

**City of Dalworthington Gardens** 

# 2018 Annual Drinking Water Quality Report

(Consumer Confidence Report)

# **City of Dalworthington Gardens** Water Department

817.274.7368 817.275.1234 after hours Administrative Office: City of Dalworthington Gardens City Hall 2600 Roosevelt Dr.

The Water Department is part of the City of Dalworthington Gardens city government. The City Council meets the third Thursday of each month. The meetings are at 7p.m. Check the website online to make sure a meeting is not cancelled or rescheduled.

# Frequently asked questions about this report

# Why am I receiving this report?

In 1996, Congress amended the Safe Drinking Water Act to include a requirement that water utilities annually notify customers about their drinking water quality.

The law is quite specific regarding what information must be included.

This report is intended to provide you with important information about you drinking water and the efforts made by the water system to provide safe drinking water.

For more information regarding this report contact Sherry Roberts, City Administrator at 817.274.7368.

Este reporte incluye inforación importante sobre el agua para tomar. Para asistencia en español, favor de llamar al telefono 817.274.7368.

# **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 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 contaminates. 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 EPAs 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 system. 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.

## How is this report distributed?

The direct web address of the CCR Report will be listed on the monthly bill mailed to all utility accounts, posted on the city website: <u>www.cityofdwg.net</u>, and posted in the lobby of City Hall at 2600 Roosevelt Dr. The lobby area is open to the public 24 hours a day, 365 days a year.

# Information for immunocompromised people

The following information is not meant to alarm or scare you. It is meant to make you aware. The exact wording shown below is required by state regulations.

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 Environmental Protection Agency's Safe Drinking Water Hotline at 1-800-426-4791.

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.

# **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 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. For more information on source water assessments and protection efforts at our system, contact Sherry Roberts, City Administrator at 817.274.7368.

For more information about your sources of water, please refer to the Source Water Assessment Viewer available at the following URL: <u>http://www.tceq.texas.gov/gis/swaview</u>.

Further details about sources and source water assessments are available in Drinking Water Watch at the following URL: <u>http://dww.tceq.texas.gov/DWW/</u>.

# Where do we get our drinking water?

Dalworthington Gardens' drinking water during 2087 consisted of 100% surface water. City of Dalworthington Gardens purchases treated **surface** water from the City of Fort Worth and the City of Arlington. The Fort Worth main comes into the Dalworthington Gardens pump station located at 3214 Arkansas Lane. The Arlington main comes into the Dalworthington Gardens system at the intersection of Pleasant Ridge and Kay Lynn Drive.

The City of Fort Worth Drinking Water Quality Report is included in this report. An electronic copy is available on the City of Fort Worth website:

http://fortworthtexas.gov/tapwater/

The City of Arlington Drinking Water Quality Report is included in this report. An electronic copy is available on the City of Arlington website:

https://view.joomag.com/consumer-confidence-report-water-quality-report-2018/0049933001556660717?short

# Water quality test results

**Definitions/Abbreviations** – 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

**Level 1 Assessment:** A Level 1 assessment is a study of the water system to identify potential problems and determine (if possible) why total coliform bacteria have been found in our water system.

**Level 2 Assessment:** A Level 2 assessment is a very detailed study of the water system to identify potential problems and determine (if possible) why an E. coli MCL violation has occurred and/or why total coliform bacteria have been found in our water system on multiple occasions.

**MCL – Maximum Contaminant Level:** 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.

**MCLG – Maximum Contaminant Level Goal:** 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.

**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 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. 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.

mrem: millirems per year (a measure of radiation absorbed by the body).

NTU: Nephelometric turbidity units (a measure of turbidity).

pCi/L: Picocuries per liter (a measure of radioactivity).

**ppb:** Micrograms per liter or parts per billion – or one once 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 pictograms per liter (pg/L).

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

#### City of Dalworthington Gardens Regulated Contaminants Detected

#### Inoganic Contaminants

		Highest							
		Level	Minimum	Maximum			Unit of		
Collection Date	Contaminants	Detected	Level	Level	MCL	MCLG	Measure	Violation	Source of Contaminant
3/10/2014	Fluoride	1.75	1.75	1.75	4	4	ppm	N	Erosion of natural deposits; Water additive which
									promotes strong teeth; Discharge from fertilizer
									and aluminum factories.
1/12/2016	Barium	0.016	0.016	0.016	2	2	ppm	N	Discharge of drilling wastes; Discharge from metal
									refineries; Erosion of natural deposits.
1/12/2016	Chromium	2	2	2	100	100	ppb	N	Discharge from steel and pulp mills; Erosion of
									natural deposits.
3/10/2014	Cyanide	46.4	46.4	46.4	200	200	ppb	N	Discharge from plastic and fertilizer factories;
									Discharge from steel/metal factories.
2018	Nitrate	1	0.412	1.17	10	10	ppm	N	Runoff from fertilizer use; Leaching from septic
	Measured as Nitrogen								tanks, sewage; Erosion of natural deposits.
7/18/2017	Nitrite	0.269	0.269	0.269	1	1	ppm	N	Runoff from fertilizer use; Leaching from septic
	Measured as Nitrogen								tanks, sewage; Erosion of natural deposits.
1/12/2016	Selenium	1.2	1.2	1.2	50	50	ppb	N	Discharge from petroleum and metal refineries;
									Erosion of natural deposits; Discharge from mines.

#### **Disinfection Byproducts**

		Highest Level	Minimum	Maximum			Unit of		
Year	Contaminants	Detected	Level	Level	MCL	MCLG	Measure	Violation	Source of Contaminant
2018	Haloacetic Acids	7	5.2	9.3	60	No goal for the	ppb	N	By-product of drinking water disinfection.
	(HAA5)					total			
* The value in the	e Highest Level or Average Detected colun	nn is the highe	st average of	all HAA5 sam	ple res	ults collecte	ed at a locat	ion over a	year
2018	Trihalomethanes (TTHM)	9	6.13	11.1	80	No goal for the total	ppb	N	By-product of drinking water disinfection.

\* The value in the Highest Level or Average Detected column is the highest average of all TTHM sample results collected at a location over a year

#### **Radioactive Contaminants**

		Highest Level	Minimum	Maximum			Unit of		
Year	Contaminants	Detected	Level	Level	MCL	MCLG	Measure	Violation	Source of Contaminant
1/29/2015	Beta/photon emitters	4.7	4.7	4.7	50	0	pCi/L*	N	Decay of natural and man-made deposits
* EPA considers 50	pCi/L to be the level of concern for beta partic	les							
1/29/2015	Combined Radium 226/228	1.5	1.5	1.5	5	0	pCi/L	N	Erosion on natural deposits

#### Lead and Copper

			Number of					
		The 90th	Sites	Action	MCLG	Unit of		
Date Sampled	Contaminants	Percentile	Over All	Level		Measure	Violation	Source of Contaminant
8/31/2017	Lead	2.1	0	15	0	ppb	N	Corosion of household plumbing systems;
								Erosion of natural deposits.
8/31/2017	Copper	0.289	0	1.3	1.3	ppm	N	Erosion of natural deposits; Leaching from wood
								preservatives; Corrosion of household plumbing systems.

#### **Disinfectant Residual**

		Average	Minimum	Maximum			Unit of		
Year	Contaminants	Level	Level	Level	MRDL	MRDLG	Measure	Violation	Source of Contaminant
2018	Chloramines & Free Chlorine	2.1	1.2	3.6	4	4	mg/L	N	Water additive used to control microbes

Chlorine	Some peop irritating ef excess of th	le who use w fects to their ne MRDL cou	vater containing chlorine well in excess of the MRDL could experience eyes and nose. Some people who drink water containing chlorine well in Id experience stomach discomfort.
Violation Type	Violation	Violation	Violation Explanation
	Begin	End	
Disinfectant Level Quarterly Operating Report (DLQOR)	10/1/2018	12/31/2018	We failled to test our drinking water for the contaminant and period indicated. Because of this failure, we cannot be sure of the quality of our drinking water during the priod indicated. <b>DISCLAIMER:</b> The testing and DLQOR report for the 4th Quarter was completed by the City but failed to be mailed to the TCEQ.

# Water Quality Report



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Westside Water Treatment Plant treats 15 million gallons per day. Photo: Water archive

# **Compromised immune systems may be more vulnerable**

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.

Cover photo by Nikki Dacy



# **Message From Director**

ur top priority is providing a safe, reliable and affordable supply of drinking water to our growing customer base, which includes both retail and wholesale customers.

This 2018 annual Water Quality Report provides a year-end summary of our drinking water, monitoring and testing data, along with details about where Fort Worth water comes from, the water treatment process, and how it is distributed to customers.

We are proud of the drinking water we provide, which is a result of the investment in advanced treatment processes at our water plants coupled with the knowledge and dedication of our water utility employees. The 2018 report once again shows full compliance with drinking water standards.

The vast majority of our employees (including myself) are also customers—meaning that we utilize the tap water daily for drinking, cooking, brushing teeth and washing clothes—just like you do. We have a personal stake in providing the best quality water at an affordable price.

We understand the trust the public places in us to provide safe drinking water, and therefore, would recommend reviewing this annual report. The requirements for providing you this information do not always make the information easy to read or understand, so please feel free to contact us at 817-392-4477 or wpe@FortWorthTexas.gov if you have questions.

With kind regards,

Had

Chris Harder, Director Fort Worth Water



The Trinity River flows through Fort Worth and continues all the way to the Trinity Bay outside of Houston, TX. Photo: Water archive

# Where does my water come from?

upplying water to the nation's 15th largest city is no easy feat and the challenges going forward as Fort Worth continues to grow will become even greater as demand for water increases. Sure, we see water in many places, such as the lakes, rivers and streams that dot the Texas landscape and think our water supply is plentiful. That's not the case. Water is a precious commodity and it takes so much more to get clean, quality water to your kitchen faucet than just pumping it from those sources.

Currently, Fort Worth's water supply comes from Lake Worth, Lake Bridgeport, Eagle Mountain Lake, Benbrook Lake, Richland Chambers Reservoir, Cedar Creek Reservoir and the Clear Fork of the Trinity River. Fort Worth owns Lake Worth and Benbrook Lake is the responsibility of the U.S. Army Corps of Engineers. The Tarrant Regional Water District owns the four remaining lakes as well as the water rights to them.

# **Rainfall and lake levels**

Lakes around Fort Worth fill slower than lakes in East Texas. Locally, the average annual rainfall totals about 34 inches compared to 40 inches a year south of Dallas where Richland Chambers and Cedar Creek reservoirs are located.

TRWD constructed Cedar Creek Lake in the 1960s, and in 1972, The Rolling Hills plant began treating drinking water. In 2018, the city bought 71,026,944,466 gallons of raw water from TRWD, of which 18,899,060,764 gallons came from these two reservoirs.

Fort Worth can treat 500 million gallons of drinking water a day. The utility provides water to more than 1.2 million people in Fort Worth and surrounding areas, which include 30 water wholesale customers, 23 wastewater wholesale customers and three reclaimed water wholesale customers.

# **TRWD** monitors raw water

While Fort Worth, the USACE and TRWD own the lakes, the TRWD is in charge of monitoring the quality of the raw water in all of them. Every month, staff tests the water for Cryptosporidium, Giardia Lamblia and viruses. The source of these parasites and viruses is human and animal fecal waste found in the watersheds.

TRWD's 2018 testing showed low levels of Cryptosporidium, Giardia Lamblia and viruses in some of the water supply. The disinfection process in water treatment removes viruses from the water. Cryptosporidium and Giardia Lamblia are removed through the disinfection and/or filtration process.



# **TCEQ** assesses raw water supply

The Texas Commission on Environmental Quality annually completes an assessment of Fort Worth's source water. TCEQ classified Fort Worth as "potentially high" in 2018.

A high susceptibility means there are activities near the source water or watershed that make it very likely that chemical components may come in to contact with the source water. It does not mean that there are any health risks present.

TCEQ's Drinking Water Watch database provides more details about the assessments at https://dww2.tceq.texas.gov/DWW/.

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# **Potential raw water impurities**

# Secondary Constituents

These items do not relate to public health but rather to the aesthetic effects. These items are often important to industry.

Compound	Measure	Your water
Bicarbonate	ppm	108 to 144
Calcium	ppm	42.0 to 52.1
Chloride	ppm	11.8 to 40
Conductivity	µmhos/cm	302 to 471
рН	units	8.6 to 8.7
Magnesium	ppm	3.20 to 8.64
Sodium	ppm	14.8 to 30.3
Sulfate	ppm	26.3 to 36.5
Total Alkalinity as CaCO <sub>3</sub>	ppm	98.2 to 136
Total Dissolved Solids	ppm	156 to 251
Total Hardness as CaCO <sub>3</sub>	ppm	118 to 162
Total Hardness in Grains	grains/gallon	7 to 9

- 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 stormwater 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.

# **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.

Compound	Measure	MRDL	MRDLG	Your Water	Range of Detects	Common Sources of Substance
Chloral Hydrate	ppb	Not regulated	N/A	0.34	0.12 to 0.34	By-product of drinking water disinfection
Bromoform	ppb	Not regulated	0	5.15	0 to 5.15	
Bromodichloromethane	ppb	Not regulated	0	7.08	1.99 to 7.08	By-products of drinking water disinfection; not regulated
Chloroform	ppb	Not regulated	70	8.40	2.43 to 8.40	individually; included in Total Trihalomethanes
Dibromochloromethane	ppb	Not regulated	60	6.94	1.31 to 6.94	
Dibromoacetic Acid	ppb	Not regulated	N/A	4.3	1 to 4.3	
Dichloroacetic Acid	ppb	Not regulated	0	8.5	3.9 to 8.5	
Monobromoacetic Acid	ppb	Not regulated	N/A	2.3	0 to 2.3	By-products of drinking water disinfection; not regulated individually: included in Haloacetic Acids
Monochloroacetic Acid	ppb	Not regulated	70	3.9	1.5 to 3.9	
Trichloroacetic Acid	ppb	Not regulated	20	2.2	0 to 2.2	

		5		0	55	5		
Compound Meas	nre		MCL		WCLG	Your water	Violation	Common Sources of Substance
Turbidity NT	Ë	= Lowest ple	TT=1 t monthly s ≤ 0.3 NT	% of sam- .U	N/A	0.5 99.9%	No	Soil runoff (Turbidity is a measure of the cloudiness of water. It is monitored because it is a good indicator of the effectiveness of the filtration system.)
Compound		MCL		WCLG Yo	ur water	Range	Violation	Common Sources of Substance
Total Coliforms (including fecal coliform & E. coli)		F		0	1.1	0 to 1.1	No No	liforms are naturally present in the environment as well as feces; fecal coliforms d E. coli only come from human and animal fecal waste.
Compound	Measure	MCL	WCLG	Your Water	Range	Violation		Common Sources of Substance
Beta/photon emitters <sup>1</sup>	pCi/L	50	0	5.6	4.4 to 5.6	No	Decay of na	atural and man-made deposits
Combined Radium <sup>1</sup>	pCi/L	ம	0	2.5	NA	٥N	Erosion of r	natural deposits
Uranium <sup>1</sup>	qdd	30	0	1.1	0 to 1.1	No	Erosion of r	natural deposits
Arsenic	qdd	0	0	1.1	0 to 1.1	N	Erosion of r production	natural deposits; runoff from orchards; runoff from glass and electronics wastes
Atrazine	qdd	m	m	0.1	0.0 to 0.1	No	Runoff from	n herbicide used on row crops
Barium	mdd	2	2	0.07	0.05 to 0.0	7 No	Discharge o	of drilling wastes; discharge from metal refineries; erosion of natural deposits
Cyanide	qdd	200	200	84.3	0 to 84.3	No	Discharge f	rom plastic and fertilizer factories; discharge from steel and metal factories
Fluoride	mqq	4	4	0.61	0.17 to 0.6	1 No	Water addil fertilizer ar	tive which promotes strong teeth; erosion of natural deposits; discharge from nd aluminum factories
Nitrate (as Nitrogen)	mdd	10	10	0.67	0.17 to 0.6	7 No	Runoff from	n fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Nitrite (as Nitrogen)	mdd	-	-	0.02	0 to 0.02	No	Runoff from	n fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Bromate	qdd	10	0	2.6	0-10.7	No	By-product	of drinking water disinfection
Haloacetic Acids	qdd	60	N/A	12.1	1.60 to 14.	ON (	By-product	of drinking water disinfection
Total Trihalomethanes	qdd	80	N/A	17.1	0 to 20.1	No	By-product	of drinking water disinfection
Compound	Measur	Q	MRDL	MRDLG	Your water	Range	Violation	Common Sources of Substance
Chloramines	mdd		4	4	3.26	1.02-4.27	Q	Water additive used to control microbes
Compound	MCL		MCLG	High	Low	Average	Violation	Common Sources of Substance
Total Organic Carbon	TT = % rem	oval	N/A	-	£	£	No	Naturally occurring
It is used to determine di removal ratio of 1 in SU'	sinfection b <b>/A calculati</b>	y-produc ons is ca	ct precursc msidered	ors. Fort Worth passing.	i was in compli	ance with all mo	itoring and tre	eatment technique requirements for disinfection by-product precursors. A

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õ this \_ <u>§</u> Fort Worth historically has had monitoring will occur in 2023. cause next | The T

# UCMR 4

Fort Worth's testing detected only four of the 30 compounds included in the fourth round of unregulated contaminant monitoring. The detections were one metal and the three haloacetic acid disinfection byproduct groups. 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.

Compound	Measure	Average	Range of Detects	Common Sources of Substance
Manganese	ppb	0.27	0 to 1.29	Naturally occurring; used in drinking water and wastewater treatment; used in steel production, fertilizer, batteries and fireworks
HAA5	ppb	6.42	2.6 to 18.62	Byproducts of drinking water disinfection
HAA6Br	ppb	4.44	0 to 8.88	Byproducts of drinking water disinfection
НАА9	ppb	9.3	2.6 to 22.98	Byproducts of drinking water disinfection

## Haloacetic Acid Groups

This table includes all of the compounds that comprise each of the haloacetic acid groups. Compounds that are not detected are usually not listed in the charts in this report; however, those undetected are listed below to provide complete information on the compounds that comprise each of the three groups in the table above.

Compound	Measure	Average	Your Water	Range of Detects	HAA5	HAA6Br	HAA9	Common Sources of Compound
Dichloroacetic Acid	ppb	4.62	7.88	2.60 to 7.88	HAA5		HAA9	
Monochloroacetic Acid	ppb	0.24	6.22	0 to 6.22	HAA5		HAA9	
Trichloroacetic Acid	ppb	0	0	0 to 0	HAA5		HAA9	
Monobromoacetic Acid	ppb	0	0	0 to 0	HAA5	HAA6Br	HAA9	
Dibromoacetic acid	ppb	1.56	4.52	0 to 4.52	HAA5	HAA6Br	HAA9	By-products of drinking water disinfection
Bromochloroacetic acid	ppb	2.88	4.36	0 to 4.36		HAA6Br	HAA9	
Bromodichloroacetic acid	ppb	0	0	0 to 0		HAA6Br	HAA9	
Chlorodibromoacetic acid	ppb	0	0	0 to 0		HAA6Br	HAA9	
Tribromoacetic acid	ppb	0	0	0 to 0		HAA6Br	HAA9	

				Lead & C	opper	
Contaminant	Year of testing	Measure	90th percentile	# of sites exceeding action level	Action Level	Common Sources of Substance
Lead	2016	ppb	3.2	0	15	Corrosion of household plumbing systems; erosion of
Copper	2016	ppm	0.6	0	1.3	natural deposits

# **Continued from page 5**

Because drinking water comes from natural sources, it is For more information on taste, odor or the color of your exposed to pollutants and contaminants. Contaminants that may be in source water before treatment include microbes, herbicides, radioactive materials, and inorganic and organic chemicals. The presence of these does not necessarily mean the water poses a health risk, but that they can cause unpleasant odors and tastes.

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. Drinking Water Hotline at (800) 426-4791.

drinking water, please contact the Water Department at 817-392-4477 or email wpe@FortWorthTexas.gov.

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 EPAs Safe

# **Fort Worth targets lead lines**

he Fort Worth Water Department's goal to Fort Worth offers customers with known lead service eliminate all city-owned lead service lines lines a free lab test. If you do not have known lead by 2021 is well underway. For many years, service lines, the cost is \$15 per water sample. Call crews removed lead lines as they were found during 817-392-4477 to make arrangements. routine maintenance activities. The pace on those Information on lead in drinking water, testing methods efforts, though, increased a few years ago when and steps you can take to minimize your exposure is the city began collecting the GPS coordinates of available from the Safe Drinking Water Hotline at www. meters citywide. epa.gov/safewater/lead or by calling 1-800-426-4791.

While crews recorded the meter coordinates, they To meet federal compliance rules, Fort Worth samples also noted the service line material on both sides of 50 homes every three years for lead and copper. the meter. That work was 75 percent completed in Compliance sampling was last performed in 2016 mid-May. So far, crews have recorded about 1,200 and will be performed in 2019. Fort Worth achieves lead service lines on the city side of the meter and corrosion control through pH adjustment. 16 on the customer side. Only one location had lead on both sides of the meter. As of March 2019, Additional info at: www.FortWorthTexas.gov/water/lead approximately 98 percent of the water meters inside Loop 820 have been surveyed.

# **66** As of March 2019, approximately 98 percent of the water meters inside Loop 820 have been surveyed.

Fort Worth understands the importance of eliminating lead service lines. Elevated lead levels have been known to cause serious health problems, especially for pregnant women and young children. Lead in drinking water can come from lead service lines and lead-containing home plumbing components. It's the customer's responsibility when it comes to lead used on their side of the meter.

The utility is committed to doing its part to make sure all city-side lead service lines are removed and that residents are informed about the risks and ways to reduce exposure. Every time a lead service line is identified, staff provides the customer with information about the replacement of lead lines and details on how to minimize the potential for lead exposure. Risks are greatly reduced by simply flushing the tap for 30 seconds to 2 minutes before using water for drinking or cooking, especially after water has been sitting for several hours.

Customers are notified in writing when city-side lead service lines will be replaced as part of a capital improvement project.



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customer side of the service line. Photo: Michael Carrillo

# **Conservation First**

magine if about 760,000 Fort Worth residents decided not to take a bath one day. The effort, while not recommended, would save 38 million gallons of water, or the amount the city's conservation efforts reached in 2018.

On average, each resident used 163 gallons of water a day last year, a decline of 48 gallons a day, from 216 gallons a day recorded in 2006. That's a 22 percent drop.

The savings came from several programs, including one that won a prestigious Environmental Protection Agency award. The city's conservation programs have been in place for more than a decade, all contributing to the decline in the amount of water used by individuals daily.

In 2018, the EPA named Fort Worth and its water utility a WaterSense Partner of the Year for its creativity in promoting water conservation.

The conservation staff collaborated with the agency on a 2017 Fix a Leak Week Hispanic outreach pilot program that involved developing materials in partnership with WaterSense, the EPA sponsored label for water-efficient products and resources.

The materials created here are now used nationwide.

In another program, nearly 3,700 high-efficiency toilets were distributed to Fort Worth residents who were trading in much older, high water use models.

Replacing high water-use toilets represents the bulk of the city's water savings.

Other water savings come from tips and suggestions water conservation staff offer to residents who ask for evaluations on their irrigation systems. The evaluation is free to Fort Worth customers.

Last year, more than 500 evaluations were performed, saving hundreds of thousands of gallons of water. The evaluations include looking for leaks and suggestions for more efficient operations.

In the water loss audit submitted to the Texas Water Development Board for calendar year 2018, the Fort Worth system lost an estimated 7.9 billion gallons of water from the almost 69 billion gallons of water purchased.

Fort Worth's Water Conservation Plan addresses water loss and has goals for lowering this over time. If you have any questions about the water loss audit, please contact Water Conservation Manager Micah Reed at 817-392-8211 or email Micah.Reed@FortWorthTexas.gov.



Keeping an up to date, well-maintained irrigation system will help prevent water waste.

# WaterSense<sup>®</sup> Partner of the Year

# Per capita usage

In 2018 saved

# Table Abbreviations

(Tables located on pages 5-6 & 9)

**Maximum Contaminant Level (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 (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 (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 (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.

N/A: not applicable/does not apply

**Nephelometric Turbidity Unit (NTU)**: a measure of water turbidity or clarity

Picocuries per liter (pCi/L): a measure of radioactivity

**Parts per billion (ppb):** Or represented as micrograms per liter  $(\mu g/L)$ 

**Parts per million (ppm):** Or represented as milligrams per liter (mg/L)

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

# Want to know more about water?



Fort Worth Water has employees who volunteer to talk at Career Day presentations as well as work events for the department, city and community. The  $H_2O$  Heroes talk about a typical work day, education training requirements and what students need to focus on in studies to have a career with the water department.

If you are interested in a school or community group presentation, email: wpe@FortWorthTexas.gov

@FWWater

@FWAgua

# **Contact Us**

Water Customer Service 817-392-4477 7 a.m. – 7 p.m. Monday–Friday 24-Hour Emergencies select Option 1

H2Online Home online billing: https://h2online.fortworthtexas.gov/ Click2GovCX/index.html

Water Department Administrative Office Fort Worth City Hall 200 Texas Street, 2nd floor

Fort Worth, TX 76102 www.FortWorthTexas.gov/water www.SaveFortWorthWater.org

The Water Department is part of the City of Fort Worth, Texas. Council meetings are open to the public and take place three times a month, on Tuesdays, at 7 p.m. in the council chambers/second floor of city hall. See the City Calendar. www.fortworthtexas.gov/calendar/council

Other Resources Environmental Protection Agency www.epa.gov Texas Commission on Environmental Quality www.tceq.texas.gov Texas Water Development Board www.twdb.texas.gov American Water Works Association www.awwa.org Drink Tap

Drink Tap www.drinktap.org

bit.ly/fwwyoutube



@SaveFWWater

# **Check out our podcast!**

Just search for "**H2OMG**" on your favorite podcast app or check us out at www.theh2omg.podbean.com



# ARLINGTON WATER UTILITIES Water Quality Report 20018



# Know Your H<sub>2</sub>O From Source to Tap

Arlington Water Utilities takes pride in meeting or exceeding all federal and state requirements for water quality. The story of how that water gets to homes, schools and businesses starts at the source. Arlington purchases its water for treatment from the Tarrant Regional Water District, or TRWD. The water comes from four reservoirs – Cedar Creek, Richland Chambers, Lake Arlington and Lake Benbrook.

The "raw water" is treated at Arlington's

state-of-the-art Pierce-Burch and John F. Kubala Water Treatment Plants. Ozone is used as the primary disinfectant. Aluminum sulfate and a cationic polymer are added to help dirt and other particles clump together and settle out during treatment. The water is then filtered through granular activated carbon beds to remove smaller particles and substances that are dissolved in the water. The water is treated with chloramine (chlorine and ammonia) as it enters storage. More than 500 students entered Arlington Water Utilities' Value of Water coloring contest in 2018. Some of the winners are featured here.

Chloramine is a disinfectant that keeps the water safe on its way to your faucet.

Arlington Water Utilities tests drinking water at over 120 taps all over the city each month. In 2018, the laboratory collected 6,818 samples and performed 16,073 tests monitoring 269 different analytes. This report contains data collected from Jan. 1, 2018 through Dec. 31, 2018, unless another time frame is noted.



# Where does Arlington drinking water come from?

Arlington gets its water for treatment from the Tarrant Regional Water District. The water comes from four reservoirs - Cedar Creek, Richland-Chambers, Lake Arlington and Lake Benbrook.



# **Emerging Water Quality Issues**

The 1996 amendments to the federal Safe Drinking Water Act (SDWA) require that once every five years, the U.S. Environmental Protection Agency (EPA) issue a new list of no more than 30 unregulated contaminants to be monitored by public water systems (PWSs). The Unregulated Contaminant Monitoring Rule (UCMR) provides EPA and other interested parties with scientifically valid data on the occurrence of contaminants in drinking water.

To help advance the science of drinking water, Arlington Water Utilities is collecting data for the EPA regarding the occurrence of the compounds from the latest UCMR list in our water supply, which is the first step in determining whether they should be regulated. These compounds include Anatoxin, Cylindrospermopsin and Total Microcystins, none of which were detected in tests of Arlington's drinking water during 2018.

The presence of a compound does not necessarily equate to a health risk. The concentration of a compound is a far more important factor in determining whether there are health implications.

To learn more about the Unregulated Contaminant Monitoring Rule, visit www. epa.gov/dwucmr or www.DrinkTap.org.

# Health information for special populations

You may be more vulnerable than the general population to certain microbial contaminants, such as Cryptosporidium, in drinking water. 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 can be particularly at risk from infections. You should seek advice about drinking water from your health care provider. Additional guidelines on appropriate means to lessen the risk of infection by Cryptosporidium are available from the Safe Drinking Water Hotline (800-426-4791).

Este informe incluye información importante sobre su agua potable, si necesita ayuda para entender esta información por favor llame al 817-575-8984.

Ban bao cao nay bao gom nhung thong tin can biet ve nuoc uong. Moi chi tiet va thac mac xin lien lac 817-575-8984.



**Table A. Regulated Substances.** These substances are regulated or are required to be monitored and were detected in Arlington tap water in 2018

Substance	Units	Avg.	Min.	Max.	MCL	MCLG	Violation	Possible Source
Atrazine	ppb	0.20	0.20	0.20	3	3	No	Runoff from herbicide used on row crops
Barium	ppm	0.053	0.048	0.058	2	2	No	Naturally present
Cyanide	ppb	26.9	26.9	26.9	200	200	No	Discharge from metal/plastic/fertilizer factories
Bromate <sup>3</sup>	ppb	<5	<5	<5	10	10	No	Byproduct of drinking water disinfection
Chloramines <sup>2</sup>	ppm	3.8	3.7	3.8	MRDL=4	MRDLG=4	No	Water additive used to control microbes
Fluoride	ppm	0.598	0.227	0.867	4	4	No	Water additive promoting strong teeth
Nitrate as Nitrogen	ppm	0.447	0.151	0.829	10	10	No	Runoff from fertilizers
Nitrite as Nitrogen	ppm	<0.05	ND	0.133	1	1	No	Runoff from fertilizers
Total Organic Carbon (TOC)							Naturally present in the environment	
PB Plant (raw)	ppm	5.1	4.7	6.0				(PB = Pierce-Burch Plant)
PB Plant (drinking)	ppm	2.8	2.5	2.9				
PB Removal ratio 4	%	1.3%	1.1%	1.5%				
JK Plant (raw)	ppm	4.7	4.1	5.6				(JK = John F. Kubala Plant)
JK Plant (drinking)	ppm	2.7	2.4	3.0				
JK Removal ratio 4	%	1.2%	.09%	1.4%				
Total Trihalomethanes <sup>2</sup>	ppb	10.1	8	11.2	80	NA	No	By-product of drinking water chlorination
Haloacetic Acids (HAA5) <sup>2</sup>	ppb	7.8	4.7	12.9	60	NA	No	By-product of drinking water chlorination

**Microbiological contaminants** In 2018, Tarrant Regional Water District analyzed all raw water sources for cryptosporidium and no detections were found in any raw water sources used for the City of Arlington. Cryptosporidium is a pathogen which may be found in water contaminated by animal waste. Although filtration removes cryptosporidium, it cannot guarantee 100% removal.

Turbidity for both Plants 5	Level Detected			Limit (TT)			Violation	Possible Source
Highest Single Measurement	0.32 NTU			1 NTU			No	Soil runoff
Lowest monthly % meeting limits	99.97%			0.3 NTU in 95%			No	Soil runoff
Substance	Units	Action Level	No. Sites > Action Level		90 <sup>th</sup> %-tile	Range	Violation	Possible Source
Lead (2018) 1	ppb	AL = 15	0		2.62	ND-6.29	No	Corrosion of household plumbing systems
Copper (2018) 1	ppm	AL = 1.3	0		0.203	ND-0.294	No	Corrosion of household plumbing systems
Substance			PB Plant 2017	JK Plant 2018			Violation	Possible Source
Radium 228	pCi/L		1.43	<1.0	5	NA	No	Decay of natural and man-made depos-
Beta/Photon Emitters	pCi/L		4.8	4.5	50	NA	No	its. Testing for radiological substances
Gross Alpha Particle Activity	pCi/L		<2.0	<3.0	15	NA	No	required every 3 years.

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

< less than the amount listed.

> equal to or greater than the amount listed.

Maximum Contaminant Level Goal (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 Contaminant Level (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 Residual Disinfectant Level Goal (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 contamination.

# Maximum Residual Disinfectant Level

(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.

NA Not applicable

ND (Not Detected) No level of the parameter was detected.

NE Not established

#### NTU (Nephelometric Turbidity Units) A

unit used when measuring turbidity, a measure of the cloudiness of the water. **pCi/L (picocuries per Liter)** A measure of radioactivity in the water.

**ppb (parts per billion, ug/L)** A unit of measurement roughly equal to 1 drop in 100,000 gallons.

<sup>1</sup>Instead of MCLs for lead and copper, EPA requires that 90 percent of water samples obtained from customers' taps contain less than the Action Level for each metal. Sampling is required every 3 years.

<sup>2</sup>Compliance is based on a calculated annual average of all samples at routine sites.

<sup>3</sup>Compliance is based on a calculated running annual average of the quarterly averages.

Removal ratio is the percent of TOC removed by the treatment process divided by the percent of TOC required by TCEQ to be removed. Based on running annual average of ratios.

Turbidity has no health effects, however it can interfere with disinfection and provide a medium for microbial growth. Turbidity may indicate the presence of disease-causing organisms, including bacteria, viruses and parasites that can cause symptoms such as nausea, cramps, diarrhea and associated headaches.

**ppm (parts per million, mg/L)** A unit of measurement roughly equal to 1 drop in 100 gallons.

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





**Table B. Unregulated Substances.** These substances are not currently regulated by EPA. 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.

Substance	Units	Avg.	Min.	Max.	MCL	MCLG	Possible Source
Chloroform	ppb	3.4	2.0	4.2	Not Regulated	NE	By-product of drinking
Bromodichloromethane	ppb	3.3	2.9	3.5	Not Regulated	NE	water disinfection; not
Chlorodibromomethane	ppb	3.1	2.9	3.2	Not Regulated	NE	included in Total
Bromoform	ppb	0.3	0.1	0.5	Not Regulated	NE	Trihalomethanes.
Dichloroacetic Acid	ppb	3.15	3.05	3.24	Not Regulated	NE	By product of dripking
Bromoacetic Acid	ppb	2.84	2.26	3.99	Not Regulated	NE	water disinfection: not
Dibromoacetic Acid	ppb	2.68	1.0	6.51	Not Regulated	NE	regulated individually;
Chloroacetic Acid	ppb	0.48	0.31	0.73	Not Regulated	NE	included in Haloacetic
Trichloroacetic Acid	ppb	0.09	0.02	0.11	Not Regulated	300	Acias.

Other Substances of Interest								
Substance	Units	Avg	Min	Max				
Total:								
Alkalinity	ppm	83.8	70.4	108				
Hardness	ppm	93.5	78.4	141				
Hardness	grains/gal.	5.5	4.6	8.2				
Calcium	ppm	30	26	50				
Sodium	ppm	20.6	18.2	23.1				
Magnesium	ppm	3.23	3.03	3.43				
Chloride	ppm	17	14	21				
Total Dissolved								
Solids	ppm	175	146	211				
pH	pH units	8.2	7.7	8.6				

Arlington Water Utilities produced 19,101,697,980 gallons of treated water for use by customers in Arlington in 2018. The department reported a system water loss percentage of 9.18 percent, which refers to the amount of water lost due to leaks, water line breaks or other non-revenue water use.

INFO

# The Environmental Protection Agency (EPA) Safe Drinking Water Hotline

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of these contaminants does not necessarily indicate that water poses a health risk. In order to ensure that tap water is safe to drink, the EPA prescribes regulations that limit the amount of certain substances in water provided by public water systems.

More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency's (EPA) Safe Drinking Water Hotline at 800-426-4791 or visiting the website at www.epa.gov/safewater.





Arlington Water Utilities Lab Staff

# Water Utilities Laboratory by the Numbers:



# Substances Expected to be in Drinking Water

The City of Arlington and the State of Texas both analyze your drinking water. Any regulated substances that were detected during the last year are shown in Table A. As shown in the table, all are well below the established maximum contaminant levels. All water dissolves substances from the ground as it flows over and through it. Substances that may be present in raw water include such things as:

Microbes such as viruses and bacteria that come from septic systems, agricultural livestock operations and wildlife

Salts and metals that can be naturally occurring or the result of urban storm water runoff, industrial or domestic wastewater discharges or farming Pesticides and herbicides that may come from a variety of sources such as agriculture, urban storm water runoff or residential uses

Radioactive substances that are naturally occurring

Organic chemical substances that include synthetic and volatile organic chemicals that are by-products of industrial processes and can also come from gas stations and urban storm water runoff

Contaminants may be found in drinking water that could cause taste, color, or odor problems but are not necessarily causes for health concerns. For more information, call Laboratory Services at 817-575-8984.

# For more information:

Water Quality:8	17	-57	5-8	398	4
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Laboratory services, water quality questions or water quality problems. If you have questions concerning this brochure, ask for the laboratory.

## Emergency Water, and

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# To participate in decisions concerning water:

Attend the Arlington City Council meetings held in City Hall, 101 West Abram Street.

Meeting schedule is posted online at <u>www.arlingtontx.gov/citycouncil/meeting-schedule/</u> To view City Council Agenda or to watch a City Council meeting webcast, please visit www.arlingtontx.gov/citycouncil/agendas/

In accordance with Section 13.045 of the Texas Water Code, the City hereby provides notice that customer revenue derived from the sale of water to wholesale customers for resale was expended for various economic development and Capital Budget projects.

# Visit our website at: www.ArlingtonTX.gov/waterccr





The Arlington Water Utilities laboratory staff is available to answer your questions about water quality at 817-575-8984. Here are some answers to the most asked questions.



## My water sometimes appears cloudy when I first turn on the

**tap. Why?** This can be caused by tiny air bubbles that are in the water. It is common for this to happen when it's colder outside or the water pressure changes because air becomes more soluble in water under these conditions. Once the water comes out of your tap, the water is no longer under pressure and the air comes out of solution as bubbles. Cloudy water caused by tiny air bubbles is not harmful to health. An easy way to test whether the cloudiness is caused by air bubbles is to fill a clear glass with water and let it sit on the counter for a minute. If the cloudiness clears from the bottom to the top, then you can be assured that this is air dissipating from your water.

## A fire hydrant on my block was open and gushing water. Why

would you do that? The practice of opening a fire hydrant and letting the water run for several minutes is known as flushing. This practice improves water quality and ensures you are getting the freshest, highest quality water to your home. Build-up of sediment can occur in mains and flushing can help minimize any discoloration or sediment in your water. If you notice sediment or discoloration in your water, try letting the tap run for several minutes. If this does not clear up the issue, please notify the water department.

Why does my water smell musty sometimes? During certain times of the year, it is not uncommon to experience some taste and odor issues with your tap water. A naturally occurring compound called geosmin is produced by algae found in surface water. Extreme temperatures can kill off algae in surface water, which releases the geosmin into the water. While the taste and odor can be unpleasant, geosmin is not toxic or harmful. The water remains safe to drink. Heating the water increases the volatility of these compounds, which explains why the smell is more easily detected when you are in the shower or when water is used for hot beverages. To make the water taste better, try chilling it, adding ice cubes, a slice of lemon, or a few drops of lemon juice. And remember that the change in taste and odor is only temporary.

Should I be worried about lead in my drinking water? The City of Arlington tests for lead every three years at 50 sites across the city, as required by the Texas Commission on Environmental Quality. Results gathered in summer 2018 showed zero samples reading above the action level for lead or copper, which is set by the U.S. Environmental Protection Agency (EPA). Because of its history of testing results registering well below established limits, Arlington's lead testing frequency was decreased from every six months to a three year schedule by the TCEQ. 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. Arlington Water Utilities is responsible for providing high quality drinking water, but cannot control the variety of materials use in plumbing components. Older homes (built before 1930) are more likely to have plumbing fixtures containing lead. 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 two minutes before using it 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 www.epa.gov/safewater/lead.

Want to learn more? Visit us at <u>www.arlingtontx.gov/water</u> or follow us on Facebook <u>(www.facebook.com/arlingtonwater</u>) or Twitter (@arlingtonwater). You can also find useful information about efficient water use at www.SaveArlingtonWater.com.