



Water Quality Report

Our goal is not only to meet, but to achieve higher water quality results than all state and federal standards; and our superior rating and awards for **best-tasting drinking water** are clear indications of our ability to deliver superior drinking water. Because of the high quality of our water, there are no health-based advantages to purchasing bottled water, filtration systems, or any other point-of-use devices.

To learn more about our water and how it is supplied, please read the following water quality report. This report includes water quality information from **2018**. As you can see from the Water Quality Table on the next page, we have continued our commitment to providing you and your family with safe drinking water by having no violations in contaminant level or water quality standards.

Denton uses surface water from Lake Lewisville and Lake Ray Roberts for its water supply. Drinking water, both tap and bottled, can come from a variety of sources including rivers, lakes, streams, reservoirs, and springs. As water travels over the land's surface or through the ground, it dissolves naturally occurring minerals and radioactive material and can be polluted by animal or human activity.

Contaminants that might be expected in untreated water include: microbial contaminants, such as viruses and bacteria; inorganic contaminants, such as salts and metals; pesticides and herbicides; organic chemicals from industrial processes or petroleum use; and radioactive materials.

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 risk. More information about contaminants and potential health effects can be obtained by calling the Safe Drinking Water Hotline at (800) 426-4791 or visiting www.epa.gov/ground-water-and-drinking-water.

Water, whether tap or bottled, is regulated for safety. The U.S. Environmental Protection Agency regulates water provided by public water systems while the Food and Drug Administration establishes regulations for bottled water.

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 call Water Production at (940) 349-7525.

It is more responsible, and cheaper and easier, to keep contaminants out of our lakes than it is to remove them once they get in. Excessive or improper use of pesticides/herbicides, improper disposal of used oil and antifreeze, and littering are just a few activities that can lead to pollution in our drinking water supply. Learn more about protecting our water on the following pages, and please do your part to stop pollution.

The Texas Commission on Environmental Quality 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 system are based on this susceptibility and previous sample data. Any detections of these contaminants may be found in this report. For more information about source water assessments and protection efforts at our system, contact Kathy Gault, SCADA/Regulatory Supervisor, at (940) 349-7525.

There are a number of options available to learn more about Denton Water Utilities or to participate in decision-making processes. For questions about this report or the quality of our drinking water, call Kathy Gault, SCADA/Regulatory Supervisor, at (940) 349-7525. For participation opportunities, call Utilities Administration at (940) 349-7154 for the Public Utilities Board meeting times and locations.

Visit our website at www.cityofdenton.com.

IMPORTANT SPECIAL NOTICE: 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 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 or www.epa.gov/ground-water-and-drinking-water.

LEAD/COPPER INFORMATION: 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. 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 two 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 www.epa.gov/safewater/lead.

EN ESPAÑOL: Este reporte incluye información importante sobre el agua para tomar. Para asistencia en español o para recibir una copia de esta información o una traducción en español de estos datos, por favor llame a Servicio al Consumidor al (940) 349-8700.

Listed on the back of this report are the regulated and unregulated contaminants detected in Denton's drinking water. All are below allowed levels. Not listed here are hundreds of contaminants for which we tested that were not detected. This report is based upon the most recent data available to Denton Water Utilities. Terms used in the Water Quality Table and in other parts of this report are defined here.

- **Action Level (AL)** - The concentration of a contaminant which, if exceeded, triggers a treatment or other requirements which a water system must follow.
- **LRAA** - Locational Running Annual Average.
- **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 were found.
- **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 *Escherichia coli* (E. coli) maximum contaminant level (MCL) violation has occurred and/or why total coliform bacteria were found on multiple occasions.
- **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.
- **NTU** - Nephelometric turbidity units. This is the unit used to measure water turbidity.
- **pCi/L** - Picocuries per liter is a measure of radioactivity in water. A picocurie is 10^{-12} curies - the quantity of radioactive material producing 2.22 nuclear transformations per minute.
- **ppb** - Parts per billion. One part per billion is equal to one packet of artificial sweetener sprinkled into an Olympic-size swimming pool.
- **ppm** - Parts per million. One part per million is equal to one packet of artificial sweetener sprinkled into 250 gallons of iced tea.
- **Treatment Technique (TT)** - A required process intended to reduce the level of a contaminant in drinking water.
- **Turbidity** - A measure of water's clarity. How clear the water is can indicate how many particles are in it. The goal is to produce water with turbidity levels as low as possible.

Water Quality Table

Regulated Inorganic Contaminants									
Constituent	Date Tested	Unit	Average Level	Minimum Level	Maximum Level	MCL	MCLG	Major Sources	Violation
Barium	1/30/18	ppm	0.043	0.043	0.043	2	2	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits	No
Fluoride	1/30/18	ppm	0.352	0.181	0.523	4	4	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories	No
Cyanide	1/30/18	ppb	88.40	41.8	135	200	200	Discharge from steel/metal factories; Discharge from plastic and fertilizer factories	No
Nitrate	1/30/18	ppm	0.277	0.228	0.326	10	10	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits	No
Constituent	Date Tested	Unit	Action Level	90th Percentile	Number of Sites Exceeding AL		MCLG	Major Sources	Violation
Lead	2016	ppb	15	1	0		0	Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives	No
Copper	2016	ppm	1.3	0.501	0		1.3	Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives	No

Regulated Synthetic Organic Contaminants Including Pesticides and Herbicides									
Constituent	Date Tested	Unit	Average Level	Minimum Level	Maximum Level	MCL	MCLG	Major Sources	Violation
Atrazine	1/30/18	ppb	0.1	0	0.20	3	3	Runoff from herbicide used on row crops	No
Simazine	1/30/18	ppb	ND	0	0	3	3	Runoff from herbicide used on row crops	No

Regulated Disinfectants and Disinfection By-Products									
Constituent	Date Tested	Unit	Average Level	Minimum Level	Maximum Level	MCL	MCLG	Major Sources	Violation
TOC ¹ (Total Organic Carbon) Treated Water	2018	ppm	2.48	2.02	2.81	TT	N/A	Naturally present in the environment	No
TOC ¹ (Total Organic Carbon) Raw Water	2018	ppm	5.12	3.97	7.76	TT	N/A	Naturally present in the environment	No

¹Total organic carbon (TOC) has no health effects. The disinfectant can combine with TOC to form disinfection by-products. Disinfection is necessary to ensure that water does not have unacceptable levels of pathogens. By-products of disinfection include trihalomethanes (THMs) and haloacetic acids (HAA), which are reported elsewhere in this report.

Constituent	Date Tested	Unit	Average Level	Minimum Level	Maximum Level	MRDL	MRDLG	Major Sources	Violation
Chloramines ²	2018	ppm	3.48	0.50	4.60	4	4	Disinfectant used to control microbes	No

²Compliance is based on the average level of Chloramines not exceeding the MRDL of 4 ppm.

Constituent	Date Tested	Unit	Average Level	Minimum Level	Maximum Level	MCL	MCLG	Major Sources	Violation
Bromate	2018	ppb	2.04	0	3.90	10	0	By-product of drinking water disinfection	No
Constituent	Date Tested	Unit	LRAA Max	Minimum Level	Maximum Level	MCL	MCLG	Major Sources	Violation
TTHM (Total Trihalomethanes)	2018	ppb	11.07	5.53	13.30	80	N/A	By-product of drinking water chlorination	No
HAA5 (Haloacetic Acids)	2018	ppb	5.75	1.60	8.40	60	N/A	By-product of drinking water chlorination	No

Regulated Microbiological Contaminants									
Constituent	Date Tested	Unit	Highest Monthly Percentage of Positive Samples	Action Level			MCLG	Major Sources	Violation
Total Coliform	Jan. 2018	Samples	1.80	≥ 5%			0	Naturally present in the environment	No
Constituent	Date Tested	Unit	Highest Single Measurement	% of samples <0.3 NTU	Turbidity Limits		MCLG	Major Sources	Violation
Turbidity ³	Sept. 2018	NTU	0.46	99.94%	0.3		N/A	Soil runoff	No

³Turbidity: Must be less than 0.3 NTU in 95 percent of monthly samples. The 0.46 level was the highest single reading for 2018.

Unregulated Contaminants									
Constituent	Date Tested	Unit	Average Level	Minimum Level	Maximum Level			Major Sources	Violation
Chloroform	2018	ppb	1.12	0.00	2.23			By-product of drinking water chlorination	No
Bromodichloromethane	2018	ppb	2.69	1.77	3.60			By-product of drinking water chlorination	No
Dibromochloromethane	2018	ppb	3.47	2.88	4.05			By-product of drinking water chlorination	No
Bromoform	2018	ppb	1.30	1.16	1.43			By-product of drinking water chlorination	No

Secondary and Other Constituents Not Regulated									
Constituent	Date Tested	Unit	Average Level	Minimum Level	Maximum Level			Major Sources	Violation
Sodium	1/30/18	ppm	23.55	15.80	31.30			Erosion of natural deposits; By-product of oil field activity	No

Revised Total Coliform Rule (RTCR)									
The Revised Total Coliform Rule (RTCR) seeks to prevent waterborne diseases caused by E. coli. E. coli are bacteria whose presence indicates that the water may be contaminated with human or animal wastes. Human pathogens in these wastes can cause short-term effects, such as diarrhea, cramps, nausea, headaches, or other symptoms. They may pose a greater health risk for infants, young children.									
Violation Type	Violation Begin	Violation End	Violation Explanation						
Monitoring, Routine, Major (RTCR)	8/1/18	8/31/18	We failed 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 period indicated.						



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