

Issued July 1, 2017



## 2016 Annual Drinking Water Quality Report



### Edinburg Water Treatment Plants

#### West Water Plant

1752 S. Mon Mack Rd  
Edinburg, Texas 78539  
(956) 388-8220

#### Downtown Water Plant

500 E. Mahl  
Edinburg, Texas 78539  
(956) 388-8220



## **About this Report**

The City of Edinburg Utilities Department is pleased to present to you the annual Drinking Water Quality Report for 2016, also known as the Consumer Confidence Report (CCR). The U.S. Environmental Protection Agency and the Texas Commission on Environmental Quality (TCEQ) require that all water agencies produce an annual report on the previous year informing customers about the quality of their drinking water.

The City of Edinburg's annual Drinking Water Quality Report includes details about where your water comes from, what it contains, and how it compares to state standards. In 2016, as in years past, your tap water met all state and federal drinking water health standards (primary standards for treating and monitoring water). The City of Edinburg Utilities Department vigilantly safeguards water supplies and meets all water quality standards. This report is a snapshot of last year's water quality.

Please note that although some terms may be unfamiliar to you, we have provided definitions that may be helpful. If you need clarification please call the Water Plant at (956) 388-8220.

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### Edinburg Water Treatment Plants

provide and deliver *safe drinking potable water with adequate supply and pressure*. The City's Water Treatment and Distribution Systems have been recognized by TCEQ and have been rated as a “**Superior Public Water Supply**” system. The City owns and maintains two water treatment plants.



The Downtown Water Treatment Plant is located at 500 E. Mahl and the West Water Treatment Plant is located at 1752 S. Mon Mack. Both plants operate 24 hours per day, 7 days a week, 365 days a year. The Downtown Plant's rated capacity is 10 million gallons per day (MGD), and has conventional sedimentation process with rapid sand filters. The West Water Treatment Plant's rated capacity is 8 MGD, and is a solids-contact process unit with flow demand filters. The primary disinfectant at both plants is chlorine dioxide and use both chlorine and ammonia to form chloramines as the distribution disinfectant. The current average daily water treatment is 11.298 MGD's, with peaks reading as high as 14.0 MGD's during



## West Water Treatment Plant Expansion Project

The City of Edinburg commenced construction to increase the capacity of the West Water Treatment Plant, from 8 MGD (Million Gallons per Day) to 16 MGD's in 2015. The project is in it's final stage of completion and is expected to be completed by August of 2017.

When completed the City will have a combined total treatment capacity of 26 MGD's, which equates to 36,848 service connections. Currently, the City has over 25,000 service connections.



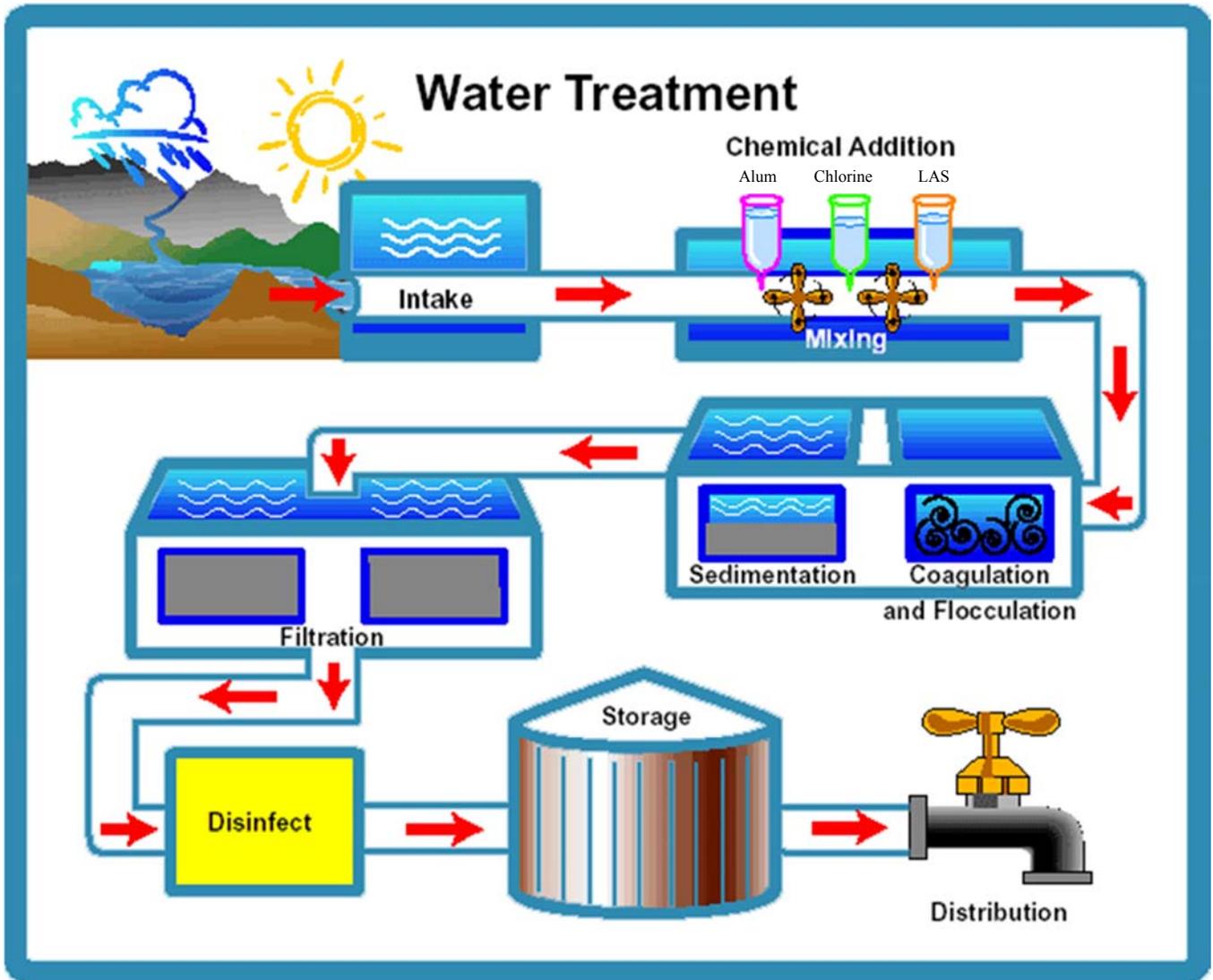
## **Primary Source of Water**

The City's primary source of raw water is the Rio Grande River. The City owns and operates a raw water reservoir located at 3420 W. Freddy Gonzalez, with a capacity to hold 210 million gallons or a 19 day supply.

The City owns and/or has under contract a total of 11,809.952 acre feet of municipal water rights per year. Raw water is supplied by Hidalgo County Irrigation District No. 1 and/or No. 2. HCID #1 supplies 5,390 A.F., which are reserved for the City and 2,700 A.F. that are under contract. HCID #2 supplies 2,591.32 A.F. owned by the City and 1,073.392 A.F. through subdivision exclusions.

The City also has a contract with McAllen Public Utilities (MPU) to supply a minimum of 55.24 A.F. of treated potable water. The usage is based on water demand placed on the City's distribution system.





Example of Water Treatment Process



**WATER CONSERVATION**  
**STAGE 2 - MANDATORY COMPLIANCE - WATER ALERT**

**DESIGNATED DAYS: ODD ADDRESS - WEDNESDAYS & SATURDAYS**  
**EVEN ADDRESS - THURSDAYS & SUNDAYS**

**Sprinkler Irrigation of lawns, gardens, landscaping, trees, and shrubs allowed between mid-night and 10:00 a.m., and after 6:00 p.m. to midnight, on designated days.**

**No irrigating may be done between the hours of 10:00 a.m. to 6:00 p.m.** Irrigation of lawns, gardens, landscaped areas, trees, shrubs, or other plants is permitted at any time, only if with:

1. A hand-held hose;
2. A hand-held, faucet filled bucket of five gallons or less; or
3. A drip irrigation system.

**Washing of vehicles, trucks, trailers, boats, airplanes or mobile equipment allowed between 6:00 p.m. to 10:00 p.m., on designated days only, with a handheld bucket or a handheld hose equipped with a positive shutoff nozzle for quick rinses.** Washing may be done at any time on premises of commercial carwash or commercial service station.

**Washing or sprinkling of foundations and refilling or adding water to swimming and wading pools - only between the hours of 6:00 p.m. to 12:00 a.m., on designated days only.**

**Four Tips to Help Conserve Water Outdoors**



- Use a broom, not a hose, to clean the driveway.



- Use a rain sensor to regulate the sprinkling system.



- Use a shut-off nozzle.



- Only water when needed.



### **Special Notice (As required by TCEQ)**

You may be more vulnerable than the general population to certain microbial contaminants, such as *Cryptosporidium*, in drinking water. Infants, some elderly or immune-compromised 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 (1-800-426-4791)

### **Public Participation Opportunities**

The Edinburg City Council meets every **1st** and **3rd** Tuesday of each month, at 6:00 P.M., at 415 W. University Drive Edinburg, Texas 78539. The purpose of the meetings is to conduct City business such as proclamations, awarding of bids and contracts and public hearings. Residents wishing to address the Council must complete a Public Comments Form provided prior to the start of the meeting. The completed form must then be submitted to the City Secretary. For more information on this process call the City Secretary's Department at (956) 388-8204.





**ALL drinking water may contain contaminants.**

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). 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, odor, or color problems. These types of problems are not necessarily causes for health concerns. For more information on these types of problems, please contact The Edinburg Water Plant at 956-388-8220.



**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) 388-8220, para hablar con una persona bilingüe en español.



## 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: Microbial contaminants, such as viruses & bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, & wildlife. Inorganic contaminants, such as salts & metals, which can be naturally-occurring or results from urban storm water runoff, industrial or domestic wastewater discharges, oil & gas production, mining, or farming. Pesticides & herbicides, which may come from a variety of sources such as agriculture, urban storm water runoff, & residential uses. Radioactive contaminants, which can be naturally-occurring or be the results of oil & gas production & mining activities. Organic chemical contaminants, including synthetic & volatile organic chemicals, which are by-products of industrial processes & petroleum production, & can also come from gas stations, urban storm water runoff, & septic systems.



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A *Source Water Susceptibility Assessment* for your drinking water source(s) was completed by the Texas Commission on Environmental Quality and the results 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 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 Confident Report. For more information on source water assessments and protection efforts at our system, contact Mr. Javier Valdez, Water Plant Superintendent at 956-388-8220 between 8:00 a.m. and 5:00 p.m. Please refer to the Source Water Assessment Viewer available at this URL: <https://gisweb.tceq.texas.gov/swav/Controller/index.jsp?wtrsrc=> .



## 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 ( $\mu\text{g/L}$ )

ppt -parts per trillion, or nanograms per liter

AVG – Regulatory compliance with some MCLs are based on running annual average of monthly samples



## 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 contaminants.

**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.

**About The Following Table:** The following tables 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 up to 97 constituents.



## Inorganic Contaminants

Year	Contaminant	Max. Level	Range of Level	MCLG	MCL	Violation	Unit of Measure	Source of Contaminant
2016	Arsenic	3.0	2.8 – 2.8	0	10	N	ppb	Erosion of natural deposits; runoff from orchards; runoff from glass & electronics production waste
2016	Barium	0.112	.11-.112	2	2	N	ppm	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits.
2016	Fluoride	0.5	0.51-0.52	4	4.0	N	ppm	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer & aluminum factories.
2016	Cyanide	60	60 - 60	200	200	N	ppb	Discharge from plastic & fertilizer factories; Discharge from steel/metal factories.
2016	Selenium	4.9	4.9 - 4.9	50	50	N	ppb	Discharge from petroleum & metal refineries; Erosion of natural deposit; Discharge from mines
2016	Nitrate	1	0.48-0.53	10	10	N	ppm	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits.

## Radioactive Contaminants

Year	Contaminant	Max. Level	Range of Level	MCLG	MCL	Violation	Unit of Measure	Source of Contaminant
1/27/14	Gross Alpha	2.6	1-2.6	0	15	N	pCi/L *	Erosion of natural deposits.
2016	Beta/photon Emitters	5.4	5.4-5.4	0	50	N	pCi/L *	Decay of natural and man-made Deposits.
2016	Combined Radium	1.5	1.5-1.5	0	5	N	pCi/L *	Erosion of natural deposits.
2016	Uranium	3.5	3.5-3.5	0	30	N	ug/l	Erosion of natural deposits.

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



### Maximum Residual Disinfectant Level

Year	Disinfectant	Avg. Level	Min. Level	Max. Level	MRDL	MRDLG	Unit of Measure	Source of Chemical
2016	Chloramines	2.46	.50	4.0	4.0	<4.0	ppm	Disinfectant used to control microbes.
2016	Chlorine Dioxide	.023	0.0	0.03	.80	.80	ppm	Disinfectant used to control microbes.

### Regulated Contaminants

Year	Disinfectant and Disinfection By-Products	Max. Level	Range of Level	MCLG	MCL	Violation	Unit of Measure	Source of Contaminant
2016	Total Haloacetic Acids	18	4.4 – 24.8	*	60	N	ppb	By-product of drinking water disinfection.
2016	Total Trihalomethanes	55	13.6-122	*	80	N	ppb	By-product of drinking water disinfection.
2016	Chlorite	.84	0.00-0.84	0.8	1	N	ppm	By-product of drinking water disinfection

\* No goal for the total

### 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 violation section.





## Cryptosporidium Monitoring Information

Cryptosporidium is a microbial pathogen that may be found in water contaminated by feces. Although filtration removes Cryptosporidium, it cannot guarantee 100 percent removal nor can the testing methods determine if the organisms are alive and capable of causing cryptosporidiosis, an abdominal infection with nausea, diarrhea and abdominal cramps that may occur after ingestion of contaminated water. The following results were acquired from untreated water coming into our raw water reservoir; prior to any chemical treatment.

Year	Contaminant	Avg. Level	Min. Level	Max. Level	Unit of Measure	Source of Constituent
2016	Cryptosporidium	<.096	<0.091	<0.100	oocysts	Microbial pathogen found in water contaminated by feces.
2016	Eschericia Coli	25.12	6.3	57.6	MPN/100 ml	Microbial pathogen found in water contaminated by feces.

## 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.

Year	Contaminant	Date Sampled	MCLG	Action Level (AL)	90 <sup>th</sup> Percentile	# Site Over AL	Unit of Measure	Violation	Source of Contaminant
2016	Copper	2016	1.3	1.3	0.1	0	ppm	N	Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives.
2016	Lead	2016	0	15	2.7	0	ppb	N	Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives.

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 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 the 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 1-800-426-4791 or at <http://www.epa.gov/safewater/lead>.



## Turbidity

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.

Year	Contaminant Turbidity	Limit (Treatment Technique)	Level Detected	Violation	Source of Constituent
2016	Highest Single Measurement	1 NTU	0.57 NTU	N	Soil Runoff
2016	Lowest Monthly % Meeting Limits	.3 NTU	99 %	N	Soil Runoff

## Coliform Bacteria

Total coliform bacteria are used as indicators of microbial contamination of drinking water because testing for them is easy. While not disease-causing organisms themselves, they are often found in association with other microbes that are capable of causing disease. Coliform bacteria are more hardy than many disease-causing organisms; therefore, their absence from water is a good indication that the water is microbiologically safe for human consumption.

Year	Maximum Contaminant Level Goal	Total Coliform Maximum Contaminant Level	Highest No. of Positive Samples	Fecal Coliform or E.coli Maximum Contaminant Level	Total No. of Positive E.coli or Fecal Coliform Samples	Violation	Likely Source of Constituent
2016	0	5 % of monthly samples are positive	1.2	*	0	N	Naturally present in the environment

\*Fecal Coliform or E.coli MCL: A routine sample are total coliform positive, and one is also fecal coliform or E coli positive

## Violation Table

Lead and Copper Rule			
The Lead & Copper Rule protects public health by minimizing lead & copper levels in drinking water, primarily by reducing water corrosivity. Lead & copper enter drinking water mainly from corrosion of lead and copper containing plumbing materials.			
Violation Type	Violation Begin	Violation End	Violation Explanation
Follow-up or Routine Tap M/R (LCR)	10/01/2015	08/08/2016	We failed to test our drinking water for the contaminant & period indicated. Because of this failure, we cannot be sure of the quality of our drinking water during the period indicated. Sample collected at wrong address nullified all samples for sampling period indicated. Retesting to be done in 2016