



2011 ANNUAL DRINKING WATER QUALITY REPORT

Consumer Confidence Report (CCR)

PWS ID Number: TX0310002

PWS Name: Harlingen Waterworks System

Annual Water Quality Report for the period of January 1 to December 31, 2011

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.

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.

Este reporte incluye información importante sobre el agua para tomar. Para asistencia en español, favor de llamar al teléfono (956) 440-6565.

PERMIT NO. 333
 MCALEEN, TX
 U.S. POSTAGE PAID
 AUTO
 PERMIT STD

Turbidity: No health effects. However, turbidity can interfere with disinfection and provide a medium for microbial growth. Turbidity indicates 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	Highest Single Measurement	Lowest Monthly % of Sampling Meeting Limits	Turbidity Limits	Unit of Measure	Source of Contaminant
2011	Turbidity	0.30	100%	0.3	NTU	Soil runoff.

Lead and Copper

Year	Contaminant	The 90th Percentile	Number of Sites Exceeding Action Level	Action Level	Unit of Measure	Source of Contaminant
2009	Lead	2.2	0	15	ppb	Corrosion of household plumbing systems; Erosion of natural deposits.
2009	Copper	0.052	0	1.3	ppm	Corrosion of household plumbing systems; Erosion of natural deposits.

Total Organic Carbon (TOC): 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.

Year	Contaminant	Average Level	Minimum Level	Maximum Level	Unit of Measure	Source of Contaminant
2011	Source Water	6.00	5.30	6.72	ppm	Naturally present in the environment.
2011	Drinking Water	3.29	2.94	3.65	ppm	Naturally present in the environment.
2011	Removal Ratio	1.49	1.20	1.89	% 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.

Definitions and Abbreviations

- **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 contamination.
- **Average** – Regulatory compliance with some MCLs are based on running annual average of monthly samples.
- **Action Level** – The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.
- **NTU** – Nephelometric Turbidity Units.
- **ppm** – Parts per million, or milligrams per liter (mg/L).
- **ppb** – Parts per billion, or micrograms per liter (µg/L).
- **SU** – Standard units.
- **NA** – Not Applicable.

Questions? For more information about this report, or for any questions relating to your drinking water, please call the laboratory at (956) 440-6565.

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 at (800) 426-4791.

The source of drinking water used by HARLINGEN WATERWORKS SYSTEM (HWWS) is surface 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 before treatment include: microbes, inorganic contaminants, pesticides, herbicides, radioactive contaminants, and organic chemical contaminants.

- 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 stormwater 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 stormwater runoff, and residential uses.
- Organic chemical contaminants, including synthetic and volatile organic chemicals, which are byproducts of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, and septic systems.
- Radioactive contaminants, which can be naturally-occurring or be the result of oil and gas production and mining activities.

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 EPA. These constituents are not causes for health concern. They may greatly affect the appearance and taste of your water.

Information about Source Water Assessments: 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 source water protection strategies. For more information about your sources of water, please refer to the Source Water Assessment Viewer available at the following URL: <http://gis3.tceq.state.tx.us/swav/Controller/index.jsp?wtrsrc=>. Further details about sources and source water assessments are available in Drinking Water Watch at the following URL: <http://dww.tceq.texas.gov/DWW/>.

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 HWWS 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 www.epa.gov/safewater/lead."

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 third Thursday 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 www.hwws.com.

Inorganic Contaminants

Collection Date	Inorganic Contaminant	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Source of Contaminant
01/20/2011	Fluoride	0.32	0.32 – 0.32	4	4.0	ppm	None	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories.
01/25/2011	Nitrate (as Nitrogen)	0.18	0.16 – 0.18	10	10	ppm	None	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.
01/20/2011	Antimony	0.505	0.485 – 0.505	6	6	ppb	None	Discharge from petroleum refineries; Fire retardants; Ceramics; Solder; Test addition.
01/25/2011	Arsenic	0.453	0.272 – 0.453	0	10	ppb	None	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes.
01/25/2011	Barium	0.11	0.10 – 0.11	2	2	ppm	None	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.
01/25/2011	Chromium	1.33	0.727 – 1.33	100	100	ppb	None	Discharge from steel and pulp mills; Erosion of natural deposits.
01/25/2011	Thallium	0.02	0.013 – 0.02	0.5	2	ppb	None	Discharge from electronics, glass, and leaching from ore-processing sites; Drug factories.

Maximum Residual Disinfectant Level

Year	Disinfectant	Average Level	Minimum Level	Maximum Level	MRDL	MRDLG	Unit of Measure	Source of Chemical
2011	Chloramine	2.9	0.8	5.7	4.0	< 4.0	ppm	Disinfectant used to control microbes.

Disinfection Byproducts

Year	Contaminant	Average Level	Minimum Level	Maximum Level	MCL	Unit of Measure	Source of Contaminant
2011	Total Haloacetic Acids	23.1	18.6	32.0	60	ppb	Byproduct of drinking water disinfection.
2011	Total Trihalomethanes	62.6	47.1	81.7	80	ppb	Byproduct of drinking water disinfection.

Secondary and Other Constituents Not Regulated: No associated adverse health effects.

Year	Constituent	Average Level	Minimum Level	Maximum Level	Secondary Limit	Unit of Measure	Source of Constituent
2011	Bicarbonate	111	108	114	NA	ppm	Corrosion of carbonate rocks such as limestone.
2011	Chloride	150	146	154	300	ppm	Abundant naturally occurring element; Used in water purification; Byproduct of oil field activity.
2011	pH	7.5	7.5	7.5	NA	SU	Measure of corrosivity of water.
2011	Sulfate	244	238	249	300	ppm	Naturally occurring; Common industrial byproduct; Byproduct of oil field activity.
2011	Total Alkalinity as CaCO ₃	111	108	114	NA	ppm	Naturally occurring soluble mineral salts.
2011	Total Dissolved Solids	706	696	711	1000	ppm	Total dissolved mineral constituents in water.
2011	Sodium	108	106	111	NA	ppm	Naturally present in the environment.