

# 2016 Annual Drinking Water Quality Report (Consumer Confidence Report)

MARSHA WSC  
PWS 2270040

Phone Number: (512) 803-8725

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 Brenda Keller at (512) 803-8725.

Opportunities for public participation are available at the Board of Director's meetings, held on the third Thursday of each month. Notice of the Board meetings is provided in the monthly billing, and on the corporation notice board.

Este reporte incluye información importante sobre el agua para tomar. Para asistencia en español, favor de llamar al telefono (512) 803-8725.

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.

## Information on Sources of 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.

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.

Drinking water, including bottled water, may reasonably be expected to contain at least some 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 at (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. Marsha WSC 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 or at <http://www.epa.gov/safewater/lead>.

### **Information about Secondary Contaminants**

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 are regulated by the State of Texas, not the EPA. These constituents are not causes for health concerns. Therefore, secondaries are not required to be reported in this document but they may greatly affect the appearance and taste of your water.

### **OUR DRINKING WATER IS REGULATED**

This report is a summary of the quality of the water provided to 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.

### **Where do we get our drinking water?**

The source of drinking water used by Marsha WSC is Purchased Surface Water from the City of Austin, and their source Lake Austin. 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 from which we purchase our water received the assessment report. For more information on source water assessments and protection efforts at our system, contact Brenda Keller at (512) 803-8725.

Further details about sources and sourcewater assessments are available through the Texas Drinking Water Watch at <http://dww2.tceq.texas.gov/DWW/>.

## 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.

Data older than five years is not in this report.

## Abbreviations and Definitions

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.
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.
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.
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.
Avg:	Regulatory compliance with some MCLs are based on running annual average of monthly samples.
ppm:	milligrams per liter or parts per million - or one ounce in 7,350 gallons of water.
ppb:	micrograms per liter or parts per billion - or one ounce in 7,350,000 gallons of water.
n/a:	not applicable.
TT:	Treatment technique, a required process intended to reduce the level of a contaminant in drinking water
NTU:	Nephelometric Turbidity Units (a measure of turbidity)
MFL	million fibers per liter (a measure of asbestos)

## 2016 Regulated Contaminants Detected

### Disinfection Byproducts

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	9	8.5 - 8.5	No goal for the total	60	ppb	N	By-product of drinking water chlorination
Total Trihalomethanes (TThm)*	2016	42	41.8 - 41.8	No goal for the total	80	ppb	N	By-product of drinking water chlorination

### Inorganic Contaminants

Inorganic Contaminants	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Nitrate (measured as nitrogen)	2016	0.17	0.17 - 0.17	10	10	ppm	N	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Nitrite (measured as nitrogen)	2016	0.1	0.1 - 0.1	1	1	ppm	N	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits

Nitrate Advisory - Nitrate in drinking water at levels above 10 ppm is a health risk for infants of less than six months of age. High nitrate levels in drinking water can cause blue baby syndrome. Nitrate levels may rise quickly for short periods of time because of rainfall or agriculture activity. If you are caring for an infant you should ask advice from your health care provider.

### Maximum Residual Disinfectant Level

Disinfectant	Collection Date	Average	Minimum Level	Maximum Level	MRDL	MRDLG	Units	Violation	Source
Chlorine residual, free	2016	1.30	0.84	1.58	4	4	ppm	N	Disinfectant used to control microbes

**Total Coliform:** Reported Monthly, tests found no coliform bacteria

**Fecal Coliform:** Reported Monthly, tests found no fecal coliform bacteria

### Lead and Copper

Lead and Copper	Date Sampled	MCLG	Action Level (AL)	90th Percentile	# Sites over AL	Units	Violation	Likely Source of Contamination
Lead	2016	0	15	0.9	0	ppb	N	Corrosion of household plumbing systems. Erosion of natural deposits

The following information is provided by the City of Austin as water supplier to Marsha WSC

**Regulated at the Austin Water treatment plant**

Parameter	Units	MCL	MCLG	Date	Low	High	Average	Possible Sources
Barium	ppm	2	2	2016	0.01	0.01	0.01	Natural Geology
Fluoride	ppm	4	4	2016	0.64	0.73	0.69	Supplement; natural geology
Nitrate (as N)	ppm	10	10	2016	0.17	0.22	0.20	Runoff from fertilizer
Copper	ppm	0	1.3	2016	<0.002	0.016	0.007	Erosion of natural deposits
Cyanide	ppb	200	200	2016	10	140	93	Erosion of natural deposits
Combined Radium	pCi/L	5	0	2011	1	1	1.0	Erosion of natural deposits
Turbidity 100% of the readings were at or below 0.3 ntu	ntu	TT	n/a	2016	0.02	0.20	0.05	Measure of cloudiness of the water

pCi/L - picocuries per liter ( a measure of radioactivity)

**Disinfection Byproducts Regulated at the Treatment Center**

Parameter	Units	MCL	MCLG	Date	Low	High	Average	
TOC Removal Ratio	%	AVG >= 1	none	2016	0.90	2.61	1.63	

**There were no drinking water treatment violations in 2016**

The Utility is in compliance with the Total Organic Carbon (TOC) removal requirements in the Disinfection Byproducts Rule. All surface sources are known to be susceptible to contamination by Cryptosporidium. Because of this, the Utility monitors for Cryptosporidium in the drinking water and the lake water, which is a source of water to the two water treatment plants.

During the 2016 monitoring Cryptosporidium was not found.

The water plants treat drinking water with a filtration process that has been shown to remove Cryptosporidium.

The following information is provided by the City of Austin as water supplier to Marsha WSC

**Unregulated Contaminant Monitoring Regulations (UCMR) Reporting**

Unregulated contaminants are those for which the EPA has not established drinking water standards. The purpose of the unregulated contaminants monitoring is to assist the 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 <http://www.epa.gov/safewater/ucmr/ucmr2/index.html>, or call the Safe Water Drinking Water Hotline at (800) 426-4791.

Parameter	units	MCLG	Date	Low	High	Average	Possible Sources
Bromodichloromethane	ppb	0	2016	3.4	19.2	13.9	Byproduct of drinking water disinfection
Chlorodibromomethane	ppb	60	2016	1.0	10.1	6.4	Byproduct of drinking water disinfection
Chloroform	ppb	70	2016	10.2	30.3	20.5	Byproduct of drinking water disinfection
Bromoform	ppb	0	2016	<1	1.3	1.0	Byproduct of drinking water disinfection
Dichloroacetic Acid	ppb	0	2016	6.7	16.2	11.2	Byproduct of drinking water disinfection
Trichloroacetic Acid	ppb	20	2016	1.3	9.2	5.2	Byproduct of drinking water disinfection
Monochloroacetic Acid	ppb	70	2016	<2	4.2	2.1	Byproduct of drinking water disinfection

Texas Water Code 13.148, as added during the 83rd Legislative Session by HB 1461, requires that retail public utilities report the result of a water loss audit to be included with the Consumer Confidence Report. What follows is the roll-up of the reports provided to customers in the monthly billing.

All usage is in gallons.

For the year 2016	input	metered	unmetered	inaccurate	systemic	loss	cycle-days
Jan	973,000	731,170	0	30,491	30,000	181,339	29
Feb	803,700	627,690	0	26,906	30,000	119,104	26
Mar	1,124,300	886,540	0	39,902	30,000	167,858	38
Apr	989,800	790,850	0	37,262	30,000	131,688	32
May	939,300	711,910	0	34,096	30,000	163,294	28
Jun	949,200	762,230	0	37,149	30,000	119,821	28
Jul	1,374,000	1,174,690	0	58,497	30,000	110,813	35
Aug	1,052,400	905,720	0	41,177	30,000	75,503	27
Sep	1,152,400	972,580	0	46,651	30,000	103,169	36
Oct	921,100	781,900	0	35,492	30,000	73,708	28
Nov	892,700	750,400	0	36,834	30,000	75,466	28
Dec	1,116,300	865,240	0	38,848	30,000	182,212	32
total	12,288,200	9,960,920	0	463,305	360,000	1,503,975	367
%-of-input		81.06%	0.00%	3.77%	2.93%	12.24%	
per-day	33,482.83	27,141.47	0.00	1,262.41	980.93	4,098.02	
per-hr	1,395.12	1,130.89	0.00	52.60	40.87	170.75	
per-min	23.25	18.85	0.00	0.88	0.68	2.85	
MWSC population is 484 by census count from 2010							
gpcd	69.18	56.08	0.00	2.61	2.03	8.47	