

2014 Mansfield Water Quality Report



Where Does our Water Come From?

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 pick up substances resulting from the presence of animals or from human activity.

The City of Mansfield purchases lake water from the Tarrant Regional Water District (TRWD). TRWD pumps water primarily from Cedar Creek and Richland Chambers Reservoirs in the east and Lake Benbrook in the west. A Source Water Susceptibility Assessment for your drinking water source(s) is currently being updated by the Texas Commission on Environmental Quality (TCEQ). This information describes 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 the assessment allows us to focus source water protection strategies. For more information about your source(s) of water please refer to the source water assessment viewer available at the following URL: http://www.tceq.texas.gov/gis/swaview. Further details about sources and source water assessments are available in Drinking Water Watch at the following URL: http://dww.tceq.state.tx.us/DWW.



Contact Information:

Water Quality Questions: 817-477-2248

Billing Information: 817-276-4200

2014 Water Quality Report

En Español: Este reporte incluye informacion importante sobre el agua para tomar. Para obtener una copia de esta informacion traducida al Espanol, favor de llamar al telefono 817-477-2248.

2014 Water Quality Report

Annual Water Quality Report for the period January 1 to December 31, 2014. 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.

	etections of these contaminants may							
,				SANIC CONTAMIN			10.1.0	10
ear	Contaminant	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Unit of Measure	Violation	Source of Contaminant Discharge from plastic and fertilizer
014	Cyanide	114.000	114 - 114	200.00	200.00	ppb	No	factories; Discharge from steel/metal factories.
)14	Chromium	3.660	3.66 - 3.66	100.0	100.0	ppb	No	Discharge form steel and pulp mills; Erosi of natural deposits. Discharge of drilling wastes; Discharge from the properties of the proper
)14	Barium	0.061	.061061	2.0	2.0	ppm	No	metal refineries; Erosion of natural deposits.
014	Fluoride	0.300	.318318	4.0	4.0	ppm	No	Erosion of natural deposits; Water additive which promotes strong teeth; Runoff fro
014	Nitrate [measured as Nitrogen]	0.390	.3939	10.0	10.0	ppm	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.
)14	Thallium	0.275	.275275	0.5	2.0	ppb	No	Discharge from electronics, glass, and Leaching from ore-processing sites; drug factories.
		S	YNTHETIC ORGANIC CONT	AMINANTS INCLU	DING PESTICIDI	ES & HERBICIDES		
ar	Contaminant Atrazine	Highest Level Detected 0.1500	Range of Levels Detected 0.15 - 0.15	MCLG 3.00	MCL 3.00	Unit of Measure ppb	Violation No	Source of Contaminant Runoff from herbicide used on row crops
			OR	GANIC CONTAMI	NANTS			
	Contaminant	Average Level	Minimum Level	Maximum Level	MRDL	MRDLG	Unit of Measure	Source of Contaminant
)14	Chloramines	3.0000	1.00	3.90	4.00	<4.0	ppm	Disinfectant used to control microbes.
			DIS	INFECTION BYPRO				
ear	Contaminant Haloacetic Acids (HAA5)*	Highest Level Detected	Range of Levels Detected 7.6 - 16.3	MCLG No goal for that total	MCL 60	Unit of Measure ppb	Violation No	Source of Contaminant Byproduct of drinking water disinfection.
014		43	29.6 - 53.7	No goal for that total	80	ppb	No	Byproduct of drinking water disinfection.
)14	Chlorite	0.2300	023	0.80	1	ppm	No	Byproduct of drinking water disinfection
			LINRE	GULATED CONTA	PLANTS			
	Contaminant	Average	Minimum	Maximum	1-111-1110	Unit of Measure	Violation	Source of Contaminant
12	Chloroform Bromoform	14.5100 <1.00	6.20 <1.00	22.20 <1.00		ppb	No No	Byproduct from drinking water disinfecti Byproduct from drinking water disinfecti
12 12	Bromodi-chloromethane	10.8800	9.20	14.50		ppb ppb	No No	Byproduct from drinking water disinfecti Byproduct from drinking water disinfecti
12	Dibromo-choloromethane	6.8200	5.50	9.60		ppb	No	Byproduct from drinking water disinfecti
				LEAD & COPPER	(2)			
ear	Contaminant	The 90th Percentile	Number of sites exceeding action		MCLG	Unit of Measure	Violation	Source of Contaminant
12	Lead	1.0700	0.00		0.00	ppb	No	Corrosion of household plumbing system Erosion of natural deposit.
)12	Copper	0.3680	0.00		1.30	ppm	No	Corrosion of household plumbing system Erosion of natural deposit; Leaching from wood preservatives.
			2522	UD ADV GOLIGHE	(C)			
r	Contaminant	Average Level	SECO Minimum Level	NDARY CONSTITU Maximum Level	JENTS (3) Secondary Limit	1 1	Unit of Measure	Source of Contaminant
_	Bicarbonate	94.7000	94.70	94.70	NA NA		ppm	Corrosion of carbonate rocks such as
								limestone. Abundant naturally occurring element; U
014		29.5000	29.50	29.50	300.00		ppm	in water purification.
014 014	Hardness as Ca/Mg pH	103.0000 8.0000	103.00 8.00	103.00 8.00	NA >7.00		ppm units	Naturally occurring calcium and magnesi Measure of corrosivity of water.
014	T'	30.1000	30.10	30.10	NA		ppm	Erosion of natural deposits; Byproduct of
• • •								field activity. Naturally occurring; Common industrial
	Sulfate	31.3000	31.30	31.30	300.00		ppm	byproduct; Byproduct of oil field activity
014	Total Alkalinity as CaCO3	94.7000	94.70	94.70	NA		ppm	Naturally occurring soluble mineral salts.
	Total Dissolved Solids	223.0000	223.00	223.00	1000.00		ppm	Total dissolved mineral constituents in water.
014					IA (4)			
014			C	OLIFORM BACTER				
014	Maximum Contaminant Level Goal	Total Coliform Maxium		DLIFORM BACTER Fecal Coliform or E. Coli Maximum Contaminant	Total No. of Positive	E. Coli or Fecal Coliform	Violation	Likely Source of Contamination
014	Maximum Contaminant Level Goal	Contaminant Level	Highest No. of Positive	Fecal Coliform or E. Coli Maximum Contaminant Level	Total No. of Positive	amples	Violation	Likely Source of Contamination
014 014				Fecal Coliform or E. Coli Maximum Contaminant	Total No. of Positive		Violation No	Likely Source of Contamination Naturally present in the environment
014 014		Contaminant Level	Highest No. of Positive	Fecal Coliform or E. Coli Maximum Contaminant Level	Total No. of Positive	amples		
014 014	0.00%	Contaminant Level 5.00% Highest Level Detected	Highest No. of Positive 2.63% RADI Range of Levels Detected	Fecal Coliform or E. Coli Maximum Contaminant Level 0.00% OACTIVE CONTA MCLG	Total No. of Positive Se MINANTS MCL	O Unit of Measure	No Violation	Naturally present in the environment Source of Contaminant
014 014 014	0.00%	Contaminant Level 5.00%	Highest No. of Positive 2.63% RADI	Fecal Coliform or E. Coli Maximum Contaminant Level 0.00% OACTIVE CONTA MCLG 0.00	Total No. of Positive Se MINANTS MCL 5.00	o 0	No	Naturally present in the environment
2014 2014 2014	0.00%	Contaminant Level 5.00% Highest Level Detected 1.0	Highest No. of Positive 2.63% RADI Range of Levels Detected 1.00 - 1.00	Fecal Coliform or E. Coli Maximum Contaminant Level 0.00% OACTIVE CONTA MCLG	Total No. of Positive Se MINANTS MCL 5.00	0 Unit of Measure	No Violation No	Naturally present in the environment Source of Contaminant Erosion of natural deposits.
2014 2014 2014 2011	0.00% Contaminant Combined Radium 226/228	Contaminant Level 5.00% Highest Level Detected 1.0 Limit (Treatment Technique)	Highest No. of Positive 2.63% RADI Range of Levels Detected 1.00 - 1.00 Level Detected	Fecal Coliform or E. Coli Maximum Contaminant Level 0.00% OACTIVE CONTA MCLG 0.00	Total No. of Positive Se MINANTS MCL 5.00	Unit of Measure pCi/L Unit of Measure	No Violation No Violation	Naturally present in the environment Source of Contaminant Erosion of natural deposits. Source of Contaminant
2014 2014 2014	0.00% Contaminant Combined Radium 226/228 Highest single measurement	Contaminant Level 5.00% Highest Level Detected 1.0 Limit (Treatment Technicuse) 1 NTU	Highest No. of Positive 2.63% RADI Range of Levels Detected 1.00 - 1.00 Level Detected .34 NTU	Fecal Coliform or E. Coli Maximum Contaminant Level 0.00% OACTIVE CONTA MCLG 0.00	Total No. of Positive Se MINANTS MCL 5.00	Unit of Measure pCi/L Unit of Measure pXIII	Violation No Violation No	Naturally present in the environment Source of Contaminant Erosion of natural deposits. Source of Contaminant Soil runoff.
014 014 014 011 011	0.00% Contaminant Combined Radium 226/228	Contaminant Level 5.00% Highest Level Detected 1.0 Limit (Treatment Technique)	Highest No. of Positive 2.63% RADI Range of Levels Detected 1.00 - 1.00 Level Detected	Fecal Coliform or E. Coli Maximum Contaminant Level 0.00% OACTIVE CONTA MCLG 0.00	Total No. of Positive Se MINANTS MCL 5.00	Unit of Measure pCi/L Unit of Measure	No Violation No Violation	Naturally present in the environment Source of Contaminant Erosion of natural deposits. Source of Contaminant
014 014 014 014	0.00% Contaminant Combined Radium 226/228 Highest single measurement	Contaminant Level 5.00% Highest Level Detected 1.0 Limit (Treatment Technicuse) 1 NTU	RADI Range of Levels Detected 1.00 - 1.00 Level Detected 34 NTU 100%	Fecal Coliform or E. Coli Maximum Contaminant Level 0.00% OACTIVE CONTA MCLG 0.00	Total No. of Positive Se	Unit of Measure pCi/L Unit of Measure pXIII	Violation No Violation No	Naturally present in the environment Source of Contaminant Erosion of natural deposits. Source of Contaminant Soil runoff.
014 014 014 011 011	0.00% Contaminant Combined Radium 226/228 Highest single measurement Lowest monthly % meeting limit	Contaminant Level 5.00% Highest Level Detected 1.0 Limit (Treatment Technicus) 1 NTU 0.3 NTU Average Level	Highest No. of Positive 2.63% RADI Range of Levels Detected 1.00 - 1.00 Level Detected .34 NTU 100% TOT: Minimum Level	Fecal Coliform or E. Coli Maximum Contaminant Level 0.00% OACTIVE CONTA MCLG 0.00 TURBIDITY (5	Total No. of Positive Se	Unit of Measure pCi/L Unit of Measure pXIII	No Violation No Violation No No No Unit of Measure	Naturally present in the enviroment Source of Contaminant Erosion of natural deposits. Source of Contaminant Soil runoff. Soil runoff.
014 014 014 014 014	0.00% Contaminant Combined Radium 226/228 Highest single measurement Lowest monthly % meeting limit	Contaminant Level 5.00% Highest Level Detected 1.0 Limit (Treatment Technique) 1 NTU 0.3 NTU	RADI Range of Levels Detected 1.00 - 1.00 Level Detected 3.34 NTU 100%	Fecal Coliform or E. Coli Maximum Contaminant Level 0.00% OACTIVE CONTAL MCLG 0.00 TURBIDITY (5	Total No. of Positive Se	Unit of Measure pCi/L Unit of Measure pXIII	Violation No Violation No No	Naturally present in the environment Source of Contaminant Erosion of natural deposits. Source of Contaminant Soil runoff. Soil runoff.

⁽¹⁾ The MCL for beta particles is 4 mrem/year. EPA considers 50 pCi/L to be the level of concern for beta particles. (2) 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 are responsible for providing high quality drinking water, but 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, test methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotine or a thirty.//www.epa.gov/safewater/lead. (3) Many constituents (such as calcium, sodium, or iron), which are often found in drinking water, can cause state, color, and odor problems. The tast ean door constituents are calcium sodium, or iron), which are often found in drinking water, can cause state, color, and odor problems. The tast ean door constituents are calcium, sodium, or iron), which are often found in drinking water, can cause state, color, and odor problems. The tast ean door constituents are calcium, sodium, or iron), which are often found in drinking water, can cause step are cashly detected in water samples and they are found in the dispatch and the sample and they are samples and they are found in the dispatch and the sample and the sa



Water 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 may be obtained by calling the Environmental Protection Agency's Safe Drinking Water Hotline 1 (800) 426-4791.

Contaminants that may be present in source water include:

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

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 which must provide the same protection for public health.

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 817-477-2248.



Health Information for Special Populations

You may be more vulnerable than the general population to certain microbial contaminants, such as Cryptosporidium, in drinking water. Among those who could be at risk from infections: infants, some elderly or Immuno-compromised 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. You should seek advice about drinking water from your physician or health care provider. Additional guidelines on appropriate means to lessen risk of infection by Cryptosporidium are available from the Safe Drinking Water Hotline (800-426-4791).

Water Quality FAQ

What causes taste and odor in my drinking water?

Hot South Texas summer weather results in a rapid algae growth in our surface water reservoirs. As the algae decay, they release taste and odor compounds. The Mansfield Water Treatment Plant replaced the anthracite coal filter media with GAC (Granulated Activated Carbon) in the plant expansion of 1999. As a result, the tastes and odor nuisance was greatly reduced. However, there are times of the year when the algae growths can exceed the GAC's ability to remove the tastes and odors completely. In as much as the problem of taste and odor may be apparent in the water, the water is safe to drink.

Is my water safer with water purification devices?

Water from the City of Mansfield is safe to drink. We recognize it is your personal choice to purchase water purification devices. They have been known to cause problems in the quality of drinking water due to the lack of proper filtration replacement. These devices are not tested or regulated by the state or federal government.

Do we have hard water?

Hard water is defined by the amount of calcium and magnesium present in the water. Hard water has a relatively high level as compared to soft water which has a low level. Actually our water is not classified as hard or soft. It is medium (hard) and normally has a between 90 to 120 mg/l, or in other terms about 5 to 7 grains of hardness.

Why does my water seem cloudy?

Water that is cloudy is often the result of air in the water. To verify the cloudy water is caused by air, fill a clear glass with water from your faucet. Watch the glass closely. If the glass gets clear from the bottom to the top after a few minute then there is air in the water. While the quality of water is not affected by presence of air, it could be indicative of a problem in the distribution system. Excessive air in your water should be reported to the Water Utility Department by calling (817) 473-8411 or (817) 477-2248.

What is causing the staining of my plumbing fixtures?

Iron and manganese can cause a brownish orange staining on plumbing fixtures. The level of iron and manganese in our raw water is enough to cause staining problems. Since December 2003 Mansfield has been using Chlorine Dioxide to reduce iron and manganese.

Definitions and Abbreviations

Avg – Regulatory compliance with some MCLs are based on running annual average of monthly samples.

MCL - Maximum Contaminant Level

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

MCLG - Maximum Contaminant Level Goal

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

MFL – Million fibers per liter

A measure of asbestos.

MRDL - Maximum Residual Disinfectant Level

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

MRDLG - Maximum Residual Disinfectant Level Goal

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

NA - Not Applicable

NTU – Nephelometric Turbidity Units This is used to measure water turbidity (clarity).

ALG – Action Level Goal

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

AL – Action Level

The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

pCi/L - Picocuries Per Liter

This is a measure of radioactivity in water.

ppb – Parts Per Billion

Equivalent to one microgram per liter- or one ounce in 7,350,000 gallons of water.

ppm – Parts Per Million Equivalent to one milligram per liter- or one ounce in 7,350 gallons of water.

ppq – Parts Per Quadrillion Picograms per liter (pg/L).

ppt - Parts Per Trillion
Nanograms per liter (ng/L).