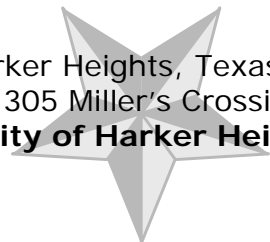




Harker Heights, Texas 76548
305 Miller's Crossing
City of Harker Heights





2009

Annual Drinking Water
Quality Report
(Consumer Confidence Report)

City of Harker Heights
305 Miller's Crossing
Harker Heights, TX 76548

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Annual Drinking Water Quality Report

This report identifies our water source and the quality of water that is provided to the citizens of Harker Heights. It is to be made available to all citizens of Harker Heights annually, based on the right-to-know provisions in the 1996 Amendments to the Safe Drinking Water Act. The City of Harker Heights supports passage of this regulation in order to assure our customers that our water meets and exceeds all federal (EPA) standards.

Our main concern is to provide the citizens of Harker Heights with high-quality potable water and to deliver an uninterrupted flow of water and adequate pressure in the required quantities while protecting your health and welfare.

The City of Harker Heights is recognized as a Superior Water System by the Texas Commission on Environmental Quality (TCEQ) – the highest rating available – and we want our residents to know that the water is safe to drink. **Our Drinking Water Meets or Exceeds All Federal (EPA) Drinking Water Requirements.** This report is a summary of the quality of the water we provide our customers. The analysis was made by using the data from the most recent U.S. Environmental Protection Agency (EPA) required tests and is presented in the attached pages. We hope this information helps you become more knowledgeable about what's in your drinking water.

This report will be forwarded to the TCEQ.

For More Information Concerning This Report

Contact...

Mark Hyde
Public Works Director
City of Harker Heights
254-953-5649
mhyde@ci.harker-heights.tx.us

Or visit our web site at
www.ci.harker-heights.tx.us



For Public Participation Opportunities...

The City Council governing the City of Harker Heights meets on the second and fourth Tuesday of each month at 5:00 pm at City Hall, located at 305 Miller's Crossing Harker Heights, Texas.

The Water District is governed by a Board of Directors. To participate in meetings call the District Office at 254-501-9243

For More Water Quality Information...

Bell County WCID #1
P. O. Box 43
Killeen, TX 76540-0043
254-501-9243
www.wcid1.org

Texas Commission on
Environmental Quality
www.tceq.state.tx.us

EPA Safe Drinking
Water Hotline
800-426-4791
www.epa.gov/OW

En Español...

Este informe incluye información importantes sobre el agua potable. Si tiene preguntas o comentarios sobre éste informe en español, favor de llamar al tel. (254)953-5600-para hablar con una persona bilingüe en español.



Overview of Water Environment

In 1997, the City entered into an agreement with WCID #1 to increase its daily treated water maximum use from 3.506 million gallons per day (MGD) to 9.0 MGD. Based on the 2006 Water Master Plan, a daily treated water maximum of 11.07 MGD is projected for the year 2020. On May 22, 2007, the City Council authorized a resolution to participate in a minor plant upgrade at the WCID #1 Water Plant that increased the City of Harker Heights daily treated water maximum to 13.5 MGD.

On April 1, 2006 the City signed a water supply agreement with the Brazos River Authority to increase our raw water supply in Lake Belton from 5,265 acre-feet (1,715,605,515 gallons) to 8,500 acre-feet (2,769,725,000 gallons).

On June 1, 2006 the City signed a water supply agreement with the Brazos River Authority for 300 acre-feet (97,755,000 gallons) of raw water in Lake Stillhouse Hollow. The execution of these agreements insures Harker Heights will have an adequate supply of water well into the future.

The 2006 Water Master Plan provides a recommended capital improvements plan for water system infrastructure for the 20 year study period. The totals for the projects are prioritized as follows:

Priority 1 Capital Improvement Projects (0-5 years): Seven projects totaling \$7, 266,300.

Priority 2 Capital Improvement Projects (5-10 years): Six projects totaling \$3,128,700.

Priority 3 Capital Improvement Projects (10-20 years): Four projects totaling \$2,171,050.

In 2009, the City used 1,495,835,000 gallons of water, with an average of 4.1 million gallons running through approximately 171 miles of water mains each day. The City can also store approximately 5.0 million gallons of water at a given time. The City's per capita use for 2009 was 141.8 gallons per day.

Be assured that the City of Harker Heights is prepared and is able to provide its citizens with a high quality of potable water while protecting health and welfare for many years to come.

Where does our drinking water come from?

CURRENTLY ALL OF THE CITY'S DRINKING WATER COMES FROM LAKE BELTON, A SURFACE WATER SUPPLY. This lake is used both for flood control and conservation (water supply). Belton Lake has a capacity of 887,000 acre-feet of water, 372,000 acre-feet of that amount is reserved for water supply. 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 our source water protection strategies. Some of this source water assessment information will be available later this year on Texas Drinking Water Watch at <http://dww.tceq.state.tx.us/DWW/>. For more information on source water assessments and protection efforts at our system, please contact us.

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.

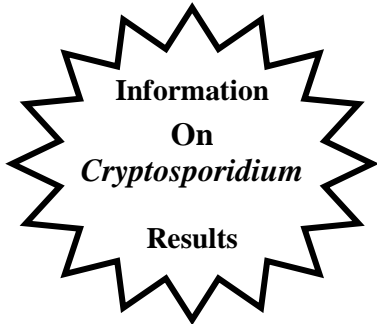
Acre-foot: Amount of water that covers an acre of land to a depth of one foot. 1 acre-foot = 325,850 Gallons.



Special Notice for the ELDERLY, INFANTS, CANCER PATIENTS, people with HIV/AIDS or other immune problems...



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 Safe Drinking Water Hotline at (800) 426-4791.



Cryptosporidium is naturally present in bodies of water throughout the world. Surface water supplies are particularly vulnerable if they receive runoff from human or animal waste. The Bell County Water Control & Improvement District No. 1 (WCID #1) participated in the EPA's Information Collection Rule (ICR): during the 18 month period, July 1997 to December 1998, the District collected monthly samples to check for Cryptosporidium. The results came back **no organisms found** in your drinking water. The WCID #1 completed its compliance schedule with regards to the requirements of the Long Term 2 (LT2) Enhanced Surface Water Treatment Rule. Monitoring for Cryptosporidium and E-Coli began in October 2006 and ended in September 2008. After 48 samples, **no microbial pathogens were found.**

All drinking water may contain contaminants. When drinking water meets federal standards, there may not be any health based benefits to purchasing bottled water or point-of-use devices. 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. Contact the EPA's Safe Drinking Water Hotline at (800-426-4791) for more information about contaminants and potential health effects.



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 the EPA. These constituents are not causes for health concern. Therefore, secondaries are not required to be reported in this document but they may greatly affect the appearance and taste of your water.

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, agriculture livestock operations, and wildlife.
- Ⓢ **Inorganic contaminants**, such as salts and metals, which can be naturally-occurring or result 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 result of oil and gas production and mining activities.

About the Attached Table

The attached table lists 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 contaminants.

Important Definitions

Maximum Contaminant Level (MCL) – The highest allowable 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; the recognized “safe” level for human consumption.

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

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

ND – The contaminant was Not Detected.

NTU – Nephelometric Turbidity Units (a measure of water clarity).

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 (µg/l).

ppt – parts per trillion, or nanograms per liters.

ppq –parts per quadrillion, or picograms per liter.

Microbiological Contaminants

Year	Contaminant	Highest Single Measurement	Lowest Monthly % of Samples Meeting Limits	Turbidity Limits	Unit of Measure	Source of Contaminant
2009	Turbidity	.30	100	.3	NTU	Soil runoff

Turbidity & NTUs...

Turbidity has no health effects. However, turbidity can interfere with disinfection and provide a medium for bacterial growth. Turbidity may indicate the presence of disease-causing organisms, such as bacteria, viruses, and parasites that can cause symptoms such as nausea, cramps, diarrhea and headaches. Turbidity is measured in NTUs (nephelometric turbidity units) a measure of the clarity of water.

Inorganic Contaminants

Year or Range	Contaminant	Average Level	Minimum Level	Maximum Level	MCL	MCLG	Unit of Measure	Source of Contaminant
2008	Barium	0.063	0.061	0.066	2	2	ppm	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits.
2009	Fluoride	0.34	0.22	0.49	4	4	ppm	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories.
2009	Nitrate	0.11	0.11	0.11	10	10	ppm	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits.
2009	Gross beta emitters	3.53	3	4.4	50	0	pCi/L	Decay of natural and man-made deposits.

Organic Contaminants

Year or Range	Contaminant	Average Level	Minimum Level	Maximum Level	MCL	MCLG	Unit of Measure	Source of Contaminant
2009	Atrazine	0.16	0.16	0.17	3	3	ppb	Runoff from herbicide used on row crops.
2009	Car bon tetrachloride	0.6	<0.5	1.8	5	0	ppb	Discharge from chemical plants and other industrial activities
2009	DI(2ethylhexyl)phthalate	0.22	<0.6	0.66	6	0	ppb	Discharge from rubber and chemical factories.

Maximum Residual Disinfectant Level

Year	Disinfectant	Average Level	Minimum Level	Maximum Level	MRDL	MRDLG	Unit of Measure	Source of Disinfectant
2009	Chloramine Residual	2.44	0.5	3.5	4	4	ppm	Disinfectant used to control microbes.

Disinfection Byproducts

Year	Contaminant	Average Level	Minimum Level	Maximum Level	MCL	Unit of Measure	Source of Contaminant
2009	Total Haloacetic Acids	11.7	10.6	12.9	60	ppb	Byproduct of drinking water disinfection
2009	Total Trihalomethanes	31.2	23.4	38.5	80	ppb	Byproduct of drinking water disinfection

Unregulated Contaminants

Year or Range	Contaminant	Average Level	Minimum Level	Maximum Level	Unit of Measure	Source of Contaminant
2009	Chloroform	5.42	5	5.7	ppb	By product of drinking water disinfection.
2009	Bromoform	1	0	1.4	ppb	By product of drinking water disinfection.
2009	Bromodichloromethane	7.78	4.8	8.8	ppb	By product of drinking water disinfection.

2009	Dibromochloromethane	5.53	2.8	6.6	ppb	By product of drinking water disinfection.
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Lead and Copper

Year	Contaminant	The 90th Percentile	Number of Sites Exceeding Action Level	Action Level	Unit of Measure	Source of Contaminant
2007	Lead	3.9	0	15	ppb	Corrosion of household plumbing systems; erosion of natural deposits.
2007	Copper	0.269	1	1.3	ppm	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 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 3 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>.

Total Coliform

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 hardier than many disease-causing organisms; therefore, their absence from water is a good indication that the water is microbiologically safe for human consumption.

Total Coliform: REPORTED MONTHLY TESTS FOUND NO COLIFORM BACTERIA.

The City of Harker Heights collected 360 bacteriological samples for 2009. All of the 360 samples tested **negative** for total coliform bacteria.

Fecal Coliform: REPORTED MONTHLY TESTS FOUND NO FECAL COLIFORM BACTERIA.

Secondary and Other Constituents Not Regulated (No associated adverse health effects)

Year or Range	Constituent	Average Level	Minimum Level	Maximum Level	Secondary Limit	Unit of Measure	Source of Contaminant
2009	Bicarbonate	154	152	155	NA	ppm	Corrosion of carbonate rocks such as limestone.
2008	Calcium	52.4	49.6	53.9	NA	ppm	Abundant naturally occurring element.
2009	Chloride	37	37	38	300	ppm	Abundant naturally occurring element; used in water.
2008	Copper	0.001	0	0.003	1	ppm	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives.

2008	Magnesium	10.5	10.3	10.8	NA	ppm	Abundant naturally occurring element.
2008	Manganese	0.002	0.0016	0.0025	.05	ppm	Abundant naturally occurring element.
2008	Nickel	0.002	0.002	0.002	NA	ppm	Erosion of natural deposits.
2009	pH	7	7	7.1	>7.0	units	Measure of corrosivity of water.
2009	Sodium	18	18	18	NA	ppm	Erosion of natural deposits; byproduct of oil field activity.
2009	Sulfate	24	24	24	300	ppm	Naturally occurring; common industrial byproduct; byproduct of oil field activity.
2009	Total Alkalinity as CaCO ₃	126	125	127	NA	ppm	Naturally occurring soluble mineral salts.
2009	Total Dissolved Solids	234	230	237	1000	ppm	Total dissolved mineral constituents in water.
2008	Total Hardness as CaCO ₃	174	168	177	NA	ppm	Naturally occurring calcium.
2008	Zinc	0.002	0	0.005	5	ppm	Moderately abundant naturally occurring element; used in the metal industry.

You can protect the water after it reaches you.

When the water reaches your home, it is clean and meets or exceeds all state and federal water quality requirements. But without proper precautions, water can be contaminated if a sudden pressure drop in the pipe causes contaminated water to be pulled from your home or yard into your plumbing. If this happens, you could contaminate the water in your home and possibly your neighbor's homes.



How can I protect water quality once it reaches my home?

- Ⓢ Do not leave a garden hose connected to a faucet with the other end submerged in a swimming pool, bucket, dog's bath water ... anything.
- Ⓢ Keep an air gap between your kitchen or bathroom faucet and the water in the sink. Do not attach a hose to your indoor faucet with the other end submerged in the sink or tub.
- Ⓢ Do not allow garden hoses to be connected directly to pressurized tanks that contain pesticides, herbicides or toxic materials of any kind. Insist that an air gap be maintained between the water source and tank when the tank is being filled.
- Ⓢ Do not leave your kitchen sink spray nozzle submerged in the sink.
- Ⓢ If you have the typical, older-style toilet that fills from the bottom, be cautious about putting toilet bowl cleaners in the tank. If the water pressure drops and the fill valve in the toilet tank is leaking, water from the tank can be drawn back into the water lines, especially if there is a faucet open in the house at the time.
- Ⓢ If you have an automatic irrigation system, make sure that you have a backflow prevention device and that it is working properly.
- Ⓢ **Texas State law requires residential irrigation back flow prevention devices to be tested when they are installed. Back flow prevention devices in commercial areas will be retested every year and residential back flow prevention devices will be tested every five years with a copy of the certification provided to the City of Harker Heights. Certification must be conducted by state certified testers.**

Notes