

2021 Annual Drinking Water Quality Report

Consumer Confidence Report (CCR)

Harris County WCID No. 161

District Phone No.: 713-860-6400

Operator Phone No.: 281-488-1164

CCR Direct: <https://www.clcwa.org/wp-content/uploads/2021CCR161.pdf>

Reporting Period: January 1, 2021 to December 31, 2021

GENERAL INFORMATION

This report is intended to provide you with important information about your drinking water and the efforts made by the water system to provide safe drinking water.

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.

For more information regarding this report contact your district operator:

Clear Lake City Water Authority

Phone: 281-488-1164

SOURCES OF 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.

HARRIS COUNTY WCID 161 WATER SOURCE

Harris County WCID 161 purchases water from Clear Lake City Water Authority (CLCWA). CLCWA provides approximately 98% purchased surface water and 2% groundwater from wells. The CLCWA purchases most of its drinking water from the City of Houston's Southeast Water Purification Plant (SEWPP) located near Ellington Field in Houston, TX. Approximately 1% of our drinking water is purchased from the City of Pasadena located in Pasadena, TX that also provides surface water from the SEWPP. The raw surface water comes from the Trinity River through Lake Livingston located in Livingston, TX. On occasion, the raw surface water may come from the San Jacinto River through Lake Houston located in Houston, TX. The Authority supplements surface water with ground water from their permitted wells during high demand in summer months. These are deep wells, producing water from the Gulf Coast Aquifer located beneath Montgomery County.

SPECIAL NOTICE

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 at 281-488-1164.

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>.

PUBLIC PARTICIPATION OPPORTUNITIES

Your participation is welcome at the District No. 161 Board of Director's meetings. The Board meets on the third Monday of every month at 11:00 a.m. The meetings are held at 3200 Southwest Freeway, Suite 2600, Houston, Texas. For information on specific board meetings or policies, please call the district phone number at 713-860-6400. You purchase water service from Harris County WCID No. 161, which obtains all water provided to you from the Clear Lake City Water Authority (CLCWA). The Authority is WCID No. 161's system operator. Please feel free to contact the Clear Lake City Water Authority at 281-488-1164 concerning the information contained in the Consumer Confidence Report or questions regarding system operations.

Este reporte incluye información importante sobre el agua para tomar. Para asistencia en español, por favor de llamar al telefono 281-488-1164.

Definitions & Abbreviations

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

Action Level (AL):

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

Action Level Goal (ALG):

The level of a contaminant in drinking water below which there is no known or expected risk to health. ALGs allow for a margin of safety.

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 (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 (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 (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.

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 (one ounce in 7,350,000 gallons of water) (ug/L).

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

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

About The Following Tables

The following tables list all of the federally regulated or monitored contaminants which have been found in your drinking water. The U.S. EPA requires water systems to test up to 97 contaminants. If a contaminant was reported in a prior year's report, but is not detected in this year's samples, that contaminant has been removed from the list. The data presented in this report is from the most recent testing done in accordance with drinking water regulations.

Inorganic Contaminants

Collection Date	Contaminant	Highest Level Detected	Range of Individual Samples	MCLG	MCL	Unit of Measure	Violation	Likely Source of Contaminant
2020	Barium	0.0438	0.0438 - 0.0438	2	2	ppm	No	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits.
2020	Cyanide	90	0-90	200	200	ppb	No	Discharge from plastic and fertilizer factories; Discharge from steel/metal factories.
2020	Fluoride	1.1	0.24-1.1	4	4	ppm	No	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories.
2021	Nitrate (measured as Nitrogen)	0.31	0.31-0.31	10	10	ppm	No	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
2017	Nitrite (measured as Nitrogen)	0.02	0.02-0.02	1	1	ppm	No	Runoff from fertilizer use; leaching from septic tanks, sewage, erosion of natural deposits.

Synthetic Organic Contaminants INCLUDING Pesticides AND Herbicides

Collection Date	Contaminant	Highest Level Detected	Range of Individual Samples	MCLG	MCL	Unit of Measure	Violation	Likely Source of Contaminant
2021	Simazine	0.11	0 - 0.11	4	4	ppb	No	Herbicide runoff.
2021	Atrazine	0.20	0 - 0.20	3	3	ppb	No	Runoff from herbicide used on row crops

Radioactive Contaminants

Collection Date	Contaminant	Highest Level Detected	Range of Individual Samples	MCLG	MCL	Unit of Measure	Violation	Likely Source of Contaminant
2017	Combined Radium 226 / 228	2.87	2.69 - 2.87	0	5	pCi/L	No	Erosion of natural deposits.

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

Lead and Copper

Lead and Copper Rule: The Lead and Copper Rule protects public health by minimizing lead and copper levels in drinking water, primarily by reducing water corrosivity. Lead and copper enter drinking water mainly from corrosion of lead and copper containing plumbing materials.

Date Sampled	Contaminant	MCLG	Action Level (AL)	90th Percentile	# Sites Over AL	Unit of Measure	Violation	Likely Source of Contamination
2020	Lead	0	15	4	1	ppb	No	Corrosion of household plumbing systems; erosion of natural deposits
2021	Copper	1.3	1.3	0.03	0	ppm	No	Erosion of natural deposits; Leaching from wood preservatives; Corrosion of household plumbing systems.

DID YOU KNOW WE ACCEPT PAYMENT BY CREDIT CARDS AND AUTOMATIC BANK DRAFT?

Please visit CLCWA's website at www.clcwa.org for more information.

Disinfectants and Disinfection By-products

Collection Date	Disinfection By-products	Average Level Detected	Range of Individual Samples	MCLG	MCL	Unit of Measure	Violation	Likely Source of Contaminant
2021	Total Haloacetic Acids (HAA5)	41.0	41.0 – 41.0	No goal for the total	60	ppb	No	By-product of drinking water disinfection.
2021	Total Trihalomethanes (TTHM)	45.2	45.2 – 45.2	No goal for the total	80	ppb	No	By-product of drinking water disinfection.

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

Unregulated Contaminants

There is no maximum contaminant level for these chemicals at the entry point to distribution. 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.

Collection Date	Contaminant	Highest Level Detected	Range of Individual Samples	MCLG	MCL	Unit of Measure	Likely Source of Contaminant
2021	Chloroform	34.0	34.0 - 34.0	na	na	ppb	By-product of drinking water disinfection.
2021	Bromoform	<1.0	<1.0 - <1.0	na	na	ppb	By-product of drinking water disinfection.
2021	Bromodichloromethane	9.3	9.3 - 9.3	na	na	ppb	By-product of drinking water disinfection
2021	Dibromochloromethane	1.9	1.9 - 1.9	na	na	ppb	By-product of drinking water disinfection

Turbidity

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

Collection Date	Contaminant	Highest Single Measurement	Lowest Monthly % of Samples Meeting Limits	Turbidity Limits	Unit of Measure	Likely Source of Contaminant
2021	Turbidity	0.10	100.00	0.3	NTU	Soil runoff.

Disinfectant Residual

Disinfectant	Year	Average Level	Range of Levels Detected	MRDL	MRDLG	Unit of Measure	Violation	Source in Drinking Water
Chloramine Residual	2021	3.6	2.4 – 4.0	4	4	ppm	No	Water additive used to control microbes.

Let's All Do Our Part In Keeping Our Water Clean

Always apply fertilizers and pesticides per the manufacturer's specifications to avoid excessive chemical runoff to our waterways.

Be wise when setting automatic sprinkler systems. This helps conserve water and prevent erosion in overwatered lawns. Have your sprinkler company perform an audit annually to make sure you are watering efficiently.

Never put grease, oil, or so-called flushable wipes down your toilets. This can cause blockage in the main sewer lines resulting in backups and overflows which will eventually reach our waterways.

When performing maintenance on vehicles or other equipment, be sure not to spill pollutants such as oil, antifreeze, brake fluid, etc. which can be washed down the catch basins and end up in our streams and bays. These spills can be easily cleaned up just by using a small amount of kitty litter or sand.

Always check cars, boats, or other recreational vehicles parked in the driveway or streets for leaking fluids and make repairs as soon as possible.

STOP THE LEAK, SAVE THE LAKE.

STORM WATER *Dumping into storm drains is not just wrong, it's illegal.*

Storm water or rainwater flows into the storm drains and storm inlets that you see along streets and street corners or into roadside ditches.

Unlike the water that flows inside your home, which goes to the sewer treatment facilities, the storm drain system is completely separate. Water in the storm drains receives no treatment or filtering process. This means that any pollution that gets washed into the storm drain goes directly to our creeks, rivers, bays, and streams, ultimately ending up in Galveston Bay.

Examples of common storm water pollution come from construction debris, material stockpiles, automotive fluids, erosion, paints, pesticides, litter, or any other industrial and household materials. Pet waste contributes to pollution that can contaminate streams and bays and harm shellfish beds.

A storm drain system's purpose is to prevent flooding of streets and roadways by quickly and efficiently transferring rainwater into waterways. After the water has filled up the waterways, then the streets are designed to handle the overflow. Also, one can try and prevent flood damage to property by eliminating grass clippings, leaves, pine needles, trash, and debris in the storm drains that can cause slow drainage or flooding. Deposit of refuse into the Authority's storm sewer system or drainage ditches is punishable by a fine of not more than \$200 for each such violation.

Used oil can be taken to CLCWA's oil recycling drop-off point located at 17507 El Camino Real. Please leave the used oil in a sealed container (to prevent spills) outside the gate in the visibly marked concrete box. Please do not drop off any other chemicals including paints, antifreeze, hazardous liquids, or other items that need disposal. CLCWA is only able to recycle oil at this time.

The choice is clear and you can do your part. We all have a part to play in keeping our drainage system and our waterways clean. By understanding the problems and by being good neighbors, we can decrease storm water pollution. Please help clean up our waterways to ensure a brighter future for us all. For more information please see: www.clcwa.org/stormwater.

SOURCE WATER ASSESSMENTS

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. For more information on source water assessments and protection efforts at our system contact CLCWA at 281-488-1164

Further details about sources and source water assessments are available in Drinking Water Watch at the following:

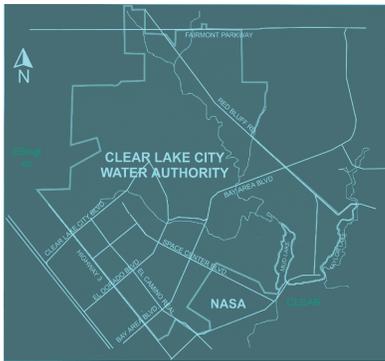
<http://dww2.tceq.texas.gov/DWW/>

Water Loss

District 161's Water Loss Audit Report submitted to the Texas Water Development Board showed a system loss of 874,659 gallons over the period January 1 - December 31, 2021. The loss was due to various leaks and system maintenance and equates to .87% of the total system input in 2021.

2021 ANNUAL DRINKING WATER QUALITY REPORT

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Sewer Education Program

Storm and Sanitary Sewer Systems

The storm and sanitary sewer systems are two separate systems that do very different and very important jobs. The storm sewer system is a large diameter pipe network designed to handle rainwater that collects in yards and streets and then drains untreated to waterways such as bayous, drainage channels, detention ponds, and lakes. Keeping street drains clear of pine needles, leaves, grass clippings, trash, and any other debris will help the streets drain faster and keep from having costly rehabilitation to clear out blockages in the storm sewer system.

The sanitary sewer system is a smaller diameter pipe network designed to handle sewer waste from homes and businesses that will eventually go to the Wastewater Treatment Plant for processing before being recycled back into the environment. The Clear Lake City Water Authority (CLCWA) has almost 200 miles of underground sanitary sewer pipes!

Utility providers such as cities, MUD's, WCID's, and CLCWA maintain the main sanitary sewer lines located in easements in front or behind your property. The connections from your property to the main line belong to the owners and the maintenance or replacement of that line is the responsibility of the homeowner or business.

Sometimes connections other than sanitary sewer lines are illegally connected to the sanitary system, but it was never designed or built to handle large volumes of rainwater. Below are a few examples of illegal connections.

What should I look for?

- Do you see gutter downspouts that go underground, and you are not sure what they connect to?
- Is there a cap missing on the sewer clean out pipe which is typically located in the backyard? Not only is this an injury hazard, but it leaves the sanitary system open in your backyard for contaminants and can allow your yard to drain into the system, easily overwhelming it. Yard debris like dirt, grass clippings, and leaves can also enter through the sewer cleanout on your service line, causing blockages.
- Do you know how your yard drains are connected underground?
- Have you had your sewer service line inspected? Service lines in poor condition could be caused by aging pipes failing, tree roots growing inside the line, the ground shifting and causing low areas or pipe separations. These can all cause an infiltration from underground openings. A plumber would have to be hired to televise the sewer lines under and around your home to assess the condition.

Why is this an issue? Sanitary Sewer lines in poor condition can:

- Cause sewer backups in your home.
- Add rainwater to the sanitary sewer system that was not built for that much water flow, causing the system to be overwhelmed and start overflowing.
- Thousands of tax dollars are spent every year trying to find the source of sanitary sewer overflows and rehabilitation projects on sewer main lines. The Texas Commission on Environmental Quality (TCEQ) can also impose fines for repeated overflow events.
- Millions of tax dollars will have to be spent on upgrading and expanding wastewater treatment plants if these high flow situations are not resolved with the sanitary sewer system.

We are asking all residents to please help keep water and tax rates low by inspecting and maintaining your sanitary sewer service lines and correcting any deficiencies or illegal connections. If you need more information, please call our office or visit our website at www.clcwa.org/sewer.