

2019 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, 2019.

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 Roland Martinez at (512) 803-8725.

Opportunities for public participation are available at the Board of Director's meetings, held on the third Tuesday of each month. Notice of the Board meetings is provided in the monthly billing, on the corporation notice board, and website at <http://www.marshawsc.org>

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)
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.

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.
Action Level (AL)	The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.
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
pci/L	picocuries per liter - a measure of radioactivity

2019 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)*	2019	16	15.6 - 15.6	No goal for the total	60	ppb	N	By-product of drinking water chlorination
Total Trihalomethanes (TTHM)*	2019	49	48.8 - 48.8	No goal for the total	80	ppb	N	By-product of drinking water chlorination

* The value in the Highest Level or Average Detected column is the highest average of all HAA5 and TTHM sample results collected at a location over a year.

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)	2019	0.11	0.11 - 0.11	10	10	ppm	N	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Nitrite (measured as nitrogen)	9/21/15	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	2019	0.97	0.80	1.16	4	4	ppm	N	Disinfectant used to control microbes

Total Coliform:

Maximum Contaminant Level Goal	Total Coliform Maximum Contaminant Level	Highest No. Of Positive	Fecal Coliform or E. Coli Maximum Contaminant Level	Total No. Of Positive E. Coli or Fecal Coliform Samples	Violation	Likely Source of Contamination
0	no positive monthly sample	0		0	N	Naturally present in the environment

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
Copper	2019	1.30	1.3	0.002	0	ppb	N	Corrosion of household plumbing systems. Erosion of natural deposits

Violations

Lead and Copper Rule			
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)	12/30/2019	2019	We failed to provide the results of lead tap water monitoring to the consumers at the location water was tested. These were supposed to be provided no later than 30 days after learning the results

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	2019	0.006	0.01	0.009	Natural Geology
Fluoride	ppm	4	4	2019	0.55	0.77	0.66	Supplement; natural geology
Nitrate (as N)	ppm	10	10	2019	0.54	0.57	0.56	Runoff from fertilizer
Copper	ppm	0	1.3	2019	<0.002	0.007	0.004	Household plumbing
Cyanide	ppb	200	200	2019	10	130	80	Discharge from manufacturing
Beta/photon emitters	pci/L (2018)	50	0	2018	4.8	4.8	4.8	Decay of natural and man-made deposits
Turbidity	ntu	TT	n/a	2019	0.01	0.13	0.04	Measure of cloudiness of the water

*100% of readings were below 0.3 NTU each month of the year

Disinfection Byproducts Regulated at the Treatment Center

Parameter	Units	MCL	MCLG	Date	Low	High	Average	
TOC Removal Ratio	%	AVG >= 1	No MCLG	2019	1.47	2.33	1.91	

The TOC removal ratio is the percent of TOC removed through the treatment process divided by the percent of TOC required by TCEQ to be removed. Total organic carbon (TOC) has no adverse health effects. Total organic carbon provides a medium for the formation of disinfection byproducts when water is disinfected. Disinfection is necessary to ensure that water does not have unacceptable levels of pathogens.

There were no drinking water treatment violations in 2019

The Utility is in compliance with the Total Organic Carbon (TOC) removal requirements in the Disinfection Byproducts Rule.

All surface sources are know 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.

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/dwucmr/third-unregulated-contaminant-monitoring-rule>, or call the Safe Water Drinking Water Hotline at (800) 426-4791.

Parameter	units	MCLG	Date	Low	High	Average	Possible Sources
Bromodichloromethane	ppb	0	2019	9.7	17.3	13.5	Byproduct of drinking water disinfection
Chlorodibromomethane	ppb	60	2019	4.5	11.0	7.4	Byproduct of drinking water disinfection
Chloroform	ppb	70	2019	10.2	24.4	16.4	Byproduct of drinking water disinfection
Bromoform	ppb	0	2019	<1.0	1.9	0.6	Byproduct of drinking water disinfection
Monochloroacetic Acid	ppb	70	2019	<2.0	2.5	2.0	Byproduct of drinking water disinfection
Dichloroacetic Acid	ppb	0	2019	6.0	12.6	9.3	Byproduct of drinking water disinfection
Trichloroacetic Acid	ppb	20	2019	2.2	5.0	3.5	Byproduct of drinking water disinfection
Dibromoacetic Acid	ppb	None	2019	1.1	2.6	1.8	Byproduct of drinking water disinfection
Bromochloroacetic Acid	ppb	None	2019	3.2	5.9	4.5	Byproduct of drinking water disinfection
HAA5* - five haloacetic acids	ppb	None	2019	12.9	26.7	17.3	Byproduct of drinking water disinfection
HAA6Br* - six brominated haloacetic acids	ppb	None	2019	9.2	17.2	12.8	Byproduct of drinking water disinfection
HAA9* - nine haloacetic acids	ppb	None	2019	20.9	39.9	28.3	Byproduct of drinking water disinfection

* These parameters were monitored as required by EPA's Fourth Unregulated Contaminant Monitoring Rule (UCMR 4)

