

Harris County Municipal Utility District #321

2021 Drinking Water Quality Report

OUR DRINKING WATER IS SAFE

The Texas Commission on Environmental Quality (TCEQ), has assessed our system and determined that our water is safe to drink. The analysis was made by using the data in the attached tables. Your water meets federal standards set forth by the USEPA, there may not be health based benefits to purchasing bottled water or point of use devices.

En Español

Este informe contiene información importante acerca de su agua potable. Para asistencia en Español, favor de llamar al telefono: (281) 353-9809

Where do we get our drinking water?

Our drinking water is obtained from City of Houston surface water sources. TCEQ completed a Source Water Susceptibility for all drinking water systems that own their sources. This report describes the susceptibility and types of constituents that may come into contact with the drinking water source based on human activities and natural conditions. The system(s) from which we purchase our water received the assessment report. The sampling requirements for your water system are based on the susceptibility of these water sources and previous sample data. Any detections of these contaminants will be found in this Consumer Confidence Report. For more information on source water assessments and protection efforts at our system contact Natalia Espitia at 281-353-9809.

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).

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

Contaminants that may be Present in Source Water

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 substances 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 plants, septic system, 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 or 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 be the result of oil and gas production and mining activities.

In order to ensure that tap water is safe to drink, the EPA prescribes regulations that limits 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 that must provide the same protection for public health.

Our drinking water is delivered by the City of Houston from their surface water treatment facilities.

Contaminants may be found in drinking water that may cause taste, color, or 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 the system's business office.

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 at (800) 426-4791, EPA website: www.epa.gov/safewater,

Public input concerning your water system may be made at regularly scheduled meetings on the third Tuesday of every month at 11:00 a.m. at 3200 Southwest Freeway, Suite 2600, Houston, Texas 77027. You may contact Natalia Espitia, h2o innovation at 281-353-9809 with any concerns or questions you may have.



About the Following Table

The following table contains all of the chemical constituents which have been found in your drinking water. USEPA requires water systems to test up to 97 constituents. The constituents detected in your water are listed in the attached table.

DEFINITIONS

Maximum Contaminant Level (MCL) - The highest level of a contaminant 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 (MCLG) - The level of a contaminant in drinking water below which there is not known or expected health risk. MCLG's allow for a margin of safety.

Maximum residual disinfectant level (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 (MRDLG) - The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.

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

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

ppm = parts per million, one part per million corresponds to one minute in two years or a single penny in \$10,000

ppb = parts per billion, one part per billion corresponds to one minute in 2,000 years or a single penny in \$10,000,000

picid/l = pico curies per liter: Measure of particle activity adjusted for laboratory background.

Harris County Municipal Utility District 321 TX1012913 2021 Drinking Water Quality Report:

Inorganic Contaminants							
Year	Constituent	Highest Detected Level at Any Sampling Point	Range of Detected Levels	MCL	MCLG	Units of Measure	Source of Constituent
2021	Nitrate	0.12	0.12 - 0.12	10	10	ppm	Runoff from fertilizer use.

Organic Contaminants							
Year	Constituent	Highest Detected Level at Any Sampling Point	Range of Detected Levels	MCL	MCLG	Units of Measure	Source of Constituent
2021	Haloacetic Acids (HAA5)	1.8	1.8 - 1.8	60	n/a	ppb	By-product of drinking water disinfection.
2019	Total Trihalomethanes (TTHM)	10.6	10.6 - 10.6	80	0	ppb	By-product of drinking water disinfection.

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

Unregulated Contaminants**				
Year	Constituent	Average of All Sampling Points	Range of Detected Levels	Units of Measure
2019	Chloroform	5.8	5.8 - 5.8	ppb
2019	Bromodichloromethane	1.5	1.5 - 1.5	ppb
2019	Dibromochloromethane	1.5	1.5 - 1.5	ppb
2019	Bromoform	1.8	1.8 - 1.8	ppb
2021	Dichloroacetic Acid	1.8	1.8 - 1.8	ppb
2019	Trichloroacetic Acid	1.8	1.8 - 1.8	ppb
2019	Dibromoacetic Acid	1.4	1.4 - 1.4	ppb
2019	Bromochloroacetic Acid	1.3	1.3 - 1.3	ppb

**Unregulated contaminants are those for which EPA has not established drinking water standards. The purpose of unregulated contaminant monitoring is to assist EPA in determining the occurrence of unregulated contaminants in drinking water and whether future regulation is warranted.

Lead and Copper

Year	Constituent	The 90th Percentile	Number of Sites Exceeding Action Levels	Action Level	Units of Measure	Source of Constituent
2021	Lead	1.41	0	15	ppb	Corrosion of household plumbing system.
2021	Copper	0.151	0	1.3	ppm	Erosion of natural deposits.

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>.

Disinfectant Residuals

Year	Constituent	Highest Average	Range of Detected Levels	MRDL	MRDLG	Units of Measure	Source of Constituent
2021	Chlorine Disinfectant	2.50	0.50 - 4.20	4	4	ppm	Disinfectant used to control microbes.

During 2021, Harris County M.U.D. 321 received surface water from the City of Houston TX1010013

The following water quality information was provided by the City of Houston:

Inorganic Contaminants

Year	Constituent	Highest Detected Level at Any Sampling Point	Range of Detected Levels	MCL	MCLG	Units of Measure	Source of Constituent
2021	Barium	0.35	0.0396 - 0.35	2	2	ppm	Discharge of drilling wastes,
2021	Nitrate	1.0	0.64 - 1.0	10	10	ppm	Runoff from fertilizer use.
2021	Fluoride	0.4	0.37 - 0.4	4	4	ppm	Erosion of natural deposits.
2021	Arsenic	5.3	0 - 5.3	10	0	ppb	Erosion of natural deposits.
2021	Cyanide	140	0 - 140	200	200	ppb	Discharge from plastic/fertilizer factories.
2021	Selenium	4.5	0 - 4.5	50	50	ppb	Discharge from petroleum/metal refineries.

Organic Contaminants

Year	Constituent	Highest Detected Level at Any Sampling Point	Range of Detected Levels	MCL	MCLG	Units of Measure	Source of Constituent
2021	Haloacetic Acids (HAA5)	34.2	34.2 - 34.2	60	n/a	ppb	By-product of drinking water disinfection.
2021	Total Trihalomethanes (TTHM)	52	52 - 52	80	n/a	ppb	By-product of drinking water disinfection.

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

Turbidity	Level Detected	Limit (Treatment Technique)	Violation	Source of Constituent
Highest Single Measurement	0.49 NTU	1 NTU	NO	Soil runoff.
Lowest Monthly % meeting limit	99%	0.3 NTU	NO	Soil runoff.

**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 organism. These organisms include bacteria, viruses, and parasites that can cause symptoms such as nausea, cramps, diarrhea and associated headaches.

Unregulated Contaminants**				
Year	Constituent	Average of All Sampling Points	Range of Detected Levels	Units of Measure
2021	Chloroform	17	17 - 17	ppb
2021	Bromodichloromethane	2.4	2.4 - 2.4	ppb
2020	Dichloroacetic Acid	3.5	3.5 - 3.5	ppb
2019	Trichloroacetic Acid	2.0	2.0 - 2.0	ppb
2019	Dibromoacetic Acid	1.4	1.4 - 1.4	ppb
2020	Bromochloroacetic Acid	1.5	1.5 - 1.5	ppb
2020	Dibromochloromethane	1.1	1.1 - 1.1	ppb

**Unregulated contaminants are those for which EPA has not established drinking water standards. The purpose of unregulated contaminant monitoring is to assist EPA in determining the occurrence of unregulated contaminants in drinking water and whether future regulation is warranted.

Organic Contaminants							
Year	Constituent	Highest Detected Level at Any Sampling Point	Range of Detected Levels	MCL	MCLG	Units of Measure	Source of Constituent
2021	Atrazine	1	0 - 1	3	3	ppb	Runoff from herbicide used on row crops.
2021	Di (2-ethylhexyl) phthalate	2.3	0-2.3	6	0	ppb	Discharge from chemical factories.
2021	Simazine	0.1	0 - 0.1	4	4	ppb	Herbicide runoff.
2021	Ethylbenzene	1	0 - 1	700	700	ppb	Discharge from petroleum refineries.
2021	Toluene	0.001	0 - 0.001	1	1	ppm	Discharge from petroleum factories.
2021	Xylenes	0.0054	0 - 0.0054	10	10	ppm	Discharge from petroleum factories.

Radioactive Contaminants							
Year	Constituent	Highest Detected Level at Any Sampling Point	Range of Detected Levels	MCL	MCLG	Units of Measure	Source of Constituent
2021	Beta / photon emitters	6.6	0 - 6.6	50	0	pCi/L*	Decay of natural man made deposits.
2021	Combined Radium 226/228	2.48	0-2.48	5	0	pCi/L	Erosion of natural deposits.
2021	Gross Alpha excluding radon and uranium	15.1	0 - 15.1	15	0	pCi/L	Erosion of natural deposits.
2021	Uranium	11.4	0 - 11.4	30	0	ug/L	Erosion of natural deposits.

*EPA considers 50 pCi/L to be the level of concern for beta particles.

Lead and Copper

Year	Constituent	The 90th Percentile	Number of Sites Exceeding Action Levels	Action Level	Units of Measure	Source of Constituent
2021	Lead	3.4	3	15	ppb	Corrosion of household plumbing system.
2021	Copper	0.1144	0	1.3	ppm	Erosion of natural deposits.

The 90th percentile of the Lead/ Copper analysis means the top 10% (highest sample results) of all samples collected.

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>.

During 2021, Harris County M.U.D. No. 321 received surface water from Harris County M.U.D. No. 406 TX1013413. The following water quality information was provided by Harris County M.U.D. No. 406:

Organic Contaminants

Year	Constituent	Highest Detected Level at Any Sampling Point	Range of Detected Levels	MCL	MCLG	Units of Measure	Source of Constituent
2021	Haloacetic Acids (HAA5)	1	1-1	60	n/a	ppb	By-product of drinking water disinfection.
2021	Total Trihalomethanes (TTHM)	1	1-1	80	n/a	ppb	By-product of drinking water disinfection.

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

Lead and Copper

Year	Constituent	The 90th Percentile	Number of Sites Exceeding Action Levels	Action Level	Units of Measure	Source of Constituent
2021	Lead	2.14	0	15	ppb	Corrosion of household plumbing system.
2021	Copper	0.209	0	1.3	ppm	Erosion of natural deposits.

Inorganic Contaminants

Year	Constituent	Highest Detected Level at Any Sampling Point	Range of Detected Levels	MCL	MCLG	Units of Measure	Source of Constituent
2021	Nitrate	1	0.79 - 1	10	10	ppm	Runoff from fertilizer use.

Disinfectant Residuals

Year	Constituent	Highest Average	Range of Detected Levels	MRDL	MRDLG	Units of Measure	Source of Constituent
2021	Chlorine Disinfectant	2.72	0.50 - 4.20	4	4	ppm	Disinfectant used to control microbes.

Unregulated Contaminants**

Year	Constituent	Average of All Sampling Points	Range of Detected Levels	Units of Measure
2020	Chloroform	2.3	2.3 - 2.3	ppb
2020	Bromodichloromethane	1.9	1.9 - 1.9	ppb
2020	Dichloroacetic Acid	3.5	3.5 - 3.5	ppb
2019	Trichloroacetic Acid	2.0	2.0 - 2.0	ppb
2019	Dibromoacetic Acid	1.4	1.4 - 1.4	ppb
2020	Bromochloroacetic Acid	1.5	1.5 - 1.5	ppb
2020	Dibromochloromethane	1.1	1.1 - 1.1	ppb

**Unregulated contaminants are those for which EPA has not established drinking water standards. The purpose of unregulated contaminant monitoring is to assist EPA in determining the occurrence of unregulated contaminants in drinking water and whether future regulation is warranted.

The drinking water produced by Your District exceeds the minimum water quality standards as established by the USEPA.

Our water is safe to drink