

**2010 Annual Drinking
Water Quality Report
(Consumer Confidence Report)**

CITY OF REDWATER

Phone Number: 903-671-2775

SPECIAL NOTICE

**Required language for ALL community
public water supplies:**

You may be more vulnerable than the general population to certain microbial contaminants, such as Cryptosporidium, in drinking water. Infants, some elderly, or immuno-compromised persons such as those undergoing chemotherapy; those who have undergone organ transplants; those who are undergoing treatment with steroids; and people with HIV/AIDS or other immune system disorders can be particularly at risk from infections. You should seek advice about drinking water from your physician or health care provider. Additional guidelines 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: July 11, 2011

Time: 6:00 PM

**Location: Redwater
City Hall
Phone Number:
903-671-2775**

To learn about future public meetings (concerning your drinking water), or to request to schedule one, please call us.

**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.

Source 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 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 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. () -
-para hablar con una persona bilingüe en español.

Where do we get our drinking water?

The source of drinking water used by CITY OF REDWATER is Purchased Surface Water. A Source Water Susceptibility Assessment for your drinking water sources(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. These 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.

Required Additional Health Information for Lead

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>.

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

Definitions

Maximum Contaminant Level Goal or 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 or 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 or 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 or 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.
mrem:	millirem per year (a measure of radiation absorbed by the body)
ppb:	micrograms per liter or parts per billion - or one ounce in 7,350,000 gallons of water.
na:	not applicable.
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.

2010 Regulated Contaminants Detected

Coliform Bacteria

Maximum Contaminant Level Goal	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.	1		0	N	Naturally present in the environment.

Maximum Residual Disinfectant Level

Disinfectant Type	Average Level	Min Level	Max Level	MRDL	MRDLG	Unit	Source
Chlorine	1.86	1.3	3.80	4	4	ppm	Disinfectant used to control microbes

Regulated Contaminants

Disinfectants and Disinfection By-Products	Collection Date	Highest Single Sample	Range of Levels Detected	MCL G	MCL	Units	Violation	Likely Source of Contamination
Haloacetic Acids (HAA5)*	2010	21.4	9.6 - 21.4	No goal for the total	60	ppb	N	By-product of drinking water chlorination.
Total Trihalomethanes (TThm)*	2010	50.7	38.2 - 50.7	No goal for the total	80	ppb	N	By-product of drinking water chlorination.
Inorganic Contaminants	Collection Date	Highest Single Sample	Range of Levels Detected	MCL G	MCL	Units	Violation	Likely Source of Contamination
Arsenic	2010	0.605	0.605 - 0.605	0	10	ppb	N	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes.
Barium	2010	0.0346	0.0346 - 0.0346	2	2	ppm	N	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.
Chromium	2010	1.48	1.48 - 1.48	100	100	ppb	N	Discharge from steel and pulp mills; Erosion of natural deposits.
Fluoride	04/09/2008	0.26	0.26 - 0.26	4	4.0	ppm	N	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories.
Selenium	2010	0.5	0.5 - 0.5	50	50	ppb	N	Discharge from petroleum and metal refineries; Erosion of natural deposits; Discharge from mines.
Thallium	2010	0.072	0.072 - 0.072	0.5	2	ppb	N	Discharge from electronics, glass, and Leaching from ore-processing sites; drug factories.
Synthetic organic contaminants including pesticides and herbicides	Collection Date	Highest Single Sample	Range of Levels Detected	MCL G	MCL	Units	Violation	Likely Source of Contamination
Dalapon	07/11/2006	1.1	1.1 - 1.1	200	200	ppb	N	Runoff from herbicide used on rights of way.

Violations Table

E. coli			
Fecal coliforms and E. coli are bacteria whose presence indicates that the water may be contaminated with human or animal wastes. Microbes in these wastes can cause short-term effects, such as diarrhea, cramps, nausea, headaches, or other symptoms. They may pose a special health risk for infants, young children, and people with severely compromised immune systems.			
Violation Type	Violation Begin	Violation End	Violation Explanation
MONITORING, SOURCE (GWR), MAJOR	09/01/2010	09/30/2010	We failed to collect follow-up samples within 24 hours of learning of the total coliform-positive sample. These needed to be tested for fecal indicators from all sources that were being used at the time the positive sample was collected.

Steps to Correct Violations

Contract lab was closed due to holiday. Follow up samples were collected and analyzed with no positive samples. Notification was forwarded to state agency.

Inorganic Contaminants

Year	Contaminant	Location	Level Detected	Violation ?	MCL	MCLG	Unit of Measure	Source of Contaminant
2010	Barium	Wright Patman	0.03	No	2	2	ppm	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits.
2010	Nitrate (as Nitrogen)	Wright Patman	0.17	No	10	10	ppm	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits.

Radiological Contaminants

Our water supplier, Texarkana Water Utilities, has received a 6-year waiver from the Texas Commission on Environmental Quality for radioactive contaminants monitoring. The next analysis is scheduled for 2011.

Year	Contaminant	Location	Level Detected	Violation ?	MCL	MCLG	Unit of Measure	Source of Contaminant
2005	Gross Beta Emitters	Wright Patman	3.1	No	50	0	pCi/L	Decay of natural and man-made deposits of certain minerals that are radioactive and may emit a form of radiation known as beta radiation.

Disinfection By-Products

Year	Contaminant	Location	Annual Average	Range of Detected Level	MCL	MCLG	Unit of Measure	Source of Contaminant
2010	Total Trihalomethane (TTHM)	Redwater Water & Sewer	44.4	50.7	80	None	ppb	By-product of drinking water disinfection.
2010	Haloacetic Acid (HAA)	Redwater Water & Sewer	3.3	5.6	60	None	ppb	By-product of drinking water disinfection.
Year	Contaminant	Location	Highest Quarterly Average	Range of Detected Level	MCL	MCLG	Unit of Measure	Source of Contaminant
2010	Chlorite	Texas	530	0 - 760	1000	800	ppb	By-product of drinking water disinfection.
		Arkansas	270	20 - 536				

Disinfectants

Year	Contaminant	Location	Annual Average	Range of Detected Level	MRDL	MRDLG	Unit of Measure	Source of Contaminant
2010	Chlorine (total)	Redwater Water & Sewer	1.66	3.8	4	4	ppm	Disinfectant used to control microbes.

Disinfection By-Product Precursors

Total organic carbon (TOC) has no adverse health effects. TOC provides a medium for the formation of disinfection by-products when water is disinfected. Disinfection is necessary to ensure that water does not have unacceptable levels of pathogens. By-products of disinfection include trihalomethanes (THMs) and haloacetic acids (HAAs) which are reported elsewhere in this report. In 2010 the percentage of TOC removal was routinely monitored in Wright Patman and Millwood water, and all TOC removal requirements set by the USEPA were met.

Turbidity

Turbidity is a measure of the cloudiness of the water. It is used to indicate water quality and filtration effectiveness (e.g., whether disease-causing organisms are present). Higher turbidity levels are often associated with higher levels of disease-causing microorganisms such as viruses, parasites and some bacteria. These organisms can cause symptoms such as nausea, cramps, diarrhea and associated headaches.

Year	Contaminant	Location	Highest Single Measurement	Lowest Monthly % of Samples Meeting Limits	Turbidity Limits	Unit of Measure	Source of Contaminant
2010	Turbidity	Wright Patman	0.29	100%	≤0.34 (in 95% of samples)	NTU	Soil runoff.
		Millwood	0.25	100%			

Total Coliform Bacteria

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	Contaminant	Location	Highest Monthly % of Positive Samples	MCL	Unit of Measure	Source of Contaminant
2010	Total Coliform Bacteria	Redwater Water & Sewer	0.0%	Presence of coliform bacteria in 5% or more of monthly samples	Presence	Naturally present in the environment.

Unregulated Contaminants

Unregulated contaminants are those for which the EPA has not established drinking water standards. The purpose of unregulated contaminant monitoring is to assist the EPA in determining the occurrence of unregulated contaminants in drinking water and whether further regulation is warranted.

Year	Contaminant	Location	Average Level Detected	Range of Detected Level	Unit of Measure	MCLG	Source of Contaminant
2010	Chloroform	Wright Patman	24.97	12.83 - 46.43	ppb	70	By-products of drinking water disinfection
		Millwood	9.24	9.24 - 9.24			
2010	Bromodichloromethane	Wright Patman	10.48	4.66 - 20.9	ppb	0	
		Millwood	12.40	12.4 - 12.4			
2010	Dibromochloromethane	Wright Patman	3.42	<1.0 - 8.37	ppb	60	
		Millwood	10.50	10.5 - 10.5			
2010	Bromoform	Millwood	1.93	1.93 - 1.93	ppb	0	

Lead & Copper Tap Monitoring

Year	Contaminant	Location	The 90th Percentile	Number of Sites Exceeding Action Level	Action Level	Unit of Measure	Source of Contaminant
2008	Lead	Redwater Water & Sewer	1.3	0	0.015	ppm	Corrosion of household plumbing systems; erosion of natural deposits.
	Copper		0.257	0	1.3	ppm	

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