



2012 Annual Drinking Water Quality Report

Consumer Confidence Report (CCR)

Clear Lake City Water Authority

281-488-1164
www.clcwa.org

Serving the Community Since 1963

Reporting Period: January 1, 2012 to December 31, 2012

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:

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. 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 byproducts 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.

AUTOMATIC METER READING (AMR) PROGRAM

The Clear Lake City Water Authority has chosen to convert its water meters over to an automatic meter reading system. CLCWA Board of Directors approved upgrading the District's meters. This meter change out program is scheduled over the course of 18 months in three phases. Some of the benefits of automatic meter reading include more accurate and efficient meter reading, earlier leak detection, and reduced strain on the meter reading personnel who can now be better utilized on repair and maintenance crews.

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

PUBLIC PARTICIPATION OPPORTUNITIES

Board of Director's meetings are regularly scheduled at 7:00 p.m. on the second Thursday of each month at 900 Bay Area Boulevard. These meetings are subject to change and anyone interested in attending should verify the meeting date by calling 281-488-1164. Time is allotted at Board meetings for public questions and comments. Your attendance is welcome.

SPECIAL NOTICE

Immunocompromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. EPA/CDC guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants 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 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>.

CLCWA WATER SOURCE

The source of drinking water used by the Clear Lake City Water Authority is approximately 93% purchased surface water and 7% 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.

SOURCE WATER ASSESSMENTS

A Source Water Assessment for your drinking water source(s) is currently being conducted by the Texas Commission on Environmental Quality and should be provided to us this year. The report will describe the susceptibility and types of constituents that may come into contact with your drinking water source based on human activities and natural conditions. The information in this assessment will allow us to focus our source water protection strategies.

For more information about your sources of water please refer to the Source Water Assessment Viewer available at the following URL: <http://gis3.tceq.state.tx.us/swav/Controller/index.jsp?wtrsrc=>

Further details about sources and source water assessments are available in Drinking Water Watch at the following URL: <http://dww.tceq.texas.gov/DWW/>

Definitions

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 risk to health. 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.

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

ppm: Milligrams per liter or parts per million — or one ounce in 7,350 gallons of water.

ppb: Milligrams per liter or parts per billion — or one ounce in 7,350,000 gallons of water.

na: Not applicable.

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.

Action Level (AL):

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

Abbreviations

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

NTU Nephelometric Turbidity Units

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 ($\mu\text{g/L}$)

ppt parts per trillion, or nanograms per liter

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 Levels Detected	MCLG	MCL	Unit of Measure	Violation	Likely Source of Contaminant
2011	Arsenic	2	<2.0	na	10	ppb	No	Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes.
<i>This arsenic value was effective January 23, 2006. In the event of a violation, you will be notified.</i>								
2011	Barium	0.125	0.052-0.125	2	2	ppm	No	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits.
2012	Fluoride	1.1	0.65-1.1	4	4	ppm	No	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories.
2012	Nitrate	0.45	0.08-0.45	10	10	ppm	No	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits.
2012	Nitrite	0.03	0.01-0.03	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 Levels Detected	MCLG	MCL	Unit of Measure	Violation	Likely Source of Contaminant
2012	Simazine	0.16	0.08-0.16	4	4	ppb	No	Herbicide runoff.
2012	Atrazine	0.41	0.10-0.41	3	3	ppb	No	Runoff from herbicide used on row crops.
2012	Hexachlorocyclopentadiene	0.12	0.12-0.12	50	50	ppb	No	Discharge from chemical factories.

Radioactive Contaminants

Collection Date	Contaminant	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Unit of Measure	Violation	Likely Source of Contaminant
2011	Beta/positron emitters	4.4	4.0-4.4	0	50*	pCi/L	No	Decay of natural and man-made deposits.
2011	Combined Radium 226 & 228	1.0	1.0-1.0	0	5	pCi/L	No	Erosion of natural deposits.
2011	Gross Alpha	2.0	2.0-2.0	0	15	pCi/L	No	Erosion of natural deposits.

*The MCL for beta particles is 4 mrem/year; however, there is no simple conversion from mrem/year to pCi/L. The EPA considers 50 pCi/L to be the level of concern for beta particles.

Total Coliform Bacteria

Name of Microbiological Contaminant	Total Coliform Max Contaminant Level	Total Coliform Percentage of Positive Samples	Highest Monthly Percentage of Positive Samples	Total No. of Positive E.Coli or Fecal Coliform Samples	Violation	Likely Source of Contaminant
Total Coliform Bacteria	Percentage of Coliform Bacteria in more than 5% of Monthly Samples	0.37	1.1	4	No	Naturally present in the environment.

Maximum Residual Disinfectant Level

Collection Date	Disinfectant	Average Level Detected	Range of Levels Detected	MRDLG	MRDL	Unit of Measure	Violation	Likely Source of Chemical
2012	Chloramine Residual	2.98	1.0-4.0	4	4	ppm	No	Disinfectant used to control microbes.

Disinfectants AND Disinfection Byproducts

Collection Date	Contaminant	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Unit of Measure	Violation	Likely Source of Contaminant
2012	Total Haloacetic Acids (HAA5)	43.4	4.2-43.4	na	60	ppb	No	Byproduct of drinking water disinfection.
2012	Total Trihalomethanes (TTHM)	44	18.3-44.0	na	80	ppb	No	Byproduct of drinking water disinfection.

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 Levels Detected	MCLG	MCL	Units	Likely Source of Contaminant
2011	Dibromomethane	1.0	1.0-1.0	na	na	ppb	Byproduct of drinking water disinfection.
2012	Chloroform	27.6	13.2-27.6	na	na	ppb	Byproduct of drinking water disinfection.
2012	Bromoform	1.1	1.0-1.1	na	na	ppb	Byproduct of drinking water disinfection.
2012	Bromodichloromethane	12.4	3.5-12.4	na	na	ppb	Byproduct of drinking water disinfection.
2012	Dibromochloromethane	4.8	1.0-4.8	na	na	ppb	Byproduct 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
2012	Turbidity	0.25	100.00	0.3	NTU	Soil runoff.

Lead and Copper

Collection Date	Contaminant	MCLG	Action Level (AL)	The 90th Percentile	# of Sites Over AL	Unit of Measure	Violation	Likely Source of Contaminant
2012	Lead	0	15	2.76	1	ppb	No	Corrosion of household plumbing systems; erosion of natural deposits.
2012	Copper	1.3	1.3	0.442	0	ppm	No	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives.

CLCWA Website

Clear Lake City Water Authority invites you to visit its website:

www.clcwa.org

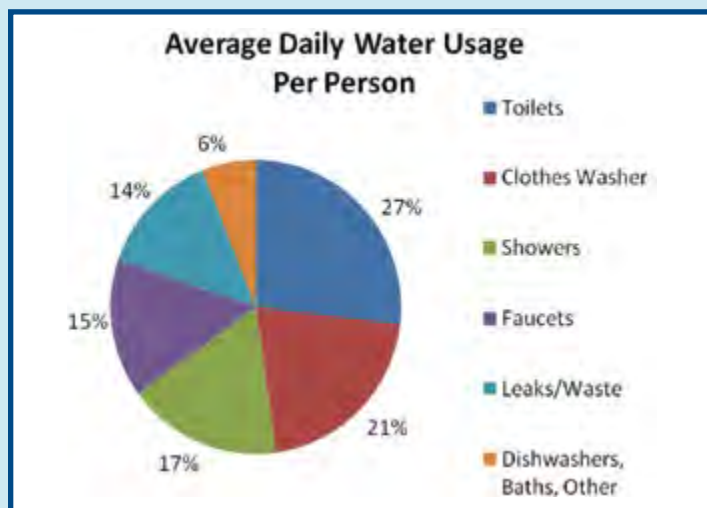
The Drinking Water Quality Report (Consumer Confidence Report) for years 2002 through 2012 can be accessed at the Authority website.

In addition, we have posted the Authority's Drought Contingency Plan for the Delivery of Water to Residential (Retail) Customers. This plan, approved by TCEQ, outlines the Authority's regulations and restrictions on the delivery and consumption of water during times of water shortage or other emergency water supply conditions.

Secondary Constituents

Many constituents (such as calcium, sodium, or iron) which are often found in drinking water, can cause taste, color, and odor problems. The taste and odor constituents are called secondary constituents and are regulated by the State of Texas, not the EPA. These constituents are not causes for health concerns. Therefore, secondaries are not required to be reported in this document but they may affect the appearance and taste of your water.

WATER CONSERVATION



QUICK WATER SAVING TIPS:

- Run dishwasher only when full and use the shortest cycle necessary.
- Don't let water run continuously while washing dishes.
- Scrape dishes rather than rinse.
- Run the washing machine only when full and use the lowest, coolest water setting possible.
- Consider high efficiency models when replacing appliances. Some washing machines can use 50-60%

less electricity, 40-50% less water, and are more effective in cleaning action. Also, up to 30% more water is removed in the spinning, reducing the drying time and saving energy.

- Running water down the drain while it gets hot is a waste. Capture the cool water for plant watering, to refill pet water bowls or heat it on the stove or in a microwave.
- Take short showers rather than a bath. A four minute shower uses about 8 gallons of water, while a full bath uses about 50 gallons of water.
- Install reduced-flow showerheads that average 2.5 gallons a minute. The older types can average using 5-10 gallons per minute.
- If you bathe, fill bathtub 1/2 full. You can save 18 to 25 gallons per bath.
- Brushing teeth can take up to 2 gallons of water if the tap is left running during the brushing versus 1 pint to wet brush, turn off faucet, and rinse briefly.
- A leaky toilet tank can waste lots of water. Put a little food coloring into the tank; if the color trickles into the bowl, repair the leak.
- Check your sprinkler system often for leaks and broken sprinkler heads.
- Water the yard early in the morning or in the evening to give the grass time to absorb as much as possible rather than evaporate in the heat of the mid-day.

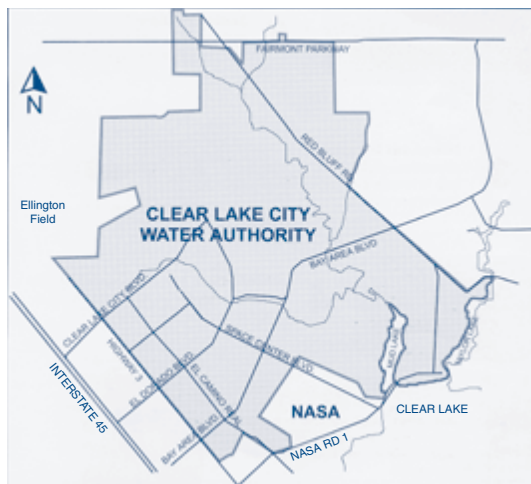


CLEAR LAKE CITY WATER AUTHORITY

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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 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.

A storm drain system's purpose is to prevent flooding of streets and roadways by quickly and efficiently transferring rain-water 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, help clean up our waterways and ensure a brighter future for us all. For more information please see:

www.clcwa.org/stormwater.htm

DID YOU KNOW?

Water restrictions: The District is not currently under water restrictions. Although this area has received some rainfall, area water sources remain low from the long-term drought situation, placing a tremendous stress on water supplies throughout the state. We ask that all customers be mindful of their water usage and to utilize ways to conserve water. Please monitor CLCWA's website for changes.

www.clcwa.org

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.

