



# 2008 Annual Drinking Water Quality Report

(Consumer Confidence Report)

## Clear Lake City Water Authority

281-488-1164

www.clcwa.org

Serving the Community Since 1963

### **SPECIAL NOTICE for the ELDERLY, INFANTS, CANCER PATIENTS, people with HIV/AIDS or other immune problems**

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised 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 from their health care providers about drinking water. The EPA/Centers for Disease Control and Prevention (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 (1-800-426-4791).

### **Public Participation Opportunities**

Board of Director's Meetings are regularly scheduled at 7 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.

### **Website**

Clear Lake City Water Authority invites you to visit its website: [www.clcwa.org](http://www.clcwa.org)

### **Our Drinking Water Meets or Exceeds All Federal (EPA) Drinking Water Requirements**

This report is a summary of the quality of the water we provide our customers. The analysis was made by using the data from the most recent U.S. Environmental Protection Agency (EPA) required tests and is presented in the attached pages. We hope this information helps you become more knowledgeable about what's in your drinking water.

### **Water Sources**

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 before treatment include: microbes, inorganic contaminants, pesticides, herbicides, radioactive contaminants, and organic chemical contaminants.

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**En Español • Este informe incluye información importante sobre el agua potable. Si tiene preguntas o comentarios sobre éste informe en español, favor de llamar al tel. 281-488-1164 - para hablar con una persona bilingüe en español.**

# Definitions

## Maximum Contaminant Level (MCL)

The highest permissible level of a contaminant in drinking water. MCLs are set as close to the Maximum Contaminant Level Goals (MCLG) 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 health risk. MCLGs allow for a margin of safety.

## Maximum Residual Disinfectant Level (MRDL)

The highest level of 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 contamination.

## Treatment Technique (TT)

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

## Action Level (AL)

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

# Abbreviations

**NTU** Nephelometric Turbidity Units

**MFL** million fibers per liter (a measure of asbestos)

**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 (µg/L)

**ppt** parts per trillion, or nanograms per liter

**ppq** parts per quadrillion, or picograms per liter

# About The Following Tables

The Following Tables list all of the federally regulated or monitored constituents which have been found in your drinking water. The U.S. EPA requires water systems to test up to 97 contaminants. As you can see by the tables, no detected contaminants were above the MCL.

## Inorganics

Year (Range)	Constituent	Average Level	Minimum Level	Maximum Level	MCL	MCLG	Unit of Measure	Source of Constituent
2008 2004	Arsenic	1	0	5	10	0	ppb	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes.
2008 2004	Barium	0.087	0.047	0.349	2	2	ppm	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.
2008 2005	Fluoride	0.84	0.24	1	4	4	ppm	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories.
2008 2005	Nitrate	0.34	0	0.9	10	10	ppm	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.
2008 2006	Nitrite	0.01	0	0.24	1	1	ppm	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.
2008 2004	Selenium	0.4	0	18.7	50	50	ppb	Discharge from petroleum and metal refineries; Erosion of natural deposits; Discharge from mines.
2008 2004	Uranium	0.4	0	12.2	30	0	ppb	Erosion of natural deposits.
2008 2004	Combined Radium 226 & 228	0.53	0	4.66	5	0	pCi/L	Erosion of natural deposits.
2008 2004	Gross beta emitters	3.78	0	10.1	50	0	pCi/L	Decay of natural and man-made deposits.
2008 2004	Gross Alpha	2.96	0	10.3	15	0	pCi/L	Erosion of natural deposits.

## Organics

Year (Range)	Constituent	Highest Average	Minimum Level	Maximum Level	MCL	MCLG	Unit of Measure	Source of Constituent
2008 2005	Sizamine	0.07	0	0.15	4	4	ppb	Herbicide runoff.
2008 2005	Atrazine	0.24	0	0.5	3	3	ppb	Runoff from herbicide used on row crops.
2008 2004	Toluene	0.02	0	3.7	1000	1000	ppb	Discharge from petroleum factories.
2008 2004	Ethylbenzene	0.02	0	2.4	700	700	ppb	Discharge from petroleum refineries.

## Maximum Residual Disinfectant Level

Year	Constituent	Average Level	Minimum Level	Maximum Level	MRDL	MRDLG	Unit of Measure	Source of Constituent
2008	Chloramine Residual	3.07	1	4	4	4	ppm	Disinfectant used to control microbes.

## Disinfection Byproducts

Year	Constituent	Average Level	Minimum Level	Maximum Level	MCL	Unit of Measure	Source of Constituent
2008	Total Haloacetic Acids	25.1	1.3	74.5	60	ppb	Byproduct of drinking water disinfection.
2008	Total Trihalomethanes	23.5	11.3	55.7	80	ppb	Byproduct of drinking water disinfection.

## Unregulated Initial Distribution System Evaluation for Disinfection Byproducts

This evaluation is sampling required by EPA to determine the range of total trihalomethane and haloacetic acid in the system for future regulations. These samples are not used for compliance, and may have been collected under non-standard conditions. EPA also requires the data to be reported here.

Year (Range)	Constituent	Average Level	Minimum Level	Maximum Level	MCL	Unit of Measure	Source of Constituent
2007	Total Haloacetic Acids	26.6	5.5	115.2	N/A	ppb	Byproduct of drinking water disinfection.
2007	Total Trihalomethanes	23.7	12.1	102.1	N/A	ppb	Byproduct of drinking water disinfection.

## Unregulated Contaminants

Bromoform, chloroform, dichlorobromomethane, and dibromochloromethane are disinfection byproducts. There is no maximum contaminant level for these chemicals at the entry point to distribution.

Year (Range)	Constituent	Average Level	Minimum Level	Maximum Level	Unit of Measure	Source of Constituent
2008 2004	Dibromomethane	0.01	0	2.3	ppb	Byproduct of drinking water disinfection.
2008 2004	Chloroform	7.62	0	72	ppb	Byproduct of drinking water disinfection.
2008 2004	Bromoform	0.79	0	13	ppb	Byproduct of drinking water disinfection.
2008 2004	Bromodichloromethane	4.28	0	42	ppb	Byproduct of drinking water disinfection.
2008 2004	Dibromochloromethane	1.71	0	20	ppb	Byproduct of drinking water disinfection.

## Lead and Copper

Year (Range)	Constituent	The 90th Percentile	Number of Sites Exceeding Action Level	Action Level	Unit of Measure	Source of Constituent
2007	Lead	5.4	1	15	ppb	Corrosion of household plumbing systems; Erosion of natural deposits.
2007	Copper	0.834	0	1.3	ppm	Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives.

### Recommended Additional Health Information for Lead

All water systems are required by EPA to report the language below starting with the 2009 CCR to be delivered to you by July of 2010. We are providing this information now as a courtesy. *"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>."*

## 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.

Year	Constituent	Highest Single Measurement	Lowest Monthly % of Samples Meeting Limits	Turbidity Limits	Unit of Measure	Source of Constituent
2008	Turbidity	0.76	97.00	0.3	NTU	Soil runoff.

## Total Coliform

Total coliform bacteria are used as indicators of microbial contamination of drinking water because testing for them is easy. While not disease-causing organisms themselves, they are often found in association with other microbes that are capable of causing disease. Coliform bacteria are more hardy than many disease-causing organisms; therefore, their absence from water is a good indication that the water is microbiologically safe for human consumption.

Year	Constituent	Highest Monthly % of Positive Samples	MCL	Unit of Measure	Source of Constituent
2008	Total Coliform Bacteria	1	*	Presence	Naturally present in the environment.

## CLCWA Website

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

[www.clcwa.org](http://www.clcwa.org)

The Drinking Water Quality Report (Consumer Confidence Report) for years 2002 through 2008 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.

\* Presence of coliform bacteria in 5% or more of the monthly samples.

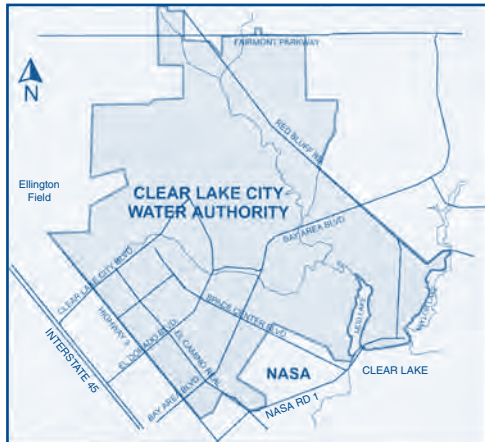
Fecal Coliform REPORTED MONTHLY TESTS FOUND NO FECAL COLIFORM BACTERIA.



**CLEAR LAKE CITY WATER AUTHORITY**  
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**PRESORTED STANDARD  
US POSTAGE  
PAID  
WEBSTER, TX  
PERMIT NO. 228**

## **2008 ANNUAL DRINKING WATER QUALITY REPORT** (Consumer Confidence Report)



### **Where do we get our drinking water**

Our drinking water is obtained from surface and ground water sources. 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. We supplement surface water with ground water from our permitted wells during high demand in summer months. These are deep wells, producing water from the Gulf Coast Aquifer. A Source Water Susceptibility Assessment for your drinking water sources is currently being updated by the Texas Commission on Environmental Quality and will be provided to us this year. The report will describe the susceptibility and types of constituents that may come in contact with your drinking water source based on human activities and natural conditions. The information

contained in the assessment will allow us to focus on source water protection strategies. For more information on source water assessments and protection efforts at our system, please contact us or more information can be found at <http://www.epa.gov/safewater/protect.html>.

### **ALL drinking water may contain trace contaminants**

When drinking water meets federal standards there may not be any health based benefits to purchasing bottled water or point of use devices. 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).