

# Richardson

## TEXAS

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# WATER QUALITY R E P O R T

City of Richardson Water Utilities  
1260 Columbia Drive

Richardson, Texas 75081  
(972) 744 - 4111  
(972) 744 - 5814 (Fax)

## (Consumer Confidence Report)

### 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 a safe and reliable drinking water and the North Texas Municipal Water District for producing a high quality 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) at three “take points”. The district draws raw water from Lake Lavon. Additional water from both Lake Chapman and Lake Texoma is also available.

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 479.64 miles of water mains with 3,625 fire hydrants and 32,995 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. The sources of drinking water, both tap water and bottled water may contain contaminants. 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. The NTMWD conducts daily tests on the raw water in Lake Lavon, water in process and the finished water.

The presence of contaminants does not necessarily indicate the water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency’s Safe Drinking Water Hotline at 1-800-426-4791.

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.

### **Richardson Distribution Samples Taken Last Fiscal Year**



Bacteriological Scheduled	1212
Bacteriological Construction	153
Bacteriological Other	17
Disinfectant Residual Scheduled	1212
Disinfectant Residual Construction	153
Disinfectant Residual Other	283
Trihalomethanes Samples	32
Haloacetic Acids Samples	32
Lead and Copper Samples (Tri-Annual)	0
Quarterly Distribution Samples	32
Quarterly Entry Point Samples	26

Oct 2007 to Sept. 2008

## 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** – Some people may be more vulnerable to contaminants in drinking water than the general population. 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 infant – 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 are available from Safe Drinking Water Hotline (1-800-426-4791).

## 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.

This chart lists the 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	Range	Highest Average Sample Point	MCL	MCLG	Possible Source
<b>Regulated at the Treatment Plant</b>					
Atrazine (ppb)	0.10-0.12	0.12	3	3	Herbicide runoff
Barium (ppm)	0.04-0.04	0.04	2	2	Erosion of natural deposits
Fluoride (ppm)	0.45-0.47	0.47	4	4	Water additive
Nitrate (ppm)	0.42-0.45	0.45	10	10	Runoff from fertilizer
Simazine (ppb)	ND - ND	ND	4	4	Herbicide runoff
Arsenic (ppb)	ND - ND	ND	10	None	Erosion of natural deposits
Gross Alpha Particle Activity (pCi/L) **	ND - ND	ND	15	0	Erosion of natural deposits
Gross Beta (mrem/yr) **	<4.0	<4.0	<4.0	0	Decay of natural & manmade deposits
Radium 228 (pCi/L) **	ND - ND	ND	5	0	Erosion of natural deposits
Dalapon (ppb)	ND - ND	ND	200	0	Pesticide
Cryptosporidia and Giardia (Oo) cysts/L	0	0	TT	0	Human and animal fecal waste
Substance	Range	Highest Average Sample Point	MRDL	MRDLG	Possible Source
Chlorine Dioxide (ppm)	0.00-0.56	0.04	0.80	0.80	Used as a disinfectant
<b>Regulated at the Customer's Tap</b>					
Substance	Range	Highest Average Sample Point	MCL	MCLG	Possible Source
Copper (ppm)	0.01-0.08	0.08	Action Level=1.3	1.3	Corrosion of customer plumbing
Lead (ppb)	ND	0	Action Level=15	15	Corrosion of customer plumbing
<b>Unregulated Substances</b>					
Sodium (ppm)	35.2-40.4	40.40	Not regulated		Mineral
Sulfate (ppm)	62.4-80.4	80.40	250 proposed		Mineral
Bromodichloromethane (ppb)	14.7 – 25.3	16.3	Not regulated		By-Product of drinking water disinfection
Chloroform (ppb)	11.5 – 42.2	19.5	Not regulated		By-Product of drinking water disinfection
Dibromochloromethane (ppb)	8.0 – 17.3	7.8	Not regulated		By-Product of drinking water disinfection
Bromoform (ppb)	2.4 – 4.0	1	Not regulated		By-Product of drinking water disinfection
Acetone (ppb)	5.28-8.14	8.14	Not regulated		Solvent
TOC (ppm)	2.58-4.23	3.29	TT		Organic material runoff
<b>Regulated in the Distribution System</b>					
Total Coliform (%)	0.0 - 2.3	0.0017	5	0	Naturally present in the environment
Chlorine Residual (Chlorite)	0.01-0.65	0.49	1.05	1.05	By-Product of drinking water disinfection
Total HAA (ppb)	15.8 – 29.0	25.3	60	N/A	By-Product of drinking water disinfection
Total THMs (ppb)	35.4 – 81.3	43.3	80	N/A	By-Product of drinking water disinfection
Chlorine Residual (Chloramines)	0.6 - 3.9	2.49	4	4	By-Product of drinking water disinfection
Substance	Range	Average	MCL	% samples meeting limit	Possible Source
Turbidity (NTU)	0.04-0.43	0.20	TT	99.94%	Soil runoff
<b>Turbidity</b>			<b>Non-Regulated Substances</b>		
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.			Non-regulated contaminants are those for which EPA has not established drinking water standards. The purpose of unregulated contaminant monitoring is to assist the EPA in determining the occurrences in drinking water and whether future regulations are warranted.		
<b>Maximum Contaminant Level (MCL)</b> - the highest level of a contaminant that is allowed in drinking water					
<b>Maximum Contaminant Level Goal (MCLG)</b> - the level of a contaminant in drinking water below which there is no known or expected risk to health					
<b>Treatment Technique (TT)</b> - a required process intended to reduce the level of a contaminant in drinking water.					
<b>Action Level</b> - The concentration of a contaminant which, if exceeded, triggers a treatment or other requirement a water system must follow					
<b>(ppm)</b> - Parts per million					
<b>(ppb)</b> - Parts per billion					
<b>(pCi/L)</b> - picoCuries per liter					
<b>(mrem/yr)</b> - millirem/year					
<b>NTU</b> - Nephelometric Turbidity Units (this is the unit used to measure water turbidity)					
<b>MRDL</b> - Maximum Residual Disinfectant Level—highest level of a disinfectant allowed in drinking water					
<b>MRDLG</b> - Maximum Residual Disinfectant Level Goal - the level of a drinking water disinfectant below which there is no known expected risk to health					
<b>ND</b> - Not Detected					
** 2004 data analyses from most recent testing done in accordance with the regulations					

## **Richardson City Council**

District 1	Bob Townsend (Mayor Pro Tem)
District 2	Rhea Allison
District 3	John Murphy
District 4	Gary A. Slagel
District 5	Pris Hayes
District 6	Steve Mitchell (Mayor)
District 7	Dennis Stewart

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.

### **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) 744-4411

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/>

**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**

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