



Proudly Presented By:

HARLINGEN WATERWORKS
SYSTEM

ANNUAL
WATER
QUALITY
REPORT

Water testing performed in 2006



PWS ID#: TX0310002

Este reporte incluye información importante sobre el agua para tomar. Para asistencia en español, favor de llamar al telefono (956) 430-6161.

Continuing Our Commitment

Once again we proudly present our annual water quality report. This edition covers all testing completed from January 1, 2006 through December 31, 2006. We are pleased to tell you that our compliance with all state and federal drinking water laws remains exemplary. As in the past, we are committed to delivering the best-quality drinking water. To that end, we remain vigilant in meeting the challenges of source water protection, water conservation, and community education while continuing to serve the needs of all of our water users.

For more information about this report, or for any questions relating to your drinking water, please call the laboratory director at (956) 430-6161.

How Is My Water Treated and Purified?

The treatment process consists of a series of steps. First, raw water is drawn from our holding reservoir and sent to the rapid mix, which mixes chlorine, chlorine dioxide, and aluminum sulfate into the water. The water then travels to the flocculation chamber where the addition of these substances causes small particles to adhere to one another (called floc) making them heavy enough to settle to the bottom of the chamber. The water then travels to clarification basins where the heavy particles and the sediment are removed. From there it travels to a filtration system where it is filtered through layers of fine coal and silicate sand. As smaller, suspended particles are removed, turbidity disappears and clear water emerges. The water is then sent to sanitized, underground reservoirs where chlorine is again added as a precaution against any contaminants that may still be present before the water is pumped to water towers and into your home or business. (We carefully monitor the amount of chlorine, adding the smallest quantity necessary to protect the safety of your water without compromising taste.)

Important Health Information

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; 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 U.S. EPA's Safe Drinking Water Hotline at (800) 426-4791.

Where Does My Water Come From?

The City of Harlingen Waterworks System obtains its supply of potable water from the Rio Grande River and 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. Combined, our two treatment facilities provided roughly 3.7 billion gallons of clean drinking water last year.

Source Water Assessment

The Texas Commission on Environmental Quality (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 are based on the water's susceptibility to contaminants and previous sample data. Any detected contaminants will be found in this Consumer Confidence Report. For more information on source water assessments and protection efforts in our system, contact the laboratory director at (956) 430-6161.

Community Participation

A five-member board appointed by the city commission governs the Harlingen Waterworks System. All members of the community are invited to participate in our public forum and voice their concerns about their drinking water. The Harlingen Waterworks Board of Trustees meets once a month on the third Thursday of every month in the second floor boardroom 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.

Water Conservation Tips

Water conservation measures are an important first step in protecting our water supply. Such measures not only save the supply of our source water but can also save you money by reducing your water bill. Here are a few suggestions:

Conservation measures you can use inside your home include:

- Fix leaking faucets, pipes, toilets, etc.
- Replace old fixtures; install water-saving devices in faucets, toilets, and appliances.
- Wash only full loads of laundry.
- Do not use the toilet for trash disposal.
- Take shorter showers.

You can conserve outdoors as well:

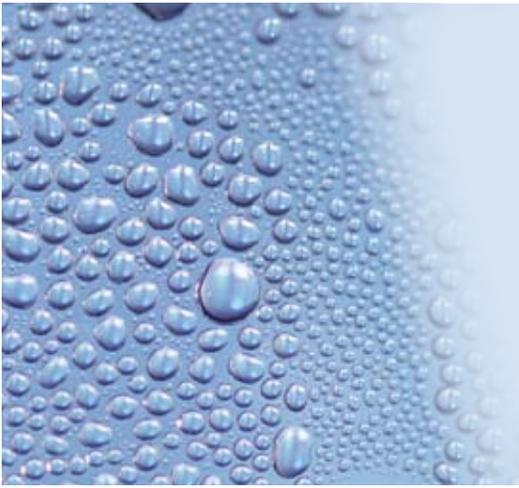
- Water the lawn and garden in the early morning or evening.
- Use mulch around plants and shrubs.
- Repair leaks in faucets and hoses.

Information on other ways that you can help conserve water can be found at www.epa.gov/safewater/publicoutreach/index.html.

Substances That Might Be in Drinking Water

To ensure that tap water is safe to drink, the U.S. EPA prescribes regulations limiting the amount of certain contaminants in water provided by public water systems. U.S. Food and Drug Administration regulations establish limits for contaminants in bottled water, which must provide the same protection for public health. Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of these contaminants does not necessarily indicate that the water poses a health risk.

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 can acquire naturally occurring minerals, in some cases, radioactive material, and substances resulting from the presence of animals or from human activity. Substances 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, or wildlife;

Inorganic Contaminants, such as salts and metals, which can be naturally occurring or may 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 by-products of industrial processes and petroleum production, and which may also come from gas stations, urban stormwater runoff, and septic systems;

Radioactive Contaminants, which can be naturally occurring or may be the result of oil and gas production and mining activities.

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 our business office. For more information about contaminants and potential health effects, call the U.S. EPA's Safe Drinking Water Hotline at (800) 426-4791.

Sampling Results

During the past year we have taken hundreds of water samples in order to determine the presence of any radioactive, biological, inorganic, volatile organic, or synthetic organic contaminants. The table below shows only those contaminants that were detected in the water. Although all of the substances listed here are under the Maximum Contaminant Level (MCL), we feel it is important that you know exactly what was detected and how much of the substance was present in the water. The state requires us to monitor for certain substances less than once per year because the concentrations of these substances do not change frequently. In these cases, the most recent sample data are included, along with the year in which the sample was taken.

REGULATED SUBSTANCES

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	MCL [MRDL]	MCLG [MRDLG]	AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
Barium (ppm)	2002	2	2	0.094	0.0910–0.0940	No	Erosion of natural deposits
Beta/Photon Emitters¹ (pCi/L)	2005	50	0	7	6.7–7.0	No	Decay of natural and man-made deposits
Chloramines (ppm)	2006	4	4	3.4	0.4–5.0	No	Water additive used to control microbes
Chlorine Dioxide (ppb)	2006	800	800	511	160–780	No	Water additive used to control microbes
Chlorite (ppm)	2006	1.0	0	0.40	0.29–0.56	No	By-product of drinking water chlorination
Fluoride (ppm)	2006	4	4	0.39	0.38–0.39	No	Erosion of natural deposits; Discharge from fertilizers
Haloacetic Acids [HAA] (ppb)	2006	60	0	14.4	6.2–23.6	No	By-product of drinking water chlorination
Nitrate (ppm)	2006	10	10	0.11	0.06–0.11	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
Selenium (ppb)	2002	50	50	2.9	ND–2.9	No	Erosion of natural deposits
TTHMs [Total Trihalomethanes] (ppb)	2006	80	0	36.2	25.2–59.2	No	By-product of drinking water chlorination
Total Coliform Bacteria	2006	5% of monthly	0	ND	ND	No	Naturally present in the environment
Total Organic Carbon (% removal)	2006	TT	NA	61% removal	31–61	No	Naturally present in the environment
Turbidity (NTU)	2006	TT AL=0.3	NA	0.30	0.04–0.30	No	Soil runoff
Turbidity (Lowest monthly % of samples meeting limit)	2006	TT > 95	NA	100	NA	No	Soil runoff

Tap water samples were collected from 30 sample sites throughout the community

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	ACTION LEVEL	MCLG	AMOUNT DETECTED (90TH% TILE)	SITES ABOVE ACTION LEVEL	VIOLATION	TYPICAL SOURCE
Copper (ppm)	2004	1.3	1.3	0.046	0	No	Corrosion of household plumbing
Lead (ppb)	2004	15	0	1.4	0	No	Corrosion of household plumbing

UNREGULATED SUBSTANCES ²

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	AMOUNT DETECTED	RANGE LOW-HIGH	TYPICAL SOURCE
Bicarbonate (ppm)	2006	93	89–93	Corrosion of carbonate rocks such as limestone
Bromodichloromethane (ppb)	2006	7.6	6.1–10.6	By-product of drinking water chlorination
Bromoform (ppb)	2006	12.9	6.6–28.9	By-product of drinking water chlorination
Chloride (ppm)	2006	157	155–157	Natural Contaminant
Chloroform (ppb)	2006	2.9	1.9–4.13	By-product of drinking water chlorination
Dibromochloromethane (ppb)	2006	12.9	9.8–17.9	By-product of drinking water chlorination
Hardness as Ca/Mg (ppm)	2006	288	277–288	Natural Contaminant
pH (Units)	2006	7.72	7.56–7.72	Measure of corrosivity of water
Sulfate (ppm)	2006	257	257–257	Natural contaminant
Total Alkalinity (ppm)	2006	93	89–93	Natural Contaminant
Total Dissolved Solids (ppm)	2006	705	696–705	Total dissolved mineral constituents in water

Footnote:

¹The MCL for beta particles is 4 mrem/year. U.S. EPA considers 50 pCi/L to be the level of concern for beta particles.

²Unregulated contaminants are those for which the U.S. EPA has not established drinking water standards. The purpose of unregulated contaminant monitoring is to assist the U.S. EPA in determining the occurrence of unregulated contaminants in drinking water and whether or not future regulation is warranted.

Table Definitions

AL (Action Level): The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

MCL (Maximum Contaminant Level): 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.

MCLG (Maximum Contaminant Level Goal): 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.

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.

NA: Not applicable.

ND (Not detected): Indicates that the substance was not found by laboratory analysis.

NTU (Nephelometric Turbidity Units): Measurement of the clarity, or turbidity, of

water. Turbidity in excess of 5 NTU is just noticeable to the average person.

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

ppb (parts per billion): One part substance per billion parts water (or micrograms per liter).

ppm (parts per million): One part substance per million parts water (or milligrams per liter).

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