

## Information About Your 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 pick up 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 EPA's 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

immunocompromised 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

TCEQ completed an assessment of your source water, and results indicate that some of our sources are susceptible to certain contaminants. The sampling requirements for your water system is based on this susceptibility and previous sample data. Any detections of these contaminants will be found in this Consumer Confidence Report. For more information on source water assessments and protection efforts at our system contact the Water Department at (956) 487-2702.

This is your Water Quality Report for January 1, 2019 to December 31, 2019.

City of Rio Grande City provides surface water from the Rio Grande River located in Rio Grande City, Starr County, TX.

# 2019 Annual Drinking Water Quality Report Consumer Confidence Report



PWS/TX2140018

## PUBLIC PARTICIPATION OPPORTUNITIES

The City of Rio Grande City meets publicly on the 2<sup>nd</sup> Tuesday of each month at 6:00 p.m. at City Hall. To learn more about future public meetings, please call us and ask for Steven E. Cruz III, Public Utilities Director.

### En Espanol

Este reporte incluye informacion sobre su agua de tomar. Para obtener una copia de esta informacion, preguntas o discusiones sobre este reporte en espanol, favor de llamar al tel 956.487.2702 para hablar con una persona bilingue en espanol.

### Coliform Bacteria

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	1 positive monthly sample.	1	0	0	N	Naturally present in the environment.

### 2019 Water Quality Test Results

Disinfection By-products	Collection Date	Highest level Detected	Range of level detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Chlorite	2019	0.26	0-0.26	0.8	1	ppm	N	By-product of drinking water disinfection
Haloacetic Acids (HAA5)**	2019	21	3.7 – 32	No goal for the total	60	ppb	N	By-product of drinking water disinfection
<b>* The value in the Highest Level or Average Detected column is the highest average of all HAA5 sample results collected at a location over a year'</b>								
Total Trihalomethanes (TTHM)*	2019	38	13.5 – 49.2	No goal for the total	80	ppb	N	By-product of drinking water disinfection
<b>* The value in the Highest Level or Average Detected column is the highest average of all TTHM sample results collected at a location over a year'</b>								
<b>Inorganic Contaminants</b>								
Barium	2019	0.0807	0.0807 – 0.0807	2	2	ppm	N	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
Flouride	2019	0.5	0.46 – 0.46	4	4.0	ppm	N	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories
Nitrate (as Nitrogen)	2019	0.37	0.37 – 0.37	10	10	ppm	N	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
Selenium	2019	3.5	3.5 – 3.5	50	50	ppb	N	Discharge from petroleum and metal refineries; Erosion of natural deposits; Discharge from mines

### Disinfectant Residual

Disinfectant Residual	Year	Average Level	Range of Levels Detected	MRDL	MRDLG	Units	Violation (Y/N)	Source of chemical
Chloramines	2019	3.8	1.3-5.9	4	4	ppm	N	Water additive used to control microbes

### Radioactive Contaminants

Radioactive Contaminants	Collection Date	Highest level Detected	Range of level detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Beta/Photon emitters	03/07/2017	5.4	5.4 – 5.4	0	50	pCi/L*	N	Decay of natural and man-made deposits
<b>*EPA considers 50 Pci/L to be the level of concern for beta particles</b>								
Combined Radium 226/228	03/07/2017	1.5	1.5 – 1.5	0	5	pCi/L	N	Erosion of natural deposits
Uranium	03/07/2017	1.1	1.1 – 1.1	0	15	ug/l	N	Erosion of natural deposits

### LEAD AND COPPER

Lead and Copper	Date Sampled	MCLG	Action Level (AL)	90 <sup>th</sup> Percentile	# Sites Over AL	Units	Violation	Likely Source of Contamination
Copper	07/25/2017	1.3	1.3	0.0582	0	ppm	N	Erosion of natural deposits; Leaching from wood preservatives; Corrosion of household plumbing systems.
Lead	07/25/2017	0	15	1.28	0	ppb	N	Corrosion of household plumbing systems; Erosion of natural deposits.

### Turbidity

Limit (Treatment Technique)	Level Detected	Violation	Likely Source of Contamination
Highest single measurement	0.32 NTU	N	Soil runoff.
Lowest monthly % meeting limit	100%	N	Soil runoff.

Information statement: Turbidity is a measurement of the cloudiness of the water caused by suspended particles. We monitor it because it is a good indicator of water quality and the effectiveness of our filtration

### Total Organic Carbon

The percentage of Total Organic Carbon (TOC) removal was measured each month and the system met all TOC removal requirements set, unless a TOC violation is noted in the violations section

### Violations

#### 2,4,5-TP (Silvex)

Some people who drink water containing silvex in excess of the MCL over many years could experience liver problems.

Violation Type	Violation Begin	Violation End	Violation Explanation
MONITORING, ROUTINE MAJOR	01/01/2017	12/31/2019	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.

#### 2,4-D

Some people who drink water containing the weed killer 2,4-D well in excess of the MCL over many years could experience problems with their kidneys, liver, or adrenal glands.

Violation Type	Violation Begin	Violation End	Violation Explanation
MONITORING, ROUTINE MAJOR	01/01/2017	12/31/2019	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.

#### Antimony

Some people who drink water containing antimony well in excess of the MCL over many years could experience increases in blood cholesterol and decreases in blood sugar.

Violation Type	Violation Begin	Violation End	Violation Explanation
MONITORING, ROUTINE MAJOR	01/01/2019	12/31/2019	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.

<b>Arsenic</b>			
<b>Some people who drink water containing arsenic in excess of the MCL over many years could experience skin damage or problems with their circulatory system and may have an increased risk of getting cancer.</b>			
<b>Violation Type</b>	<b>Violation Begin</b>	<b>Violation End</b>	<b>Violation Explanation</b>
MONITORING, ROUTINE MAJOR	01/01/2019	12/31/2019	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.
<b>Barium</b>			
<b>Some people who drink water containing barium in excess of the MCL over many years could experience an increase in their blood pressure.</b>			
<b>Violation Type</b>	<b>Violation Begin</b>	<b>Violation End</b>	<b>Violation Explanation</b>
MONITORING, ROUTINE MAJOR	01/01/2019	12/31/2019	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.
<b>Beryllium</b>			
<b>Some people who drink water containing beryllium well in excess of the MCL over many years could develop intestinal lesions.</b>			
<b>Violation Type</b>	<b>Violation Begin</b>	<b>Violation End</b>	<b>Violation Explanation</b>
MONITORING, ROUTINE MAJOR	01/01/2019	12/31/2019	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.
<b>Cadmium</b>			
<b>Some people who drink water containing cadmium in excess of the MCL over many years could experience kidney damage</b>			
<b>Violation Type</b>	<b>Violation Begin</b>	<b>Violation End</b>	<b>Violation Explanation</b>
MONITORING, ROUTINE MAJOR	01/01/2019	12/31/2019	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.
<b>Carbofuran</b>			
<b>Some people who drink water containing carbofuran in excess of the MCL over many years could experience problems with their blood, or nervous or reproductive systems.</b>			
<b>Violation Type</b>	<b>Violation Begin</b>	<b>Violation End</b>	<b>Violation Explanation</b>
MONITORING, ROUTINE MAJOR	01/01/2017	12/31/2019	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.
<b>Chromium</b>			
<b>Some people who use water containing chromium well in excess of the MCL over many years could experience allergic dermatitis.</b>			
<b>Violation Type</b>	<b>Violation Begin</b>	<b>Violation End</b>	<b>Violation Explanation</b>
MONITORING, ROUTINE MAJOR	01/01/2019	12/31/2019	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.
<b>Cyanide</b>			
<b>Some people who use water containing cyanide well in excess of the MCL over many years could experience nerve damage or problems with their thyroid.</b>			
<b>Violation Type</b>	<b>Violation Begin</b>	<b>Violation End</b>	<b>Violation Explanation</b>
MONITORING, ROUTINE MAJOR	01/01/2019	12/31/2019	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.
<b>Dalapon</b>			
<b>Some people who use water containing dalapon well in excess of the MCL over many years could experience minor kidney changes.</b>			
<b>Violation Type</b>	<b>Violation Begin</b>	<b>Violation End</b>	<b>Violation Explanation</b>
MONITORING, ROUTINE MAJOR	01/01/2017	12/31/2019	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.
<b>Dibromochloropropane (DBCP)</b>			
<b>Some people who use water containing DBCP well in excess of the MCL over many years could experience reproductive difficulties and may have an increased risk of getting cancer.</b>			
<b>Violation Type</b>	<b>Violation Begin</b>	<b>Violation End</b>	<b>Violation Explanation</b>
MONITORING, ROUTINE MAJOR	01/01/2017	12/31/2019	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.
<b>Dinoseb</b>			
<b>Some people who use water containing dinoseb well in excess of the MCL over many years could experience reproductive difficulties.</b>			
<b>Violation Type</b>	<b>Violation Begin</b>	<b>Violation End</b>	<b>Violation Explanation</b>
MONITORING, ROUTINE MAJOR	01/01/2017	12/31/2019	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.
<b>Ethylene dibromide</b>			
<b>Some people who use water containing ethylene dibromide well in excess of the MCL over many years could experience problems with their liver, stomach, reproductive system, or kidneys, and may have an increased risk of getting cancer.</b>			
<b>Violation Type</b>	<b>Violation Begin</b>	<b>Violation End</b>	<b>Violation Explanation</b>
MONITORING, ROUTINE MAJOR	01/01/2017	12/31/2019	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.
<b>Fluoride</b>			
<b>Some people who use water containing fluoride well in excess of the MCL over many years could get bone disease, including pain and tenderness of the bones. Fluoride in drinking water at half the MCL or more may cause mottling of children's teeth, usually in children less than nine years old. Mottling, also known as dental fluorosis, may include brown staining and/or pitting of teeth, and occurs only in developing.</b>			
<b>Violation Type</b>	<b>Violation Begin</b>	<b>Violation End</b>	<b>Violation Explanation</b>
MONITORING, ROUTINE MAJOR	01/01/2019	12/31/2019	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.
<b>Mercury</b>			
<b>Some people who use water containing mercury well in excess of the MCL over many years could experience kidney damage.</b>			
<b>Violation Type</b>	<b>Violation Begin</b>	<b>Violation End</b>	<b>Violation Explanation</b>
MONITORING, ROUTINE MAJOR	01/01/2019	12/31/2019	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.
<b>Nitrate [measured as Nitrogen]</b>			
<b>Infants below the age of six months who drink water containing nitrate in excess of the MCL could become seriously ill and, if untreated, may die. Symptoms include shortness of breath and blue-baby syndrome.</b>			
<b>Violation Type</b>	<b>Violation Begin</b>	<b>Violation End</b>	<b>Violation Explanation</b>
MONITORING, ROUTINE MAJOR	01/01/2019	12/31/2019	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.
<b>Oxamyl [Vydate]</b>			
<b>Some people who use water containing oxamyl well in excess of the MCL over many years could experience slight nervous system effects.</b>			
<b>Violation Type</b>	<b>Violation Begin</b>	<b>Violation End</b>	<b>Violation Explanation</b>

MONITORING, ROUTINE MAJOR	01/01/2017	12/31/2019	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.
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Picloram

**Some people who use water containing picloram well in excess of the MCL over many years could experience problems with their liver.**

Violation Type	Violation Begin	Violation End	Violation Explanation
MONITORING, ROUTINE MAJOR	01/01/2017	12/31/2019	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.

Selenium

**Selenium is an essential nutrient. However, some people who drink water containing selenium in excess of the MCL over many years could experience hair or fingernail losses, numbness in fingers or toes, or problems with their circulation.**

Violation Type	Violation Begin	Violation End	Violation Explanation
MONITORING, ROUTINE MAJOR	01/01/2019	12/31/2019	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.

Thallium

**Some people who drink water containing thallium in excess of the MCL over many years could experience hair loss, changes in their blood, or problems with their kidneys, intestines, or liver.**

Violation Type	Violation Begin	Violation End	Violation Explanation
MONITORING, ROUTINE MAJOR	01/01/2019	12/31/2019	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.

**DEFINITIONS AND ABBREVIATIONS:**

**(AL) Action Level**=Concentration of contaminant, which exceeded, triggers treatment or other requirements, which water system must follow.

**(ALG) Action Level Goal**=The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

**(Avg) Average**= Regulatory compliance with some MCLs are based on running annual average of monthly samples.

**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.

**(MCL) Maximum Contaminants Level**=the highest permissible level of contaminants in drinking water.

**(MCLG) Maximum Contaminants Goal**=level of contaminants in drinking water below which there is no known or expected health risk; MCLG allows for margin of safety.

**(MRDL) Maximum residual disinfectant level**=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.

**(MRDLG) Maximum residual disinfectant level goal**=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).

**mrem**= millirems per year (a measure of radiation absorbed by the body).

**na**= not applicable.

**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.

**pCi/L**=Picocuries per liter of a measure fro radioactivity.

**ppq**= parts per quadrillion, or picograms per liter (pg/L).

**ppt**= parts per trillion, or nanograms per liter (ng/L).

**(TT) Treatment Technique**=A required process intended to reduce the level of contaminant in drinking water.

**(NTU)Nephelometric Turbidity Units**= are units of measure for Turbidity, such as miles measures distance. Turbidity has no health effects. However, turbidity can interfere with disinfecting and provide a medium for microbial growth.

**What are coliforms?** They are bacteria used as indicator of microbial contamination of drinking water. While not disease-causing organisms themselves, they are often found in association with other microbes that cause disease.

**Fecal Coliform**- are members of the coliform bacteria group originating in the intestinal tract of warm-blooded animals and pass to the environment through feces. Absence of both bacteria is a good indication that water is microbiologically safe for human consumption.