



City of Friendswood  
Public Works / Water Operations  
15355 Blackhawk Blvd.  
Friendswood, TX 77546



City of Friendswood  
Water Operations

# 2025 Annual Water Quality Report



Consumer Confidence Report  
Reporting Year 2024



## 2024 Consumer Confidence Report for CITY OF FRIENDSWOOD Public Water System

This is your water quality report for January 1 to December 31, 2024.

The **CITY OF FRIENDSWOOD** provides surface water and ground water from **Gulf Coast Aquifer** and **Trinity River** located in **Galveston and Harris Counties**.

For More information regarding this report contact:

**Mr. Eric Segura – Operations Superintendent**  
**281-996-3380**

*Este informe contiene información muy importante sobre el agua que usted bebe. Tradúzcalo ó hable con alguien que lo entienda bien. (281)996-3380.*

### Public Participation Opportunities:

The City of Friendswood’s water system is maintained by the Public Works Department (telephone number 281-996-3380) 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.

### Information about your 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 confident report. For more information on source water assessments and protections 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.

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).”

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.

### 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 persons 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.

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>.

### Source 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. 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/>.

**Water Sources:** Major Aquifer – Gulf Coast Aquifer River – Trinity River

Source Water Name	Type of Water
Water Well #2	GW
Water Well #3	GW
Water Well #4	GW
Water Well #5	GW
Water Well #6	GW
Water Well #7	GW
Surface Water Station #1	SW from City of Houston
Surface Water Station #2	SW from City of Houston



Members





## Definitions and Abbreviations

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

**AVG:** Regulatory compliance with some MCL's are based on running average of monthly samples.

**Maximum Contaminant Level or MCL:** The highest level of a contaminant that is allowed in drinking water. MCL's are set as close to the MCLG's as feasible using the best available treatment technology.

**Maximum Contaminant Level Goal or MCLG:** The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLG's allow for margin of safety.

**Maximum Residual Disinfectant Level or MRDL:** 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.

**Maximum Residual Disinfectant Level Goal or MRDLG:** The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLG's do not reflect the benefits of the use of disinfectants to control microbial contaminants.

**Regulated Contaminants:** Contaminants detected at this entry point that have an enforceable MCL.

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

## City of Houston Southeast Water Purification Plant

For regulated, unregulated, and secondary contaminants - please call (713) 837-0311

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		Collection Date	Highest Level Detected	Range of Individual Sample	MCLG	MCL	Units	Violation	Likely Source of Contamination
Barium	(Friendswood)	2023	0.183	0.183-0.183	2	2	ppm	N	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
	(Houston)	2024	0.357	0.385-0.357	2	2	ppm	N	
Flouride	(Friendswood)	2023	0.72	0.72-0.72	4	4	ppm	N	Erosion of natural deposits; water additives which promote strong teeth; discharge from fertilizer and aluminum factories
	(Houston)	2024	0.2	0.11-0.28	4	4	ppm	N	
Nitrate	(Friendswood)	2024	1	0.0-0.97	10	10	ppm	N	Runoff from fertilizer use, leaching from septic tanks, sewage; erosion of natural deposits
	(Houston)	2024	1	0.0-0.95	10	10	ppm	N	
Cyanide	(Friendswood)	2023	150	0-150	200	200	ppb	N	Discharge from plastic and fertilizer; discharge from steel/ metal factories
	(Houston)	2024	200	0.0-200	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
Arsenic	(Houston)	2024	2	0.0-9.9	0	10	ppb	N	Erosion of natural deposits; runoff from orchards. Runoff from glass and electronics productions waste.
SYNTHETIC ORGANIC CONTAMINANTS including Pesticides and Herbicides		Collection Date	Highest Level Detected	Range of Individual Sample	MCLG	MCL	Units	Violation	Likely Source of Contamination
Atrazine	(Friendswood)	2024	0.13	0.00-0.13	3	3	ppb	N	Runoff from herbicide used on row crops.
	(Houston)	2024	2	0.00-2.3	3	3	ppb	N	
Simazine	(Friendswood)	2024	0.12	0.00-0.12	4	4	ppb	N	Herbicide runoff.
	(Houston)	2024	0.14	0.00-0.14	4	4	ppb	N	
RADIOACTIVE CONTAMINANTS		Collection Date	Highest Level Detected	Range of Individual Sample	MCLG	MCL	Units	Violation	Likely Source of Contamination
Combined Radium (Houston)		2024	1.91	1.63-1.91	0	5	pCi/L	N	Erosion of natural deposits.
Gross alpha excl. radon and uranium (Houston)		2024	7.1	6.8-7.1	0	15	pCi/L	N	Erosion of natural deposits.

## Terms Used in Report

**MCL:** Maximum Contaminant Level  
**MCLG:** Maximum Contaminant Level Goal  
**SCL:** Secondary Contaminant Level  
**N/A:** Not analyzed this calendar year (on reduced sampling due to historical results)  
**EP:** Entry Points  
**MFL:** Million fibers per liter (a measure of asbestos)  
**mrem:** Millirems per year (a measure of radiation absorbed by the body.)  
**na:** not applicable  
**NTU:** nephelometric turbidity units (a measure of turbidity)  
**pCi/L:** picocuries per liter (a measure of radioactivity)  
**ppb:** Micrograms per liter or Parts per Billion  
**ppm:** Milligrams per Liter or Parts per Million  
**ppq:** parts per quadrillion, or picograms per liter (pg/L)  
**ppt:** parts per trillion, or nanograms per liter (ng/L)

## 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 155,166,697 Gallons or 8.55 percent of a total of 1,806,198,985 gallons. If you have any questions about the water loss audit call 281-996-3380.





## Fifth Unregulated Contaminant Monitoring Rule - UCMR 5

The Safe Drinking Water Act (SDWA) requires that once every five years the EPA issue a list of unregulated contaminants to be monitored by public water systems.

The fifth Unregulated Contaminant Monitoring Rule (UCMR 5) was published on December 27, 2021.

UCMR 5 requires sample collection for 30 chemical contaminants between 2023 and 2025. The data collected under UCMR 5 improves understanding of the prevalence and amount of 29 per- and polyfluoroalkyl substances (PFAS) and lithium in the nation's drinking water systems. The City of Friendswood completed required UCMR 5 sample collection in 2024.

The results can be found at [www.friendswood.com/UCMR-5](http://www.friendswood.com/UCMR-5)

## Cross Connection and Backflow Prevention

A cross-connection is an actual or potential connection between the public water supply and a source of contamination.

Backflow is the reverse direction of normal flow of water in a piping system, which could be caused by back-pressure or back-siphonage.

All businesses, industries, and residences connected to the public water system that have an actual or potential cross-connection are identified, and as required by TCEQ, are required to have backflow prevention devices installed, inspected, periodically tested, and repaired as needed.

VOLATILE ORGANIC CONTAMINANTS	Collection Date	Highest Level Detected	Range of Individual Sample	MCLG	MCL	Units	Violation	Likely Source of Contamination
Xylenes (Friendswood)	2024	0.0019	0-0.0019	10	10	ppm	N	Discharge from petroleum factories; discharge from chemical factories.

DISINFECTANTS AND DISINFECTANT BY-PRODUCTS	Collection Date	Highest Level Detected	Range of Individual Sample	MCLG	MCL	Units	Violation	Likely Source of Contamination
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Haloacetic Acids (HAA5)								
(Friendswood)	2024	38	7.3-61.8	no goal for total	60	ppb	N	By-product of drinking water disinfection.
(Houston)	2024	39	0.0-50.4		60	ppb	N	
Total Trihalomethanes (TTHM)								
(Friendswood)	2024	46	15.5-56.9	no goal for total	80	ppb	N	By-product of drinking water disinfection.
(Houston)	2024	45	0.0-48.5		80	ppb	N	

\*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	2024	2.61	0.50-4	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 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. 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.

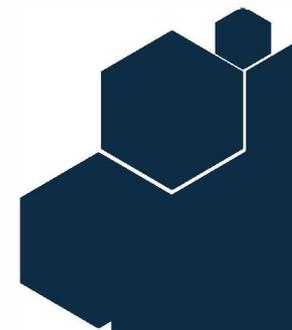
Maximum Contaminant Level Goal	Total coliform maximum contaminant level	Highest number of positive	Fecal coliform or E-coli Maximum contaminant level	Total number of positive E-coli or fecal coliform	Violation	Likely source of contamination
0	5% of monthly samples are positive	3.6		0	N	Naturally present in the environment

TURBIDITY (Houston)	Level Detected	Limit (Treatment Technique)	Violation	Likely Source of Contamination
Highest Single Measurement	0.8 NTU	1 NTU	N	Soil runoff.
Lowest monthly % meeting limit	99%	0.3 NTU	N	Soil runoff.

## Water Main Flushing

Distribution mains (pipes) convey water to homes and businesses throughout the City. The water entering the distribution system is of very high quality; however, water quality can deteriorate in areas of the distribution system over time. Water main flushing is a process of cleaning the interior of water distribution mains by sending a rapid flow of water through them.

Flushing maintains water quality in several ways. For example, flushing removes sediments that may affect the taste, color, and clarity of water. Sediments may also shield microorganisms from disinfection, which may contribute to the growth of microorganisms within the distribution system. Flushing also removes stale water and ensures the presence of fresh water with sufficient dissolved oxygen, disinfectant levels, and acceptable taste and smell.





### LSL – Lead Service Line Inventory

In 2024, the city of Friendswood Public Works Department conducted a lead service line inventory of its water system as required by drinking water regulations set forth by the EPA and TCEQ. Code review, water system records including maps and drawings, City technical specifications and standard details were used to determine which service lines were installed after the EPA’s Safe Drinking Water Act (SDWA) was enacted. City personnel then conducted an inventory of the remaining service lines, physically inspecting and documenting service line materials at the meter box to locate all lead service lines. No lead service lines were identified within the City of Friendswood’s water system.

**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. ALG’s 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)	2024	0	15.0	8.6	1	ppb	N	Corrosion of household plumbing systems; Erosion of natural deposits.
	(Houston)	2024	0	15.0	5	5	ppb	
Copper (Friendswood)	2024	1.3	1.3	0.533	0	ppm	N	Erosion of natural deposits; Leaching from wood preservatives; Corrosion of household plumbing systems.
	(Houston)	2024	1.3	1.3	0.251	1	ppm	

### 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.
- Check every faucet in your home for leaks. Just a slow drip can waste 15 to 20 gallons per day. This can equate to 6,000 gallons per year.
- 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.
- Check your toilets for leaks by putting a few drops of food coloring in the tank. Watch for a few minutes to see if the color shows up in the bowl. It is not uncommon to lose up to 100 gallons a day from an invisible toilet leak. This can add up to more than 30,000 gallons a year.
- Utilize the City’s WaterSmart portal to track water consumption.

### WaterSmart Portal

[www.friendswoodtx.watersmart.com/index.php/welcome](http://www.friendswoodtx.watersmart.com/index.php/welcome)

- Ability to track/view daily water usage on smartphone, tablet, or computer.
- Set usage limits that warn of excessive or continuous usage.
- Help videos to assist with identifying and resolving common leak issues.
- Ability to set alerts to detect usage when you are out of town.
- View individualized usage in relation to previous usage history and/or weather/precipitation.
- Improved customer engagement and service.
- The City of Friendswood’s ability to quickly detect and stop leaks will be greatly enhanced.
- By providing up-to-date water usage data, customers can improve their efforts to conserve.

## Friendswood Notification System

### Friendswood Alerts

In the event of an emergency, this notification system can reach residents by phone call, text message, and email. The system can be activated using the geo calling feature which will only select a specific geographic area or can be used to notify all subscribers within the City.

Examples of messages:

- Severe Weather Alerts, such as: hurricane and flood warnings.
- Notifications of water outages due to main breaks or planned maintenance.
- Law Enforcement Alerts, such as: missing persons and suspects at large.
- Other emergency notifications, such as: chemical releases and pipeline breaks

### City Newsletter

Stay up-to-date with general news and information from the City of Friendswood by subscribing to receive emails or text message notifications.

By signing up, you can receive notifications for:

- Agendas
- General City News
- Business News
- Law Enforcement News
- Legal Notices

Use the QR Code below to register for the City’s notification system

