

## 2019 Annual Drinking Water Quality Report

(Consumer Confidence Report)

CITY OF MERCEDES

PWS ID # 1080007

Phone # 956-565-2372

### SPECIAL NOTICE

Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. EPA/CDC guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the Safe Drinking Water Hotline (800-426-4791).

**Public Participation Opportunities** The public is encouraged to attend the City Commission meetings which are held on the first and third Thursday of each month at the Mercedes City Hall located at 400 S. Ohio Ave.

For any questions regarding your drinking water or any of the information provided in the following pages please call the Mercedes Water Treatment Plant at (956)565-2372.

### Our Drinking Water Currently 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.

### 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

**En Español** Este informe incluye información importante sobre el agua potable. Si tiene preguntas o comentarios sobre éste informe en español, favor de llamar al tel. (956) 565 - 2372 - para hablar con una persona bilingüe en español.

**Where do we get our drinking water?** Our drinking water is obtained from a combination of surface water that originates from the Rio Grande River and groundwater. A Source Water Susceptibility Assessment for your drinking water source(s) is currently being updated by the Texas Commission on Environmental Quality. This information 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 information contained in the assessment allows us to focus our source water protection strategies. Source water assessment information is available on Texas Drinking Water Watch at <https://dww2.tceq.texas.gov/DWW/> For more information on source water assessments and protection efforts at our system, please contact us at (956) 565-2372

**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 pose no health concerns and are only included in this report if the secondary MCL is exceeded.

**About the following pages:** The Table of Detected Contaminants 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 90 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. **MPL** - State Assigned Maximum Permissible Level. **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. **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.

### ABBREVIATIONS:

**LRAA** - Locational Running Annual Average. **MPL** - Maximum Permissible Level. **NTU** - Nephelometric Turbidity Units. **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). **NA** - not applicable. **ND** - not detected. **RAA** - Running Annual Average. **MRL** - Minimum Reporting Limit

**TABLE OF DETECTED CONTAMINANTS**

**Microbiological Contaminants**

Year	Contaminant	MCLG	MCL	Total Number of Positives for the Year	Violation	Typical Source
2019	E. coli	0	Routine and repeat samples are total coliform-positive and either is E. coli-positive or system fails to take repeat samples following E. coli-positive routine sample or system fails to analyze total coliform-positive repeat sample for E. coli.	1*	No	Human and animal fecal waste.

\*In 2019, a routine bacteriological sample tested positive for E. coli. Three repeat samples were collected to verify the presence of E. coli after the positive result. All repeat samples tested negative or absent of E. coli.

**Inorganic Contaminants**

Sample Date	Contaminants	MCLG	MCL	Your Water	Range		Unit of Measure	Violation	Typical Source of Contaminant
					Low	High			
2019	Barium	2	2	0.1	NA		ppm	No	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.
2019	Cyanide	200	200	100	NA		ppb	No	Discharge from drilling wastes; Discharge from metal refineries; Erosion of natural deposits.
2019	Fluoride	4	4	0.4	NA		ppm	No	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories.
2019	Nitrate [measured as Nitrogen]	10	10	0.1	NA		ppm	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.
2019	Selenium	50	50	4.0	NA		ppb	No	Discharge of petroleum and metal refineries; erosion of natural deposits; discharge from mines.

**Maximum Residual Disinfectant Level**

Year	Disinfectant	MRDLG	MRDL	Your Water RAA	Range		Unit of Measure	Violation	Typical Source
					Low	High			
2019	Chloramines	4	4	2.7	0.9	4.7	ppm	No	Disinfectant used to control microbes.

Health information for Chloramine (as CL2) - Some people who use water containing chloramines well in excess of the MRDL could experience irritating effects to their eyes and nose. Some people who drink water containing chloramines well in excess of the MRDL could experience stomach discomfort or anemia.

**Disinfection Byproducts – Stage 2**

Year	Contaminant	MCLG	MCL	Your Water LRAA*	Range		Unit of Measure	Violation	Typical Source
					Low	High			
2019	Total Haloacetic Acids (HAA5)	NA	60	29	14	49	ppb	No	Byproduct of drinking water disinfection.
2019	Total Trihalomethanes (TTHM)	NA	80	74	58	89	ppb	No	Byproduct of drinking water disinfection.

Health information for TTHMs (Total Trihalomethanes) - 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 system, and may have an increased risk of getting cancer.

\* For Stage 2 Haloacetic Acids or TTHM, the level detected is the highest locational running annual average (LRAA). The locational running average is the average of sample analytical results for samples taken at a particular monitoring location during the previous four calendar quarters.

**Lead and Copper**

Year	Contaminant	MCLG	AL	Your Water 90 <sup>th</sup> Percentile	# Samples Exceeding AL	Unit of Measure	Exceeds AL	Typical Source
2017	Lead – action level at consumer taps	0	15	4.5	1	ppb	No	Corrosion of household plumbing systems; erosion of natural deposits.
2017	Copper – action level at consumer taps	1.3	1.3	0.5	2	ppm	No	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives.

**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 or at <http://www.epa.gov/safewater/lead>.

### Turbidity

Year	Contaminant	Limit (Treatment Technique)	Level detected	Violation	Source of Contaminant
2019	Highest single measurement (NTU's)	1.0	0.38	No	Soil runoff
2019	Lowest monthly % meeting limit	0.3	99.3%*	No	Soil runoff

\*99.3% was the lowest monthly % of samples below the TT value of 0.3. A value less than 95% constitutes a TT violation. The highest single measurement was 0.38. Any measurement in excess of 1 is a violation unless otherwise approved by the state.

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. These organisms include bacteria, viruses, and parasites that can cause symptoms such as nausea, cramps, diarrhea and associated headaches.

### Radioactive Contaminants

Year	Contaminant	MCLG	MCL	Your Water	Range		Unit of Measure	Violation	Typical Source
					Low	High			
2017	Gross Beta/photon emitters	0	50*	6.8	NA		pCi/L	No	Decay of natural and man-made deposits
2017	Combined Radium	0	4	1.5	NA		mrem/yr	No	Decay of natural and man-made deposits

\* EPA considers 50 pCi/L to be the level of concern for beta particles.

### Total Organic Carbon (TOC)

Year	Contaminant	Lowest TOC removal ratio %	Average TOC removal ratio %	Highest TOC removal ratio %	Treatment Technique (TT)	MCLG	Unit of Measure	Source of Contaminant
2019	TOC Removal	0.92	1.58	1.96	TT -System provides the alternative compliance criteria removal ratio required	NA	%*	Naturally present in the environment.

\*Removal ratio is the percent of TOC removed by the treatment process divided by the percent of TOC required by TCEQ to be removed.

Total organic carbon (TOC) has no health effects. The disinfectant can combine with TOC to form disinfection byproducts. Disinfection is necessary to ensure that water does not have unacceptable levels of pathogens. Byproducts of disinfection include trihalomethanes (THMs) and haloacetic acids (HAA) which are reported elsewhere in this report.

### Fourth Unregulated Contaminant Monitoring Rule (UCMR4)

Year	Contaminants	MRL	Your Water	Low	High	Typical Source
2019	Haloacetic Acids (HAA5) (ppb)	NA	19.4	15.4	24	By-product of drinking water disinfection
2019	Haloacetic Acids (HAA6Br) (ppb)	NA	33.1	26.5	42.7	By-product of drinking water disinfection
2019	Haloacetic Acids (HAA9) (ppb)	NA	42.7	35.6	55	By-product of drinking water disinfection
2019	Manganese (ppb)	0.4	0.4	0.4	0.4	Naturally-occurring element; Commercially available in combination with other elements and minerals; Used in steel production, fertilizer, batteries and fireworks; Drinking water and wastewater treatment chemical; Essential nutrient

Unregulated contaminants are those for which the EPA has not established drinking water standards. The purpose of unregulated contaminant monitoring is to assist the EPA in determining the occurrence of unregulated contaminants in drinking water and whether future regulations are warranted. A MCL for these for these substances has not been established by either state or federal regulations, nor has mandatory health effects language.

### Microbiological Monitoring

**Coliforms** are bacteria that are naturally present in the environment and are used as an indicator that other, potentially harmful, waterborne pathogens may be present or that a potential pathway exists through which contamination may enter the drinking water distribution system. We found coliforms indicating the need to look for potential problems in water treatment or distribution. When this occurs, we are required to conduct assessment(s) to identify problems and to correct any problems that were found during these assessments.

During the past year we were required to conduct one Level 1 assessment, which has been completed. As a result, we were required to conduct and have completed two corrective actions.

During the past year we were required to conduct one Level 2 assessments, which has been completed. As a result, we were required to conduct six corrective actions and we completed two of these actions to date. During the past year we failed to correct all identified defects that were found during the assessment.

## OPEN SIGNIFICANT DEFICIENCIES

The following open significant deficiencies resulted from the Level 2 Assessment mentioned above.

<b>Deficiency</b>	<b>Description</b>	<b>Corrective Action</b>	<b>Est. Completion Date</b>
Failure to maintain distribution system in a water-tight condition	The older cast iron and asbestos cement distribution pipes were found extremely corroded which could lead to bacteria contamination.	The City has developed a schedule for the replacement of corroded distribution pipe concentrating first on the areas experiencing the most severe corrosion.	August 31, 2020
Failure to maintain minimum separation distance requirement between potable water lines and wastewater collection facilities.	Locations in the distribution system were found that do not meet the minimum 9-foot separation distance requirement between potable water lines and wastewater collection.	The City has developed a list of nonconforming locations and have prioritized scheduled corrections based on public health risk. To date, approximately 5% of locations have been corrected.	December 31, 2020