



# 2021 Annual Drinking Water Quality Report

Consumer Confidence Report (CCR)

Annual Water Quality Report for the period of January 1 to December 31, 2021

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

Drinking water, including bottled water, may reasonably be expected to contain at least some small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the EPA's Safe Drinking Water Hotline at (800) 426 – 4791.

For more information regarding this report contact: City of Haslet Water Department (817) 439 – 5931

## Public Participation Opportunities

For opportunities for public participation in decisions that may affect the quality of the water, City Council meets 1<sup>st</sup> and 3<sup>rd</sup> Monday of every month at 7:00 pm. Agendas for these meetings are available the Friday before each meeting.

# Sources of Drinking Water

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels, over the surface of the land or through the ground, it dissolves naturally-occurring minerals and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activity.

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the EPA's Safe Drinking Water Hotline at (800) 426-4791.

Contaminants that may be present in source water include:

- Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.
- Inorganic contaminants, such as salts and metals, which can be naturally-occurring or result from urban storm water runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.
- Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban storm water runoff, and residential uses.
- Organic chemical contaminants, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and can also come from gas stations, urban storm water runoff, and septic systems.
- Radioactive contaminants, which can be naturally-occurring or be the result of oil and gas production and mining activities.

In order to ensure that tap water is safe to drink, EPA prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. FDA regulations establish limits for contaminants in bottled water which must provide the same protection for public health. Contaminants may be found in drinking water that may cause taste, color, or odor problems. These types of problems are not necessarily causes for health concerns. For more information on taste, odor, or color of drinking water, please contact the system's business office.

**You may be more vulnerable than the general population to certain microbial contaminants, such as *Cryptosporidium*, in drinking water. Infants, some elderly, or immunocompromised persons such as those undergoing chemotherapy for cancer; persons who have undergone organ transplants; those who are undergoing treatment with steroids; and people with HIV/AIDS or other immune system disorders, can be particularly at risk from infections. You should seek advice about drinking water from your physician or health care provider's Additional guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* are available from the Safe Drinking Water Hotline (800-426-4791).**

**If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. We are responsible for providing high quality drinking water, but we cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline or at <http://www.epa.gov/safewater/lead>.**

## Information about Source Water Assessments

The TCEQ completed an assessment of your source water and results indicate that some of your sources are susceptible to certain contaminants. The sampling requirements for your water system are based on this susceptibility and previous sample data. Any detections of these contaminants may be found in the Consumer Confidents Report. For more information on source water assessments and protection efforts at our system, contact the City of Haslet Water Department (817) 439-5931

For more information about your sources of water, please refer to the Source Water Assessment Viewer available at the following URL:

<http://www.tceq.texas.gov/gis/swaview>

Further details about sources and source-water assessments are available in Drinking Water Watch at the following URL:

<http://dww2.tceq.texas.gov/DWW>

## Water Sources

The City of Haslet purchases water from the City of Fort Worth. The City of Fort Worth provides purchased surface water from Lake Worth, Eagle Mountain Lake, Lake Bridgeport, Richland Chambers Reservoir, Cedar Creek Reservoir, Lake Benbrook and the Clear Fork Trinity River.

In addition to purchased surface water The City of Haslet provides ground water utilizing 2 wells one in the Trinity aquifer and one in the Paluxy aquifer located in the city of Haslet

Source Water Name	Water Source	Type of Water	Report Status	Location
1-N of FM 156	Well Site 1(Trinity)	GW	Y	2105 FM 156 S.
2-N of FM 156	Well Site 2(Paluxy)	GW	Y	2105 FM 156 S.
SW FROM FORT WORTH	CC FROM TX2200012 CITY OF	SW	----	The City has 3 connection points to the city of Fort Worth

# Definitions

Definitions	The following tables contain scientific terms and measures, some of which may require explanation.
<b>Action Level</b>	The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow
<b>Action Level Goal (ALG)</b>	The level of a contaminant in drinking water below which there is no known or expected risk to health. ALG's allow for a margin of safety
<b>AVG</b>	Regulatory compliance with some MCLs are based on running annual average of monthly samples
<b>Level 1 Assessment</b>	A level one 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 on multiple occasions.
<b>Level 2 Assessment</b>	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
<b>Maximum Contaminant Level or MCL</b>	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
<b>Maximum Contaminant Level Goal or MCLG</b>	The level of a contaminant that is allowed in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.
<b>Maximum residual disinfectant level or MRDL</b>	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
<b>MFL</b>	Million fibers per liter (a measure of asbestos)
<b>Mrem:</b>	Millirems per year (a measure of radiation absorbed by the body)
<b>Na:</b>	Not applicable
<b>NTU</b>	Nephelometric turbidity units ( a measure of turbidity)
<b>pCi/L</b>	Picocuries per liter (a measure of radioactivity)
<b>ppb</b>	micrograms per liter or parts per billion – or one ounce in 7,350,000 gallons of water.
<b>ppm</b>	Milligrams per liter or parts per million – or one ounce in 7,350 gallons of water.
<b>ppt</b>	Parts per trillion, or nanograms per liter (ng/L)
<b>ppq</b>	Parts per quadrillion, or picograms per liter (pg/L)
<b>Treatment Technique or TT</b>	A required process intended to reduce the level of a contaminant in drinking water

## Coliform Bacteria

Maximum Contaminant Level Goal	Total Coliform Maximum Contaminant Level	Highest No. of Positive	Fecal Coliform or E. Coli or Fecal Coliform Samples	Total No. of Positive E. Coli or Fecal Coliform Samples	Violation	Likely Source of Contamination
0	1 positive monthly sample	1	0	0	N	Naturally present in the environment

### 2021 Regulated Contaminants Detected

Disinfectant type	Unit	Year	Average Level	Minimum Level	Maximum Level	MRDL	MRDLG	Violation	Likely source of contamination
Chloramines	ppm	2021	1.27	.51	2.51	4	4	N	Water additive used to control microbes

Disinfection and Disinfection By- Products	Collection Date	Highest Levels Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
<b>Haloacetic Acids (HAA5)</b>	2021	5	4.5 – 4.5	No goal for the total	60	ppb	N	By-product of drinking water disinfection
<b>Total Trihalomethanes (TTHM)</b>	2021	5	5.02 – 5.02	No goal for the total	80	ppb	N	By-product of drinking water disinfection

Lead and Copper	Date Sampled	MCLG	Action Level (AL)	90 <sup>th</sup> Percentile	# Sites Over AL	Units	Violation	Likely Source of Contamination
<b>Copper</b>	2020	1.3	1.3	0.4	0	ppm	N	Erosion of Natural deposits; Leaching from wood preservatives; Corrosion of household plumbing systems.
<b>Lead</b>	2020	0	15	1.7	0	ppb	N	Corrosion of household plumbing systems; Erosion of natural deposits.

Inorganic Contaminants	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
<b>Barium</b>	03/28/2018	0.056	0.056 – 0.056	2	2	ppm	N	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.
<b>Cyanide</b>	08/17/2020	49.7	49.7 – 49.7	200	200	ppb	N	Discharge from plastic and fertilizer factories; Discharge from steel/metal factories.
<b>Fluoride</b>	03/28/2018	0.277	0.277 – 0.277	4	4.0	ppm	N	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories
<b>Nitrate [measured as Nitrogen]</b>	2021	0.314	0.155 – 0.314	10	10	ppm	N	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of Natural deposits.

Radioactive Contaminants	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
<b>Beta/Photon emitters</b>	03/28/2018	4.5	4.5 – 4.5	0	50	pCi/L*	N	Decay of natural and man-made deposits

\*EPA considers 50 pCi/L to be the level of concern for beta particles.

<b>Uranium</b>	03/28/2018	1	1 – 1	0	30	ug/L	N	Erosion of natural deposits.
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# 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 $\leq$ 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	
Bromodichloromethane	ppb	2021	Not regulated	0	2.55	2.48 to 6.91	By-products of drinking water disinfection; regulated as a group called Total Trihalomethanes
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	umhos/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 <sub>3</sub>	ppm	99.9 to 142
Total Dissolved Solids	ppm	149 to 249
Total Hardness as CaCO <sub>3</sub>	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.