

CITY OF FRIENDSWOOD 2023 CONSUMER CONFIDENCE REPORT

2023 Drinking Water Quality Report for the City of Friendswood Phone Number 281-996-3382

City of Friendswood Public Works Building 15355 Blackhawk Boulevard Friendswood, TX 77546 (281) 996-3380

Your Drinking Water Is Safe!

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.

Este informe contiene información muy importante sobre el agua que usted bebe. Tradúzcalo ó hable con alguien que lo entienda bien. (281)996-3382

Sources of Drinking Water

The TCEQ completed an assessment of your source water and results indicate that some of your source are susceptible to certain contaminants. The sampling requirements for your water system are based on this susceptibility and previous sample data. Any detections of these contaminants may be found in the consumer confidence report. For more information on source water assessments and protection efforts at our system, contact Eric Segura at (281)996-3380. 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 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 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 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.

Where Do We Get Our Drinking Water?

Our drinking water is purchased from the City of Houston, which delivers to the City of Friendswood, treated 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. The TCEQ completed an assessment of your source water and results indicate 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 detections 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 the City of Friendswood Public Works Department at 281-996-3380. 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/>.

Our Drinking Water is Regulated

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 the attached pages. We hope this information helps you become more knowledgeable about what is in your drinking water.

ALL Drinking Water May Contain Contaminants

When drinking water meets federal standards there may not be any health 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 the water poses a health risk. "In order to ensure that tap water is safe to drink, the EPA prescribes regulations that limit the amount of certain contaminants in water provided by public water systems. Food and Drug Administration regulations establish limits for contaminants in bottled water that must provide the same protection for public health." More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency's Safe Drinking Water Hotline (1-800-426-4791).

Secondary Constituents

Contaminants may be found in drinking water that may cause taste, color, and 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 office.

Water Conservation Plan / Water Loss

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, 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. In the water loss audit submitted to the Texas Water Development Board, our system lost an estimated 136,988,424 Gallons or 6.65 percent of a total of 2,059,891,847 gallons. If you have any questions about the water loss audit call 281-996-3380.

Public Participation Opportunities

The City of Friendswood's water system is maintained by the Public Works Department (telephone number 281-996-3382) and is part of the city government. The City Council meets every first Monday of each month at 4:30 p.m. Dates and times are subject to change. The meetings are held at City Hall and are open to the public. For more information about the meetings, call 281-996-3200.

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 person such as those undergoing chemotherapy for cancer; those who have undergone organ transplant; 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.

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. EPA/CDC guidelines on appropriate means to lessen the risk of infection by Cryptosporidium are available from the Safe Drinking Water Hotline, (800)426-4791.

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>.

Definitions of Terms Used in the Report

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 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.

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

ppb: micrograms per liter or parts per billion (ug/l) – or one ounce in 7,350,000 gallons of water.

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

Ep: entry points

There are a number of ways to save water, and they all start with you:

- When washing dishes by hand, don't let the water run while rinsing. Fill one sink with wash water and the other with rinse water.
- Some refrigerators, air conditioners and icemakers are cooled with wasted flows of water. Consider upgrading with air-cooled appliances for significant water savings.
- Adjust sprinklers so only your lawn is watered and not the house, sidewalk, or street.
- Run your clothes washer and dishwasher only when they are full. You can save up to 1,000 gallons a month.
- Choose shrubs and groundcovers instead of turf for hard-to-water areas such as steep slopes and isolated strips.
- Use the garbage disposal sparingly. Compost vegetable food waste instead and save gallons every time.
- Plant in the fall when conditions are cooler and rainfall is more plentiful.

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	Collection date	Highest Level detected	Range of individual sample	MCLG	MCL	Units	Violation	Likely Source of Contamination
CONTAMINANTS								
Barium (Friendswood) (Houston)	2023	0.183	0.0504 – 0.183	2	2	ppm	N	Discharge of drilling wastes; discharge from metal refineries; Erosion of natural deposits
	2023	0.265	0.0363 – 0.265	2	2	ppm	N	
Fluoride (Friendswood) (Houston)	2023	0.8	0.29 – 0.8	4	4	ppm	N	Erosion of natural deposits; water additives which promote strong teeth; discharge from fertilizer and aluminum factories
	2023	0.4	0.0 – 0.76	4	4	ppm	N	
Nitrate (Friendswood) (Houston)	2023	1	0.0 – 0.95	10	10	ppm	N	Runoff from fertilizer use, leaching from septic tanks, sewage; erosion of natural deposits
	2023	1	0.0 – 0.78	10	10	ppm	N	
Cyanide (Friendswood) (Houston)	2023	150	0 – 150	200	200	ppb	N	Discharge from plastic and fertilizer; discharge from steel/metal factories
	2023	120	0.0-120	200	200	ppb	N	
Nitrite (Friendswood)	2022	0.06	0.06 – 0.06	1	1	ppm	N	Runoff from fertilizer use; leaching from septic tanks, sewage; Erosion of natural deposits.
Selenium (Houston)	2023	15.6	0-15.6	50	50	ppb	N	Discharge from petroleum and metal refineries; Erosion of natural deposits; Discharge from mines.

Thallium (Houston)	2023	0.28	0-0.28	0.5	2	ppb	N	Discharge from electronics, glass, and leaching from ore-processing sites; drug, factories.
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Synthetic organic contaminants including Pesticides and herbicides	Collection date	Highest Level Detected	Range of Individual Samples	MCLG	MCL	Units	Violations	Likely Source of Contamination
Atrazine (Friendswood)	2023	0.15	0.15 – 0.15	3	3	ppb	N	Runoff From herbicide used on row crops.
(Houston)	2023	0.29	0.00 – 0.29	3	3	ppb	N	
Simazine (Friendswood)	2023	0.12	0.12 – 0.12	4	4	ppb	N	Herbicide runoff.
(Houston)	2023	0.15	0-0.15	4	4	ppb	N	
2,4-D (Friendswood)	2023	0.2	0-0.2	70	70	ppd	N	Runoff from herbicide used on row crops.
Dalapon (Friendswood)	2023	2.6	0-2.6	200	200	ppd	N	Runoff from herbicide used on rights of way.
Picloram (Houston)	2023	0.2	0-0.2	500	500	ppb	N	Herbicide runoff.

Radioactive Contaminants

Bet/Photon Emitters								
(Friendswood)	2023	5.2	0 – 5.2	0	50	pCi/L	N	Decay of natural and man-made deposits
(Houston)	2023	10.1	0-10.1	0	50	pCi/L	N	
Combined Radium								
(Friendswood)	2017	1.5	1.5 – 1.5	0	5	pCi/L	N	Erosion of natural deposits
(Houston)	2023	2.8	0-2.8	0	5	pCi/L	N	
Gross alpha excluding radon and uranium								
(Houston)	2023	7.3	0-7.3	0	15	pCi/L	N	Erosion of natural deposits.
Uranium (Houston)	2023	19.8	0-19.8	0	30	pCi/L	N	Erosion of natural deposits.

VOLATILE ORGANIC CONTAMINANTS	Collection date	Highest Level Detected	Range of individual Sample	MCLG	MCL	Units	Violation	Likely Source of contamination
Xylenes (Friendswood)	2023	0.0021	0 - 0.0021	10	10	ppm	N	Discharge from petroleum factories; discharge from chemical factories
(Houston)	2023	0.0006	0 – 0.0006	10	10	ppm	N	

DISINFECTANTS AND DISINFECTANT BY-PRODUCTS

	Collection date	Highest Level Detected	Range of Individual Sample	MCGL	MCL	Units	Violation	Likely source of contamination
Haloacetic Acids (HAA5) (Friendswood)	2023	32	12.2 – 38	no goal for total	60	ppb	N	By-product of drinking water disinfection
	(Houston)	2023	36					
Total Trihalomethanes (TTHM) (Friendswood)	2023	45	17.8 – 51.2	no goal for total	80	ppb	N	By-product of drinking water disinfection.
	(Houston)	2023	47					

*The value in the Highest Level or Average Detected column is the highest average of all HAA5 sample results collected at a location over a year.

*The value in the Highest Level or Average Detected column is the highest average of all TTHM sample results collected at a location over a year.

DISINFECTION Residual	Year	Average Level	Range of levels Detected	MRDL	MRDLG	Units	Violation	Source in Drinking Water
Chloramine Residuals	2023	2.97	0.50 – 4.4	4	4	Mg/L	N	Disinfection used to control microbes

TOTAL COLIFORM BACTERIA are used as indicators of microbial contamination of drinking water because testing of 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. 600 samples were submitted for testing last year. 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.

MAXIMUM CONTAMINANT LEVEL GOAL	Total coliform maximum contaminant level	Highest number of positive	Fecal coliform or E-coli Maximum contaminant level	Total number of positive E-coli or fecalcoliform	Violation	Likely Source of contamination
0	5% of monthly samples Are positive	3.6		0	N	Naturally present in the environment.

LEAD AND COPPER DEFINITIONS: Action Level Goal (ALG): the level of a contaminant in drinking water which there is no known or expected risk to health. ALGs allow for a margin of safety. Action Level (AL): the concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

LEAD AND COPPER	Date Sampled	MCLG	Action Level (AL)	The 90th Percentile	Number Sites Over AL	Units	Violation	Likely Source of Contamination
Lead (Friendswood)	2021	0	15.0	5.28	0	ppb	N	Corrosion of household plumbing systems; Erosion of natural deposits
	(Houston)	2023	0	15	3	ppb	N	
Copper (Friendswood)	2021	1.3	1.3	0.618	0	ppm	N	Erosion of natural deposit; Leaching from wood preservatives; Corrosion of household plumbing systems
	(Houston)	2023	1.3	1.3	0.184	0	ppm	

Turbidity (Houston)

	Level Detected	Limit (Treatment Technique)	Violation	Likely Source of Contamination
Highest single measurement	0.52 NTU	1 NTU	N	Soil runoff.
Lowest monthly % meeting limit	96%	0.3 NTU	N	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 system and disinfectants.