



Richardson

TEXAS

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WATER QUALITY R E P O R T

(Consumer Confidence Report)

City of Richardson Water Utilities
1260 Columbia Drive
Richardson, Texas 75081

PWS #0570015
(972) 744-4111
(972) 744-5814 (Fax)

SAFE-HIGH QUALITY-DRINKING WATER-RIGHT FROM YOUR TAP

Richardson Water Utility employees take pride in delivering safe and “superior” quality drinking water to our customers. “Superior,” is the rating of our water system by the Texas Commission on Environmental Quality (TCEQ). This rating reflects the hard work and efforts of our employees to protect your health by delivering and maintaining safe and reliable drinking water.

The Water Utilities department is a municipal water distribution and wastewater collection utility owned by the City of Richardson. Wholesale treated water is purchased from the North Texas Municipal Water District (NTMWD) who has water rights from Lake Lavon, Lake Chapman, Lake Texoma and Lake Tawakoni.

The pumping and storage system is comprised of five pump stations, seven ground storage tanks and seven elevated storage tanks. The storage capacity is 36.25 million gallons with a pumping capacity of 98.9 million gallons per day. The water distribution system is comprised of 555 miles of water mains with 4,096 fire hydrants and 33,177 metered service connections. Each day, the city tests the water in the distribution system at various points in the city to ensure water is reaching the residents in good condition.

As water travels over the land’s surface or through the ground, it dissolves naturally occurring minerals and picks up substances from animal or human activity. Contaminants that may be in untreated water include; organic chemicals from industrial or petroleum use and or radioactive materials. Good watershed management by each of us to keep contaminants out of our lakes and waterways is cheaper and easier than removing them later at the treatment plant. The NTMWD conducts daily tests on the raw water from their sources, water in process and the finished water.

ALL drinking water may contain contaminants. 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).

The Public Services Department is responsible for your water distribution and infrastructure system maintenance and is part of the City government. The City Council meets on the second and fourth Monday of each month at 7:30 p.m. in the City Hall Council Chambers.

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. (972) 744 – 4111 para hablar con una persona bilingüe en español

2011 Richardson Distribution Samples



Bacteriological Scheduled	1212
Bacteriological Construction	60
Bacteriological Other	11
Disinfectant Residual Scheduled	1897
Disinfectant Residual Construction	60
Disinfectant Residual Other	11
Trihalomethanes Samples	12
Haloacetic Acids Samples	12
Lead and Copper Samples (Tri-Annual)	0
Quarterly Distribution Samples	29
Quarterly Entry Point Samples	25

Grassy, Earthy Taste and Odor

The north Texas summer climate normally consists of high temperatures and trace amounts of rainfall. The high temperatures and lack of rainfall creates an ideal environment for algae to bloom in surface water supplies.

Each summer, throughout the months of July and August, lakes and other surface water supplies experience a natural event – an “algal bloom”. Algal blooms are common to surface water supplies in warm weather climate states like Texas.

As hot summer temperatures warm the reservoirs, the lack of rainfall lessens the turbidity and allows the sunlight to penetrate the water. With the increase in water temperature and the lack of turbidity, photosynthesis will occur providing the right environment for algae to reproduce or “bloom”.

When an algal bloom exists, there is the possibility for a grassy, earthy taste in the treated drinking water supply. This event, although aesthetically undesirable to the public, does not alter the high quality of water provided to the cities and communities for their use.

NTMWD laboratory personnel monitor the raw water quality from Lake Lavon prior to its treatment. One of the many analyses performed is an algal count. Laboratory personnel, through this daily activity, can determine the onset of an algal bloom.

The blue green algae species Nostoc and Anabaena, as it reproduces or “blooms”, produces an oily organic substance. It is this organic substance that is responsible for the change in taste and odor of the treated drinking water.

NTMWD uses several steps to control the taste and odor produced. To reduce the unpleasant taste levels, activated carbon is used as an absorption media. Potassium permanganate is added as an oxidizing agent to reduce the odor associated with an algal bloom. Both of these chemicals are removed during the treatment process prior to its delivery to the cities.

Chlorine is used throughout the treatment process as a strong disinfectant. Chlorine also aids in odor reduction during times of algal blooms.

The quality of water remains high as regulated by the Texas Commission on Environmental Quality (TCEQ) and Environmental Protection Agency (EPA) standards. The treated water remains safe for human consumption with no health risks created by the “algal blooms”.

Cryptosporidium

Cryptosporidium is a microscopic parasite affecting the digestive tracts of humans and animal. It is shed in feces and when ingested, may result in diarrhea, cramps, fever and other gastrointestinal symptoms. Outbreaks have been most commonly associated with person - to - person (day care center) and waterborne (drinking and recreational water) spread of the parasite. Foodborne and animal- (especially calves) to-person spread has also been documented.

No specific drug therapy has proven to be effective, but people with healthy immune systems will usually recover within two weeks. Individuals with weak immune systems, however, may be unable to clear the parasite and suffer chronic and debilitating illness.

The NTMWD tests for Cryptosporidium in both the raw lake water and the treated water.

Special information for people with weakened immune systems –

You may be more vulnerable than the general population to certain microbial contaminants, such as Cryptosporidium, in drinking water. Infants, some elderly or immunocompromised persons such as those undergoing chemotherapy for cancer; 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 on appropriate means to lessen the risk of infection by Cryptosporidium are available from the Safe Drinking Water Hotline at (800) 426-4791.

Source Water Assessment Study

The TCEQ has completed an assessment of The North Texas Municipal Water Districts source water and results indicate that some of their sources are susceptible to certain constituents. The sampling requirements for our water system are based on this susceptibility and previous sample data. Any detection of these constituents will be found in the Consumer Confidence Report. For more information on source water assessments and protection efforts in their system, contact NTMWD's public information office for an appointment.

Mandatory Language for Compliance Deadline Extensions

CITY OF RICHARDSON has been 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 11, 2012 to March 30, 2014. During this period, compliance monitoring will continue under the Stage 1 Disinfection Byproduct Rule. Compliance monitoring will for DBP2 will begin on April 1, 2014.

Please share this information with all people who drink this water, especially those who may not have received this notice directly (i.e., people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.

If you have questions regarding this matter, you may contact Richard Boston at 972-744-4111

Posted /Delivered on: May 2012

Water Conservation

Every customer can help to reduce water consumption in and around your home. Here are some easy ways to reduce the amount of water you use.

- Adjust sprinklers so only your lawn is watered and not the house, sidewalk, or street.
- When washing dishes by hand, don't let the water run while rinsing. Fill one sink with wash water and the other with rinse water.
- Run your clothes washer and dishwasher only when they are full. You can save up to 1,000 gallons a month.
- Use the garbage disposal sparingly. Compost vegetable food waste instead and save gallons every time.
- Spreading a layer of organic mulch around plants retains moisture and saves water, time and money.
- If water runs off your lawn easily, split your watering time into shorter periods to allow for better absorption.
- Shorten your shower by a minute or two and you'll save up to 150 gallons per month.
- Rather than following a set watering schedule, check for soil moisture two to three inches below the surface before watering.
- Turn off the water while brushing your teeth and save 25 gallons a month.
- Listen for dripping faucets and running toilets. Fixing a leak can save 300 gallons a month or more.

This chart lists contaminants in Richardson drinking water. Numerous other contaminants were not detected. For additional information, please contact the **Richardson Water Utility at 972-744-4111**

Substance / Year	Range	Highest Average Sample Point	MCL	MCLG	Possible Source
Regulated at the Treatment Plant					
Atrazine (ppb) (2011)	< 0.18- 0.2	0.20	3	3	Herbicide runoff
Simazine (ppb) (2011)	< 0.07- 0.16	0.16	4	4	Herbicide runoff
Di(2-ethylhexyl)adipate (ppb) (2011)	< 0.62- 0.74	0.74	400	400	Discharge from chemical factories
Arsenic (ppm) (2011)	< 0.001- 0.001	0.001	0.01	0.01	Erosion of natural deposits
Barium (ppm) (2011)	0.04-0.04	0.04	2	2	Erosion of natural deposits
Fluoride (ppm) (2011)	0.46 - 0.66	0.66	4	4	Water additive
Nitrate (ppm) (2011)	< 0.05 - 0.55	0.55	10	10	Runoff from fertilizer
Simazine (ppb) (2011)	< 0.07 - 0.08	0.08	4	4	Herbicide runoff
Gross Beta Emitters (mrem/yr) (2011)	ND - ND	4.4	50	0	Decay of natural & manmade deposits
Cryptosporidia and Giardia (0o) cysts/L	ND - ND	ND - ND	TT	0	Human and animal fecal waste
Substance	Range	Highest Average Sample Point	MRDL	MRDLG	Possible Source
Chlorine Dioxide (ppm) (2011)	0 - 0.15	.15	0.80	0.80	Used as a disinfectant
Regulated at the Customer's Tap					
Substance	Range	Highest Average Sample Point	MCL	MCLG	Possible Source
Copper (ppm) (2009)	.369-1.09	1.04	Action Level=1.3	1.3	Corrosion of customer plumbing
Lead (ppb) (2009)	0.00019-0.0222	0.00281	Action Level= .015	0.015	Corrosion of customer plumbing
<p>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 at (800) 426-4791 or at http://www.epa.gov/safewater/lead.</p>					
Regulated in the Distribution System					
Total Coliform (%) (2011)	0.0 – 0.0	0%	5	0	Naturally present in the environment
<p>Total coliform bacteria are used as indicators of microbial contamination of drinking water. While not disease-causing organisms themselves, they are often found in association with other microbes that are capable of causing disease. Coliform bacteria are harder than many disease-causing organisms; therefore, their absence from water is a good indication that the water is microbiologically safe for human consumption.</p> <p>Fecal Coliform REPORTED MONTHLY TESTS FOUND NO FECAL COLIFORM BACTERIA.</p>					
Chlorine Residual (Chlorite) (2011)	0.00-0.80	0.80	1.0	1.0	Disinfectant used to control microbes
Total HAA (ppb) (2011)	2.7 – 19.1	16.6	60	N/A	By-Product of drinking water disinfection
Total THMs (ppb) (2011)	26.1 – 50.5	36.1	80	N/A	By-Product of drinking water disinfection
Chlorine Residual (Chloramines) (ppm) (2011)	0.6-3.9	2.66	4	4	Disinfectant used to control microbes
Substance		Highest Single Measurement	Turbidity Limits	% samples meeting limit	Possible Source
Turbidity (NTU) (2011)		0.96	0.3	99.15%	Soil runoff
<p>Turbidity is a measure of the clarity of water. Turbidity has no health effect; however, high turbidity can interfere with disinfection and provide a medium for bacterial growth. Unit of Measure NTU.</p>					

Secondary And Other Constituents Not Regulated

Substance	Range	Highest Average Sample Point	MCL	Possible Source
Bicarbonate (ppm) (2011)	73 – 120	120	Not regulated	Corrosion of carbonate rocks such as limestone
Calcium (ppm) (2011)	32 – 54	54	Not regulated	Abundant naturally occurring element
Chloride (ppm) (2011)	25 – 33	33	300	Abundant naturally occurring element
Iron (ppm) (2011)	<0.05-0.07	<0.07	0.3	Erosion of natural deposits
Magnesium (ppm) (2011)	3.9 – 4.3	4.3	Not regulated	Abundant naturally occurring element
Manganese (ppm) (2011)	<0.001 – 0.002	0.002	0.05	Abundant naturally occurring element
Nickel (ppm) (2011)	0.03 – 0.05	0.05	Not regulated	Erosion of natural deposits
pH (units) (2011)	7.6 – 7.9	7.9	>7.0	Measure of corrosively of water
Sodium (ppm) (2011)	29 - 39	39	Not regulated	Mineral
Sulfate (ppm) (2011)	65 - 68	68	300	Mineral
Total Alkalinity as CaCO ₃ (ppm) (2011)	63 -104	104	Not regulated	Naturally occurring soluble mineral salts
Total Dissolved Solids (ppm) (2011)	249 -263	263	1000	Total dissolved mineral constituents in water
Total Hardness a CaCO ₃ (ppm) (2011)	95 -153	153	Not regulated	Naturally occurring calcium
Zinc (ppm) (2011)	<0.01 – 0.01	0.01	5	Moderately abundant naturally occurring element used in the metal industry
Bromodichloromethane (ppb) (2011)	9.9 – 17.8	13.38	Not regulated	By-Product of drinking water disinfection
Chloroform (ppb) (2011)	10.7 – 21.7	14.30	Not regulated	By-Product of drinking water disinfection
Dibromochloromethane (ppb) (2011)	5.5 – 9.7	7.73	Not regulated	By-Product of drinking water disinfection
Bromoform (ppb) (2011)	< 1.0 – 1.4	1.30	Not regulated	By-Product of drinking water disinfection
Total Organic Carbon				
TOC Source Water (ppm) (2011)	4.32 – 6.34	6.34	TT	Organic material runoff
TOC Drinking Water (ppm) (2011)	3.52 – 4.66	4.66	TT	Organic material runoff
TOC Removal Ratio (ppm) (2011)	11% – 35%	35%	% of Removal	
<p>NOTE: 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 this report. 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.</p>				

Definitions and Measurements

Maximum Contaminant Level (MCL) - the highest level of a contaminant that is allowed in drinking water
Maximum Contaminant Level Goal (MCLG) - the level of a contaminant in drinking water below which there is no known or expected risk to health
Treatment Technique (TT) - a required process intended to reduce the level of a contaminant in drinking water.
Action Level - The concentration of a contaminant which, if exceeded, triggers a treatment or other requirement a water system must follow
(ppm) - Parts per million. One part per million equals one packet of artificial sweetener sprinkled into 250 gallons of iced tea.
(ppb) - Parts per billion. One part per billion is equal to one packet of artificial sweetener sprinkled into an Olympic-size swimming pool.
(pCi/L) - Pico curies per liter is a measure of radioactivity in water. A pico curie is 10 to the minus 12 curies and is the quantity of radioactive material producing 2.22 nuclear transformations per minute.
(mrem/yr) - millirem/year
NTU - Nephelometric Turbidity Units (this is the unit used to measure water turbidity)
MRDL - Maximum Residual Disinfectant Level—highest level of a disinfectant allowed in drinking water
MRDLG - Maximum Residual Disinfectant Level Goal - the level of a drinking water disinfectant below which there is no known expected risk to health
ND - Not Detected
<i>2011 data analyses from most recent testing done in accordance with the regulations</i>

Richardson City Council

District 1	Bob Townsend (Mayor)
District 2	Mark Solomon
District 3	Scott Dunn
District 4	Laura Maczka (Mayor Pro Tem)
District 5	Kendal Hartley
District 6	Steve Mitchell
District 7	Amir Omar

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Important Communication Links:

Maintenance/Emergency Service (24 hours/day, 7 days/week)

(972) 744-4111

Water Utilities Administration (8:00 am – 5:00 p.m., Mon.-Fri)

(972) 744-4407

Customer Service Billing Information

(972) 744-4120

Mailing addresses:

Richardson Water Utilities

P.O. Box 830309

Richardson, Texas 75083

Web Pages:

City of Richardson – <http://www.cor.net/>

American Water Works Association – <http://www.awwa.org/>

Texas Water Utilities Association – <http://www.twua.org/>

TCEQ – <http://www.tceq.state.tx.us/>

USEPA – <http://www.epa.gov/>

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