

CITY OF FRIENDSWOOD

2008 Annual Report on Drinking Water Quality for the City of Friendswood
Phone Number 281-996-3382

The Consumer Confidence Report (CCR) Regulations were published by the U.S. Environmental Protection Agency (USEPA) on August 19, 1998 and became effective on September 19, 1998. All community water systems are required to deliver their CCR annually by July 1.

CCRs are the centerpiece of the public's "right to know" required by the 1996 State Drinking Water Act amendments and must include information on the water source, information on regulated and unregulated contaminants found in drinking water, special health effects language provided by the EPA, and information on drinking water violations.

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 activities. Contaminants that may be present in the source water before treatment include microbes, inorganic contaminants, pesticides, herbicides, radioactive contaminants, and organic chemical contaminants.

Where Do We Get Our Drinking Water?

Our drinking water is purchased from the City of Houston. Our surface water plant receives its raw water from Lake Livingston and the Trinity River. In addition, we can supply ground water utilizing six water wells drawing their water from the Gulf Coast Aquifer at a depth of six hundred feet or deeper. A source Water Susceptibility Assessment for your drinking water sources is currently being updated by TCEQ and will be provided to us this year. The report will describe 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 will allow us to focus our source water protection strategies.

Public Participation Opportunities

The City of Friendswood's water system is maintained by the Public Works Department (281-996-3382) and is part of the city government. The City Council meets every first and third Monday of each month at 7:00 p.m.—Meetings are held at City Hall and are open to the public. For more information about meetings, call 281-996-3200.

Our Drinking Water Meets Or Exceeds All Federal (EPA) Drinking Water Requirements

This report is a summary of the quality of 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 these pages. We hope this information helps you become more knowledgeable about what is in your drinking water.

Water Conservation Plan

In addition to a drought contingency plan, the City of Friendswood has adopted a water conservation plan in order to conserve the available water supply and protect the integrity of water supply facilities, with particular regard for domestic water use, sanitation, and fire protection, and also to protect and preserve public health, welfare, and safety, as well as minimize the adverse impacts of water supply shortage or other water supply emergency conditions. You are asked to conserve water in order to help us achieve our goals.

Special Notice for the ELDERLY, INFANTS, CANCER PATIENTS, HIV/AIDS PATIENTS or others with IMMUNE SYSTEM PROBLEMS

Some people may be more vulnerable to contaminants in drinking water than the general population. 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 to infections. These people should seek advice about drinking water from their health care providers. The EPA/Centers for Disease Control and Prevention (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, **800-426-4791**.

The following table contains all of the chemical constituents which have been found in your drinking water. The U.S. EPA requires testing of the water system for at least 97 possible constituents. In some cases, the testing frequency for various constituents can range from one to three years:

INORGANIC CONTAMINANTS:

Year or Range	Constituent	Average Level	Range of Detects (Min-Max)	MCL	MCLG	Units	Source
2008-2004	Barium	0.124	0.047-0.349	2	2	ppm	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
2008-2005	Fluoride	0.67	0-0.80	4	4	ppm	Erosion of natural deposits; Water additives which promote strong teeth; Discharge from fertilizer and aluminum factories
2008-2005	Nitrate	0.29	0-1.37	10	10	ppm	Runoff from fertilizer use; Leaching from septic tanks; Sewage; Erosion of natural deposits
2008-2005	Nitrite	0.11	0-0.78	1	1	ppm	Runoff from fertilizer use; Leaching from septic tanks; Sewage; Erosion of natural deposits
2008-2004	Selenium	0.20	0-18.7	50	50	ppb	Discharge from petroleum and metal refineries; Erosion of natural deposits; Discharge from mines
2008-2004	Uranium	0.60	0-12.2	30	0	ppb	Erosion of natural deposits
2008-2004	Gross beta emitters	3.82	0-10.1	50	0	pCi/l	Decay of natural and man-made deposits
2008-2004	Gross Alpha	4.44	0-10.3	15	0	pCi/l	Erosion of natural deposits
2008-2004	Combined Radium 226 & 228	0.79	0-4.66	5	0	pCi/l	Erosion of natural deposits

ORGANIC CONTAMINANTS:

Year or Range	Constituent	Average Level	Range of Detects (Low-High)	MCL	MCLG	Units	Source
2008-2005	Simazine	0.05	0-0.15	4	4	ppb	Herbicide runoff
2008-2005	Atrazine	0.16	0-0.5	3	3	ppb	Runoff from herbicide used on row crops
2008-2004	Toluene	0.02	0-3.7	1000	1000	ppb	Discharge from petroleum factories
2008-2004	Ethylbenzene	0.02	0-2.4	700	700	ppb	Discharge from petroleum refineries

DISINFECTION BY-PRODUCTS:

Year	Constituent	Average of All Sampling Point	Range of Detects (Low-High)	MCL	Units	Source
2008	Total Trihalomethanes	17.2	13.2-23.1	80	ppb	By-product of drinking water disinfection
2008	Total Haloacetic Acids	18.1	14.3-28.2	60	ppb	By-product of drinking water disinfection

UNREGULATED INITIAL DISTRIBUTION SYSTEM EVALUATION FOR DISINFECTION BY-PRODUCTS: This evaluation is a sampling required by the EPA to determine the range of total trihalomethane and haloacetic acid in the system for future regulations. The samples are not used for compliance, and may have been collected under non-standard conditions. The EPA also requires the data to be reported here.

Year	Constituents	Average of All Sampling Point	Range of Detects (Low-High)	MCL	Units	Source
2007	Total Trihalomethanes	28.6	16.7-139.4	NA	ppb	By-product of drinking water disinfection
2007	Total Haloacetic Acids	21.5	0-87.4	NA	ppb	By-product of drinking water disinfection

UNREGULATED CONTAMINANTS:

Year or Range	Constituent	Average Level	Range of Detects (Low-High)	MCL	Units	Source
2008-2004	Dibromomethane	0.01	0-2.3	Unregulated	ppb	By-product of drinking water disinfection
2008-2004	Chloroform	8.64	0-72	Unregulated	ppb	By-product of drinking water disinfection
2008-2004	Bromoform	1.28	0-13	Unregulated	ppb	By-product of drinking water disinfection
2008-2004	Bromodichloromethane	7.36	0-42	Unregulated	ppb	By-product of drinking water disinfection
2008-2004	Dibromochloromethane	4.78	0-20	Unregulated	ppb	By-product of drinking water disinfection

Chloroform, Bromoform, Bromodichloromethane, and Dibromochloromethane are disinfection by-products. There is no Maximum Contaminant Level for these chemicals at the entry point to distribution.

DISINFECTANT RESIDUALS:

Year	Constituent	Average Level	Range of Detects (Low-High)	MRDL	MCLG	Units	Source
2008	Chloramines Residual	2.37	0.2-3.5	4	4	ppm	Disinfectant used to control microbes

LEAD AND COPPER:

Year	Constituent	The 90th Percentile	Number of Sites Exceeding Action Level	Action Level	Units	Source
2007	Lead	9.4	1	15	ppb	Corrosion of household plumbing systems; Erosion of natural deposits
2007	Copper	0.629	0	1.3	ppm	Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives

Additional Health Information for Lead — All water systems are required by EPA to report the language below starting with the 2009 CCR to be delivered to you by July 2010. We are providing this information now as a courtesy.

“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 water 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>.”

Total Coliform Bacteria are used as indicators of microbial contamination of drinking water because testing 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 harder than many disease-causing organisms; therefore, their absence from water is a good indication that the water is microbiologically safe for human consumption.

Over 400 samples were submitted for testing last year with only one positive found. It is not unusual to have an occasional positive sample simply because of test sensitivity and/or human error in sampling techniques. Once the system is notified of a positive sample, the system operator immediately collects repeat samples from the original sample point and additional locations up and down stream of that location.

Year	Constituent	Highest Monthly Number Of Positive Samples	Range of Detects (Low-High)	MRDL	MCL	Units	Source
2008	Total Coliform Bacteria	Not Detected			Two or more coliform found in any single month	Presence	Naturally present in the environment
2008	Fecal Coliform	Not Detected					

TURBIDITY has no health effects. However, turbidity can interfere with disinfection and provide a medium for microbial growth. Turbidity may indicate 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	Constituent	Highest Average Measurement	Lowest Monthly % of Samples Meeting Limits	Turbidity Limits	Units	Source
2008	Turbidity	0.25	100	0.3	NTU	Soil run-off

SECONDARY AND OTHER CONSTITUENTS NOT REGULATED

Year or Range	Constituent	Average Level	Range of Detects (Low-High)	Secondary Limits	Units	Source
2008-2004	Bicarbonate	188	104-271	NA	ppm	Corrosion of carbonate rocks such as limestone
2008-2004	Calcium	35.7	13-70	NA	ppm	Abundant naturally occurring element
2008-2005	Chloride	62	30-157	300	ppm	Abundant naturally occurring element; Used in water purification; By-product of oil field activity
2008-2004	Iron	0.092	0-0.197	0.3	ppm	Erosion of natural deposits; Iron or steel water delivery equipment or facilities
2008-2004	Magnesium	5	3.3-12.8	NA	ppm	Abundant naturally occurring element
2008-2004	Manganese	0.0178	0-0.0331	0.05	ppm	Abundant naturally occurring element
2008-2005	PH	7.2	6.9-7.9	> 7	units	Measure of corrosivity of water
2008-2004	Sodium	73	22-135	NA	ppm	Erosion of natural deposits; By-product of oil field activity
2008-2005	Sulfate	24	6-69	300	ppm	Naturally occurring; Common industrial by-product; By-product of oil field activity
2008-2005	Total Alkalinity as CaCO ₃	154	85-222	NA	ppm	Naturally occurring soluble mineral salts
2008-2005	Total Dissolved Solids	314	221-505	1000	ppm	Total dissolved mineral constituents in water
2008-2004	Total Hardness as CaCO ₃	109	46-227	NA	ppm	Naturally occurring calcium
2008-2004	Zinc	0.47	0-1.17	5	ppm	Moderately abundant naturally occurring element used in the metal industry

2008 CONSUMER CONFIDENCE REPORT

Annual Report on Drinking Water Quality for the City of Friendswood

City of Friendswood

Public Works Building

1306 Deepwood
Friendswood, TX 77546-4856
(281) 996-3380 · Fax (281) 482-1083



PRSRT STD
U.S. POSTAGE
PAID
ADVANTAGE
MARKETING

3027 Marina Bay Dr
League City, TX 77573

Your Drinking Water Is Safe!

En Espanol: Este reporte incluye informacion importante sobre el agua para tomar. Para obtener una copia de esta informacion traducida al Espanol, favor de llamar al telefono (281) 996-3380.

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. More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency's Safe Drinking Water Hotline at **800-426-4791**.

Simple Examples for Saving Water Indoors

- Wash only full loads in your washing machine or adjust the water level to reflect the size of the load
- Pay attention to your water bill and become familiar with your water meter—Track usage and detect leaks
- Purchase appliances that offer water-efficient and energy-efficient cycle options
- Fix leaky plumbing fixtures, faucets and appliances
- Show children how to completely turn off the faucets
- Locate your master water shut off valve so that water will be saved in case a pipe bursts
- Install aerators on every faucet to save as much as one gallon of water for every minute of use
- Be aware—Listen for drips and leaks around the house

Definitions of Terms Used in this Report

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.

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 that a water system must follow.

NTU – Nephelometric Turbidity Units

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

ppb – parts per billion, or micrograms per liter (ug/l)

ppq – parts per quadrillion, or picograms per liter

MFL – million fibers per liter (a measure of asbestos)

ppm – parts per million, or milligrams per liter (mg/l)

ppt – parts per trillion, or nanograms per liter

Secondary Constituents – Many constituents (such as calcium, sodium, or iron) which are often found in drinking water, may 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 concerns. Therefore, secondary constituents are not required to be reported in this document but they may greatly affect the appearance and taste of your water.