

# 2016 Annual Drinking Water Quality Report

(Consumer Confidence Report)

TEXAS STATE UNIVERSITY - SAN MARCOS

PWS# 1050003

Phone No: 512-245-8629

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.

For more information regarding this report contact:

Name Carl Teague  
Phone 512/245/8629

## **SPECIAL NOTICE** Required language for ALL community public water supplies:

You may be more vulnerable than the general population to certain microbial contaminants, such as *Cryptosporidium*, in drinking water. Infants, some elderly or immunocompromised persons 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 from infections. 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.

## **Our Drinking Water Meets or Exceeds All Federal (EPA) Drinking Water Requirements**

This report is a summary of the quality of the water we provide our customers. The analysis was made by using the data from the most recent U.S. Environmental Protection Agency (EPA) required tests and is presented in the attached pages. We hope this information helps you become more knowledgeable about what's in your drinking water.

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**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: microbes, inorganic contaminants, pesticides, herbicides, radioactive contaminants, and organic chemical contaminants.

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*En Español*

Este reporte incluye información importante sobre el agua para tomar. Para asistencia en español favor de llamar al telefono(512) 245- 3848 - para hablar con una persona bilingüe en español.

- 1. To learn about future public meetings (concerning your drinking water), or to request to schedule one, please call us.**
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The TCEQ completed an assessment of your source water and results indicate that some of your sources are susceptible to certain contaminants. The sampling requirements for your water system are based on this susceptibility and previous sample data. Any detections of these contaminants may be found in this Consumer Confidence Report. For more information on source water assessments and protection efforts at our system, contact Carl Teague

## Public Participation Opportunities

**Date:** None Scheduled

**Time:**

**Location:**

**Phone No:** 512-245-1985

### Where do we get our drinking water?

Our drinking water is obtained from GROUND water sources. It comes from the following Lake/River/Reservoir/**Aquifer: EDWARDS SOUTH BFZ**. A Source Water Susceptibility Assessment for your drinking water source(s) is currently being updated by the Texas Commission on Environmental Quality and will be provided to us this year. The report will describe the susceptibility and types of constituents that may come into contact with your drinking water source based on human activities and natural conditions. The information contained in the assessment will allow us to focus our source water protection strategies. Some of this source water assessment information will be available later this year on Texas Drinking Water Watch at <http://dww.tceq.state.tx.us/DWW/>. For more information on source water assessments and protection efforts at our system, please contact us.

### *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

Many constituents (such as calcium, sodium, or iron) which are often found in drinking water, can cause taste, color, and odor problems. The taste and odor constituents are called secondary constituents and are regulated by the State of

Texas, not the EPA. These constituents are not causes for health concern. Therefore, secondary's are not required to be reported in this document but they may greatly affect the appearance and taste of your water.

### About The Following Pages

The pages that follow list 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 contaminants.

#### DEFINITIONS

##### Maximum Contaminant Level (MCL)

The 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)

The 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 which a water system must follow.

#### ABBREVIATIONS

**NTU** - Nephelometric Turbidity Units

**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)

**ppb** - parts per billion, or micrograms per liter(µg/L)

**ppt** - parts per trillion, or nanograms per liter

**ppq** -parts per quadrillion, or picograms per liter

**Organic Contaminants NOT TESTED OR REPORTED, OR NONE DETECTED**

**Maximum Residual Disinfectant Level**

Systems must complete and submit disinfection data on the Disinfection Level Quarterly Operating Report (DLQOR). On the CCR report, the system must provide disinfectant type minimum, maximum and average levels.

Year	Disinfectant	Average Level	Minimum Level	Maximum Level	MCL	MCLG	Unit of Measure	Source of Disinfectant
2016	Chlorine Residual, Free	0.89	0.7	1.1	4	4	ppm	Disinfectant used to control microbes.

**Unregulated Initial Distribution System Evaluation for Disinfection Byproducts WAIVED OR NOT YET SAMPLED**

**Unregulated Contaminants NOT REPORTED OR NONE DETECTED**

<b>Unregulated Contaminant Monitoring Rule 2 (UCMR2)</b>						
Unregulated contaminants are those for which EPA has not established drinking water standards. The purpose of unregulated contaminant monitoring is to assist EPA in determining the occurrence of unregulated contaminants in drinking water and whether future regulation is warranted. Any unregulated contaminants detected are reported in the following table. For additional information and data visit <a href="http://www.epa.gov/safewater/ucmr/ucmr2/index.html">http://www.epa.gov/safewater/ucmr/ucmr2/index.html</a> , or call the Safe Drinking Water Hotline at (800)426-4791						
Year (Range)	Contaminants	Average Level	Minimum Level	Maximum Level	Unit of Measure	Source of Contaminant
2009	1,3-dinitrobenzene	< 0.8	0	0	ppb	Unknown
2009	RDX	<1.0	0	0	ppb	Unknown
2009	TNT	< 0.8	0	0	ppb	Unknown
2009	245-HBB	<0.7	0	0	ppb	Unknown
2009	BDE-100	<0.5	0	0	ppb	Unknown
2009	BDE-153	<0.8	0	0	ppb	Unknown
2009	BDE-47	<0.3	0	0	ppb	Unknown
2009	BDE-99	<0.9	0	0	ppb	Unknown
2009	dimethoate	<0.7	0	0	ppb	Unknown
2009	terbufos sulfone	<0.4	0	0	ppb	Unknown

**Lead and Copper**

Year	Contaminant	MCGL	Action Level	90 <sup>th</sup> Percentile	# sites Over AL	Unit of Measure	Violation	Source of Disinfectant
2016	Copper	1.3	1.3	1.1	3	ppm	Y	Erosion of natural deposits; Leaching from wood preservatives; Corrosion of household plumbing systems
2016	Lead	0	15	1.9	0	ppb	Y	Corrosion of household plumbing systems; Erosion of natural deposits

**Recommended 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. 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 is available from the Safe Drinking Water Hotline at <http://www.epa.gov/safewater/lead>.”*

**Turbidity** NOT REQUIRED

## Regulated Contaminants

Contaminants, Disinfectants and Disinfection By-Products	Collection Date	Highest Level Detected	Range of Level Detected	Maximum Contaminant Level Goal	Maximum Contaminant Level	Units	Violation	Likely Source Of Contamination
Coliform Bacteria	Monthly 2016	1		0	1 Positive Monthly		N	Naturally Present in the environment
Total Trihalomethanes (TTHM)	2016	12	2.9-30.9	No goal for the total	80ppb	ppb	N	By-product of drinking water disinfection
Haloacetic Acid (HAA5)	2016	2	0-3.9	No goal for the total	60	ppb	N	By-product of drinking water disinfection
Inorganic Contaminants	Collection Date	Highest Level Detected	Range of Level Detected	Maximum Contaminant Level Goal	Maximum Contaminant Level	Units	Violation	Likely Source Of Contamination
Barium	2016	.0388	.0388-.0388	2	2	ppm	N	Discharge of drilling waste; Discharge from metal refineries; Erosion from natural deposits
Fluoride	9/16/2016	.18	.1 - .2	4	4	ppm	N	Erosion from natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories.
Nitrate [measured as Nitrogen]	2016	2	1.78-1.78	10	10	ppm	N	Runoff from fertilizer use; Leaching from septic tanks; sewage; Erosion from natural deposits.
Radioactive Contaminants	Collection Date	Highest Level Detected	Range of Level Detected	Maximum Contaminant Level Goal	Maximum Contaminant Level	Units	Violation	Likely Source Of Contamination
Gross Alpha Compliance	5-10-2011	4	4 - 4	0	15	pCi/L	N	Erosion from natural deposits.

### Violations Table

The Lead and Copper Rule protects public health by minimizing lead and copper levels in drinking water, primarily by reducing water corrosivity. Lead and copper enter drinking water mainly from corrosion of lead and copper containing plumbing materials.			
Violation Type	Violation Begin	Violation End	Violation Explanation
LEAD CONSUMER NOTICE (LCR)	09/29/2016	10/31/2016	We failed to provide the results of lead tap water monitoring to the consumers at the locations water was tested. These were supposed to be provided no later than 30 days after learning the results. Customer's notified violation cleared.

OCCT/SOWT recommendations / Study (LCR)	03/31/2015	2016	We failed to propose treatment to our regulator in response to results that indicate our water needs treatment to reduce lead and / or copper levels
OCCT/SOWT recommendations / Study (LCR)	04/01/2015	2016	We failed to propose treatment to our regulator in response to results that indicate our water needs treatment to reduce lead and / or copper levels

### Public Notification Rule

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).			
Violation Type	Violation Begin	Violation End	Violation Explanation
Public Notice Rule Linked to Violation	08/10/2012	4/16/2016	We failed to adequately notify you, our drinking water consumers, about a violation of the drinking water regulations.
Public Notice Rule Linked to Violation	03/31/2015	05/03/2016	We failed to adequately notify you, our drinking water consumers, about a violation of the drinking water regulations.
Public Notice Rule Linked to Violation	04/01/2015	05/03/2016	We failed to adequately notify you, our drinking water consumers, about a violation of the drinking water regulations.
Public Notice Rule Linked to Violation	06/07/2010	2016	We failed to adequately notify you, our drinking water consumers, about a violation of the drinking water regulations.

### Secondary and Other Not Regulated Constituents (No associated adverse health effects)

Year or Range	Constituent	Average Level	Minimum Level	Maximum Level	Secondary Limit	Unit of Measure	Source of Constituent
2011	Bicarbonate	267	267	267	NA	ppm	Corrosion of carbonate rocks such as limestone.
2011-2016	Calcium	94.95	92.9	97	NA	ppm	Abundant naturally occurring element.
2011-2014	Chloride	24.25	23.5	25	300	ppm	Abundant naturally occurring element; used in water purification; byproduct of oil field activity
2011-2016	Copper	.0035	<0.002	0.005	NA	ppm	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives.
2011-2016	Magnesium	17.35	17.1	17.6	NA	ppm	Abundant naturally occurring element
2011-2016	Nickel	.002085	0.002	0.00217	NA	ppm	Erosion of natural deposits
2011	pH	7.1	7.1	7.1	>7.0	units	Measure of corrosivity of water
2011-2016	Sodium	13.3	12.7	13.9	NA	ppm	Erosion of natural deposits; byproduct of oil field activity
2011-2014	Sulfate	29	28	30	300	ppm	Naturally occurring; common industrial byproduct; byproduct of oil field activity
2002-2014	Total Alkalinity as CaCO <sub>3</sub>	267.5	260	275	NA	ppm	Naturally occurring soluble mineral salts.
2011	Total Dissolved Solids	359	359	359	1000	ppm	Total dissolved mineral constituents in water
2005-2016	Total Hardness as CaCO <sub>3</sub>	296	290	302	NA	ppm	Naturally occurring calcium
2002-2016	Zinc	0.0045	0.004	0.005	5	ppm	Moderately abundant naturally occurring element used in the metal industry

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.

#### **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.

#### **Water Quality Test Results**

**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)**

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