

Our Drinking Water Meets or Exceeds All Federal (EPA) Drinking Water Requirements

The top priority for the utilities section of the City of Burleson Public Works Department is providing safe and reliable drinking water that meets or exceeds state and federal quality standards. This report is a summary of the quality of water we provide to our customers. The analysis was made by using the data from the most recent U.S. Environmental Protection Agency (EPA) required tests and is presented in this brochure. We hope this information helps you become more knowledgeable about what's in your drinking water.

Where do we get our drinking water?

The City of Burleson purchases drinking water from the City of Fort Worth.

State Agency Assessed Source Waters

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 Fort Worth uses surface water from Lake Worth, Eagle Mountain Lake, Lake Bridgeport, Richland Chambers Reservoir, Cedar Creek Reservoir, Lake Benbrook and the Clear Fork Trinity River. The Texas Commission on Environmental Quality (TCEQ) completed an assessment of Fort Worth's source waters. TCEQ classified the risk to our source waters as high for most contaminants which means there are activities near the source water or watershed that make it very likely chemical constituents may come into contact with the source water. It does not mean that there are any health risks present. 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 assessment report consists of maps showing the assessment area, an inventory of known land use activities of concern and documentation of specific contaminants of concern. The report is available by contacting (817)426-9830.

Further details about sources and source water assessments are available in Drinking Water Watch at: dww2.tceq.texas.gov/DWW/.

Special Notice for the ELDERLY, INFANTS, CANCER PATIENTS, people with HIV/AIDS or other immune problems:

You may be more vulnerable to contaminants 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; 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 (1-800-426-4791).

ALL drinking water may contain contaminants

When drinking water meets federal standards, there may not be any health based benefits to purchasing bottled water or point of use devices. Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. Contaminants that may be in source water before treatment include microbes, inorganic contaminants, pesticides, herbicides, radioactive materials and organic chemical contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. To ensure tap water is safe to drink, the U.S. Environmental Protection Agency and the Texas Commission on Environmental Quality regulate the amount of certain contaminants in water provided by public systems. More information about contaminants and potential health effects can be obtained by calling the EPA's Safe Drinking Water Hotline (1-800-426-4791).



Secondary Constituents

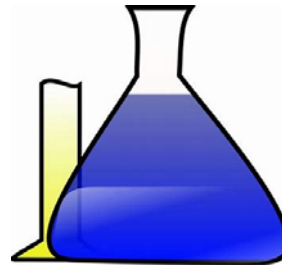
Many constituents (such as calcium, sodium, or iron) which are often found in drinking water, can cause taste, color, and odor problems. The taste and odor constituents are called secondary constituents and are regulated by the State of Texas, not the EPA. These constituents are not causes for health concern. Therefore, secondaries are not required to be reported in this document but they may greatly affect the appearance and taste of your water.

Microorganism testing shows low detections in raw water

Tarrant Regional Water District monitors the raw water at all intake sites for *Cryptosporidium*, *Giardia Lamblia* and viruses. The source is human and animal fecal waste in the watershed. The 2018 sampling showed low level detections of *Cryptosporidium*, *Giardia Lamblia* and viruses that are common in surface water. *Cryptosporidium* and *Giardia Lamblia* monitoring is done monthly. Virus monitoring is performed four times a year in January, March, July and September. Viruses are treated through disinfection processes. *Cryptosporidium* and *Giardia Lamblia* are removed through disinfection and/or filtration.

ABBREVIATIONS

MFL- million fibers per liter (a measure of asbestos)
mrem – millirems per year (a measure of radiation absorbed by the body)
na – not applicable
NTU - Nephelometric Turbidity Units
pCi/L - Picocuries per liter (a measure of radioactivity)
ppm - parts per million, or milligrams per liter (mg/L)
ppb - parts per billion, or micrograms per liter (µg/L)
ppt - parts per trillion, or (ng/L)
ppq - parts per quadrillion, or (pg/L)



DEFINITIONS

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 permissible level of a contaminant in drinking water. MCLs are set as close to the MCLGs as is 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 health risk. 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.

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

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

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.

Minimum Reporting Level (MRL) - The smallest measured concentration of a substance that can be reliably measured.

About the Following Table

The table that follows lists all the federally regulated or monitored contaminants which have been found in your drinking water. The U.S. EPA requires water systems to test for up to 97 contaminants.

Inorganic Contaminants							
Year or Range	Contaminant	Level	Range of Detection	MCL	MCLG	Unit of Measure	Source of Contaminant
2018	Barium	0.07	0.05-0.07	2	2	ppm	Discharge of drilling waters; discharge from metal refineries; erosion of natural deposits
2018	Arsenic	1.10	0-1.1	10	0	ppb	Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production waste
2017 *Next monitoring will occur in 2023	Uranium	1.1	0-1.1	30	0	ppb	Erosion of natural deposits
2018	Fluoride	0.61	0.17-0.61	4	4	ppm	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
2018	Nitrate (Measured as Nitrogen)	0.904	0.892-0.904	10	10	ppm	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
2017 *Next monitoring will occur in 2023	Beta Particles & Photon Emitters	5.6	4.4-5.6	50	0	pCi/L	Decay of natural and man-made deposits of certain minerals that are radioactive and may emit forms of radiation known as photons and beta radiation
2018	Cyanide	84.3	0-84.3	200	200	ppb	Discharge from plastic and fertilizer factories; discharge from steel and metal factories
2018	Bromate	4.83	0-10.7	10	0	ppb	By-product of drinking water disinfection
2017 *Next monitoring will occur in 2023	Combined Radium	2.5	N/A	5	0	pCi/L	Erosion of natural deposits
2018	Atrazine	0.1	0.0-0.1	3	3	ppb	Runoff from herbicide used on row crops

Organic Contaminants - TESTING WAIVED, NOT REPORTED, OR NONE DETECTED

Maximum Residual Disinfectant Level

EPA considers 50 pCi/L to be a level of concern for beta particles

Year	Contaminant	Average Level	Minimum Level	Maximum Level	MRDL	MRDLG	Unit of Measure	Source of Contaminant
2018	Chloramine	2.40	1.20	3.50	4	4	ppm	Disinfectant used to control microbes.

Disinfection Byproducts							
Year	Contaminant	Average Level	Minimum Level	Maximum Level	MCL	Unit of	Source of Contaminant
2018	Total Haloacetic Acids	7.02	4.0	10.8	60	ppb	By-product of drinking water disinfection.
2018	Total Trihalomethanes	10.64	5.47	15.8	80	ppb	By-product of drinking water disinfection.



Unregulated Initial Distribution System Evaluation for Disinfection By-products - WAIVED OR NOT YET SAMPLED

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.

Bromoform, chloroform, dichlorobromomethane, and dibromochloromethane are disinfection by-products. There is no maximum contaminant level for these chemicals at the entry point to distribution.

Year	Contaminant	Average Level	Minimum Level	Maximum Level	Unit of Measure	Source of Contaminant
2018	Chloroform	4.73	1.98	7.56	ppb	By-product of drinking water disinfection.
2018	Bromoform	<1.00	<1.00	<1.00	ppb	By-product of drinking water disinfection.
2018	Bromodichloromethane	3.50	1.84	4.89	ppb	By-product of drinking water disinfection.
2018	Dibromochloromethane	2.33	1.56	3.69	ppb	By-product of drinking water disinfection.

Turbidity has no health effects. However, turbidity can interfere with disinfection and provide a medium for microbial growth. Turbidity may indicate the presence of disease-causing organisms. These organisms include bacteria, viruses and parasites that can cause symptoms such as nausea, cramps,

Turbidity

Year	Contaminant	Highest Single Measurement	Lowest Monthly % of Samples Meeting Limits	Turbidity Limits	Unit of Measure	Source of Contaminant
2018	Turbidity	0.5	99.9%	N/A	NTU	Soil runoff.

Disinfectant Residual

Year	Contaminant	Average Level	Range of Levels Detected	MRDL	MRDLG	Unit of Measure	Violation (Y/N)	Source in Drinking Water
2018	Disinfectant Residual	2.40	1.20-3.50	4	4	ppm	N	Water additive used to control microbes

Lead and Copper (Samples are taken every three years. The next round of sampling will take place in 2019)

Year	Contaminant	The 90th Percentile	Number of Sites Exceeding Action Level	Action Level	Unit of Measure	Source of Contaminant
2016	Lead	3.9	0	15	ppb	Corrosion of household plumbing systems; erosion of natural deposits.
2016	Copper	.60	0	1.3	ppm	Corrosion of household plumbing systems; erosion of natural deposits; leach-

What you should know about lead in drinking water

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>.



Fecal Coliform — REPORTED MONTHLY TESTS FOUND NO FECAL COLIFORM BACTERIA.

Total Coliforms							
Year or Range	Contaminant	Level	Range of Detection	MCL	MCLG	Unit of Measure	Source of Contaminant
2018	Total Coliforms (including fecal coliform & E. coli)	1.9%	0-1.9%	Presence in 5% of monthly samples	0	% of positive	Coliforms are naturally present in the environment as well as feces; fecal coliforms and E. coli only come from human and animal fecal waste.

Secondary and Other Constituents Not Regulated (No associated adverse health effects)						
Year or Range	Contaminant	Minimum Level	Maximum Level	Secondary Limit	Unit of Measure	Source of Constituent
2018	Bicarbonate	108	144	NA	ppm	Corrosion of carbonate rocks such as limestone.
2018	Calcium	42	52.1	NA	ppm	Abundant naturally occurring element.
2018	Chloride	11.8	40	300	ppm	Abundant naturally occurring element; used in water purification; by-product of oil field activity
2018	Magnesium	3.20	8.64	NA	ppm	Abundant naturally occurring element.
2018	pH	8.6	8.7	>7.0	units	Measure of corrosivity of water.
2018	Sodium	14.8	30.3	NA	ppm	Erosion of natural deposits; by-product of oil field activity.
2018	Sulfate	26.3	36.5	300	ppm	Naturally occurring; common industrial by-product; by-product of oil oilfield activity.
2018	Total Alkalinity as CaCO3	98.2	136	NA	ppm	Naturally occurring; soluble mineral salts.
2018	Total Dissolved Solids	156	251	1000	ppm	Total dissolved mineral constituents in water.
2018	Total Hardness as CaCO3	118	162	NA	ppm	Naturally occurring calcium.
2018	Total Hardness in Grains	7	9	NA	Grains/Gallon	

Grains per gallon	Milligrams per liter or parts	Classification
< 1.0	< 17.1	Soft
1.0 - 3.5	17.1 - 60	Slightly Hard
3.5 - 7.0	60 - 120	Moderately Hard
7.0 - 10.5	120 - 180	Hard
> 10.5	> 180	Very Hard

UCMR 4

Burleson testing only detected four of the thirty contaminants. The detections were found as follows: One metal (manganese) and three haloacetic acids (HAA5, HAA6Br and HAA9). The remaining contaminants were not detected, but shown below and broken down by group.

Metals:

Compound	Measure	Average	Minimum Reporting Level	Common Source of Substance
manganese	ppb	1.025	0.4	Naturally occurring element; commercially available in combination with other elements and minerals; a byproduct of zinc ore processing; used in infrared optics, fiber-optic systems, electronics and solar applications.
germanium	ppb	<0.3	0.3	Naturally occurring element; commercially available in combination with other elements and minerals; a byproduct of zinc ore processing; used in infrared optics, fiber-optic systems, electronics and solar applications.

Pesticides:

Compound	Measure	Average	Minimum Reporting Level	Common Source of Substance
alpha-hexachlorocyclohexane	ppb	<0.01	0.01	Component of benzene hexachloride (BHC); formerly used as an insecticide.
chlorpyrifos	ppb	<0.03	0.03	Organophosphate; used as an insecticide, acaricide and miticide.
dimethipin	ppb	<0.2	0.2	Used as a herbicide and plant growth regulator.
ethoprop	ppb	<0.03	0.03	Used as an insecticide.
oxyfluorfen	ppb	<0.05	0.05	Used as a herbicide.
profenofos	ppb	<0.3	0.3	Used as an insecticide and acaricide.
tebuconazole	ppb	<0.2	0.2	Used as a fungicide.
total permethrin (cis- & trans-)	ppb	<0.04	0.04	Used as an insecticide.
tribufos	ppb	<0.07	0.07	Used as an insecticide and cotton defoliant.

Alcohols:

Compound	Measure	Average	Minimum Reporting Level	Common Source of Substance
1-butanol	ppb	<0.007	2.0	Used as a solvent, food additive and in production of other chemicals.
2-methoxyethanol	ppb	<0.02	0.4	Used in a number of consumer products, such as synthetic cos
2-propen-1-ol	ppb	<0.03	0.5	Used in production flavorings, perfumes and other chemicals.

Semivolatile Chemicals:

Compound	Measure	Average	Minimum Reporting Level	Common Source of Substance
butylated hydroxyanisole	ppb	<0.03	0.03	Used as a food additive (antioxidant).
o-toluidine	ppb	<0.007	0.007	Used in the production of dyes, rubber, pharmaceuticals and pesticides.
quinoline	ppb	<0.02	0.02	Used as a pharmaceutical (anti-malarial) and flavoring agent; produced as a chemical intermediate; component of coal.

Brominated Haloacetic Acid (HAA) Group 3 and 4:

Compound	Measure	Average	Range of Detects	Common Source of Substance
HAA5	ppb	5.79	2.6 to 18.62	By-products of drinking water disinfection.
HAA6Br	ppb	4.8375	0 to 8.88	
HAA9	ppb	9.335	0 to 22.98	

9 Cyanotoxins & 1 Cyanotoxin Group:

Compound	Measure	Average	Minimum Reporting Level	Common Source of Substance
total microcystins	ppb	<0.3	0.3	Produced and contained within actively growing cyanobacterial cells, and can be released into the surrounding water.
microcystin-LA	ppb	N/A	0.008	
microcystin-LF	ppb	N/A	0.006	
microcystin-LR	ppb	N/A	0.02	
microcystin-LY	ppb	N/A	0.009	
microcystin-RR	ppb	N/A	0.006	
microcystin-YR	ppb	N/A	0.02	
nodularin	ppb	N/A	0.005	
anatoxin-a	ppb	<0.3	0.03	
cylindrospermopsin	ppb	<0.9	0.09	

Additional Information: www.epa.gov/dwucmr

The 1996 Safe Drinking Water Act (SDWA) amendments require that once every five years EPA issue a new list of no more than 30 unregulated contaminants to be monitored by public water systems (PWSs). The fourth Unregulated Contaminant Monitoring Rule (UCMR 4) was published in the Federal Register on December 20, 2016. UCMR 4 requires monitoring for 30 chemical contaminants between 2018 and 2020 using analytical methods developed by EPA and consensus organizations. This monitoring provides a basis for future regulatory actions to protect public health.

Distribution System Water Loss (%)			
Burleson Water Operations Compared to AWWA Benchmarking Manual			
Burleson	Top Quartile (AWWA)	Median (AWWA)	Bottom Quartile (AWWA)
5.1%	6.0%	9.5%	14.2%

Tips to Save Water

Reminder:

Watering Between 10 a.m. and 6 p.m. is Restricted All Year Long

Not watering during the hottest part of the day, between 10 a.m. and 6 p.m., is just a good water management practice. In Burleson, city ordinance allows lawn and landscape irrigation only before 10 a.m. and after 6 p.m., all year round.

Make sure timers on automatic systems are set to comply with the rules. Watering with a handheld hose, soaker hose or drip irrigation is allowed at any time. Efficient water use is important all the time.

- Mulch plant beds two to three times a year with organic matter to slow evaporation.
- Water newly planted flowers and shrubs separately and more often to establish root systems.
- For clay soils, turn off the sprinkler when runoff occurs. Wait 20 minutes for water to absorb into the ground. Dig a test hole to see how deeply it absorbed. Repeat these steps until the water penetrates six inches.
- Never water on windy days.

- Water slowly for better absorption.
- Water only when the grass needs watering. Walk across your grass early in the morning. If your footprints remain, it needs water.
- Water deeply. This promotes deep roots and healthy grass. An inch of water will penetrate the soil four to six inches.
- Choose plants native or adapted to this region and soil conditions. Visit www.txsmartscape.com for more information.

Learn more about water by visiting these Web sites. Many of these sites offer resources for teachers and children.

Environmental Protection Agency

www.epa.gov/watersense

Texas Commission on Environmental Quality

www.tceq.texas.gov

Texas Water Development Board

www.twdb.texas.gov

American Water Works Association

www.awwa.org

www.drinktap.org

Water Environment Federation

www.wef.org

National Sanitation Foundation

www.nsf.org

Texas Water Conservation Association

www.twca.org

Texas Water Resources Institute

<http://twri.tamu.edu/>

We Welcome Your

Comments and Questions

There are many opportunities available to learn more about the City of Burleson Water Department and water quality.

For questions or concerns about water quality or to request a speaker for your organization, call 817-426-9830. Comments can be sent by mail to Safe Drinking Water, 141 W Renfro, Burleson, TX 76028 or email to knorth@burlesontx.com. Comments can also be given at a City Council Meeting. The City Council normally meets in the Council Chambers at City Hall on the first and third Monday of each month. For questions concerning council meetings or times, please call 817-426-9661.

En Español: Este reporte incluye informacion importante sobre el agua para tomar. Para asistencia en español, favor de llamar al telefono 817-426-9830.

