



Rice University Annual

Texas Commission Environmental Quality

Consumer Confidence Report 2023

2022 Consumer Confidence Report for Public Water System RICE UNIVERSITY

This is your water quality report for January 1 to December 31, 2022

RICE UNIVERSITY provides surface water and ground water from Gulf Coast aquifer located in City of Houston in Harris County

For more information regarding this report contact:

Name James M. McLarty

Phone 713-348-5488

Este reporte incluye información importante sobre el agua para tomar. Para asistencia en español, favor de llamar al telefono (713)348-5488

Definitions and Abbreviations

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The following tables contain scientific terms and measures, some of which may require explanation.

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 MCLs are based on running annual average of monthly samples.

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.

Maximum Contaminant Level or 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.

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. MCLGs allow for a 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. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.

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)

Definitions and Abbreviations

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

Information about your Drinking Water

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 activity.

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.

Contaminants that may be present in 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 or result 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 water 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.

In order to ensure that tap water is safe to drink, EPA prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. FDA regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

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.

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; 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 providers. Additional 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. We are responsible for providing high quality drinking water, but we 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>.

Information about Source Water

RICE UNIVERSITY purchases water from CITY OF HOUSTON. CITY OF HOUSTON provides purchase surface water from Eighty-six percent of our supply flows from the Trinity River into Lake Livingston, and from the San Jacinto River into Lake Conroe and Lake Houston. Deep underground wells drilled into the Evangeline and Chicot aquifers currently provide the other 14 percent of the City’s water supply.

<https://www.houstonpublicworks.org/sites/g/files/nwywnm456/files/doc/003-water-quality-report-2022.pdf>

TCEQ completed an assessment of your source water, and results indicate that some of our sources are susceptible to certain contaminants. The sampling requirements for your water system is based on this susceptibility 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 **[James M. McLarty][713-348-5488]**

Lead and Copper	Date Sampled	MCLG	Action Level (AL)	90th Percentile	# Sites Over AL	Units	Violation	Likely Source of Contamination
Copper	2022	1.3	1.3	0.19	0	ppm	N	Erosion of natural deposits; Leaching from wood preservatives; Corrosion of household plumbing systems.
Lead	2022	0	15	5	0	ppb	N	Corrosion of household plumbing systems; Erosion of natural deposits.

2022 Water Quality Test Results

Disinfection By-Products	Collection Date	Highest Level Detected	Range of Individual Samples	MCLG	MCL	Units	Violation	Likely Source of Contamination
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Haloacetic Acids (HAA5)	2022	4	0 - 16.6	No goal for the total	60	ppb	N	By-product of drinking water disinfection.
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*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

Total Trihalomethanes (TTHM)	2022	7	0 - 25.4	No goal for the total	80	ppb	N	By-product of drinking water disinfection.
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*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

Inorganic Contaminants	Collection Date	Highest Level Detected	Range of Individual Samples	MCLG	MCL	Units	Violation	Likely Source of Contamination
Barium	04/27/2020	0.0737	0.0737 - 0.0737	2	2	ppm	N	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.
Fluoride	04/27/2020	0.23	0.23 - 0.23	4	4.0	ppm	N	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories.
Nitrate [measured as Nitrogen]	2022	0.44	0 - 0.44	10	10	ppm	N	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.
Nitrite [measured as Nitrogen]	04/27/2020	0.14	0 - 0.14	1	1	ppm	N	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.

Disinfectant Residual

A blank disinfectant residual table has been added to the CCR template, you will need to add data to the fields. Your data can be taken off the Disinfectant Level Quarterly Operating Reports (DLQOR).

Disinfectant Residual	Year	Average Level	Range of Levels Detected	MRDL	MRDLG	Unit of Measure	Violation (Y/N)	Source in Drinking Water
Free	2022	1.58	1.0-3.2	4	4	mg/L	No	Water additive used to control microbes.

Violations

Violations

Haloacetic Acids (HAA5)			
Some people who drink water containing haloacetic acids in excess of the MCL over many years may have an increased risk of getting cancer.			
Violation Type	Violation Begin	Violation End	Violation Explanation
MONITORING, ROUTINE (DBP), MAJOR	01/01/2022	03/31/2022	We failed to test our drinking water for the contaminant and period indicated. Because of this failure, we cannot be sure of the quality of our drinking water during the period indicated.

Total Trihalomethanes (TTHM)			
Some people who drink water containing trihalomethanes in excess of the MCL over many years may experience problems with their liver, kidneys, or central nervous systems, and may have an increased risk of getting cancer.			
Violation Type	Violation Begin	Violation End	Violation Explanation
MONITORING, ROUTINE (DBP), MAJOR	01/01/2022	03/31/2022	We failed to test our drinking water for the contaminant and period indicated. Because of this failure, we cannot be sure of the quality of our drinking water during the period indicated.

Mandatory Language for Monitoring and Reporting Violation
Chemical Sampling
CHEMICAL MONITORING, ROUTINE MINOR

The **Rice University** water system **PWS ID 1010908** has violated the monitoring and reporting requirements set by Texas Commission on Environmental Quality (TCEQ) in Chapter 30, Section 290, Subchapter F. Public water systems are required to collect and submit chemical samples of water provided to their customers, and report the results of those samples to the TCEQ on a regular basis.

We failed to monitor and/or report the following constituents DBP2

This/These violation(s) occurred in the monitoring period(s) 1Q2022
<monitoring period of violations>

Results of regular monitoring are an indicator of whether or not your drinking water is safe from chemical contamination. We did not complete all monitoring and/or reporting for chemical constituents, and therefore TCEQ cannot be sure of the safety of your drinking water during that time.

We are taking the following actions to address this issue:
Delinquent billing issues were resolved and the necessary test results were released , by Texas Department of State Health Services

<corrective actions>

Please share this information with all people who drink this water, especially those who may not have received this notice directly (i.e., people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.

If you have questions regarding this matter, you may contact James McLarty at
713-348-5488
Rice University
713-348-0000

Posted /Delivered on: 07/24/2023

Instructions for preparing the required Public Notice:

Recopy the mandatory language above and insert the underlined information in the spaces indicated.

The TCEQ recommends that the public water system provide a copy of the Public Notice(s) to local and state officials, such as Mayors, City Council Members, County Commissioners, Judges, and/or State Representatives, that are located in or that represent the affected area(s) served by the system.

Public Notice delivery timelines:

The initial public notice shall be issued as soon as possible, but in no case later than 12 months after the violation was identified. Repeat public notice shall be issued every twelve months for as long as the violation persists. All notifications require the attached Certificate of Delivery due 10 days from the posting date of the above notice.

Refer to 30 TAC §290.122 for additional information on Public Notification.

Monitoring Violations Annual Notice – Template 3-1B

IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER

Monitoring Requirements Not Met for [Rice University]

Our system failed to collect every required coliform sample. Although this incident was not an emergency, as our customers, you have a right to know what happened and what we did (are doing) to correct this situation.

We are required to monitor your drinking water for specific contaminants on a regular basis. Results of regular monitoring are an indicator of whether or not our drinking water meets health standards. During **5/2020** we did not complete all monitoring or testing for coliform bacteria and therefore cannot be sure of the quality of your drinking water during that time.

What should I do?

There is nothing you need to do at this time. You may continue to drink the water. If a situation arises where the water is no longer safe to drink, we are required to notify you within 24 hours.

What is being done?

Describe corrective action. We collected required samples in June, 2020 and are no longer in violation.

For more information, please contact James McLarty at 713-348-5488 or
Rice University
Facilities Engineering and Planning MS 312
6100 Main Street
Houston, TX 77005

Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.

This notice is being sent to you by Rice University. Public Water System ID#: 1010908.
Date distributed: 07/24/2023.

Please share this information with everyone.

Rev. 07/31/2023