



## Annual Drinking Water Quality Report

TX0570085

CITY OF GLENN HEIGHTS

Annual Water Quality Report for the period of 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.

For more information regarding this report contact:

Name Larry Pennington

Phone \_972-274-5100

CITY OF GLENN HEIGHTS is Purchased Surface Water

Este reporte incluye información importante sobre el agua para tomar. Para asistencia en español, favor de llamar al telefono (800)426-4791.

### Sources of Drinking Water

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.

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 at (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 residential uses.
- 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 the system's business office. 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; persons 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 providers. Additional guidelines on appropriate means to lessen the risk of infection by Cryptosporidium are available from the Safe Drinking Water Hotline (800-426-4791).

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, 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>.

### Information about Source Water Assessments

The TCEQ completed an assessment of your source water and results indicate that some of your sources are susceptible to certain contaminants. The sampling requirements for your water system are based on this susceptibility and previous sample data. Any detection of these contaminants may be found in this Consumer Confidence Report. Our drinking water is obtained from Surface and Ground water sources. It comes from the following Lake/River/Reservoir/Aquifer: WOODBINE

For more information on source water assessments and protection efforts at our system, contact Larry Pennington (972) 274-5100 ext 104

The information contained in the assessment allows us to focus source water protection strategies. <http://dww.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/>

Source Water Name	Type of Water	Report Status	Location
3 - 550 BEAR CREEK	GW	Y	550 BEAR CREEK
7 - 4000 BEAR CREEK	GW	Y	4000 BEAR CREEK
SW FROM CITY OF DALLAS	SW	Y	CC FROM TX0570004 DALLAS

### Disinfectant Residual Table

#### Glenn Heights Utilities

Disinfectant	Year	Average Level	Minimum Level	Maximum Level	MRDL	MRDLG	Unit of Measure	Violation (Y/N)	Likely source of Contamination
Free Chlorine Residual	2014	1.61	0.2	2.2	4	4	ppm	N	Water additive used to control microbes.

Total coliform bacteria are used as indicators of microbial contamination of drinking water because testing for them is easy. While not disease-causing organisms themselves, they are often found in association with other microbes that are capable 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.

<b>Total Coliforms</b>		Highest Monthly	% of	Positive Samples		Unit of Measure	
Total Coliforms Bacteria	2014		0.00%		0 % or more of	Found/Not Found	Naturally present in the environment

**Glenn Heights Utilities  
Water Quality Test Results**

- Definitions: The following tables contain scientific terms and measures, some of which may require explanation.
- Avg: Regulatory compliance with some MCLs are based on running annual average of monthly samples.
- 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 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.
- 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.
- MFL: million fibers per liter (a measure of asbestos)
- na: not applicable.
- NTU: nephelometric turbidity units (a measure of turbidity)
- pCi/L: picocuries per liter (a measure of radioactivity)

**Water Quality Test Results**

- ppb: micrograms per liter or parts per billion - or one ounce in 7,350,000 gallons of water.
- ppm: milligrams per liter or parts per million - or one ounce in 7,350 gallons of water.
- ppt: parts per trillion, or nanograms per liter (ng/L)
- ppq: parts per quadrillion, or picograms per liter (pg/L)

**2014 Regulated Contaminants Detected**

**Lead and Copper**

Lead and Copper	Date Sampled	MCLG	Action Level (AL)	90th Percentile	# Sites Over AL	Units	Violation	Likely Source of Contamination
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<b>Copper</b>	08/13/2013	1.3	1.3	0.234	0	ppm	N	Erosion of natural deposits; Leaching from wood preservatives; Corrosion of household plumbing systems.
<b>Lead</b>	08/13/2013	0	15	1.03	0	ppb	N	Corrosion of household plumbing systems; Erosion of natural deposits.

Definitions:

Action Level Goal (ALG): The level of a contaminant in drinking water below which there is no known or expected risk to health. ALGs allow for a margin of safety.

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

### Glenn Heights Utilities

#### Regulated Contaminants for Glenn Heights Utilities

<b>Disinfectants and Disinfection By-Products</b>	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
<b>Haloacetic Acids (HAA5)*</b>	2014	10	1.5 - 15.9	No goal for the total	60	ppb	N	By-product of drinking water disinfection.
<b>Total Trihalomethanes (TTHM)</b>	2014	19	14.2 - 29	No goal for the total	80	ppb	N	By-product of drinking water disinfection.
<b>Inorganic Contaminants</b>	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
<b>Arsenic</b>	09/07/2011	0.607	0.607 - 0.607	0	10	ppb	N	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes.
<b>Barium</b>	09/07/2011	0.0044	0.0044 - 0.0044	2	2	ppm	N	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.
<b>Chromium</b>	09/07/2011	8.82	8.82 - 8.82	100	100	ppb	N	Discharge from steel and pulp mills; Erosion of natural deposits.
<b>Fluoride</b>	2014	1.38	1.38 - 1.38	4	4.0	ppm	N	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories.
<b>Nitrate [measured as Nitrogen]</b>	2014	0.336	0.127 - 0.336	10	10	ppm	N	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.
<b>Nitrite [measured as Nitrogen]</b>	2014	0.0195	0.0195 - 0.0195	1	1	ppm	N	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.
<b>Selenium</b>	09/07/2011	3.55	3.55 - 3.55	50	50	ppb	N	Discharge from petroleum and metal refineries; Erosion of natural deposits; Discharge from mines.
<b>Radioactive Contaminants</b>	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
<b>Combined Radium 226/228</b>	09/07/2011	1	1 - 1	0	5	pCi/L	N	Erosion of natural deposits.

# Water Quality Data Report 2014

This is a summary of water quality data for Dallas Water Utilities. The list includes parameters which DWU currently tests for, in accordance with Federal and State Water Quality Regulations. The frequency of testing varies; depending on the parameters and are in compliance with established standards. Dallas Water Utilities is a "Superior" Rated Water System by Texas Commission on Environmental Quality. All three water plants are optimized and certified by meeting the Texas Optimization Program and Partnership for Safe Drinking Water criteria. Dallas water exceeds Federal and State water quality.

## Dallas Water Utilities

CONTAMINANT	YEAR OF RANGE	LEVEL			MCL	MCLG	Unite of Measure	Source of Contaminants
		Average	Minimum	Maximum				
<b>inorganic Contaminants</b>								
Fluoride	2014	0.51	0.4	0.64	4	4	ppm	Erosion of natural deposits, water additive which promotes strong teeth
Nitrate (as N)	2014	0.89	0.42	1.62	10	10	ppm	Run-off from fertilizer use, leaching from septic tanks, sewage, erosion of natural deposits
Cyanide	2014	0.087	0.0503	0.153	0.2	0.02	ppm	Discharge from steel/metal factories; discharge from plastic and fertilizer factories
Bromate	2014	<1.0	<0.003	<1.0	10	0	ppb	By-product of drinking water disinfection
Arsenic	2014	1.2	0.98	1.51	10	0	ppb	Erosion of natural deposits; run-off from orchards; run-off from glass and electronics production wastes
Barium	2014	27	16	39.9	2000	2000	ppb	Discharge of drilling waste, discharge from metal refineries, erosion of natural deposits
Chromium (Total)	2014	2.587	1.6	3.76	100	100	ppb	Discharge from steel and pulp mills; Erosion of natural deposits
Selenium	2014	2.77	2	3.81	50	50	ppb	Discharge from petroleum and metal refineries; erosion of natural deposits; discharge from mines

## Dallas Water Utilities

<b>Radioactive Contaminants</b>								
Combined Radium (226 & 228)	2011	1	1	1	5	0	pCi/L****	Erosion of natural deposits
Gross beta particle activity	2011	5.3	4	7.2	50	0	pCi/L****	Decay of natural or man-made deposits

## Dallas Water Utilities

<b>Organic Contaminants</b>								
Atrazine	2014	0.14	<0.08	0.25	3	3	ppb	Runoff from herbicide on row crops
Simazine	2014	0.16	0.08	0.24	4	4	ppb	Herbicide runoff
Di(2-Ethylhexyl)phthalate	2014	0.17	<0.5	0.5	6	0	ppb	Discharge from rubber and chemical factories

## Dallas Water Utilities

<b>Disinfection By Products</b>								
Total Haloacetic	2014	0.14	11.5	<1.0	23.8	60	N/A	Byproduct of drinking water disinfection
Total Trihalomethanes	2014	0.16	15.1	3.5	35	80	N/A	Byproduct of drinking water disinfection

Dallas Water  
Utilities

<b>Total Organic Carbon</b>					Treated	Water Alkalinity		
Total Organic Carbon	2014	4.42	3.65	4.96	<60mg/L	as CaCO3	ppm	Naturally present in environment

Dallas Water  
Utilities

<b>Disinfectant</b>			Minimum	Maximum	MRDL	MRDLG	Unit of Measure	
Total Chlorine Residual	2014	4.04	2.73	5.12	4*	4*	ppm	Naturally present in environment

Dallas Water  
Utilities

<b>Lead and Copper</b>		90th Percentile**		# of sites exceeding action level	Action Level	Unit of Measure	
Lead	2012	0.00135		0	0.015	ppm	Corrosion of household plumbing systems; erosion of natural deposits
Copper	2012	0.64		0	1.3	ppm	Corrosion of household plumbing systems; erosion of natural deposits

Dallas Water  
Utilities

<b>Turbidity</b>		Highest Single Measurement	Lowest Samples	Monthly % of Meeting Limits	Turbidity limits	Unit of Measure	
Turbidity	2013	0.17		100%	0.3	NTU	Corrosion of household plumbing systems; erosion of natural deposits

Dallas Water  
Utilities

<b>Total Coliforms</b>		Highest Monthly	% of	Positive Samples		Unit of Measure		
Total Coliforms Bacteria	2014		4.70%		5 % or more of	monthly samples	Found/Not Found	Naturally present in the environment

## 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 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 call the Safe Drinking Water Hotline at (800) 426-4791.

Dallas Water Utilities

CONTAMINANT	Year of	Level			MCL	MCLG	Unite of Measure	Source of Contaminants
	Range	Average	Minimum	Maximum				
Chloroform	2014	3.3	3.22	3.38	N/A	70	ppb	Byproduct of drinking water disinfection.
Bromodichloromethane	2014	2.91	2.37	3.59	N/A	0	ppb	Byproduct of drinking water disinfection.
Dibromochloromethane	2014	1.85	1.63	2.24	N/A	60	ppb	Byproduct of drinking water disinfection.
Bromoform	2014	0.35	<1.00	0.35	N/A	0	ppb	Byproduct of drinking water disinfection.
Chloromethane	2014	0.5	<0.500	0.77	N/A	N/A	ppb	Used as foaming agent, in production of other substances, byproduct of water disinfection.

### Unregulated Contaminants

#### Monitoring Rule 3 (UCMR 3)

The UCMR program was developed in coordination with the Contaminant Candidate List (CCL). The CCL is a list of contaminants that are not regulated by the National Primary Drinking Water Regulations, are known or anticipated to occur at public water systems and may warrant regulation under the Safe Drinking Water Act. Data collected through UCMR are stored in the National Contaminant Occurrence Database (NCOD) to support analysis and review of contaminant occurrence, to guide the CCL selection process and to support the Administrator's determination of whether to regulate a contaminant in the interest of public health. For additional information visit <http://www.epa.gov/lawregs/rulesregs/sdwa/ucmr3/index.cfm>.

Dallas Water Utilities

CONTAMINANT	Year of	Level			MCL	MCLG	Unite of Measure	Source of Contaminants
	Range	Average	Minimum	Maximum				
Chloroform	2014	3.3	3.22	3.38	N/A	70	ppb	Byproduct of drinking water disinfection.
Bromodichloromethane	2014	2.91	2.37	3.59	N/A	0	ppb	Byproduct of drinking water disinfection.
Dibromochloromethane	2014	1.85	1.63	2.24	N/A	60	ppb	Byproduct of drinking water disinfection.
Bromoform	2014	0.35	<1.00	0.35	N/A	0	ppb	Byproduct of drinking water disinfection.
Chloromethane	2014	0.5	<0.500	0.77	N/A	N/A	ppb	Used as foaming agent, in production of other substances, byproduct of water disinfection.

**Public Participation Opportunities**

**Date:** First & Third Tues  
**Time:** 7:30 P.M.  
**Location:** City Hall Council Meeting  
**Phone Number:** 972-274-5100

**To learn about future public meetings (concerning your drinking water), or to request to schedule one, please call us**

**Water Department Note:**

During hot, summer months, we are asking water customers to conserve water. Water your lawns between the hours of 10 P.M. and 6 A.M. Voluntarily restrict your watering to certain times of the day. This could be subject to change.

Thank you,

City of Glenn Heights

Water Department

