

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.

Water Sources

The sources of drinking water (both tap 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 contaminants resulting from the presence of animals or from human activity.

Contaminants that may be present in source water include:

- *Microbial Contaminants*, such as viruses and bacteria, which may come from sewage treatment facilities, septic systems, agricultural livestock operations, and wildlife;
- *Inorganic Contaminants*, such as salts and metals which can be naturally-occurring or result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining and 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 can also come from gas stations, urban stormwater runoff, and septic systems; and
- *Radioactive Contaminants*, which can be naturally-occurring or the result of oil and gas production and mining activities.

In order to ensure that tap water is safe to drink, the U.S. Environmental Protection Agency prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. Federal Food and Drug Administration Agency regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

En Español

Este reporte incluye informacion importante sobre el agua para tomar. Para asistencia en Español, favor de llame al telefono (832) 490-1635.

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 Immuno-compromised persons such as those undergoing chemotherapy for cancer; persons 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: (800-426-4791).

Public Participation Opportunities

The Board of Directors of the District meets at 11:30 AM on the third Thursday of each month at the offices of Allen Boone Humphries Robinson LLP, Phoenix Tower, 3200 Southwest Freeway, Suite 2600, Houston, Texas 77027. You may mail comments to:

Harris County Municipal Utility District No. 412

Attn.: Board of Directors

6420 Reading Road

Rosenberg, Texas 77471

Or Call: (832) 490-1635

Where Do We Get Our Water?

Our Drinking water is obtained from both groundwater and surface water sources. The Texas Commission on Environmental Quality completed an assessment of your source water and results indicate that some of our sources are susceptible to certain contaminants. The system from which we purchase our surface water, the City of Houston, also received an assessment report. Any detection of these contaminants will be found in this Consumer Confidence Report. For more information on source water assessments and protection efforts contact Mike Thornhill in our Compliance Department at (832) 490-1635.

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If you would like to talk to a District Representative about your Water Quality Report, please call (832) 490-1635. For more information from the U.S. Environmental Protection Agency, you may call the EPA's Safe Drinking Water Hotline at (800) 426-4791.



2022 | Drinking Water Quality Report

Consumer Confidence Report

**HARRIS COUNTY
MUNICIPAL UTILITY DISTRICT
NO. 412**

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 EPA's Safe Drinking Water Hotline (1-800-426-4791).

Secondary Constituents

Many constituents (such as calcium, sodium, or iron) which are often found in drinking water, can cause taste, color, or odor problems. The taste and odor constituents are called secondary constituents and are regulated by the State of Texas, not the EPA. These types of problems are not necessarily causes for health concerns. For more information on taste, odor, or color of drinking water, please contact the system's business office.

About the Tables

That attached table contains all of the chemical contaminants which have been found in your drinking water. The U.S. EPA requires water systems to test for up to 97 contaminants. All contaminants detected in your water are below state and federally allowed levels. The State of Texas allows us to monitor for some contaminants less than once per year because the concentrations of these contaminants do not change frequently.

Harris County Municipal Utility District No. 412 receives surface water from the City of Houston. The City of Houston provides surface water from within Harris County. The results for both Harris County Municipal Utility District No. 412 and the City of Houston are listed in the tables. The results for Lead and Copper, Disinfectant Residuals, and Disinfection By-Products listed are for Harris County MUD No. 412 only since these samples are from within the District boundaries.

Regulated Inorganic Contaminants

YEAR	Contaminant (Unit of Measurement)	Highest Level Ground-water	Highest Level Surface Water	Range of Detected Levels	Violation	MCL	MCLG	Source of Contaminant
2022	Barium (ppm)	0.0607	0.0676	0.0607 - 0.0676	No	2	2	Erosion of natural deposits
2020	Cyanide (ppb)	ND	40	ND - 40	No	200	200	Discharge from plastic and fertilizer factories
2022	Fluoride (ppm)	0.14	0.1	0.1 - 0.14	No	4	4	Erosion of natural deposits
2022	Nitrate (ppm)	1.04	0.43	0.43 - 1.04	No	10	10	Erosion of natural deposits

Lead and Copper

YEAR	Contaminant (Unit of Measurement)	90th Percentile	Number of sampling sites exceeding Action Level	Violation	Action Level	MCLG	Source of Contaminant
2022	Lead (ppb)	2.5	0	No	15	0	Corrosion of household plumbing
2022	Copper (ppm)	0.0468	0	No	1.3	1.3	Corrosion of household plumbing

Additional Health Information for Lead

All water systems are required by the EPA to report the following language: "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 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>."

Drinking Water Definitions and Units Descriptions

NA:Not Applicable

ND:Not Detected

NR:Not Reported

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 (ug/L)

MNR: Monitoring not required, but recommended

Level 1 Assessment: A Level 1 assessment is a study of the water system to identify potential problems and determine (if possible) why total coliform bacteria have been found in our water system.

Level 2 Assessment: A Level 2 assessment is a very detailed study of the water system to identify potential problems and determine (if possible) why an E. coli MCL violation has occurred and/or why total coliform bacteria have been found in our water system on multiple occasions.

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 health risk. MCLGs allow for a margin of safety.

MRDL: **Maximum Residual Disinfection Level:** The highest level of 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 drinking water disinfectant below which there is no known or expected health risk. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.

AL: **Action Level:** The concentration level of a contaminant which, if exceeded, requires a water system to treat water or follow other requirements.

Disinfection Residuals

YEAR	Contaminant (Unit of Measurement)	Highest Average Level Detected	Range of Detected Levels	Violation	MRDL	MRDLG	Source of Contaminant
2022	Chloramine (ppm)	2.88	1.17 - 4.20	No	4	4	Disinfectant used to control microbes

Disinfection By-Products

YEAR	Contaminant (Unit of Measurement)	Highest Level Detected	Range of Detected Levels	Violation	MCL	MCLG	Source of Contaminant
2022	Total Trihalomethanes (TTHM) (ppb)	10	1.9 - 11.7	No	80	0	By-product of drinking water disinfection
2022	Total Haloacetic Acids (HAA5) (ppb)	14	2.4 - 18.0	No	60	0	By-product of drinking water disinfection

Microbiological Contaminants

YEAR	Contaminant (Unit of Measurement)	Highest Single Measurement	Lowest Monthly % of Samples Meeting Limits	Turbidity Limits	Source of Contaminant
2022	Turbidity (NTU)	0.15	100	0.3	Soil Runoff

Turbidity has no health effects. However, turbidity can interfere with disinfection and provide a medium for microbiological 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.

In the required water loss audit submitted to the Texas Water Development Board for the time period of Jan-Dec 2022, our system supplied 157,170,043 gallons of water. During the same time period, an estimated 12,078,095 gallons of water was lost due to line breaks, flushing, and maintenance for a final water accountability of approximately 92%. If you have any questions about the water loss audit please call your water system at (832) 490-1635.