



# 2008 Annual Drinking Water Quality Report

(Consumer Confidence Report)

Customer Service: 817-297-2201

Emergency - Nights & Weekends: 817-297-2276

## ***Special Notice for 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 about drinking water from their health care providers. 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**

**Date:** City Council meetings are the 1<sup>st</sup> and 3<sup>rd</sup> Thursday of each month

**Time:** 7:00 pm

**Location:** City Hall

**Phone No:** 817-297-2201

To learn about future public meetings (concerning your drinking water), or to request to schedule one, please call us or check our website at [www.ci.crowley.tx.us](http://www.ci.crowley.tx.us)

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

Our drinking water is obtained from GROUND water sources. It comes from the following Lake/River/Reservoir/Aquifer: SURFACE WATER, TRINITY AND TRINITY/PALUXY. A Source Water Susceptibility Assessment for your drinking water source(s) 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 into contact with your drinking water source based on human activities and natural conditions. The information will allow us to focus our source water protection strategies. For more information on source water assessments and protection efforts at our system, please contact us.

## ***ALL drinking water may contain 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).

## **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. The constituents are not causes for health concern. Therefore, secondaries are not required to be reported in this document but they may greatly affect the appearance and taste of your water.

## **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 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.

### ***En Espanol***

Este informe incluye informacion importante sobre el agua potable. Si tiene preguntas o comentarios sobre este informe en espanol, favor de llamar al tel. (817)297-2201-para hablar con una persona bilingue en espanol.

## **About The Following Pages**

The pages that follow 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 for up to 97 contaminants.

### **DEFINITIONS**

#### **Maximum Contaminant Level (MCL)**

The highest permissible level of a contaminant 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 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 fivers 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 – pars per billion, or micrograms per liter (µg/L)

ppt – part per trillion, or nanograms per liter

ppq – parts per quadrillion, or picograms per liter



Inorganic Contaminants								
Year or Range	Contaminant	Average Level	Minimum Level	Maximum Level	MCL	MCLG	Unit of Measure	Source of Contaminant
2008	Fluoride	1.14	0.62	1.45	4	4	ppm	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
2008	Nitrate	0.19	0	0.48	10	10	ppm	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits.
2005	Gross beta emitters	4.85	3.5	5.4	50	0	pCi/L	Decay of natural and man-made deposits.
Organic Contaminants		TESTING WAIVED, NOT REPORTED, OR NONE DETECTED						
Maximum Residual Disinfectant Level								
Year	Disinfectant	Average Level	Minimum Level	Maximum Level	MRDL	MRDLG	Unit of Measure	Source of Disinfectant
2008	Chlorine Residual, Free; Chloramines, Total	0.23	0.20	0.30	4	<4.0	ppm	Disinfectant used to control microbes.
Disinfection Byproducts								
Year	Contaminant	Average Level	Minimum Level	Maximum Level	MCL	Unit of Measure	Source of Contaminant	
2008	Total Haloacetic Acids	16.7	16.7	16.7	60	ppb	Byproduct of drinking water disinfection.	
2008	Total Trihalomethanes	15.1	15.1	15.1	80	ppb	Byproduct of drinking water disinfection.	
Unregulated Initial Distribution System Evaluation for Disinfection Byproducts		WAIVED OR NOT YET SAMPLED						
Unregulated Contaminants								
Bromoform, chloroform, dichlorobromomethane, and dibromochlorimethane are disinfection byproducts. There is no maximum contaminant level for these chemicals at the entry point to distribution.								
Year or Range	Contaminant	Average Level	Minimum Level	Maximum Level	Unit of Measure	Source of Contaminant		
2008	Chloroform	1.26	0	2.68	ppb	Byproduct of drinking water disinfection.		
2008	Bromoform	2.41	0	5.5	ppb	Byproduct of drinking water disinfection.		
2008	Bromodichloromethane	2.31	0	4.66	ppb	Byproduct of drinking water disinfection.		
2008	Dibromochloromethane	2.9	0	4.65	ppb	Byproduct of drinking water disinfection.		
Unregulated Contaminant Monitoring Rule 2 (UCMR2)								
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. Any unregulated contaminants detected are reported in the following table. For additional information and data visit <a href="http://www.epa.gov/safewater/ucmr/ucmr2/index.html">http://www.epa.gov/safewater/ucmr/ucmr2/index.html</a> , or call the Safe Drinking Water Hotline at (800)426-4791.								
Year	Contaminant	Average Level	Minimum Level	Maximum Level	Unit of Measure	Source of Contaminant		
2008	N-nitroso-dimethylamine (NDMA)	.00314	.00229	.00473	ppb	Byproduct of drinking water disinfection.		
Lead and Copper								
Year	Contaminant	The 90 <sup>th</sup> Percentile	Number of Sites Exceeding Action Level		Action Level	Unit of Measure	Source of Contaminant	
2007	Lead	1.9	0		15	ppb	Corrosion of household plumbing systems; erosion of natural deposits.	
2007	Copper	0.669	0		1.3	ppm	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives.	
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 <a href="http://www.epa.gov/safewater/lead">http://www.epa.gov/safewater/lead</a> .								
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	Contaminant	Highest Single Measurement	Lowest Monthly % of Samples Meeting Limits		Turbidity Limits	Unit of Measure	Source of Contaminant	
2008	Turbidity	0.30	100.00		0.3	NTU	Soil runoff.	
Total Coliform		REPORTED MONTHLY TESTS FOUND NO COLIFORM BACTERIA.						
Fecal Coliform		REPORTED MONTHLY TESTS FOUND NO FECAL COLIFORM BACTERIA.						
Secondary and Other Constituents Not Regulated (No associated adverse health effects)								
Year or Range	Constituent	Average Level	Minimum Level	Maximum Level	Secondary Limit	Unit of Measure	Source of Constituent	
2008	Bicarbonate	301	128	404	NA	ppm	Corrosion of carbonate rocks such as limestone.	
2008	Chloride	45	20	75	300	ppm	Abundant naturally occurring element; used in water purification byproduct of oil field activity.	
2008	Hardness as Ca/Mg	53	5	142	NA	ppm	Naturally occurring calcium and magnesium.	
2008	P. Alkalinity as CaCO3	11	0	21	NA	ppm	Naturally occurring soluble mineral salts.	
2008	pH	8.5	8.1	8.8	>7.0	units	Measure of corrosivity of water.	
2008	Sulfate	53	31	67	300	ppm	Naturally occurring; common industrial byproduct; byproduct of oilfield activity.	
2008	Total Alkalinity as CaCO3	322	128	444	NA	ppm	Naturally occurring soluble mineral salts.	
2008	Total Dissolved Solids	538	249	752	1000	ppm	Total dissolved mineral constituents in water.	



Contaminants Found in Fort Worth Drinking Water Year 2008 Results

Contaminant	Measure	MCL	2005 Level	Range of Detects	MCLG	Common Sources of Substance in Drinking Water
Barium <sup>1</sup>	ppm	2	0.058	0.033 to 0.058	2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Beta particles & Photon emitters <sup>2</sup>	pCi/L	50	6.6	4.6 to 6.6	N/A	Decay of natural and man-made deposits of certain minerals that are radioactive and may emit forms of radiation known as photons and beat radiation
Fluoride	ppm	4	0.65	0.52 to 0.65	4	Water additive which promotes strong teeth; erosion of natural deposits; discharge from fertilizer and aluminum factories
Nitrate (measured as Nitrogen)	ppm	10	0.28	0.11 to 0.28	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Nitrite (measured as Nitrogen)	ppm	1	0.038	0 to 0.038	1	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Bromate	ppb	10	4.8	0.6 to 4.8	0	Byproduct of drinking water disinfection
Haloacetic Acids	ppb	60	30.1	12.7 to 30.1	N/A	Byproduct of drinking water disinfection
Total Trihalomethanes	ppb	80	52.2	23.6 to 52.2	N/A	Byproduct of drinking water disinfection
Total Coliforms (including fecal coliform & E. coli)	% of positive samples	Presence in 5% of monthly samples	Presence in 0.8% of monthly samples	0 to 0.8	0	Coliforms are naturally present in the environment as well as feces; fecal Coliforms and E. coli only come from human and animal fecal waste
Turbidity <sup>3</sup>	NTU	TT	0.23 Highest single Result	N/A	N/A	Soil Runoff
			100% Lowest monthly % of samples≤0.3 NTU			
Contaminant	Measure	MRDL	2006 Level	Range of Detects	MRDLG	Common Sources of Substance in Drinking Water
Chloramines	ppm	4	3.4	1.4 to 4.3	4	Water additive used to control microbes
Contaminant	Measure	90 <sup>th</sup> percentile <sup>5</sup>	# of sites exceeding action level	MCL	MCLG	Common Sources of Substance in Drinking Water
Lead <sup>4</sup>	ppb	2.4	0	Action Level =15	N/A	Corrosion of household plumbing systems; erosion of natural deposits
Copper <sup>4</sup>	ppm	0.457	0	Action Level=1.3	N/A	Corrosion of household plumbing systems; erosion of natural deposits
Contaminant	High	Low	Average	MCL	MCGL	Common Sources of Substance in Drinking water
Total Organic Carbon <sup>6</sup>	1	1	1	TT = % removal	N/A	Naturally occurring

<sup>1</sup> The test results shown above are from 2002. Because Fort Worth historically has had low levels of metals in its water, the Texas Commission on Environmental Quality (TCEQ) has Fort Worth on a reduced monitoring schedule. The next testing is scheduled for 2009.

<sup>2</sup> The test results are from 2005. Because Fort Worth historically has had low levels of radionuclides in its water, TCEQ has Fort Worth on a reduced monitoring schedule. The next testing is scheduled for 2009.

<sup>3</sup> Turbidity is a measure of the cloudiness of water. It is monitored because it is a good indicator of the effectiveness of the filtration system.

<sup>4</sup> The test results shown are from 2005. Because Fort Worth historically has had low levels of lead and copper in its water, TCEQ has Fort Worth on a reduced monitoring schedule. The next testing is scheduled for 2009.

<sup>5</sup> 90th percentile value: 90% of the samples were at or below this value. EPA considers the 90th percentile value the same as an "average" value for other contaminants. Lead and copper are regulated by a treatment technique that requires systems to control the corrosiveness of their water. If more than 10% of tap water samples exceed the action level, water systems must take additional steps.

<sup>6</sup> Total Organic Carbon is used to determine disinfection by-product precursors. Fort Worth was in compliance with all monitoring and treatment technique requirements for disinfection by-product precursors.

Unregulated Contaminants

Contaminants	unit	Range of Detections	2008 Level	MCL	MCLG	Common Sources of Substance in Drinking Water
Chloral Hydrate	ppb	0 to 1.9	1.9	Not Regulated	0	By-product of drinking water disinfection
Bromoform	ppb	0 to 1.5	0.7	Not Regulated	0	
Bromodichloromethane	ppb	3.0 to 17.3	17.3	Not Regulated	0	By-product of drinking water disinfection; not regulated individually; included in Haloacetic Acids
Chloroform	ppb	2.2 to 18.4	16.4	Not Regulated	0	
Dibromochloromethane	ppb	2.0 to 9.5	9.5	Not Regulated	60	
Dichloroacetic Acid	ppb	2.9 to 13.4	13.4	Not Regulated	0	By-product of drinking water disinfection; not regulated individually; included in Total Trihalomethanes
Trichloroacetic Acid	ppb	0.0 to 9.7	9.7	Not Regulated	300	

Initial Distribution System Evaluation

This evaluation is a one-time study conducted by water systems to identify distribution system locations with high concentrations of the total Trihalomethanes and Haloacetic acids. EPA will use these results for future regulations. EPA requires the data be included in this report. The samples are not used for compliance. The table above includes the compliance sampling data for these two contaminants.

Contaminant	Measure	Average	Minimum Level	Maximum Level
Haloacetic Acids	ppb	6.69	0	42.7
Total Trihalomethanes	ppb	19.3	3.4	80

**ATTENTION: Residents and Business Owners**

**The City of Crowley is under mandatory watering restrictions. NO outdoor watering by use of sprinklers can be done between the hours of 10:00 am and 6:00 pm year round. The use of a soaker hose and/or watering by hand is still allowed.**