

2017 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

District Operator Website: www.clcwa.org

CCR Posted At: www.clcwa.org/161.ccr

Reporting Period: January 1, 2017 to December 31, 2017

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

HARRIS COUNTY WCID 161 WATER SOURCE

The source of drinking water used by the Clear Lake City Water Authority is approximately 97% purchased surface water and 3% groundwater wells. The Authority draws most of its drinking water from Houston's Southeast Surface Water Treatment Plant near Ellington. The raw surface water comes from the Trinity River through Lake Livingston. On occasion, the raw surface water may come from the San Jacinto River through Lake Houston. 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.

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.

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 operator.

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. Clear Lake City Water Authority is 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>.

En Español • Este reporte incluye información importante sobre el agua para tomar. Para mas 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.

Maximum Contaminant Level Goal (MCLG):

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.

Maximum Contaminant Level (MCL):

The highest permissible 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 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.

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.

Level 1 Assessment: 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 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.

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

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

Avg: Regulatory compliance with some MCLs are based on running annual average of monthly samples.

Mrem/year: Millirems per year (a measure of radiation absorbed by the body)

NTU: Nephelometric Turbidity Units (a measure of turbidity)

pCi/L: picocuries per liter (a measure of radioactivity)

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

ppb: parts per billion, or micrograms per liter (µg/L) - or one ounce in 7,350,000 gallons of water.

na: Not applicable.

MFL: Million fibers per liter. (A measure of asbestos.)

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.

Inorganic Contaminants

Collection Date	Contaminant	Highest Level Detected	Range of Individual Samples	MCLG	MCL	Unit of Measure	Violation	Likely Source of Contaminant
2017	Arsenic	<2.0	<2.0 - <2.0	0	10	ppb	No	Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes.
<i>The arsenic MCL became effective January 23, 2006. In the event of a violation, you will be notified.</i>								
2017	Barium	0.133	0.0502 - 0.133	2	2	ppm	No	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits.
2017	Cyanide	30	0 - 30	200	200	ppb	No	Discharge from plastic and fertilizer factories; Discharge from steel/metal factories.
2017	Fluoride	1.09	0.51 - 1.09	4	4	ppm	No	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories.
2017	Nitrate (measured as Nitrogen)	0.44	0.44 - 0.44	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
2017	Simazine	0.19	0 - 0.19	4	4	ppb	No	Herbicide runoff.
2017	Atrazine	0.24	0.13 - 0.24	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	Beta/phonon emitters	4.1	0 - 4.1	0	4	mrem/yr	No	Decay of natural and man-made deposits.
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.

Disinfectants AND Disinfection By-products

Collection Date	Disinfection By-products	Highest Level Detected	Range of Individual Samples	MCLG	MCL	Unit of Measure	Violation	Likely Source of Contaminant
2017	Total Haloacetic Acids (HAA5)	52	51.7 - 51.7	0	60	ppb	No	By-product of drinking water disinfection.
2017	Total Tri-halomethanes (TTHM)	49	49.1 - 49.1	0	80	ppb	No	By-product of drinking water disinfection.

DID YOU KNOW WE NOW ACCEPT CREDIT CARDS?

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

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		Likely Source of Contaminant
2017	Chloroform	41.4	41.4 - 41.4	na	na	ppb	By-product of drinking water disinfection.
2017	Bromoform	<1.0	<1.0 - <1.0	na	na	ppb	By-product of drinking water disinfection.
2017	Bromodichloromethane	7.7	7.7 - 7.7	na	na	ppb	By-product of drinking water disinfection.
2017	Dibromochloromethane	<1.0	<1.0 - <1.0	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 micro-bial 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
2017	Turbidity	0.14	100.00	≤0.3	NTU	Soil runoff.

Violations

Violation Type	Contaminant	Violation Begin	Violation End	Violation Explanation
Monitoring, Routine Major	Asbestos	01/01/2017	12/31/2017	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. CLCWA is requesting the state to schedule the test for asbestos in ECID #161 which they anticipate will present comparable results to prior testing in the system. The current MCL allowed is 7 MFL. Testing reported 0.1952 MFL for CLCWA in 2012 and 0.1987 MFL for WCID #156 in 2013.
Disinfection Quarterly Operating Report (DLQOR)	Chloramine	7/1/2017 10/1/2017	9/30/2017 12/31/2017	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. The disinfection residual for CLCWA's water system meets all state requirements for which there is no known or expected health risk. A sampling routine for total chloramine residuals for WCID #161 has been in effect since 2017.

Some people who drink water containing asbestos in excess of the MCL over many years may have an increased risk of developing benign intestinal polyps.

Some people who use water containing chloramines well in excess of the MRDL could experience irritating effects to their eyes and nose. Some people who drink water containing chloramines well in excess of the MRDL could experience stomach discomfort.

ABOUT THE SUDDEN FREEZE

We've got a freeze warning for tonight. What should I do about the sprinklers? Below are suggested ideas on how to drain the Backflow Prevention Device (BPD) on irrigation systems, and if you have an auto fill pool line, before and during a freezing event.

1. Turn off the isolation valve to the irrigation system or auto fill pool lines.
2. Open the test cocks on the body of the BPD. Drain the water from the device until it stops.
3. Turn all valves to 45 degrees to prevent water from freezing in the valves.
4. Leave all valves in that position until the event has passed.
5. Cover BPD with an old t-shirt, rags or a towel. Cover that with a plastic bag to keep the moisture off the rags. Tape or tie the bag on so that it does not come off due to wind.
6. After the event has passed, remove the rags and plastic bag.
7. Turn the isolation valve back to the open/on position; close all valves on the BPD to place back in service. The test cocks should be in the closed position.
8. Depending on cold weather effects, this does not guarantee that the device will not freeze.

SOURCE WATER ASSESSMENTS

A Source Water Assessment for your drinking water source(s) was completed by the TCEQ 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 from which we purchase our water received the assessment report.

For more information about your sources of water, please refer to the Source Water Assessment Viewer available at the following URL:

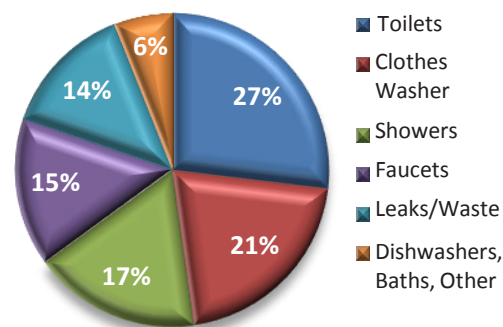
<http://www.tceq.texas.gov/gis/swaview>

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

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

WATER CONSERVATION

Average Daily Water Usage Per Person



HOW DO I...?

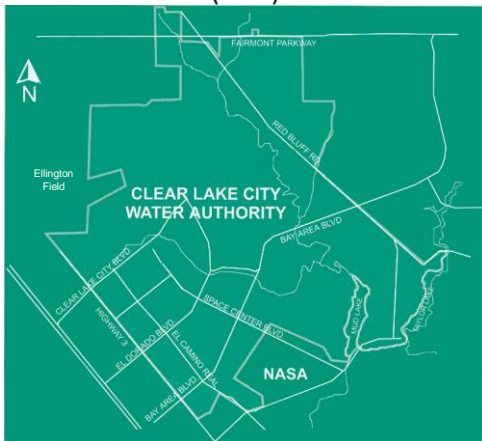
- Report a leak?
- Find out how much my water bill is?
- Report a sewer issue?
- Ask questions about water quality?

Call our district operator the Clear Lake City Water Authority at 281-488-1164.

Billing questions can be answered during regular business hours.

Emergencies like major water leaks and sewer back-ups are answered 24-hours a day.

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DID YOU KNOW? Pouring grease down sinks, disposals, toilets, or any other household drain can result in blocked sewer lines and costly repairs. It is a *myth* that hot water, soap, eggshells, coffee grounds, or other substances will keep the grease from sticking to the pipes.

Don't Flush Trouble – The Toilet Is Not A Trash Can!

The label might say “flushable”, but disposable wipes and other products are clogging sewer lines and damaging pumps and other equipment. Not only are these problems expensive to fix, they can also cause raw sewage overflows into homes, businesses, and local waterways. This includes things like cleaning wipes, baby wipes, diapers, personal hygiene products, condoms, facial wipes, hair, grease, kitty litter, syringes, cigarette butts, and rags. Remember, your sinks and tubs also drain to the sanitary sewer system. **So, think trash, not toilets!**

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. Clear Lake City Water Authority's 2017 Consumer Confidence Report is available at www.clcwa.org/waterinfo.htm.



STORM WATER

Dumping into storm drains is not just wrong, it's illegal. Storm water or rain water flows into the storm drains and storm inlets that you see along streets and at 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, bayous, 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.

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.htm