



2010 Annual Drinking Water Quality Report

(Consumer Confidence Report)

Customer Service: 817-297-2201

Emergency - Nights & Weekends: 817-297-2276

Special Notice

You may be more vulnerable than the general population to certain microbial contaminants, such as Cryptosporidium, in drinking water. Infants, some elderly or immunocompromised such as those undergoing chemotherapy for cancer; those who have undergone organ transplants; those who are undergoing treatment with steroids; and people with or other immune system disorders can be particularly at risk for infections. You should seek advice about drinking water from your health care provider. Additional guidelines for appropriate means to lessen the risk of infection by Cryptosporidium are available from the Safe Drinking Water Hotline at (800) 426-4791.

Public Participation Opportunities

Date: City Council meetings are the 1st and 3rd Thursday of each month

Time: 7:00 pm

Location: City Hall, Council Chambers

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.

Where do we get our drinking water?

Our drinking water is obtained from GROUND and Purchased Surface 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. This information describes 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 contained in the assessment allows us to focus source water protection strategies. Some of this source water assessment information is available on Texas Drinking Water Watch at <http://dww.tceq.state.tx.us/DWW/>. 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 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 IS REGULATED

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 include: Microbial contaminants, such as viruses and bacterial, 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, and residential uses.

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.

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

DEFINITIONS

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 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 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: Micrograms per liter or parts per billion – or one ounce in 7,350,000 gallons of water

na: Not applicable

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

Abbreviations continued: ppt – parts per trillion or nanograms per liter ppq – parts per quadrillion, or picograms per liter								
Inorganic Contaminants								
Collection Date	Contaminant	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Unit of Measure	Violation	Source of Contaminant
2008	Fluoride	1.45	1.31 – 1.45	4	4.0	ppm	N	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
2010	Nitrate [measured as nitrogen]	.63	0 – 0.63	10	10	ppm	N	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits.
Radioactive Contaminants								
2010	Beta/photon emitters	4.2	0 – 4.2	0	4	mrem/yr	N	Decay of natural and man-made deposits.
2010	Gross alpha excluding radon and uranium	2	0 – 2	0	15	pCi/L	N	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	Source of Contaminant
2010	Atrazine	0.11	0 – 0.11	3	3	ppb	N	Runoff from herbicide used on row crops.
Maximum Residual Disinfectant Level								
Collection Date	Disinfectant	Average Level	Minimum Level	Maximum Level	MRDL	MRDLG	Unit of Measure	Source of Disinfectant
2010	Chlorine Residual, Free; Chloramines, Total	.615	0.20	2.90	2.9	<2.9	ppm	Disinfectant used to control microbes.
Disinfectants and Disinfection By-products								
Collection Date	Contaminant	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Source of Contaminant
2010	Total Haloacetic Acids	13.9	8.7 - 13.9	No goal for the total	60	ppb	N	By-product of drinking water chlorination.
2010	Total Trihalomethanes	18.2	9.7 – 18.2	No goal for the total	80	ppb	N	By-product of drinking water chlorination.
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.								
Collection Date	Contaminant	Average Level	Minimum Level	Maximum Level	Unit of Measure	Source of Contaminant		
2009	Chloroform	8.93	4.59	12.21	ppb	Byproduct of drinking water chlorination.		
2009	Bromoform	1.91	0	5.74	ppb	Byproduct of drinking water chlorination.		
2009	Bromodichloromethane	5.12	4.36	5.73	ppb	Byproduct of drinking water chlorination.		
2009	Dibromochloromethane	3.31	2.19	4.84	ppb	Byproduct of drinking water chlorination.		
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 http://www.epa.gov/safewater/ucmr/ucmr2/index.html , or call the Safe Drinking Water Hotline at (800)426-4791.								
Collection Date	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 chlorination.		
Lead and Copper								
Definitions: 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: The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.								
Collection Date	Contaminant	MCLG	Action Level (AL)	90 th Percentile	# Sites Over AL	Unit of Measure	Violation	Likely Source of Contamination
2010	Lead	0	15	1.65	0	ppb	N	Corrosion of household plumbing systems; erosion of natural deposits.
2010	Copper	1.3	1.3	0.295	0	ppm	N	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 private 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	Contaminant	Highest Single Measurement	Lowest Monthly % of Samples Meeting Limits	Turbidity Limits	Unit of Measure	Source of Contaminant
2009	Turbidity	0.50	99.00	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 CaCO ₃	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.
2009	Sodium	24	19	26	NA	ppm	Erosion of natural deposits; byproduct of oil field activity.
2008	Sulfate	53	31	67	300	ppm	Naturally occurring; common industrial byproduct; byproduct of oilfield activity.
2008	Total Alkalinity as CaCO ₃	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 2010 Results

Contaminant	Measure	MCL	2010 Level	Range of Detects	MCLG	Common Sources of Substance in Drinking Water
Beta particles & Photon emitters ¹	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 beta radiation
Fluoride	ppm	4	0.82	0.67 to 0.82	4	Water additive which promotes strong teeth; erosion of natural deposits; discharge from fertilizer and aluminum factories
Nitrate (measured as Nitrogen)	ppm	10	0.30	0.04 to 0.30	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Nitrite (measured as Nitrogen)	ppm	1	0.031	0.005 to 0.031	1	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Bromate	ppb	10	8.75	0 to 8.75	0	Byproduct of drinking water disinfection
Haloacetic Acids	ppb	60	23.6	9.5 to 23.6	N/A	Byproduct of drinking water disinfection
Total Trihalomethanes	ppb	80	49.0	9.9 to 49.0	N/A	Byproduct of drinking water disinfection
Total Coliforms (including fecal coliform & E. coli)	% of positive samples	Presence in 5% or more 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 ²	NTU	TT	0.42 Highest single Result 99.7% Lowest monthly % of samples ≤ 0.3 NTU	N/A	N/A	Soil Runoff
Contaminant	Measure	MRDL	2010 Level	Range of Detects	MRDLG	Common Sources of Substance in Drinking Water
Chloramines	ppm	4	3.5	2.1 to 4.3	4	Water additive used to control microbes
Contaminant	High	Low	Average	MCL	MCGL	Common Sources of Substance in Drinking water
Total Organic Carbon ³	1	1	1	TT = % removal	N/A	Naturally occurring

¹The 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 2011.

²Turbidity is a measure of the cloudiness of water. It is monitored because it is a good indicator of the effectiveness of the filtration system.

³Total 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	2010 Level	MCL	MCLG	Common Sources of Substance in Drinking Water
Chloral Hydrate	ppb	0.22 to 1.20	1.20	Not Regulated	None	By-product of drinking water disinfection
Bromoform	ppb	0 to 1.4	1.1	Not Regulated	None	By-products of drinking water disinfection; not regulated individually; included in Total Trihalomethanes
Bromodichloromethane	ppb	4.1 to 22.2	22.2	Not Regulated	None	
Chloroform	ppb	4.1 to 23.8	23.8	Not Regulated	70	
Dibromochloromethane	ppb	2.8 to 12.1	12.1	Not Regulated	60	
Monochloroacetic Acid	ppb	2.2 to 2.5	2.5	Not Regulated	70	By-products of drinking water disinfection; not regulated individually; included in Haloacetic Acids
Dichloroacetic Acid	ppb	4.3 to 19.4	19.4	Not Regulated	None	
Trichloroacetic Acid	ppb	0 to 7.0	7.0	Not Regulated	20	
Monobromoacetic Acid	ppb	0 to 1.3	1.3	Not Regulated	None	
Dibromoacetic Acid	ppb	1.5 to 3.8	3.8	Not Regulated	None	

Source Water Assessments

TCEQ has prepared assessments of Fort Worth's water supply sources. The report describes the susceptibility and types of constituents that may come in contact with our source waters based on human activity and natural conditions. The information contained in the assessment allows us to focus our source water protection strategies. Some of this source water assessment information will be available on Texas Drinking Water Watch at <http://dww.tceq.state.tx.us/DWW>. For more information on the source water assessments, please contact us.

Secondary Constituents

This chart lists other items for which the water is tested. These items do not relate to public health but rather to the aesthetic effects. These items are often important to industrial users.

Item	Measure	2009 Level
Bicarbonate	ppm	106 to 125
Calcium	ppm	89 to 175
Chloride	ppm	12 to 28
Conductivity	µmhos/m	366 to 423
pH	units	8.1 to 8.4
Magnesium	ppm	3 to 10
Sodium	ppm	14 to 32
Sulfate	ppm	22 to 29
Total Alkalinity as CaCO ₃	ppm	106 to 125
Total Dissolved Solids	ppm	224 to 250
Total Hardness as CaCO ₃	ppm	103 to 194
Total Hardness in Grains		6 to 11

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.