



2008 Drinking Water Quality Report

City's Drinking Water Meets all Federal (EPA) Standards

Public Works Customer Service (817) 427-6440

This report is a summary of the quality of water the City of North Richland Hills provides to customers. The analysis was made by using data from the most recent U.S. Environmental Protection Agency (EPA) required testing and is presented in the following information. We hope this information helps you become more knowledgeable about what's in your drinking water.

En Espanol

Este reporte incluye informacion importante sobre el agua para tomar. Si tiene preguntas o discusiones sobre este reporte en espanol, favor de llamar al tel (817) 427-6050 par hablar con una bilingue en espanol.

Where do we get our drinking water?

City's drinking water is obtained from ground and surface water sources. It comes from the following Lake/River/Reservoir/
Aquifer: BENBROOK LAKE, LAKE WORTH, EAGLE MOUNTAIN LAKE, LAKE ARLINGTON, LAKE BRIDGEPORT, CEDAR CREEK RESERVOIR, RICHLAND CHAMBERS RESERVOIR, PAULUXY AND TRINITY AQUIFERS.
It is important to protect your drinking water by protecting your water source.

State Agency Assessed Source Waters

The City of North Richland Hills purchases drinking water from the City of Fort Worth and the Trinity River Authority (TRA). In 2003, the Texas Commission on Environmental Quality (TCEQ) conducted an assessment of the Fort Worth and TRA water supply lakes.

The Fort Worth and TRA water systems are susceptible to some contaminants, using criteria developed by TCEQ in its federally approved Source Water Assessment Program.

The assessment report consists of maps showing the assessment area, an inventory of known land use activities of concern and documentation of specific contaminants of concern. This report is available by contacting the Fort Worth Water Department office at 1000 Throckmorton Street or the Trinity River Authority at

11201 Trinity Boulevard in Euless, Texas.

ALL drinking water may contain contaminants.

When drinking water meets federal standards, there may not be any health based 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 Environmental Protection Agency's (EPA) Safe Drinking Water Hotline (800-426-4791).

Public Participation Opportunities

If you have concerns or questions about North Richland Hills' drinking water quality, or would like to request a speaker on this topic for a group or organization meeting, please call 817-427-6440.

North Richland Hills' governing body, the City Council, meets the second and fourth Monday of the month at 7:00 p.m. at City Hall. Citizens are encouraged to attend Council Meetings. Please call 817-427-6061 for information about the Council Meetings.

Special Notice for THE ELDERLY, INFANTS, CANCER PATIENTS, people with HIV/AIDS or other immune problems:

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 infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. EPA/Centers for Disease Control and Prevention (CDC) offers guidelines on the appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants. To obtain these guidelines, call the EPA Safe Drinking Water Hotline (800-426-4791).

About the Following Information

The following information lists all of the federally regulated or monitored constituents which have been found in your drinking water for 2008 calendar year. The EPA requires water systems to test up to 97 constituents.

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 concerns. Therefore, secondaries are not required to be reported in this document but they may greatly affect the appearance and taste of your water.

Cryptosporidium, Giardia & Viruses

2008 testing of lake water revealed low levels of Cryptosporidium, Giardia Lamblia and viruses. These are microscopic organisms common in surface water.

Required levels of inactivation are achieved through disinfection and filtration.

The source is human and animal waste. When ingested, Cryptosporidium and Giardia Lamblia can cause diarrhea, cramps, and fever.

No specific drug therapy has proven effective, but people with healthy immune systems usually recover within two weeks.

Individuals with weak immune systems, however, may be unable to clear the parasite and suffer chronic and debilitating illness.

Understanding This Information

Below is a list of abbreviations and definitions intended to assist in understanding the information provided in the following charts.

Maximum Contaminant Level (MCL)

The highest permissible level of a contaminant in drinking water. MCL's are set as close to the MCLG's as feasible using the best available treatment technology.

Maximum Contaminant Level Goal (MCLG)

The level of a contaminant in drinking water below which there is no known or expected health risk. MCLG's allow for a margin of safety.

Maximum Residual Disinfectant Level (MRDL)

The highest level of a disinfectant allowed in drinking water. There is convincing evidence that the addition of a disinfectant is necessary for control of microbial contaminants.

Maximum Residual Disinfectant Level Goal (MRDLG)

The level of a drinking water disinfectant below which there is no known or expected health risk. MRDLG's do not reflect the benefits of the use of disinfectants to control microbial contaminants.

NA– Not Applicable.

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 treatment or other requirements which a water system must follow.

NTU– Nephelometric Turbidity Units (a measure of water turbidity or clarity)

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 (ug/L)

What's In The Water

The following charts list the contaminants that require monitoring or are regulated and detected in North Richland Hills' water. The data included is from calendar year 2008 unless otherwise indicated. In addition, since North Richland Hills receives its water from the City of Fort Worth and Trinity River Authority, the levels included are a compilation of both entities annual sampling results with the highest detected levels being shown. **North Richland Hills' water did not exceed any of the regulated limits in 2008.**

Regulated Contaminants

<u>Contaminant</u>	<u>Unit of Measure</u>	<u>Highest Allowed</u>	<u>North Richland Hills Water</u>	<u>Range of Detections</u>	<u>Ideal Goal (MCLG)</u>	<u>Common Sources of Substance in Drinking Water</u>
Atrazine	(ppb)	3	0.41	0.41 to 0.41	3	Runoff from herbicide used on row
Barium ¹	(ppm)	2	0.058	0.033 to 0.058	2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Beta particles & Photon emitters ²	(pCi/L)	50	6.6	4.6 to 6.6	50 ³	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	0.65	0.52 to 0.65	4	Water additive which promotes strong teeth; erosion of natural deposits; discharge from fertilizer and aluminum factories
Nitrate (measured as Nitrogen)	(ppm)	10	0.28	0.11 to 0.28	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Turbidity ⁴	NTU	TT	0.23 <u>Highest single result</u> 100% Lowest monthly % of samples ≤ 0.3 NTU	N/A	N/A	Soil runoff

¹ The test results shown above are from 2002. Because North Richland Hills historically has had low levels of metal in its water, The Texas Commission on Environmental Quality (TCEQ) has North Richland Hills on a reduced monitoring schedule. The next testing is scheduled for 2009.

² Because North Richland Hills historically has had low levels of radionuclides in its water, the Texas Commission on Environmental Quality (TCEQ) has North Richland Hills³ on a reduced monitoring schedule. The test results shown above are from 2005. The next testing is scheduled for 2009.

³ The MCL for beta particles is 4 mrem/year. EPA considers 50 pCi/L to be the level of concern for beta particles.

⁴ Turbidity is a measure of the cloudiness of water. We monitor it because it is a good indicator of the effectiveness of the filtration system.

Regulated in the Distribution System

<u>Contaminant</u>	<u>Unit of Measure</u>	<u>Highest Allowed (MCL)</u>	<u>North Richland Hills Water</u>	<u>Range of Detections</u>	<u>Ideal Goal (MCLG)</u>	<u>Common Sources of Substance in Drinking Water</u>
Bromate	ppb	10	4.8	0.6 to 4.8	0	Byproduct of drinking water disinfection
Haloacetic Acids ⁵ (HAA5)	ppb	60	27.0	4.5 to 27.0	N/A	Byproduct of drinking water
Total Trihalomethanes ⁵ (TTHM)	ppb	80	48.2	8.2 to 48.2	N/A	Byproduct of drinking water disinfection
Total Coliforms ⁶ (including fecal coliform & E. coli)	% of positive samples	Presence in 5% of monthly samples	Present in 0.001% of monthly samples	0 to 0.001	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
<u>Contaminant</u>	<u>Unit of Measure</u>	<u>MRDL</u>	<u>North Richland Hills Water</u>	<u>Range of Detections</u>	<u>Ideal Goal (MRDLG)</u>	<u>Common Sources of Substance in Drinking Water</u>
Chloramines	(ppm)	4	2.8	0.5 to 3.9	4.0	Water additive to control microbes

⁵ Initial Distribution System Evaluation for Disinfection Byproduct—This evaluation is sampling required by EPA to determine the range of total trihalomethane and haloacetic acid in the system. Some of these samples are regulated and some are non-regulated. In all cases the samples were less than the highest allowed MCL. EPA also requires the data to be reported here.

⁶ No more than 5.0% samples of coliform-positive in a month. Every sample that has total coliform must be analyzed for either fecal coliforms or E. coli. If two consecutive total coliforms-positive samples, and one is also positive for E-coli fecal coliforms, system has an acute MCL violation.

Regulated at the Customer's Tap

<u>Contaminant</u>	<u>90th percentile values⁸</u>	<u>No. of Sites Exceeding Action Level</u>	<u>MCL</u>	<u>MCLG</u>	<u>Common Sources of Substance in Drinking Water</u>
Lead ⁷ (ppb)	2.4	0	Action Level = 15	N/A	Corrosion of household plumbing systems; erosion of natural deposits.
Copper ⁷ (ppm)	0.457	0	Action Level = 1.3	N/A	

⁷ Because North Richland Hills historically has had low levels of lead and copper in its water, the Texas Commission on Environmental Quality has North Richland Hills on a reduced monitoring schedule. The test results shown above are from 2005. The next testing is scheduled for 2009.

⁸ 90th percentile value: 90% of the samples were at or below this value. EPA considers the 90th percentile value the same as an "average" value for other contaminants. Lead and copper are regulated by a treatment technique that requires systems to control the corrosiveness of their water. If more than 10% of tap water samples exceed the action level, water systems must take additional steps.

Unregulated Contaminants⁹

<u>Contaminant</u>	<u>Range of Detections</u>	<u>2008 Level</u>	<u>MCL</u>	<u>MCLG</u>	<u>Common Sources of Substance in Drinking Water</u>
Chloral Hydrate (ppb)	0 to 1.9	1.9	Not regulated	0	Byproduct of drinking water disinfection
Bromoform (ppb)	0 to 1.3	1.3	Not regulated	0	
Bromodichloromethane (ppb)	3.1 to 15.9	15.9	Not regulated	0	Byproduct of drinking water disinfection; not regulated individually; included in Total Trihalomethanes.
Chloroform (ppb)	2.7 to 22.1	22.1	Not regulated	0	
Dibromochloromethane (ppb)	2.4 to 8.9	8.9	Not regulated	60	Byproduct of drinking water disinfection; not regulated individually; included in Haloacetic Acids.
Dichloroacetic Acid (ppb)	3.4 to 12.9	12.9	Not regulated	0	
Trichloroacetic Acid (ppb)	0 to 5.7	5.7	Not regulated	300	

⁹ Unregulated 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 occurrence of unregulated contaminants in drinking water and whether future regulation is warranted.

Additional Parameters

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.

<u>Item</u>	<u>Unit of Measure</u>	<u>North Richland Hills Water</u>
Bicarbonate	ppm	94 to 144
Calcium	ppm	74 to 159
Chloride	ppm	16 to 26
Conductivity	umhos/m	324 to 480
pH	units	8.3 to 8.4
Magnesium	ppm	3 to 10
Sodium	ppm	11 to 27
Sulfate	ppm	22 to 42
Total Alkalinity as CaCO ₃	ppm	94 to 144
Total Dissolved Solids	ppm	185 to 264
Total Hardness as CaCO ₃	ppm	120 to 185
Total Hardness in grains	grains/gallon	7 to 11

Source Water Assessments

As indicated previously in this report, the City of North Richland Hills purchases treated water from the City of Fort Worth and Trinity River Authority. North Richland Hills is also capable of utilizing well water, however, it is seldom required. The Texas Commission on Environmental Quality has completed source water assessments on all seven (7) drinking water sources for Fort Worth and the Trinity River Authority raw water source. The source water assessments describe 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 this assessment will allow us to focus on source water protection strategies. More information about source water assessment and protection can be found at <http://cfpub.epa.gov/safewater/sourcewater> or you can contact Public Works at 817-427-6440 or email nrhpw@nrhtx.com for more information.