

2017 Consumer Confidence Report (CCR)
Annual Water Quality Report for the period of January 1 to December 31, 2017

PWS ID Number: TX0310002
PWS Name: Harlingen Waterworks System
PWS Phone Number: (956) 430-6100

For more information regarding this report contact:
Name: HWWS Environmental Compliance Coordinator
Phone Number: (956) 440-6563

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.

Special Notice: 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 at (800) 426-4791.

Public Participation Opportunities: A five-member board appointed by the Harlingen City Commission governs the Harlingen Waterworks System. All members of the community are invited to participate in our forum and to voice their concerns about their drinking water. The Harlingen Waterworks Board of Trustees meet once a month on the last Wednesday of every month in the second floor Board Room of the administrative offices located at 134 East Van Buren, Harlingen, Texas. For a copy of the meeting schedule or agenda, please call (956) 430-6157 or access the Harlingen Waterworks web page at <http://www.hwws.com>.

Lead/Copper: 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. The Harlingen Waterworks System 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 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>.

Water Loss: In the water loss audit submitted to the TWDB for the time period Jan. – Dec. 2017, our system lost 857,907,714 gallons of water. If you have any questions about the water loss audit, please call (956) 440-6580.

The Harlingen Waterworks System obtains its supply of potable water from the Rio Grande River in Cameron County. The supply is considered surface water. At the Harlingen diversion point, the water travels through a series of canals and is deposited into our holding reservoirs located at each of the two water treatment plants. The water stays in these lakes until it is processed for drinking. The Downtown and Runnion drinking water plants are both active.

Sources of Drinking Water

The sources of drinking water (both tap 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 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.

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 results 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 results 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 call (956) 440-6565.

Information about Source Water Assessments

The TCEQ completed an assessment of your source water and results indicated that some of your sources are susceptible to certain contaminants. The sampling requirements for your water system are based on this susceptibility and previous sample data. Any detection of these contaminants may be found in this Consumer Confidence Report. For more information on source water assessments and protection efforts at our system, contact (956) 440-6582.

For more information about your sources of water, please refer to the Source Water Assessment Viewer available at the following URL: <http://www.tceq.texas.gov/gis/swaview>.

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

Definitions and Abbreviations

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's allow for a margin of safety.

Average (Avg): Regulatory compliance with some MCL's are based on running annual average of monthly samples.

Maximum Contaminant Level (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 Contaminant Level Goal (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 Residual Disinfectant Level (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.

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.

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

NA: Not applicable.

NTU: nephelometric turbidity units (a measure of turbidity).

pCi/L: picocuries per liter (a measure of radioactivity).

ppb or ug/L: parts per billion or micrograms per liter - or one ounce in 7,350,000 gallons of water.

ppm or mg/L: parts per million or milligrams per liter – or one ounce in 7,350 gallons of water.

SU: Standard unit.

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

Water Quality Test Results

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

Maximum Residual Disinfectant Level

Disinfectant	Year	Average Level	Minimum Level	Maximum Level	MRDL	MRDLG	Unit of Measure	Violation	Likely Source of Contamination
Chloramine	2017	3.9	0.5	8.2	4.0	4.0	ppm	No	By-product of drinking water disinfection.

Regulated Contaminants

Disinfection By-Products	Collection Date	Highest Level Detected	Range of Individual Samples	MCLG	MCL	Units	Violation	Likely Source of Contamination
Haloacetic Acids (HAA5)	2017	19	2.3 - 25.7	No goal for the total	60	ppb	No	By-product of drinking water disinfection.
Total Trihalomethanes (TTHM)	2017	55	20.4 - 74.2	No goal for the total	80	ppb	No	By-product of drinking water disinfection.
Inorganic Contaminants	Collection Date	Highest Level Detected	Range of Individual Samples	MCLG	MCL	Units	Violation	Likely Source of Contamination
Arsenic	2017	2.3	0 - 2.3	0	10	ppb	No	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes.
Barium	2017	0.122	0.113 - 0.122	2	2	ppm	No	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.
Cyanide	2017	120	0 - 120	200	200	ppb	No	Discharge from plastic and fertilizer factories; Discharge from steel/metal factories.
Fluoride	2017	0.56	0.54 - 0.56	4	4	ppm	No	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories.
Nitrate [measured as Nitrogen]	2017	0.18	0.12 - 0.18	10	10	ppm	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.
Selenium	2017	5.1	0 - 5.1	50	50	ppb	No	Discharge from petroleum and metal refineries; Erosion of natural deposits; Discharge from mines.
Radioactive Contaminants	Collection Date	Highest Level Detected	Range of Individual Samples	MCLG	MCL	Units	Violation	Likely Source of Contamination
Beta/photon emitters	2017	7	5.2 - 7	0	4	mrem/yr*	No	Decay of natural and man-made deposits.
Uranium	2017	2.3	1.2 - 2.3	0	30	ug/L	No	Erosion of natural deposits.

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

Lead and Copper

Lead and Copper	Date Sampled	MCLG	Action Level (AL)	90 th Percentile	# Sites Over AL	Units	Violation	Likely Source of Contamination
Copper	09/16/2015	1.3	1.3	0.3709	0	ppm	No	Erosion of natural deposits; Leaching from wood preservatives; Corrosion of household plumbing systems.
Lead	09/16/2015	0	15	3.7	1	ppb	No	Corrosion of household plumbing systems; Erosion of natural deposits.

Turbidity

	Year	Limit (Treatment Technique)	Level Detected	Violation	Likely Source of Contamination
Highest single measurement	2017	1 NTU	0.38 NTU	No	Soil runoff.
Lowest monthly % meeting limit	2017	0.3 NTU	98%	No	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.

Secondary Constituents

Secondary Constituents	Collection Date	Highest Level Detected	Range of Individual Samples	Level	Units
pH	2017	7.6	7.4 - 7.6	> 7.0	SU
Sulfate	2017	323	289 - 323	300	mg/L

Total Organic Carbon (TOC)

No health effects. The disinfectant can combine with TOC to form disinfection by-products. Disinfection is necessary to ensure that water does not have unacceptable levels of pathogens. By-products of disinfection include trihalomethanes (THMs) and haloacetic acids (HAA5) which are reported elsewhere in this report.

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.

Year	Contaminant	Average Level	Minimum Level Detected	Maximum Level Detected	Units	Likely Source of Contamination
2017	Source Water	6.21	4.83	9.89	ppm	Naturally present in the environment.
2017	Drinking Water	3.45	2.99	3.98	ppm	Naturally present in the environment.
2017	Removal Ratio	1.28	1.04	1.63	% Removal*	NA

*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 Coliform

Reported monthly tests found no total coliform bacteria.

Fecal Coliform

Reported monthly tests found no fecal coliform bacteria.