data under the Unregulated Contaminant Monitoring Rule (UCMR) to help the EPA determine the occurrence of possible drinking water contaminants. If unregulated contaminants were detected, they are shown in the table.

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.

This data may also be found on EPA’s website at [www.epa.gov/safewater/data/ncod.html](http://www.epa.gov/safewater/data/ncod.html), or you can call the Safe Drinking Water Hotline at (800) 426-4791.

## Water Quality Test Results

TCEQ requires the City of West University to provide the following information from our water supplier.

### Coliform Bacteria

<b>Max. Contaminant Level Goal</b>	0 positive monthly sample
<b>Total Coliform Max. Contaminant Level</b>	0
<b>Highest No. Measured</b>	0
<b>Fecal Coliform or E. Coli Max. Contaminant Level</b>	0
<b>Total No. of Positive E. Coli or Fecal Coliform Samples</b>	0
<b>Violation</b>	0
<b>Likely Source of Contamination</b>	Naturally present in the environment.

### Lead & Copper

	Lead	Copper
<b>MCLG</b>	0	0
<b>AL</b>	15	1.3
<b>90th Percentile</b>	0.002	0.813
<b>No. Sites Over AL</b>	0	2
<b>Units</b>	ppb	ppb
<b>Highest Level Detected</b>	0.002	1.36
<b>Likely Sources of Contamination</b>	Corrosion of household plumbing systems; Erosion of natural deposits.	Corrosion of household plumbing systems; Erosion of natural deposits.

### Key

<b>Action Level or AL</b>	The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow
<b>Action Level Goal or ALG</b>	The level of a contaminant in drinking water below which there is no known or expected risk to health. ALGs allow for a margin of safety.
<b>Level 1 Assessment</b>	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.
<b>Level 2 Assessment</b>	A Level 2 assessment is a very detailed study of the water system to identify potential problems and determine (if possible) why an E. coli MCL violation has occurred and/or why total coliform bacteria have been found in our water system on multiple occasions.
<b>Maximum Contaminant Level or MCL</b>	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.
<b>Maximum Contaminant Level Goal or MCLG</b>	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.

# Contaminants

Contaminants	Year	Range of Individual Sample	Highest Level Detected	MCL	MCLG	Units	Violation	Likely Source
Fluoride	2017	0.34–0.34	0.34	4	4	ppm	N	Erosion of natural deposits, water additive which promotes string teeth, discharge from fertilizer factories
Nitrate	2017	0.25–0.30	0.30	10	10	ppm	N	Runoff from fertilizer use, leaching from septic tanks
Nitrite	2015	0.01–0.01	0.01	1	1	ppm	N	Runoff from fertilizer use, leaching from septic tanks
Arsenic	2017	2.3–2.4	2.4	0	0	ppb	N	Erosion of natural deposits, runoff, glass and electronic waste
Barium	2017	0.124–0.148	0.148	2	2	ppm	N	Discharge of drilling waste, discharge from metal refineries
Cyanide	2017	40–50	50	200	200	ppb	N	Discharge from plastic and fertilizer factories
Atrazine	2017	0–0.14	0.14	3	3	ppb	N	Runoff from herbicide used on row crops
Di (2-ethylhexyl) phthalate	2017	0–0.61	0.61	6	0	ppb	N	Discharge from rubber and chemical factories

Range should be highest to lowest detected if only one number it should be the same as the detected amount

Gross alpha excluding Radon and Uranium	2017	2.0–6.3	6.3	15 pCi/L	0	ppb	N	Erosion of natural deposits
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Range should be lowest to highest of detected values

Uranium	2017	<1.0–1.2	1.7	30 pCi/L	0	ppb	N	Erosion of natural deposits
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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

Haloacetic Acids (HAA5)	2017	3.9–15.3	15.3	60	No goals for the total	ppb	N	By-product of drinking water disinfection
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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

Total Trihalomethanes (TTHM)	2017	8.4–17.2	17.2	80	No goals for the total	ppb	N	By-product of drinking water disinfection
Chlorine Residual	2017	0.50–3.20	3.20	4	4	ppm	N	Water additive used to control microbes

## Key

<b>Avg</b>	Regulatory compliance with some MCLs are based on running annual average of monthly samples.
<b>Maximum Contaminant Level or MCL</b>	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.
<b>Maximum Contaminant Level Goal or MCLG</b>	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.
<b>N/A</b>	not applicable.
<b>NTU</b>	nephelometric turbidity units (a measure of turbidity)
<b>pCi/L</b>	picocuries per liter (a measure of radioactivity)
<b>ppb</b>	micrograms per liter or parts per billion - or one ounce in 7,350,000 gallons of water.
<b>ppm</b>	milligrams per liter or parts per million - or one ounce in 7,350 gallons of water.



# Drought Contingency Plan

*How the City Will Handle a Water Shortage*

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.

## 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.

## 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 am and 10 pm.

## 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 am and 7 pm. 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 pm and 5 am. 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](http://www.westutx.gov) (click on City Departments > Public Works > Operations).

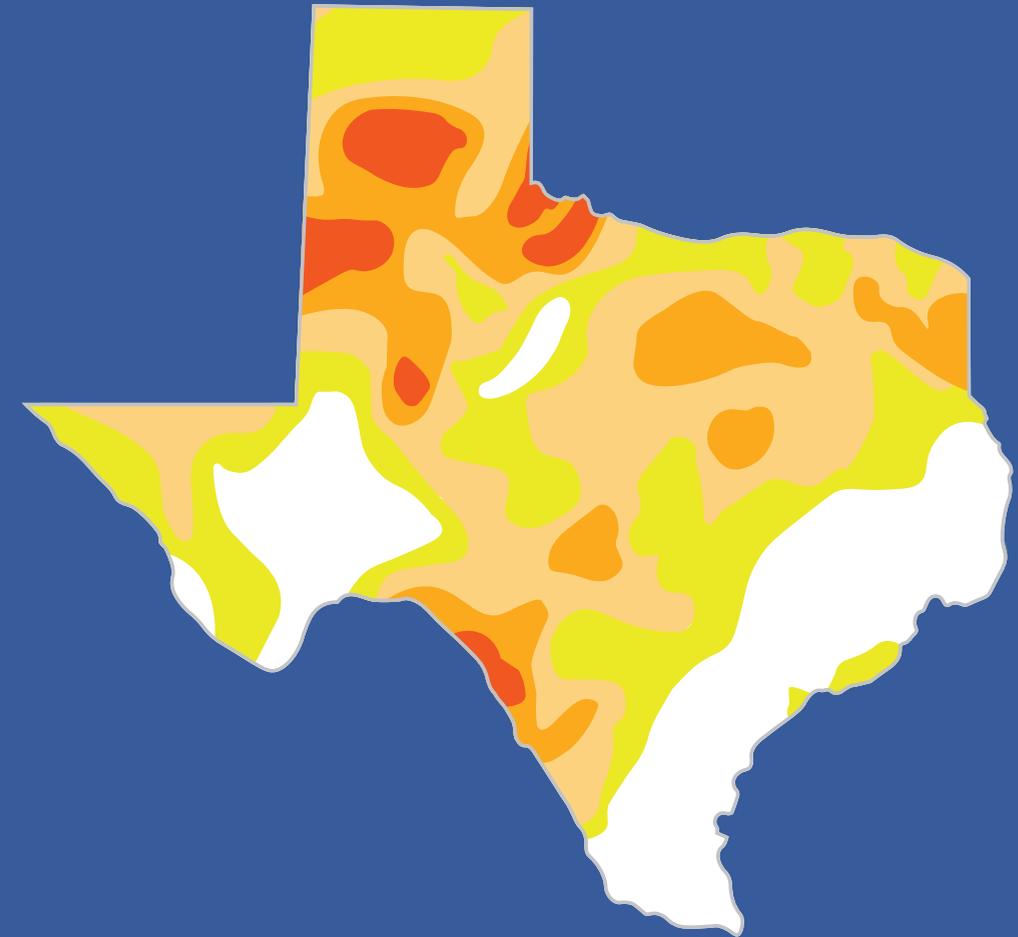
## Critical Water Use Restrictions

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.

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

# Drought Impact On *Texas Surface Water*

*Map issued July 10, 2018*



## Drought Severity Index

-  No Drought
-  D0 - Abnormally Dry
-  D1 - Drought - Moderate
-  D2 - Drought - Severe
-  D3 - Drought - Extreme
-  D4 - Drought - Exceptional

Drought Monitor Dataset by the National Drought Mitigation Center (NDMC) U.S. Department of Agriculture (USDA) and National Oceanic and Atmospheric Administration (NOAA).

## Sources

NDMC, USDA, NOAA, TCEQ Office of Water



City of West University Place  
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## Where to Get More Information

Visit the EPA's water information site at [www.epa.gov/safewater](http://www.epa.gov/safewater). You may also call the EPA's Safe Drinking Water Hotline at (800) 426-4791.

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).

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](http://www.tceq.state.tx.us). Previous years' water quality reports for the City of West University Place are available at [www.westutx.gov](http://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](mailto:PWalters@westutx.gov).

