

Drinking Water Quality Test Results

Compound	Measure	Year	Violation	MCL	Your water	Public Health Goal	Common Sources of Substance
Turbidity	NTU	2021	No	TT=1 TT= Lowest monthly % of samples ≤ 0.3 NTU	0.7 99.3%	N/A	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	Year	Violation	MCL	Your water	Range	Public Health Goal	Common Sources of Substance
Total Coliforms (including fecal coliform & E. coli)	2021	No	TT = 5% of monthly samples are positive	2.0%	0 to 2%	0	Coliforms are naturally present in the environment as well as feces; fecal coliforms and E. coli only come from human and animal fecal waste.

Compound	Measure	Year	Violation	MCL	Your water	Range	Public Health Goal	Common Sources of Substance
Beta/photon emitters	pCi/L	2021	No	50	7	7 to 7	0	Decay of natural and man-made deposits
Uranium	ppb	2021	No	30	1.1	1.1 to 1.1		Erosion of natural deposits
Arsenic	ppb	2021	No	10	1.5	0 to 1.5	0	Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes
Atrazine	ppb	2021	No	3	0.1	0 to 0.2	3	Runoff from herbicide used on row crops
Barium	ppm	2021	No	2	0.07	0.05 to 0.07	2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Chromium	ppb	2021	No	100	1.8	0 to 1.8	100	Erosion of natural deposits; discharge from steel and pulp mills
Cyanide	ppb	2021	No	200	197	66.2 to 197	200	Discharge from plastic and fertilizer factories; discharge from steel and metal factories
Fluoride	ppm	2021	No	4	0.68	0.18 to 0.68	4	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
Nitrate (as Nitrogen)	ppm	2021	No	10	0.66	0.13 to 0.66	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Bromate	ppb	2021	No	10	4.23	0 to 13.6	0	By-product of drinking water disinfection
Haloacetic Acids	ppb	2021	N/A	60	12.4	2.6 to 15.9	N/A	By-product of drinking water disinfection
Total Trihalomethanes	ppb	2021	N/A	80	22.4	1.05 to 22.3	N/A	By-product of drinking water disinfection

Compound	Measure	Year	Violation	MRDL	Your water	Range	Public Health Goal	Common Sources of Substance
Chloramines	ppm	2021	No	4	3.4	0.6 to 4.6	4	Water additive used to control microbes

Compound	MCL	Year	Violation	High	Low	Average	Public Health Goal	Common Sources of Substance
Total Organic Carbon	TT = % removal	2021	No	1	1	1	N/A	Naturally occurring

It is used to determine disinfection by-product precursors. Fort Worth was in compliance with all monitoring and treatment technique requirements for disinfection by-product precursors. A removal ratio of 1 in Specific Ultra Violet Absorbance calculations is considered passing.

Corrosion Control

To meet the requirements of the Lead and Copper Rule, Fort Worth achieves corrosion control through pH adjustment.

Unregulated Contaminants

Unregulated contaminants are those for which EPA has not established drinking water standards. The following items are all disinfection by-products that are not regulated individually, but as two groups – Total Trihalomethanes and Haloacetic Acids. The chart on the previous page lists the group levels.

Compound	Measure	Year	MRDL	Public Health Goal	Average	Range of Detects	Common Sources of Substance
Bromoform	ppb	2021	Not regulated	0	0.5	0 to 3.69	By-products of drinking water disinfection; regulated as a group called Total Trihalomethanes
Bromodichloromethane	ppb	2021	Not regulated	0	2.55	2.48 to 6.91	
Chloroform	ppb	2021	Not regulated	70	2.43	2.5 to 10.6	
Dibromochloromethane	ppb	2021	Not regulated	60	2.33	2.02 to 6.61	
Dibromoacetic Acid	ppb	2021	Not regulated	N/A	1.24	1.2 to 4	By-products of drinking water disinfection; regulated as a group called Haloacetic Acids
Dichloroacetic Acid	ppb	2021	Not regulated	0	3.54	3.80 to 9.4	
Monobromoacetic Acid	ppb	2021	Not regulated	N/A	0	0 to 0	
Monochloroacetic Acid	ppb	2021	Not regulated	70	0.68	1 to 2.3	
Trichloroacetic Acid	ppb	2021	Not regulated	20	0.14	0 to 2.4	

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	99.9 to 138
Calcium	ppm	37.8 to 58.5
Chloride	ppm	13.7 to 36.7
Conductivity	µmhos/cm	296 to 470
pH	units	7.8 to 8.3
Magnesium	ppm	2.91 to 9.10
Sodium	ppm	15 to 29.9
Sulfate	ppm	22.6 to 40.8
Total Alkalinity as CaCO ₃	ppm	99.9 to 142
Total Dissolved Solids	ppm	149 to 249
Total Hardness as CaCO ₃	ppm	107 to 183
Total Hardness in Grains	grains/gallon	6 to 11

Abbreviations used In tables

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.

N/A - not applicable/does not apply

NTU - Nephelometric Turbidity Unit; a measure of water turbidity or clarity

pCi/L - Picocuries per liter; a measure of radioactivity

ppb - Parts per billion or micrograms per liter (µg/L)

ppm - Parts per million or milligrams per liter (mg/L)

TT: Treatment Technique - a required process intended to reduce the level of a contaminant in drinking 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 2021 sampling showed occasional low level detections of *Cryptosporidium*, *Giardia lamblia* and viruses in some but not all of the water supply sources. These are either deactivated or removed through disinfection and/or filtration.

TCEQ assesses raw water supplies for susceptibility

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.

Fort Worth owns Lake Worth. The U.S. Army Corps of Engineers is responsible for Benbrook Lake. The other four lakes are owned and operated by Tarrant Regional Water District.

The Texas Commission on Environmental Quality completed an assessment of Fort Worth's source waters. TCEQ classified the risk to our source waters as high for most contaminants.

High susceptibility means there are activities near the source water or watershed that make it very likely that chemical constituents may come into contact with the

source water. It does not mean that there are any health risks present.

Tarrant Regional Water District, from which Fort Worth purchases its water, received the assessment reports.

For more information on source water assessments and protection efforts at our system, contact Stacy Walters at 817-392-8203.

Further details about the source-water assessments are available in the Texas Commission on Environmental Quality's Drinking Water Watch database at http://dww2.tceq.texas.gov/DWW/JSP/SWAP.jsp?tinwsys_is_number=5802&tinwsys_st_code=TX&wsnumber=TX2200012%20%20%20&DWWState=TX.

The following information pertains only to Aledo, Westover Hills and White Settlement.

Drinking water violation affected part of FW water system

Fort Worth had a non-acute drinking water violation in 2021. The violation affected only Fort Worth homes and businesses in the westside pressure planes, and three other cities — Aledo, Westover Hills and White Settlement.

The Westside Water Treatment Plant failed to meet the minimum treatment technique requirements for the month of March 2021. The Texas Commission on Environmental Quality classifies the violation as a failure to maintain microbial treatment.

The Westside plant uses membranes to achieve removal credits for *Cryptosporidium*, *Giardia lamblia* and viruses. To receive the removal credits, TCEQ requires that each membrane rack pass a direct integrity test (DIT) every seven days.

The DIT is performed by pressurizing air through the membrane modules and holding that pressure for a pre-established duration. If the pressure drops below a minimum value, the test fails. Then the utility places the rack off line and inspects each module, looking for broken fibers that may impact the filtration effectiveness.

The treatment technique violation occurred because eight days elapsed between the successful integrity test

and membrane rack #5 was in service for three days after a failed test.

The Westside Water Plant, is the only Fort Worth plant to use membranes in the treatment process. Unlike most drinking water membrane filtration plants, the Westside plant has a full conventional treatment process upstream of the membrane filters. The pre-membrane treatment includes using ozone for taste and odor control and disinfection, chemical mixing, settling and granular media filtration. After the membranes, final disinfection occurs prior to being pumped to the water distribution system for use by our customers.

The other four membrane racks had successful DIT performed within the required timeframe and without any failures. Both the conventional granular filters and membrane filters recorded exceptionally good water quality levels throughout the period in question. The effectiveness of filters is measured by the turbidity (clarity) of the water. All routine bacteriological samples taken in the westside pressure planes on March 2, 3, 8, 10, 11, 15 and 25 passed.

The utility retrained all of the Westside plant's operations staff on how to respond to alarms pertaining to the membrane system.