

2021 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 2021, 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 2021, 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.





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 16 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 13.535 MGD's, with peaks reading as high as 14.832 MGD's during peak demands.



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 13,069.595 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 6,481 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 1,297.275 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 City's distribution system.



Issued July 1, 2022 2 Water Treatment **Chemical Addition** Chlorine Alum LAS Intake Mixing Sedimentation Coagulation and Flocculation Filtration Storage Disinfect Distribution

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 midnight 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.





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 guide-lines 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 con-



duct 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 taste, odor, or color of drinking water, please contact The Edinburg Water Plant at 956-388-8220. 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. Radioactive contaminants, which can be naturally-occurring or be the results of oil and gas production and mining activities. We are responsible for providing high quality drinking water, but we cannot control the variety of material 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

NORTH ALAMO WSC, provides purchase treated water to the City of Edinburg's distribution system. All raw water that NAWSC treats comes from the Rio Grande River, which is located in Hidalgo County.

Year	Water distributed from NAWSC Plant #2	Contaminant	Highest Single Measurement	Lowest Monthly % of Samples Meeting Limits
2021	City of Edinburg	Turbidity	.27	100.00





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.



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 Mr. Javier Valdez, Water Plant Manager at 956-388-8220 between 8:00 a.m. and 5:00 p.m.

Further details about sources and source water assessments are available in the Drinking Water Watch at this URL: <u>http://dww2.tceq.texas.gov/DWW/</u>.



ABBREVIATIONS

- NTU Nephelometric Turbidity Units
- MFL million fibers per liter (a measure of asbestos)
- pCi/L -picocuries per liter (a measure of radioactivity)
- ppm milligrams per liter or parts per million
- ppb micrograms per liter or parts per billion
- ppt parts per trillion, or nanograms per liter (ng/L)
- Ppq parts per quadrillion, or picograms per liter (pg/L)
- mrem millirems per year (a measure of radiation absorbed by the body)

Na - not applicable

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.

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 & 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.

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.

Action Level Goal (ALG) -- The level of a contaminant in drinking water below which there is no known or expected risk to health. ALG allow for a margin of safety.

Definitions and Abbreviations — The following tables contain scientific terms and measures, some of which may require explanation.

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
2021	Arsenic	2	2.4 - 2.4	0	10	N	ppb	Erosion of natural deposits; runoff from orchards; runoff from glass & electronics pro- duction waste
2021	Barium	0.11	.099011	2	2	N	ppm	Discharge of drilling wastes; discharge from metal refiner- ies; erosion of natural depos- its.
2021	Fluoride	0.7	0.64066	4	4.0	Ν	ppm	Erosion of natural deposits; water additive which pro- motes strong teeth; discharge from fertilizer & aluminum factories.
2021	Cyanide	10	0 - 10	200	200	Ν	ppb	Discharge from plastic & fertilizer factories; Discharge from steel/metal factories.
2021	Selenium	4.4	3.2 - 4.4	50	50	Ν	ppb	Discharge from petroleum & metal refineries; Erosion of natural deposit; Discharge from mines
2021	Nitrate	.24	0.11 - 0.24	10	10	N	ppm	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits.

Radioactive Contaminants

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

Year	Contaminant	Max. Level	Range of Level	MCLG	MCL	Violation	Unit of Measure	Source of Contaminant
2020	Gross Alpha	<3.0		0	15	Ν	pCi/L *	Erosion of natural deposits.
2020	Beta/photon Emitters	6.1	6.1-6.1	0	50	Ν	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.
2020	Uranium	1.9	1.9-1.9	0	30	Ν	ug/l	Erosion of natural deposits.



Maximum Residual Disinfectant Level

Year	Disinfectant	Avg. Level	Min. Level	Max. Level	MRDL	MRDLG	Unit of Measure	Violation (Y/N)	Source of Chemical
2021	Chloramines	2.94	0.5	4.00	4.0	<4.0	ppm	ppm	Water additive used to control microbes.
2021	Chlorine Dioxide	.029	0.00	0.13	.80	.80	ppm	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
2021	Haloacetic Acids (HAA5)	30	8.5 - 52.3	*	60	N	ppb	By-product of drinking water disinfection.
2021	Trihalomethanes (TTHM)	83	24.5 - 112	*	80	Y	ppb	By-product of drinking water disinfection.
2021	Chlorite	.731	0 - 0.731	0.8	1	Ν	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.



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 th Pecentile	# Site Over AL	Unit of Meas- ure	Violation	Source of Contaminant
2019	Copper	2019	1.3	1.3	0.2543	0	ppm	Ν	Corrosion of household plumb- ing systems; Erosion of natural deposits; Leaching from wood preservatives.
2019	Lead	2019	0	15	3.6	1	ррь	Ν	Corrosion of household plumb- ing 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

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 the water quality and the effectiveness of our filtration system and disinfectants.

Year	Contaminant Turbidity	Limit (Treatment Technique)	Level Detected	Violation	Source of Constituent
2021	Highest Single Measurement	1 NTU	0.32 NTU	Ν	Soil Runoff
2021	Lowest Monthly % Meeting Limits	.3 NTU	100 %	N	Soil Runoff

Violations

Total Trihalomethanes (TTHM)

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.

Violation Type	Violation Begin	Violation End	Violation Explanation	
MCL, LRAA	10/01/2021 12/31/2021		Water sample showed that the amount of this contam nant in our drinking water was above its standard (called a maximum contaminant level and abbreviate MCL) for the period indicated.	