City of Terrell
2009 Report to Consumers on Water Quality

The City of Terrell is proud of the fine drinking water it provides. This annual water quality report shows the source of our water, lists the results of our tests, and contains much important information about water and health. City of Terrell will notify you immediately if there is any reason for concern about our 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.

The bottom line: Is the water safe to drink? Absolutely.

Call us for information about the next opportunity for public participation in decisions about our drinking water.

En Espanol
Este reporte incluye informacion importante sobre el agua para tomar. Para asistencia en espanol, favor de llamar al telefone (972) 551-6635.

Overview

YOUR DRINKING WATER IS SAFE

Providing safe and reliable drinking water is the highest priority for the City of Terrell water department. Our employees take pride in providing and delivering water to your home or business.

The information in this report is based on tests conducted through 2009.

It is important to us that you have information about your Drinking Water so you can have confidence in the product we deliver.

Cryptosporidium and Giardia
NTMWD tested their raw water and treated water for the presence of Cryptosporidium and Giardia. None were detected.

Cryptosporidium and Giardia are a protozoan that is so small it can be seen only with a microscope and is common in surface water. The source is human and animal fecal waste, which affects the digestive tract of humans and animals which could cause diarrhea, cramps, and fever. At this time, there is no specific drug therapy proven to be effective for cryptosporidium, but people with healthy immune systems will usually recover within two weeks.

Water Source
The City of Terrell purchases treated water from North Texas Municipal Water District (NTMWD). NTMWD utilizes three reservoirs; Lavon Lake, Lake Jim Chapman, and Lake Texoma for their raw water supplies. The City of Terrell's Water Treatment Plant was closed on June 19, 2007.

TCEQ completed an assessment of your source water and results indicate that some of our sources are susceptible to certain contaminants. The sampling requirements for your water is based on this susceptibility and previous sample data. Any detections of these contaminants will be found in this Consumers Confidence report. For more information on source water assessments and protection efforts at our system contact Water Production, (972) 551-6635.

The report showed a HIGH susceptibility for the following contaminants: Inorganics, regulated and unregulated; Volatile Organic Contaminant, regulated and unregulated; Synthetic Organic Contaminant, regulated and unregulated; Disinfection By-Product, regulated; and Microbial Organism, unregulated.

What Do The Tables Mean?
The tables show the results of our water-quality analyses. Every regulated contaminant that we detected in the water, even in the most minute traces, is listed here. The table contains the name of each substance, the highest level allowed by regulation (MCL), the ideal goals for public health, the amount detected, the usual sources of such contamination, footnotes explaining our findings, and a key to units of measurement. Definitions of MCL and MCLG are important.

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 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 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.

Treatment Technique (TT): A required process intended to reduce the level of a contaminant in drinking water.

Action Level (AL): The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.

Key To Table

AL = Action Level
MCL = Maximum Contaminant Level
MCLG = Maximum Contaminant Level Goal
NTU = Nephelometric Turbidity Units
pCi/l = picocuries per liter (a measure of radioactivity)
ppm = parts per million, or milligrams per liter (mg/l)
ppt = parts per trillion, or nanograms per liter
ppb = parts per billion, or micrograms per liter (µg/l)
ppq = parts per quadrillion, or picograms per liter
TT = Treatment Technique
ND = Not Detected at the Reporting Limit

Regulated at the Customer's Tap

Contaminant	Year Tested	90th Percentile Values	# of Sites Exceeding Action Level	Maximum Contaminant Level	Maximum Contaminant Level Goal	Major Sources in Drinking Water
Lead (ppb)	2007	5.7	0	Action Level=15	0	Corrosion of household plumbing systems; Erosion of natural deposits
Copper (ppm)	2007	0..508	0	Action Level =1.3	1.3	

Recommended Additional Health Information for lead

All water systems are required by EPA to report the language below starting with the 2009 CCR to be delivered to you by July of 2010. We are now providing this information as a courtesy.

“If present, elevated levels of lead can cause serious health problems, especially for pregnantwomen 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.”

Regulated at the Treatment Plant

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

Constituent	Year	Highest Single Measurement	Lowest monthly % of samples Meeting Limits	Turbidity Limits	Unit of Measure	Major Sources in Drinking Water
Turbidity	2009	0.90	99.00	0.3	NTU	Soil runoff

Inorganic Contaminants

Contaminant	Date Tested	Unit	MCL	MCLG	Detected Level	Range	Major Sources in Drinking Water	Violation
Gross Beta Emitters	2008	pCi/L	50	0	3.5	2.6-4.4	Decay of natural and man-made deposits.	NO

Barium	2008-09	ppm	2	2	0.041	0.041	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits	NO
Nitrate	2009	ppm	10	10	0.34	0.31-0.36	Runoff from fertilizer use; Leaching from septic tanks, sewage; erosion of natural deposits.	NO
Flouride	2009	ppm	4	4	0.74	0.73-0.74	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories.	NO

Organic Contaminants

Contaminant	Year or Range	Average Level	Minimum Level	Maximum Level	MCL	MCLG	Unit of Measure	Source of Contaminant
Atrazine	2009-2007	0.23	0	0.47	3	3	ppb	Runoff from herbicide used on row crops.

Maximum Residual Disinfectant Level

Year	Disinfectant	Average Level	Minimum Level	Maximum Level	MRDL	MRDLG	Unit of Measure	Source of Disinfectant
2009	Chloramine Residual	2.61	1	3.3	4	4	ppm	Disinfectant to control microbes.

Disinfection by-products

Contaminant	Date Tested	Range of Detections	Highest Average	Maximum Contaminant Level	Maximum Contaminant Level Goal	Major Sources in Drinking Water
Haloacetic Acids (HAA5)	2009	19.5-29.6 ppb	28.2 ppb	60 ppb	n/a	By-product of drinking water disinfection.
Total THMs	2009	32.4-56.9 ppb	40.5 ppb	80 ppb	n/a	By-product of drinking water disinfection.

Unregulated Initial Distribution System Evaluation for Disinfectant Byproducts

This evaluation is sampling required by EPA to determine the range of total trihalomethane and haloacetic acid in the system for future regulations. The samples are not used for compliance, and may have been collected under non-satandard conditions. EPA also requires the data to be reported here.

Contaminant	Year	Average Level	Minimum Level	Maximum Level	MCL	Unit of Measure	Source of Contaminant
Total Haloacetic Acids	2007	44.6	13	193.2	NA	ppb	Byproduct of drinking water disinfection.
Total Trihalomethanes	2007	81.9	18.9	297.1	NA	ppb	Byproduct of drinking water disinfection.

Radioactive Contaminants

Contaminant	Date Tested	Unit	MCL	MCLG	Detected Level	Range	Major Sources in Drinking Water	Violation
Gross Alpha	2009	pCi/l	15	0	ND	ND	Erosion of natural deposits	NO
Radium 228	2009	pCi/l	5	0	ND	ND	Erosion of natural deposits	NO
Gross Beta	2009	pCi/l	50	0	<4	<4	Decay of natural and man-made deposit	NO

Synthetic Organic Contaminants Including Pesticides and Herbicides

Contaminant	Date Tested	Unit	MCL	MCLG	Detected Level	Range	Major Sources in Drinking Water	Violation
Di (2-ethylhexyl) phthalate	1/23/06	ppb	6	0	<2.04	<2.04	Discharge from rubber and chemical factories	NO

Alachlor	3/26/07	ppb	2	0	ND	ND	Runoff from herbicide used on row crops	NO
Atrazine	2007	ppb	3.0	3.0	0.2	ND-0.4	Runoff from herbicide used on row crops	NO
Benzo (a) pyrene [PAH]	3/26/07	ppt	200	0	ND	ND	Leaching from linings of water storage tanks and distribution lines	NO
Chlordane	1/23/06	ppb	2.0	0	<0.20	<0.20	Residue of banned termiticide	NO
Dalapon	2007	ppb	200	200	ND	ND	Runoff from herbicide used on rights of way	NO
Di (2-ethylhexyl) adipate	1/23/06	ppb	400	400	<2.04	<2.04	Discharge from chemical factories	NO
Endrin	3/26/07	ppb	2	2	ND	ND	Residue of banned insecticide	NO
Heptachlor	3/26/07	ppt	400	0	ND	ND	Residue of banned termiticide	NO
Heptachlor epoxide	3/26/07	ppt	200	0	ND	ND	Breakdown of heptachlor	NO
Hexachlorobenzene	3/26/07	ppb	1	0	ND	ND	Discharge from metal refineries and agricultural chemical factories	NO
Hexachlorocyclopentadiene	3/26/07	ppb	50	50	ND	ND	Discharge from chemical factories	NO
Methoxychlor	3/26/07	ppb	40	40	ND	ND	Runoff/leaching from insecticide used on fruits, vegetables, alfalfa, livestock	NO
Pentachlorophenol	3/26/07	ppb	1	0	ND	ND	Discharge from wood preserving factories	NO
Lindane	1/23/06	ppt	200	200	<200	<200	Runoff/leaching from insecticide used on cattle, lumber, gardens	NO
Simazine	2007	ppb	4	4	ND	ND	Herbicide runoff	NO

Secondary and Other Constituents Not Regulated
(No associated adverse health effects)

Constituent	Year or Range	Average Level	Minimum Level	Maximum Level	Secondary Limit	Unit of Measure	Source of Constituent
Bicarbonate	2009	87	85	89	NA	ppm	Corrosion of carbonate rocks such as limestone.
Calcium	2009 2008	59.6	57.4	61.8	NA	ppm	Abundant naturally occurring element.
Chloride	2009	48	48	48	300	ppm	Abundant naturally occurring element; used in water purification; byproduct of oil field activity
Copper	2009 2008	0.044	0.012	0.075	1	ppm	Corrosion of household plumbing systems; erosions of natural deposits; leaching from wood preservatives.
Hardness as Ca/Mg	2009 2008	173	170	176	NA	ppm	Naturally occurring calcium and magnesium.
Iron	2009 2008	0.027	0	0.055	.3	ppm	Erosion of natural deposits; iron or steel water delivery equipment or facilities.
Magnesium	2009 2008	6	5.3	6.6	NA	ppm	Abundant naturally occurring element.
Manganese	2009 2008	0.0017	0	0.0035	.05	ppm	Abundant naturally

							occurring element.
Nickel	2009 2008	0.003	0.002	0.004	NA	ppm	Erosion of natural deposits.
pH	2009	8	7.8	8.2	>7.0	units	Measure of corrosivity of water.
Sodium	2009	49	45	53	NA	ppm	Erosion of natural deposits; byproduct of oil field activity.
Sulfate	2009	106	104	107	300	ppm	Naturally occurring; common industrial byproduct; byproduct of oil field activity.
Total Alkalinity as CaCO3	2009	87	85	89	NA	ppm	Naturally occurring soluble mineral salts.
Total Dissolved Solids	2009	346	336	355	1000	ppm	Total dissolved mineral constituents in water.
Total Hardness as CaCO3	2006	215	215	215	NA	ppm	Naturally occurring calcium.
Zinc	2009 2008	0.009	0.005	0.012	5	ppm	Moderately abundant naturally occurring element; used in the metal industry.

Unregulated Contaminants

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 occurance of unregulated contaminants in drinking water and whether future regulation is warranted.

Constituent	Date Tested	Unit	MCL	MCLG	Detected Level	Range	Major Sources in Drinking Water
Chloroform	2009	ppb	Not Regulated		15.08	9.7-21.2	By-product of drinking water disinfection
Bromodichloromethane	2009	ppb	Not Regulated		15.33	12.7-21.5	By-product of drinking water disinfection
Dibromochloromethane	2009	ppb	Not Regulated		8.8	6.6-12.7	By-product of drinking water disinfection
Bromoform	2009	ppb	Not Regulated		1.2	0-1.6	By-product of drinking water disinfection

Unregulated Contaminant Monitoring Regulation (UCMR)
Availability of Unregulated Contaminat Monitoring Rule data (UCMR)
We participated in gathering data under the UCMR in order to assist EPA in determining the occurrence of possible drinking water contaminants. If any unregulated contaminants were detected, they are shown in the table elsewhere in this report. This data may also be found on EPA's web site at http://www.epa.gov/safewater/data/ncod.html. or you can call the Safe Drinking Water Hotline at 1-800-426-4791.

National Primary Drinking Water Regulation Compliance
Contaminants may be found in drinking water that may cause taste, color, or odor problems. These types of problems are not necessarily causes for health concerns. For more information on taste, odor, or color of drinking water, please contact the system's business office. For more information, call the City of Terrell Water Treatment Plant at (972)-551-6635.

Total Coliform

Total coliform bacteria are used as indicators of microbial contamination of drinking water because testing from them is easy. While not disease-causing organisms themselves, they are often found in association with other microbes that are cabable 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	Highest Monthly Number of Positive Samples	MCL	Unit of Measure	Source of Contaminant
2009	Total Coliform Bacteria	1	*	Presence	Naturally present in the environment.
*Two or more coliform found samples in any single month.					

Fecal Coliform

Fecal Coliform bacteria and, in particular, E. coli, are members of the coliform bacteria group originating in the intestinal tract of warm-blooded animals and are passed into the environment through feces. The presence of fecal coliform bacterial (E. coli) in drinking water may indicate recent contamination of the drinking with fecal material.

Year	Contaminant	Total Number of Positive Samples	MCL	Unit of Measure	Source of Contaminant
2009	Fecal Coliform or E. coli	1	*	Presence	Human and animal fecal waste.
**A routine sample and a repeat sample are total coliform positive, and one is also fecal coliform or E. coli positive.					

Volatile Organic Contaminants

Contaminant	Date Tested	Unit	MCL	MCLG	Detected Level	Range	Major Sources in Drinking Water	Violation
Benzene	7/25/06	ppb	5	0	<0.50	<0.50	Discharge from factories; Leaching from gas storage tanks and landfills	NO
Carbon Tetrachloride	7/25/06	ppb	5	0	<0.50	<0.50	Discharge from chemical plants and other industrial activities	NO
Chlorobenzene	7/25/06	ppb	100	100	<0.50	<0.50	Discharge from chemical and agricultural chemical factories	NO
1,1-Dichloroethyene	7/25/06	ppb	7	7	<0.50	<0.50	Discharge from industrial chemical factories	NO
cis-1,2-Dichloroethyene	7/25/06	ppb	70	70	<0.50	<0.50	Discharge from industrial chemical factories	NO
1,2-Dichloropropane	7/25/06	ppb	5	0	<0.50	<0.50	Discharge from industrial chemical factories	NO
Ethyl benzene	7/25/06	ppb	700	700	<0.50	<0.50	Discharge from petroleum refineries	NO
Styrene	7/25/06	ppb	100	100	<0.50	<0.50	Discharge from rubber and plastic factories; Leaching from landfills	NO
1,2,4-Trichlorobenzene	7/25/06	ppb	70	70	<0.50	<0.50	Discharge from textile-finishing factories	NO
1,1,2-Trichloroethane	7/25/06	ppb	5	3	<0.50	<0.50	Discharge from industrial chemical factories	NO
Toluene	7/25/06	ppm	1	1	<0.0005	<0.0005	Discharge from petroleum factories	NO
Vinyl Chloride	7/25/06	ppb	2	0	<0.50	<0.50	Leaching from PVC piping; Discharge from plastics factories	NO
m&p-Xylenes	7/25/06	ppm	10	10	<0.001	<0.001	Discharge from petroleum factories; Discharge from chemical factories	NO
1,2-Dichloroethane	7/25/06	ppb	5	0	<0.50	<0.50	Discharge from industrial chemical factories	NO

Required Additional Health Information

To ensure that tap water is safe to drink, EPA prescribes limits on the amount of certain contaminants in water provided by public water systems.

FDA regulations establish limits for contaminants in bottled water.

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of Contaminant 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 Safe Drinking Water Hotline (800-426-4791).

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 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:

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

(B) Inorganic contaminants, such as salts and metals, which can be naturally-occurring or result from urban storm runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.

(C) Pesticides and herbicides, which may come from a variety of sources such as agriculture, storm water runoff, and residential uses.

(D) Organic chemical contaminants, including synthetic and volatile organics, which are by-products of industrial processes and petroleum production, and can also come from gas stations, urban storm water runoff and septic systems.

(E) Radioactive contaminants, which can be naturally occurring or be the result of oil and gas production and mining activities. In order to ensure that tap water is safe to drink, EPA prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. FDA regulations establish limits for contaminants in bottled water that must provide the same protection for public health.

NTMWD CCR DATA SUPPLIED TO CITY OF TERRELL

Substance	Unit of Measure	Range	Highest Average Sample Point	Notes - FYI
Simazine	ppb	ND	ND	Herbicide runoff
Arsenic	ppb	ND	ND	Erosion of natural deposits
Acetone	ppb	ND	ND	Cleaner and common lab contaminant
Dalapon	ppb	ND	ND	Pesticide
TOC	ppb	2.16-5.28	3.53	Treatment technique
Turbidity	NTU	0.09-0.50	0.26	Soil runoff
Chlorine Dioxide	ppm	0.00-0.09	0.01	Disinfectant; MCL is 0.8 mg/L (ppm)
Chlorite**	ppm	0.01-0.68	0.38	Byproduct of drinking water disinfection
Cryptosporidium	oocysts	ND	ND	Human and animal fecal waste
Giardia	cysts	ND	ND	Human and animal fecal waste

Unregulated Contaminant Monitoring Rule Reporting***	Unit of Measure	Range	Highest Average Sample Point	Notes - FYI
N – nitrosodimethylamine (NDMA)	ppb	0-0.0023	0.0023	Byproduct of manufacturing process

***2008 analyses data from most recent testing done in accordance with the regulations.**

**Arithmatic average of three distribution sample points must be less than MCL of 1.0 ppm. Three samples are collected monthly in the distribution system and sent for analyses by ion chromatography.

***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 the following table. For additional information and data visit http://www.epa.gov/safewater/ucmr2/index.html, or call the Safe Drinking Water Hotline at (800)426-4791.

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