



2012 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 about your sources of water, please refer to the Source Water Assessment Viewer at <http://gis3.tceq.state.tx.us/swav/Controller/index.jsp?wtrsrc=>

ALL drinking water may contain contaminants.

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. 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.

SOURCES OF DRINKING WATER: 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
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
2010	Antimony	0.201	0 – 0.201	6	6	ppb	N	Discharge from petroleum refineries; fire retardants; ceramics; electronics; solder; test addition.
05/04/2011	Arsenic	0.349	0.349 – 0.349	0	10	ppb	N	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes.
05/04/2011	Barium	0.0144	0.0144 – 0.0144	2	2	ppm	N	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.
2010	Beryllium	Levels lower than detect level	0 - 0	4	4	ppb	N	Discharge from metal refineries and coal-burning factories; Discharge from electrical, aerospace and defense.
2010	Cadmium	Levels lower than detect level	0 - 0	5	5	ppb	N	Corrosion of galvanized pipes; Erosion of natural deposits; Discharge from metal refineries; runoff from waste batteries.
05/04/2011	Chromium	7.55	7.55 – 7.55	100	100	ppb	N	Discharge from steel and pulp mills; Erosion of natural deposits.
05/04/2011	Cyanide	15	0 - 15	200	200	ppb	N	Discharge from plastic and fertilizer factories; Discharge from steel/metal factories.
05/04/2011	Fluoride	0.86	0.86 – 0.86	4	4.0	ppm	N	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
2010	Mercury	Levels lower than detect level	0 - 0	2	2	ppb	N	Erosion of natural deposits; Discharge of refineries and factories; Runoff from landfills; Runoff from cropland.
2012	Nitrate [measured as Nitrogen]*	1	0 – 1.12	10	10	ppm	N	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits.
2012	Nitrite [measured as Nitrogen]	0.285	0 – 0.285	1	1	ppm	N	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.
05/04/2011	Selenium	1.02	1.02 – 1.02	50	50	ppb	N	Discharge from petroleum and metal refineries; Erosion of natural deposits; Discharge from mines.
05/04/2011	Thallium	0.2	0.2 – 0.2	0.5	2	ppb	N	Discharge from electronics, glass and leaching from ore-processing sites; drug factories.

*Nitrate Advisory – Nitrate in drinking water at levels above 10 ppm is a health risk for infants of less than six months of age. High nitrate levels in drinking water can cause blue baby syndrome. Nitrate levels may rise quickly for short periods of time because of rainfall or agricultural activity. If you are caring for an infant you should ask advice from your health care provider.

Radioactive Contaminants

02/24/2010	Beta/photon emitters	4.2	0 – 4.2	0	50	pCi/L*	N	Decay of natural and man-made deposits.
02/24/2010	Gross Alpha Compliance	2	0 – 2	0	15	pCi/L	N	Erosion of natural deposits.

*EPA considers 50 pCi/L to be the level of concern for beta particles.

Synthetic Organic Contaminants Including Pesticides

Collection Date	Contaminant	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Unit of Measure	Violation	Source of Contaminant
2010	2, 4, 5-TP (Silvex)	Levels lower than the detect level	0 - 0	50	50	ppb	N	Residue from banned herbicide.
2010	2, 4-D	Levels lower than the detect levels	0 - 0	70	70	ppb	N	Runoff from herbicide used on row crops.
2010	Alachlor	Levels lower than the detect levels	0 - 0	0	2	ppb	N	Runoff from herbicide used on row crops.
2012	Atrazine	0.1	0 – 0.1	3	3	ppb	N	Runoff from herbicide used on row crops.
2010	Benzo (a) pyrene	Levels lower than the detect levels	0 - 0	0	200	ppt	N	Leaching from linings of water storage tanks and distribution lines.
2010	Carbofuran	Levels lower than the detect levels	0 - 0	40	40	ppb	N	Leaching of soil fumigant used on rice and alfalfa.
2010	Chlordane	Levels lower than the detect levels	0 - 0	0	2	ppb	N	Residue of banned termiticide.

2010	Dalapon	Levels lower than the detect levels	0 - 0	200	200	ppb	N	Runoff from herbicide used on rights of way.
2010	Di (2-ethylhexyl) adipate	Levels lower than the detect levels	0 - 0	400	400	ppb	N	Discharge from chemical factories.
2010	Di (2-ethylhexyl) phthalate	Levels lower than the detect levels	0 - 0	0	6	ppb	N	Discharge from rubber and chemical factories.
2010	Dibromo-chloropropane (DBCP)	Levels lower than the detect levels	0 - 0	0	0	ppt	N	Runoff/leaching from soil fumigant used on soybeans, cotton, pineapples and orchards.
2010	Dinoseb	Levels lower than the detect levels	0 - 0	7	7	ppb	N	Runoff from herbicide used on soybeans and vegetables.
2010	Endrin	Levels lower than the detect levels	0 - 0	2	2	ppb	N	Residue of banned insecticide.
2010	Ethylene dibromide	Levels lower than the detect levels	0 - 0	0	50	ppt	N	Discharge from petroleum refineries.
2010	Heptachlor	Levels lower than the detect levels	0 - 0	0	400	ppt	N	Residue of banned termiticide.
2010	Heptachlor epoxide	Levels lower than the detect levels	0 - 0	0	200	ppt	N	Breakdown of heptachlor.
2010	Hexa-chlorobenzene	Levels lower than the detect levels	0 - 0	0	1	ppb	N	Discharge from metal refineries and agricultural chemical factories.
2010	Hexachloro-cyclopentadiene	Levels lower than the detect levels	0 - 0	50	50	ppb	N	Discharge from chemical factories.
2010	Lindane	Levels lower than the detect levels	0 - 0	200	200	ppt	N	Runoff/leaching from insecticide used on cattle, lumber, gardens.
2010	Methoxychlor	Levels lower than the detect levels	0 - 0	40	40	ppb	N	Runoff/leaching from insecticide used on fruits, vegetables, alfalfa, livestock.
2010	Oxamyl (Vydate)	Levels lower than the detect levels	0 - 0	200	200	ppb	N	Runoff/leaching from insecticide used on apples, potatoes and tomatoes.
2010	Pentachloro-phenol	Levels lower than the detect levels	0 - 0	0	1	ppb	N	Discharge from wood preserving factories.
2010	Picloram	Levels lower than the detect levels	0 - 0	500	500	ppb	N	Herbicide runoff.
2010	Simazine	Levels lower than the detect levels	0 - 0	4	4	ppb	N	Herbicide runoff.
2010	Toxaphene	Levels lower than the detect levels	0 - 0	0	3	ppb	N	Runoff/leaching from insecticide used on cotton and cattle.

Volatile Organic Contaminants

Collection Date	Contaminant	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Unit of Measure	Violation	Likely source of Contamination
2010	1, 1, 1 – Trichloroethane	Levels lower than the detect levels	0 - 0	200	200	ppb	N	Discharge from metal degreasing sites and other factories.
2010	1, 1, 2-Trichloroethane	Levels lower than the detect levels	0 - 0	3	5	ppb	N	Discharge from industrial chemical factories.
2010	1, 1-Dichloro-ethylene	Levels lower than the detect levels	0 - 0	7	7	ppb	N	Discharge from industrial chemical factories.
2010	1,2,4-Trichloro-benzene	Levels lower than the detect levels	0 - 0	70	70	ppb	N	Discharge from textile-finishing factories.

2010	1,2-Dichloroethane	Levels lower than the detect levels	0 - 0	0	5	ppb	N	Discharge from industrial chemical factories.
2010	1,2-Dichloropropane	Levels lower than the detect levels	0 - 0	0	5	ppb	N	Discharge from industrial chemical factories.
2010	Benzene	Levels lower than the detect levels	0 - 0	0	5	ppb	N	Discharge from factories; leaching from gas storage tanks and landfills.
2010	Carbon Tetrachloride	Levels lower than the detect levels	0 - 0	0	5	ppb	N	Discharge from chemical plants and other industrial activities.
2010	Chlorobenzene	Levels lower than the detect levels	0 - 0	100	100	ppb	N	Discharge from chemical and agricultural chemical factories.
2010	Dichloromethane	Levels lower than the detect levels	0 - 0	0	5	ppb	N	Discharge from pharmaceutical and chemical factories.
2010	Ethylbenzene	Levels lower than the detect levels	0 - 0	700	700	ppb	N	Discharge from petroleum refineries.
2010	Styrene	Levels lower than the detect levels	0 - 0	100	100	ppb	N	Discharge from rubber and plastic factories; Leaching from landfills.
2010	Tetrachloroethylene	Levels lower than the detect levels	0 - 0	0	5	ppb	N	Discharge from factories and dry cleaners.
2010	Toluene	Levels lower than the detect levels	0 - 0	1	1	ppm	N	Discharge from petroleum factories.
2010	Trichloroethylene	Levels lower than the detect levels	0 - 0	0	5	ppb	N	Discharge from metal degreasing sites and other factories.
2010	Vinyl Chloride	Levels lower than the detect levels	0 - 0	0	2	ppb	N	Leaching from PVC piping; discharge from plastics factories.
2010	Xylenes	Levels lower than the detect levels	0 - 0	10	10	ppm	N	Discharge from petroleum factories; Discharge from chemical factories.
2010	cis-1,2-Dichloroethylene	Levels lower than the detect levels	0 - 0	70	70	ppb	N	Discharge from industrial chemical factories.
2010	o-Dichlorobenzene	Levels lower than the detect levels	0 - 0	600	600	ppb	N	Discharge from industrial chemical factories.
2010	p-Dichlorobenzene	Levels lower than the detect levels	0 - 0	75	75	ppb	N	Discharge from industrial chemical factories.
2010	trans-1,2-Dichloroethylene	Levels lower than the detect levels	0 - 0	100	100	ppb	N	Discharge from industrial chemical factories.

Disinfectants and Disinfection By-products

Collection Date	Contaminant	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Source of Contaminant
2012	Total Haloacetic Acids*	5	3.9 – 11.7	No goal for the total	60	ppb	N	By-product of drinking water chlorination.
2012	Total Trihalomethanes*	11	9.7 – 21	No goal for the total	80	ppb	N	By-product of drinking water chlorination.

*Not all sample results may have been used for calculating the Highest Level Detected because some results may be part of an evaluation to determine where compliance sampling should occur in the future.

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-nitrosodimethylamine (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
07/12/2010	Lead	0	15	1.65	0	ppb	N	Corrosion of household plumbing systems; erosion of natural deposits.
07/12/2010	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.

Coliform Bacteria

Maximum Contaminant Level	Total Coliform Maximum Contaminant Level	Highest No. of Positive	Fecal Coliform or E. Coli Maximum Contaminant Level	Total No. of Positive E. Coli or Fecal Coliform Samples	Violation	Likely Source of Contamination
0	1 positive monthly sample.	There were no TCR detections for this CCR period		0	N	Naturally present in the environment.

Contaminants Found in Fort Worth Drinking Water Year 2012 Results

Contaminant	Measure	MCL	2012 Level	Range of Detects	MCLG	Common Sources of Substance in Drinking Water
Arsenic	ppb	10	1	0.3 to 1	0	Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes.
Barium	ppm	2	0.06	0.04 to 0.06	2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Alpha particles	pCi/l	15	2.8	0.0 to 2.8	N/A	Erosion of natural deposits.
Beta particles & Photon emitters ¹	pCi/L	50	7.5	0 to 7.5	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	0.98	0.48 to 0.98	4	Water additive which promotes strong teeth; erosion of natural deposits; discharge from fertilizer and aluminum factories
Nitrate (measured as Nitrogen)	ppm	10	0.91	0.12 to 0.91	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Nitrite (measured as Nitrogen)	ppm	1	0.52	0.01 to 0.52	1	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Bromate	ppb	10	2.89	0 to 2.89	0	Byproduct of drinking water disinfection
Haloacetic Acids	ppb	60	15.2	5.6 to 15.2	N/A	Byproduct of drinking water disinfection
Total Trihalomethanes	ppb	80	38.0	6.8 to 38.0	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 3.4% of monthly samples	0 to 3.4%	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	0.45 Highest single Result 99.9% Lowest monthly % of samples ≤ 0.3 NTU	N/A	N/A	Soil Runoff
Contaminant	Measure	MRDL	2012 Level	Range of Detects	MRDLG	Common Sources of Substance in Drinking Water
Chloramines	ppm	4	3.0	0.5 to 4.2	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

¹ Because Fort Worth historically has had low levels of radionuclides in its water, TCEQ has Fort Worth on a reduced monitoring schedule. The test results shown are from 2011. The next testing is scheduled for 2014.

² 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.

³ 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	2012 Level	MCL	MCLG	Common Sources of Substance in Drinking Water
Chloral Hydrate	ppb	0.26 to 0.76	0.76	Not Regulated	None	By-product of drinking water disinfection
Bromoform	ppb	0 to 3.6	3.6	Not Regulated	None	By-products of drinking water disinfection; not regulated individually; included in Total Trihalomethanes
Bromodichloromethane	ppb	2.3 to 6.7	6.7	Not Regulated	None	
Chloroform	ppb	2.3 to 13.3	13.3	Not Regulated	70	
Dibromochloromethane	ppb	1.3 to 5.0	5.0	Not Regulated	60	
Monochloroacetic Acid	ppb	0 to 1.0	1.0	Not Regulated	70	By-products of drinking water disinfection; not regulated individually; included in Haloacetic Acids
Dichloroacetic Acid	ppb	3.6 to 8.1	8.1	Not Regulated	None	
Trichloroacetic Acid	ppb	0 to 7.4	7.4	Not Regulated	20	
Monobromoacetic Acid	ppb	2.0 to 9.4	9.4	Not Regulated	None	
Dibromoacetic Acid	ppb	0.5 to 1.3	1.3	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	2011 Range
Bicarbonate	ppm	93 to 120
Calcium	ppm	97 to 110
Chloride	ppm	14 to 32
Conductivity	µmhos/m	318 to 423
pH	units	8.0 to 8.4
Magnesium	ppm	4 to 8
Sodium	ppm	14 to 28
Sulfate	ppm	25 to 38
Total Alkalinity as CaCO ₃	ppm	93 to 120
Total Dissolved Solids	ppm	172 to 237
Total Hardness as CaCO ₃	ppm	117 to 133
Total Hardness in Grains		7 to 8

Microorganism Testing

TRWD monitors the raw water at all intake sites for *Cryptosporidium*, *Giardia Lambia* and viruses. The source is human and animal fecal waste in the watershed.

No viruses were detected. *Cryptosporidium* and *Giardia Lambia*, microbial parasites common in surface water, were detected at very low levels in 2012.

The *Cryptosporidium* testing methods cannot determine if the parasite is dead and inactive or alive and capable of causing cryptosporidiosis. This is an abdominal infection that causes nausea, diarrhea and abdominal cramps after indigestion.

The drinking water treatment process is designed to remove *Cryptosporidium* and *Giardia Lambia* through filtration.

ATTENTION: Residents and Business Owners

The City of Crowley is under permanent 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.

EFFECTIVE JUNE 3, 2013

Stage 1 Drought Restrictions are in effect until further notice.

MONDAY: NO Watering allowed

TUESDAY & FRIDAY: Non-residential sites (apartments, businesses, parks, common areas)

WEDNESDAY & SATURDAY: Residential addresses ending in 0, 2, 4, 6, 8

THURSDAY & SUNDAY: Residential addresses ending in 1, 3, 5, 7, 9

For additional information, please go to the City of Crowley's website at www.ci.crowley.tx.us