2011 Annual Drinking Water Quality Report

Consumer Confidence Report (CCR)

PWS ID Number: TX1990001

PWS Name: CITY OF ROCKWALL

Annual Water Quality Report for the period of January 1 to December 31, 2011

This report is intended to provide you with important information about your drinking water and the efforts made by the water system to provide safe drinking water. Source: Purchased surfaced water.

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 EPAs Safe Drinking Water Hotline at (800) 426-4791.

For more information regarding this report contact:

Name Chuck Todd, PE

Phone 972-771-7746

Este informe contiene información muy importante sobre el agua que usted bebe. Tradúzcalo ó hable con alguien que lo entienda bien.

Special Notice

Required Language for ALL Community Public Water Systems

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. EPA/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 (800-426-4791).

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. We 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.

Information on Sources of 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 pickup substances resulting from the presence of

Contaminants that may be present in source

- Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and
- 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
- 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.

Information about Secondary Contaminants

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.

Information about Source Water Assessments

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 suceptibility 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.

For more information about your sources of water, please refer to the Source Water Assessment Viewer available at the following URL:
http://gis3.tceq.state.tx.us/swav/Controller/index.jsp?wtrsrc=

Furthder details about sources and sourcewater assessments are available in Drinking Water Watch at the following URL:
http://dww.tceq.texas.gov/DWW/

Water Quality Test Results

Maximum Contaminant Level Goal	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	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.
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.
Definitions:	The following tables contain scientific terms and measures, some of which may require explanation.

NTMWD CCR DATA TO WHOLESALE CUSTOMERS

Revised 3/14/12

INORGANIC CONTAMINANTS

Year or Range	Contaminant	Average Level	Minimum Level	Maximum Level	MCL	MCLG	Unit of Measure	Source of Contaminant
2011	Arsenic	<0.001	<0.001	0.001	0.01	0.01	ppm	Erosion of natural deposits; Runoff from orchards; Runoff form glass and electronics production wastes.
2011	Barium	0.04	0.04	0.04	2	2	ppm	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits.
2011	Fluoride	0.66	0.46	0.66	4	4	ppm	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories.
2011	Nitrate	0.55	< 0.05	0.55	10	10	ppm	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits.
2010	Gross beta emitters	N/A	N/A	4.4	50	0	pCi/L	Decay of natural and man-made deposits.

ORGANIC CONTAMINANTS

Year or Range	Contaminant	Average Level	Minimum Level	Maximum Level	MCL	MCLG	Unit of Measure	Source of Contaminant
2011	Atrazine	0.19	0.18	0.2	3	3	ppb	Runoff from herbicide used on row crops.
2011	Simazine	0.08	< 0.07	0.16	4	4	ppb	Runoff from herbicide used on row crops.
2011	Di(2-ethylhexyl)adipate	0.37	< 0.62	0.74	400	400	ppb	Discharge from chemical factories

MAXIMUM RESIDUAL DISINFECTANT LEVEL

Year	Disinfectant	Average Level	Minimum Level	Maximum Level	MRDL	MRDLG	Unit of Measure	Source of Chemical
2011	Chlorine Residual (Chloramines)	**2.03**	**0.73**	**2.2**	4.0	<4.0	ppm	Disinfectant used to control microbes.
2011	Chlorine Dioxide	0	0	0.15	0.8	0.8	ppm	Disinfectant.
2011	Chlorite	0.48	0	0.80	1.0	N/A	ppm	Disinfectant.

DISINFECTION BYPRODUCTS

Year	Contaminant	Average Level	Minimum Level	Maximum Level	MCL	MCLG	Unit of Measure	Source of Contaminant
2011	Total Haloacetic Acids	21	14.8	24.6	60	N/A	ppb	Byproduct of drinking water disinfection.
2011	Total Trihalomethanes	43	31.9	48.4	80	N/A	ppb	Byproduct of drinking water disinfection.

UNREGULATED CONTAMINANTS

Year or Range	Contaminant	Average Level	Minimum Level	Maximum Level	MCL	MCLG	Unit of Measure	Source of Contaminant
2011	Chloroform	14.96	12.8	20.1	N/A	N/A	ppb	Byproduct of drinking water disinfection.
2011	Bromoform	1.19	<1.0	1.6	N/A	N/A	ppb	Byproduct of drinking water disinfection.
2011	Bromodichloromethane	14.74	11.9	19.3	N/A	N/A	ppb	Byproduct of drinking water disinfection.
2011	Dibromochloromethane	8.00	6.2	10.5	N/A	N/A	ppb	Byproduct of drinking water disinfection.

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

LEAD AND COPPER

Year	Contaminant	90th Percentile	MCLG	Action Level	MCL	MCLG	Unit of Measure	Source of Contaminant
2011	Lead	3	0	15	AL=15	15	ppb	Corrosion of customer plumbing. Action Level = 15
2011	Copper	0.879	1.3	1.3	AL=1.3	1.3	ppm	Byproduct of drinking water disinfection. Action Level = 1.3

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. The NTMWD 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

Year	Contaminant	Highest Single Measurement	Lowest Monthly % of Samples Meeting Limits	Turbidity Limits	Unit of Measure	Source of Contaminant
2011	Turbidity	0.96	99.15	0.3	NTU	Soil runoff.

NOTE: 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.

TOTAL ORGANIC CARBON

Year	Contaminant	Average Level	Minimum Level	Maximum Level	Unit of Measure	Source of Contaminant
2011	Source Water	4.92	4.32	6.34	ppm	Naturally present in the environment.
2011	Drinking Water	3.93	3.52	4.66	ppm	Naturally present in the environment.
2011	Removal Ratio	20%	11%	35%	% removal *	N/A

***** Removal ratio is the percent of TOC removed by the treatment process divided by the percent of TOC required by TCEQ to be removed.

NOTE: Total organic carbon (TOC) has no health effects. The disinfectant can combine with TOC to form disinfection byproducts. Disinfection is necessary to ensure that water does not have unacceptable levels of pathogens. Byproducts of disinfection include trihalomethanes (THMs) and haloacetic acids (HAA) which are reported elsewhere in this report.

TOTAL COLIFORM

Year	Contaminant	Highest Monthly Number of Positive Samples	MCL	Unit of Measure	Source of Contaminant
2011	Total Coliform Bacteria	1.60%	*	Presence	Naturally present in the environment.

NOTE: No more than 5% positive**.** Total coliform bacteria are used as indicators of microbial contamination of drinking water because testing 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.

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
2011	Bicarbonate	100	73	120	N/A	ppm	Corrosion of carbonate rocks such as limestone.
2011	Calcium	43	32	54	N/A	ppm	Abundant naturally occurring element.
2011	Chloride	28	25	33	300	ppm	Abundant naturally occurring element; used in water purification; byproduct of oild field activity.
2011	Iron	<0.06	<0.05	0.07	0.3	ppm	Erosion of natural deposits; iron or steel water delivery equipment or facilities.
2011	Magnesium	4.1	3.9	4.3	N/A	ppm	Abundant naturally occurring element.
2011	Manganese	0.001	< 0.001	0.002	0.05	ppm	Abundant naturally occurring element.
2011	Nickel	0.004	0.004	0.005	N/A	ppm	Erosion of natural deposits.
2011	pH	7.7	7.6	7.9	>7.0	units	Measure of corrosivity of water.
2011	Sodium	32	29	39	N/A	ppm	Erosion of natural deposits; byproduct of oil field activity.
2011	Sulfate	67	65	68	300	ppm	Naturally occurring; common industrial byproduct; byproduct of oil field activity.
2011	Total Alkalinity as CaCO3	88	63	104	N/A	ppm	Naturally occurring soluble mineral salts.
2011	Total Dissolved Solids	259	249	263	1000	ppm	Total dissolved mineral constituents in water.
2011	Total Hardness as CaCO3	124	95	153	N/A	ppm	Naturally occurring calcium.
2011	Zinc	<0.01	<0.01	0.01	5	ppm	Moderately abundant naturally occurring element used in the metal industry.

Mandatory Language for Compliance Deadline Extensions

The City of Rockwall has been has granted a two-year extension by the Texas Commission on Environmental Quality (TCEQ) to the Stage 2 Disinfection Byproducts Rule (DBP2) in accordance with 30 TAC §290.115(a)(2) because it buys some or all of its water from the North Texas Municipal Water District (NTMWD). This extension is warranted because the NTMWD is making extensive and complex capital improvements to the Wylie Water Treatment Plant to facilitate compliance with the rule; the NTMWD and its customers, and have demonstrated a need for the extension by having one or more locations where high DBP results were evident or possible during drought conditions.

The extension is valid from April 1, 2012 to March 30, 2014. During this period, compliance monitoring will continue under the Stage 1 Disinfection Byproduct Rule. Compliance monitoring for DBP2 will begin on April 1, 2014.

If you have questions regarding this matter, you may contact the City of Rockwall City Engineer, Chuck Todd, PE, at 972-771-7746.