

# Annual Drinking Water Quality Report

TX2270207

TRAVIS COUNTY WCID 19

Annual Water Quality Report for the period of January 1 to December 31, 2016.

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.

Travis County WCID No. 19 Board of Directors meets on the 4<sup>th</sup> Thursday of the month. Please call (512) 402 – 1990 for meeting time and location.

TRAVIS COUNTY WCID 19 is Purchased Surface Water

For more information regarding this report contact:

Name Travis County WCID No. 19

Phone (512) 402-1990

Este reporte incluye información importante sobre el agua para tomar. Para asistencia en español, favor de llamar al telefono (512.) 402 - 1990.

## 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 pickup substances resulting from the presence of animals or from human activity.

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 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 naturally-occurring or result from urban storm water 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 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.

In order to ensure that tap water is safe to drink, EPA prescribes regulations which limit the amount 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.

You may be more vulnerable than the general population to certain microbial contaminants, such as Cryptosporidium, in drinking water. Infants, some elderly, or immune compromised persons such as those undergoing chemotherapy for cancer; persons 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 from infections. You should seek advice about drinking water from your physician or health care providers. Additional guidelines on appropriate means to lessen the risk of infection by Cryptosporidium are available from the Safe Drinking Water Hotline (800-426-4791).

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. We are responsible for providing high quality drinking water, but we 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 is available from the Safe Drinking Water Hotline or at <http://www.epa.gov/safewater/lead>.

### Information about Source Water Assessments

The TCEQ has completed a Source Water Assessment for all drinking water systems that own their sources. The report describes the susceptibility and 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 report. For more information on source water assessments and protection efforts at our system, contact **Travis County WCID No. 19**

For more information about your sources of water, please refer to the Source Water Assessment Viewer available at the following URL: <http://www.tceq.texas.gov/gis/swaview>

For details about sources and source-water assessments are available in Drinking Water Watch at the following URL: <http://dww.tceq.texas.gov/DWW>

Source Water Name	Type of Water	Report Status	Location
SW FROM TRAVIS COUNTY MUD 4 I/C"Y KJ "TX2270325	SW	*****I	LAKE AUSTIN

## 2016 Regulated Contaminants Detected

### Water Quality Test Results

Definitions:	The following tables contain scientific terms and measures, some of which may require explanation.
Avg:	Regulatory compliance with some MCLs are based on running annual average of monthly samples.
Maximum Contaminant Level or MCL:	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.
Level 1 Assessment:	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.
Maximum Contaminant Level Goal or MCLG:	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.
Level 2 Assessment:	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.
Maximum residual disinfectant level or MRDL:	The highest level of a 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 or 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 contaminants.
MFL	million fibers per liter (a measure of asbestos)
na:	not applicable.
mrem:	millirems per year (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)
ppb:	micrograms per liter or parts per billion - or one ounce in 7,350,000 gallons of water.
ppm:	milligrams per liter or parts per million - or one ounce in 7,350 gallons of water.
Treatment Technique or TT:	A required process intended to reduce the level of a contaminant in drinking water.
ppt	parts per trillion, or nanograms per liter (ng/L)
ppq	parts per quadrillion, or picograms per liter (pg/L)

## Lead and Copper

Definitions:

Action Level Goal (ALG): 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.

Action Level: The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

Lead and Copper	Date Sampled	MCLG	Action Level (AL)	90th Percentile	# Sites Over AL	Units	Violation	Likely Source of Contamination
Copper	09/24/2014	1.3	1.3	0.21	0	ppm	N	Erosion of natural deposits; Leaching from wood preservatives; Corrosion of household plumbing systems.

## Regulated Contaminants

Disinfectants and Disinfection By-Products	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Haloacetic Acids (HAA5)	2016	47	22.1 - 30.7	No goal for the total	60	ppb	N	By-product of drinking water disinfection.
Total Trihalomethanes (TTHM)	2016	87	42.2 - 83.4	No goal for the total	80	ppb	Y	By-product of drinking water disinfection.
Inorganic Contaminants	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Nitrate [measured as Nitrogen]	2016	0.29	0.29 - 0.29	10	10	ppm	N	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.

Disinfectant	Year	Average Level	Minimum Level	Maximum Level	MRDL	MRDLG	Unit of Measure	Violation (Y/N)	Likely Source of Contamination
Chloramine	2016	1.56	0.54	3.3	4.0	<4.0	ppm	N	Water additive used to control microbes

**TOTAL COLIFORM:** Monthly test report – none detected.

**FECAL COLIFORM:** Monthly test reported – none detected.

**Violations Table**

<b>Chlorine</b>			
Some people who use water containing chlorine well in excess of the MRDL could experience irritating effects to their eyes and nose. Some people who drink water containing chlorine well in excess of the MRDL could experience stomach discomfort.			
<b>Violation Type</b>	<b>Violation Begin</b>	<b>Violation End</b>	<b>Violation Explanation</b>
Disinfectant Level Quarterly Operating Report (DLQOR).	04/01/2016	06/30/2016	We failed to test our drinking water for the contaminant and period indicated. Because of this failure, we cannot be sure of the quality of our drinking water during the period indicated.

Monthly testing, as required, was conducted in a timely manner; however submission of the 1<sup>st</sup> quarter's results were past the due date. We have corrected the DLQOR procedure for this process and resolved the violations without further issue.

<b>Public Notification Rule</b>			
The Public Notification Rule helps to ensure that consumers will always know if there is a problem with their drinking water. These notices immediately alert consumers if there is a serious problem with their drinking water (e.g., a boil water emergency).			
<b>Violation Type</b>	<b>Violation Begin</b>	<b>Violation End</b>	<b>Violation Explanation</b>
PUBLIC NOTICE RULE LINKED TO VIOLATION	01/01/2016	03/31/2016	We failed to adequately notify you, our drinking water consumers, about a violation of the drinking water regulations.

Due to a scheduling error regarding the holidays, the required public notice regarding drinking water exceeded the TCEQ time-frame. We have corrected the violation with TCEQ staff and updated our notification procedures without further issue.

<b>Total Trihalomethanes (TTHM)</b>			
Some people who drink water containing trihalomethanes in excess of the MCL over many years may experience problems with their liver, kidneys, or central nervous systems, and may have an increased risk of getting cancer.			
<b>Violation Type</b>	<b>Violation Begin</b>	<b>Violation End</b>	<b>Violation Explanation</b>
MCL, LRAA	01/01/2016	03/31/2016	Water samples showed that the amount of this contaminant in our drinking water was above its standard (called a maximum contaminant level and abbreviated MCL) for the period indicated.
MCL, LRAA	07/01/2016	09/30/2016	Water samples showed that the amount of this contaminant in our drinking water was above its standard (called a maximum contaminant level and abbreviated MCL) for the period indicated.

The Running Annual Average (RAA), calculated based on the most recent 4 quarters, has trended higher than normal likely due to the activation of an emergency interconnect with the WTCPUA in late 2015. Due to the nature of the RAA, the violation continued until the totaled average across all 4 quarters fell below 0.08 mg/L. Flushing of dead- end mains has been increased to reduce overall TTHM levels.

**Provider Data: Travis County MUD No. 4** - Under TCEQ rules Travis County WCID No. 19 is required to provide the following information from our water supplier

**Regulated Contaminants**

Inorganic Contaminants	Collection Date	Average Level	Minimum Level	Maximum Level	MCLG	MCL	Units	Violation	Likely Source
Arsenic	2016	<0.002	<0.002	<0.002	0.01	0.01	ppm	N	Naturally occurring element in minerals and metals. Poisonous to multicellular life.
Asbestos	2016	<0.1987	<0.1987	<0.1987	7	7	MFL	N	Decay of asbestos cement in water mains; erosion of natural deposits.
Barium	2016	0.056	0.0532	0.0595	2	2	ppm	N	Erosion of natural deposits.
Flouride	2016	0.215	0.21	0.22	4	4	ppm	N	Erosion of natural deposits; water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories.
Mercury	2016	<0.0004	<0.0004	<0.0004	0.002	0.002	ppm	N	Naturally occurring element. Poisonous to multicellular life.
Nitrate	2016	0.575	0.2	0.95	10	10	ppm	N	Erosion of natural deposits; Runoff from fertilizer use; Leaching from septic tanks, sewage.
Nitrite	2016	<0.01	<0.01	<0.01	1	1	ppm	N	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion fo Natural deposits.
Selenium	2016	<0.003	<0.003	<0.003	0.05	0.05	ppm	N	Erosion of natural deposits; discharge from mines.

Organic Contaminants	Collection Date	Average Level	Minimum Level	Maximum Level	MCLG	MCL	Units	Violation	Likely Source
Simazine	2016	<0.07	<0.07	<0.07	4	4	ppb	N	Herbicide Runoff
Toxaphene	2016	<1.0	<1.0	<1.0	3	3	ppb	N	Insecticide
Total Xylenes	2016	<0.05	<0.05	<0.05	3	3	ppb	N	Discharge from petroleum and chemical factories

Volatile Organic Contaminate	Collection Date	Average Level	Minimum Level	Maximum Level	MCLG	MCL	Units	Violation	Likely Source
Benzene	2016	<0.5	<0.5	<0.5	5	5	ppb	N	Petrochemical runoff
Vinyl Chloride	2016	<0.5	<0.5	<0.5	-	2	ppb	N	Leaching from PVC piping; Discharge from plastic factories

Maximum Residual Disinfectant Level	Year	Average Level	Minimum Level	Maximum Level	MRDL	MRDLG	Units	Violation	Likely Source
Chloramines	2016	2.12	1	3.1	4	4.0	ppm	N	Disinfectant used to control microbes

Disinfection By-Products	Collection Date	LR Annual Average	Minimum Level	Maximum Level	MCLG	MCL	Units	Violation	Likely Source
Total Trihalomethanes (TTHM)	2016	24	54	87	No goal for the total	80	ppb	N	By-product of drinking water chlorination.
Haloacetic Acids (HAA5)	2016	13	33.3	79	No goal for the total	60	ppb	N	By-product of drinking water chlorination.

**Unregulated Contaminants** - Bromoform, chloroform, bromodichloromethane, and dibromochloromethane are disinfectant byproducts. There is no maximum contaminant level for these chemicals at the entry point to distribution.

Unregulated Contaminants	Collection Date	Average Level	Minimum Level	Maximum Level	MCL	Units	Likely Source
Chloroform	2016	8.39	3.2	32.9	NA	ppb	Byproduct of drinking water disinfection
Bromoform	2016	1	<1.0	1.7	NA	ppb	Byproduct of drinking water disinfection
Bromodichloromethane	2016	5.4	1.4	26.4	NA	ppb	Byproduct of drinking water disinfection
Dibromochloromethane	2016	2.525	<1	13.3	NA	ppb	Byproduct of drinking water disinfection

Lead and Copper	Collection Date	The 90th Percentile	Number of Sites Exceeding Action Level	Action Level	Unit of Measure	Likely Source
Lead	2016	0.9	0	15	ppb	Corrosion of household plumbing systems; erosion of natural deposits
Copper	2016	0.2	0	1.3	ppm	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives.

**Required Additional 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. We are responsible for providing high quality drinking water, but we 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 is available from the Safe Drinking Water Hotline or at <http://www.epa.gov/safewater/lead>.

**Turbidity** - Turbidity has not health effects. However, turbidity can interfere with disinfection and provide a medium for microbial growth. Turbidity may indicate the presence of disease-causing organisms. These organisms include bacteria, viruses, and parasites that can cause symptoms such as nausea, cramps, diarrhea and associated headaches.

TURBIDITY	Collection Date	Highest Single Measurement	Lowest Monthly % of Samples Meeting Limits	Turbidity Limits	Units	Violation	Likely Source
Turbidity	2016	0.29	100	0.3	NTU	N	Soil runoff

**TOTAL ORGANIC CARBON (TOC)** - Has no health effects. The disinfectant can combine with TOC to form disinfection by-products. Disinfection is necessary to ensure that water does not have unacceptable levels of pathogens. By-products of disinfection include trihalomehtanes (TTHMs) and haloacetic acids (HAA5) which are reported elsewhere in the report

Contaminant	Year	Average Level	Minimum Level	Maximum Level	Units	Likely Source
Source Water	2016	9.33	3.19	56.8	ppm	Naturally present in the environment
Drinking Water	2016	4.57	2088	6.77	ppm	Naturally present in the environment

**Total Coliform:** Reported monthly tests found NO total coliform

**Fecal Coliform:** Reported monthly tests found NO fecal coliform

Secondary and Other Constituents Not Regulated	Collection Date	Average Level	Minimum Level	Maximum Level	Secondary Limit	Units	Likely Source
Aluminum	2016	0.1315	0.119	0.144	0.05	ppm	Abundant Naturally occurring element
Bicarbonate	2016	190.5	178	203	NA	ppm	Corrosion of carbonate rocks such as limestone.
Calcium	2016	46.35	45.8	46.9	NA	ppm	Abundant Naturally occurring element
Chloride	2016	36	34	38	300	ppm	Abundant Naturally occurring element;used in water purification
Iron	2016	0.019	<0.01	0.029	0.3	ppm	Abundant Naturally occurring element
Magnesium	2016	19.65	18.6	20.7	NA	ppm	Abundant Naturally occurring element
Manganese	2016	0.0022	<0.001	0.0035	0.05	ppm	Abundant Naturally occurring element
pH	2016	7.7	7.7	7.7	7.0 - 9.0		Measure of corrosivity of water.
Sodium	2016	18.3	16.4	20.2	NA	ppm	Erosion of Natural Deposits
Sulfate	2016	35	32	38	300	ppm	Naturally Occuring
Total Alkalinity as CaCO3	2016	163.6	144	189	NA	ppm	Naturally occurring soluble mineral salts
Total Dissolved Solids	2016	267.5	260	275	1000	ppm	Total dissolved mineral constituents in water.
Total Hardness as CaCO3	2016	197	194	200	NA	ppm	Naturally occurring calcium.
Zinc	2016	0.0415	0.0075	0.0755	5	ppm	Moderately abundant naturally occurring element