Drinking Water Quality Report

REPORTING YEAR 2018

PWS ID# 2200054

CITY OF HURST

ABOUT THIS REPORT

This report is a summary of the quality of the water we provide our customers. The analysis was made by using the data from the most recent U.S. Environment Protection Agency (EPA) required tests and is presented in the attached pages. We hope this information helps you become more knowledgeable about what's in your drinking water.

En Español
Este reporte incluye informacion importante sobre el agua para tomar. Si tiene preguntas o' discusiones sobre este reporte en español, favor de llamar al tel. 817-788-7076 para hablar con una persona billingue en español.

Public Participation Opportunity

The City of Hurst Water Utilities will conduct a Community meeting to answer any questions you may have concerning your water.

July 17, 2019 – 6:00 P.M.
Hurst Service Center
2001 Precinct Line Road

Call 817-788-7200 for further information.

Where do we get our drinking water?

Our drinking water is obtained from ground and surface water sources. The surface water comes from the following area lakes: Benbrook, Eagle Mountain, Cedar Creek and Richland Chambers. The groundwater comes from the Trinity Aquifer.

For more information on where we get our drinking water please contact us at 817-788-7206.

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

Water Sources

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. Contaminants that may be present in source water before treatment include: microbes, inorganic contaminants, pesticides, herbicides, radioactive contaminants and organic chemical contaminants.

Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations.

Inorganic contaminants such as salts and metals, which can be naturally-occurring or result from urban storm water runoff, industrial or domestic waste-water 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

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.

Taste and Odor Problems

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 by the EPA. These constituents are not causes of health concerns. Therefore, secondary's are not required to be reported in this document, but they may greatly affect the appearance and taste of your water.

The City of Hurst, in order to maintain water clarity and quality as well as safe and adequate flows for fire protection mains, will flush fire hydrants throughout the city monthly. Fire hydrant flushing is an important tool in maintaining good water quality and firefighting capability and is a year round practice by all cities.

Information about source water assessments

The Texas Commission on Environmental Quality (TCEQ) completed an assessment of our source water and the results indicate that some of our sources are susceptible to certain contaminants. The sampling requirements for our 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 for our system, you may contact the Director of Utilities at 817-788-7206.

For more information about your sources of water, please refer to the Source Water Assessment View available at the following site: https://www.tceq.texas.gov/gis/swaview

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

Water Loss as Reported to TWDB

In the Water Loss Audit as reported to the Texas Water Development Board for the time period Jan-Dec 2018, our system reported:

Apparent Losses Normalized as 3.63 gallons lost per connection, per day. Real Losses Normalized as 14.29 gallons lost per connection, per day. The City of Hurst Infrastructure Leak Index or (I.L.I.) was reported at 1.20 and our overall Total Loss percentage was 5.87%.

If you have any questions about the water loss audit, please call the Director of Utilities at 817-788-7206.

Water IQ - Know Your Water

Water IQ is a public awareness program that educates Texans on the importance of water conservation. Research shows that the more Texans understand where their water comes from, the more likely they are to take an active role in conserving it. As Texans conserve our state's water resources, they are helping ensure that the state has enough water now and in the future.

Water IQ uses an easy-to-identify brand and hosts a variety of materials. Brochures and other educational content featuring tips and information on home indoor and outdoor water conservation, as well as agricultural and industrial conservation are available. These publications are free in limited quantities, and additional copies may be ordered for a nominal fee at www.wateriq.org

Special Notice

Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. EPA/CDC guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminates are available from the 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 cannot control the variety of materials used in plumbing components in your residence. 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

2018 Drinking Water Quality Report

These charts list all of the federally regulated or monitored constituents that have been found in your drinking water for the 2018 calendar year. The U.S. EPA requires water systems to test up to 97 constituents.

INORGANIC CONTAMINANTS

Year	Contaminant	High Level	Level Range	MCLG	MCL	Unit of Measure	Violation	Source of Contaminant
2017	Antimony	None Detected	N/A	>0.006	0.006	Mg/L	No	Discharge from petroleum refineries; fire retardants; ceramics; electronics; solder; test addition
2017	Arsenic	0.002	0.0015-0.002	>0.01	0.01	Mg/L	No	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes
2017	Barium	0.061	0.03-0.06	>2	2	Mg/L	No	Discharge from drilling waste; Discharge from metal refineries; Erosion of natural deposits.
2017	Beryllium	None Detected	N/A	0.004	0.004	Mg/L	No	
2017	Cadmium	None Detected	N/A	0.005	0.005	Mg/L	No	
2017	Chromium	0.003	0.00-0.0032	>0.01	0.01	Mg/L	No	Discharge from steel and pulp mills; Erosion of natural deposits.
2017	Cyanide	0.057	0.0437-0.0568	N/A	N/A	Mg/L	No	Discharge from plastic and fertilizer factories; Discharge from steel/metal factories.
2017	Fluoride	1.92	0.76-1.92	>4	4	Mg/L	No	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer & aluminum factories.
2017	Mercury	None Detected	N/A	>2	2	Mg/L	No	Erosion of natural deposits; Discharge from refineries and factories; Runoff from landfills; Runoff from cropland.
2018	Nitrate (measured as nitrogen)	0.752	0.06-0.75	>10	10	Mg/L	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; erosion of natural deposits.
2015	Nitrite (measured as nitrogen)	None Detected	N/A	≥1	1	Mg/L	No	
2017	Selenium	None Detected	N/A	>50	0.05	Mg/L	No	Discharge from petroleum and metal refineries; Erosion of natural deposits; Discharge from mines.
2017	Thallium	None Detected	N/A	0.002	0.002	Mg/L	No	Discharge from electronics, glass and leaching from ore-processing sites; drug factories.

*Nitrate Advisory – Nitrate in drinking water at levels above 10 ppm is a health risk for infants of less tha 6 months of age. High nitrate levels in drinking water can cause blue baby syndrome. Nitrate levels may rise quickly for short periods of time because of rainfall or agricultural activity. If you are caring for an infant you should as advice from your health care provider.

VOLATILE ORGANIC CONTAMINANTS

Year	Contaminant	High Level	Level Range	MCLG	MCL	Unit of Measure	Violation	Source of Contaminant
2018	None Detected	0	0	0	5	ppb	No	Discharge from pharmaceutical and chemical factories.

MAXIMUM RESIDUALS DISINFECTANT LEVELS

Year	Contaminant	MRDL	Level Range	Hurst Water	Ideal Goal	Unit of Measure	Violation	Source of Contaminant
2018	Chloramines	4	0.6-3.8	2.84	4	ppm	No	Water additive used to control microbes.

COLIFORM BACTERIA

MCL			Highest Monthly % of Positive Samples			Units of Measure		Likely Source of Contamination
0% of monthly samples are positive			0%			Presence		Naturally present in the environment.

LEAD AND COPPER

Year	Contaminant	The 90th Percentile	Number of Sites Exceeding the Action Level		Action Level	Unit of Measure	Violation	Source of Contaminat
2017	Copper	0.5018	0		1.3	ppm	No	Erosion of natural deposits; Leaching from wood preservatives; Corrosion of household plumbing systems.
2017	Lead	0.0023	0		15	ppb	No	Corrosion of household plumbing systems; Erosion of natural deposits.

TURBIDITY

Year	Contaminant	Highest Single Measure-ment	Lowest Monthly % of Samples Meeting Limits		Turbidity Limits	Unit of Measure	Violation	Source of Contaminat
2017	Turbidity	N/A	N/A		N/A	NTU	No	Soil Runoff

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

DISINFECTION AND DISINFECTION BY-PRODUCTS

Year	Contaminant	High Level	Level Range	MCLG	MCL	Unit of Measure	Violation	Source of Contaminant
2018	Haloacetic Acids (HAAs)	0.009	0.0089-0.002	No Goals	60	Mg/L	No	By product of drinking water disinfection.
2018	Total Trihalomethanes (TTHM)	0.011	0.0052-0.0112	No Goals	80	Mg/L	No	By product of drinking water disinfection.

RADIOACTIVE CONTAMINANTS

Year	Contaminant	High Level	Level Range	MCLG	MCL	Unit of Measure	Violation	Source of Contaminant
2017	Combined Radium 226/228	1.5	0-1.5	0	5	pCi/L	No	Erosion of Nnatural deposits.

SYNTHETIC ORGANIC CONTAMINANTS INCLUDING PESTICIDES AND HERBICIDES

Year	Contaminant	High Level	Level Range	MCLG	MCL	Unit of Measure	Violation	Source of Contaminant
2018	Atrazine	0.1	0.0-0.1	3	3	ppb	No	Runoff from herbicide used on row crops.

HURST - UCMR4 (UNREGULATER CONTAMINANTS MONITORING RULE)

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

Compound	Measure	Range of Detects	2018 Level	Common Sources of Substance
Manganese	ppb	0	0	Naturally occurring; used in drinking water and wastewater treatment; used in steel products, fertilizer, batteries and fireworks.
HAA5	ppb	0.002-0.0089	0.006	Byproduct of drinking water disinfection
HAA6Br	ppb	0	0	Byproduct of drinking water disinfection
HAA9	ppb	0	0	Byproduct of drinking water disinfection

HURST - 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	Your Water	Range of Detects	HAA5	HAA6Br	HAA9
Dichloroacetic Acid	ppb	6.4	2-6.4	HAA5		HAA9
Monochloroacetic Acid	ppb	2.3	1-2.3	HAA5		HAA9
Trichlororacetic Acid	ppb	0	0	HAA5		HAA9
Monobromoacetic Acid	ppb	1.5	1-1.5	HAA5	HAA6Br	HAA9
Dibromoacteic Acid	ppb	1.7	1.1-1.7	HAA5	HAA6Br	HAA9
Bromochloroacetic Acid	ppb	3.5	1-3.5		HAA6Br	HAA9
Bromodichloroacetic Acid	ppb	0	0-0		HAA6Br	HAA9
Chlorodibromoacetic Acid	ppb	0	0-0		HAA6Br	HAA9
Tribromoacetic Acid	ppb	0	0-0		HAA6Br	HAA9

Additional Information: www.epa.gov/dwucmr

REGULATED AT THE CITY OF FORT WORTH TREATMENT PLANT (FORT WORTH DATA)

TURBIDITY

Year	Contaminant	High Level	Level Range	MCLG	MCL	Unit of Measure	Violation	Source of Contaminant
2018	Turbidity	0.5	0.3	N/A	TT=1 TT= Lowest m % if samples < 0.3 NTU	NTU	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.

REGULATED AT THE CITY OF FORT WORTH TREATMENT PLANT (FORT WORTH DATA)

Year	Contaminant	High Level	Level Range	MCLG	MCL	Unit of Measure	Violation	Source of Contaminant
2018	Total Coliforms Fecal & E. coli	0	0.4-2.3%	0	5% or Less	% positive samples	No	Coliforms are naturally present in the environment as well as feces; fecal coliforms and E. coli only come from human and animal waste.
2018	Beta/photon emitters	5.6	4.4-5.6	0	50	pCi/L	No	Decay of natural and man-made deposits of certain materials that are radioactive and may emit forms of radiation known as photons and beta radiation.
2018	Combined Radium	2.5	N/A	0	5	pCi/L	No	Erosion of natural deposits.
2018	Uranium	1.1	0 to 1.1	0	30	ppm	No	Erosion of natural deposits.
2018	Arsenic	1.1	0 to 1.1	0	10	ppb	No	Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes.
2018	Atrazine	0.1	0.0-0.1	3	3	ppb	No	Atrazine is an herbicide of the triazine class used to prevent weed in crops & turf.

REGULATED AT THE CITY OF FORT WORTH TREATMENT PLANT (FORT WORTH DATA)

Year	Contaminant	High Level	Level Range	MCLG	MCL	Unit of Measure	Violation	Source of Contaminant
2018	Barium	0.07	0.05 to 0.07	2	2	ppm	No	Discharge of drilling waste; discharge from metal refineries; erosion of natural deposits.
2018	Cyanide	84.3	0 to 84.3	200	200	ppb	No	Discharge from plastic and fertilizer factories; discharge from steel and metal factories.

REGULATED AT THE CITY OF FORT WORTH TREATMENT PLANT (FORT WORTH DATA)

2018	Fluoride	0.61	0.17 to 0.61	4	4	ppm	No	Water additive which promotes strong teeth; erosion of natural deposits; discharge from fertilizer and aluminum factories.
2018	Nitrate (Measured as Nirtogen)	0.67	0.17 to 0.67	10	10	ppm	No	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits.
2018	Nitrite (Measured as Nirtogen)	0.02	0.02 to 0.02	1	1	ppm	No	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits.
2018	Bromate	4.83	0-10.7	0	10	ppb	No	By-product of drinking water disinfection.
2018	Haloacetic Acids			N/A	60	ppb	No	By-product of drinking water disinfection.
2018	Total Trihalomethanes			N/A	80	ppb	No	By-product of drinking water disinfection.
2017	Chloramines	3.9	1.5-4.3	4	4	ppm	No	Water additive used to control microbes.

REGULATED AT THE CITY OF FORT WORTH TREATMENT PLANT (FORT WORTH DATA)

Year	Contaminant	High Level	Low Level	Average	MCL	MCLG	Violation	Source of Contaminant
2018	Total Organic Carbon	1	1	1	TT = % removal	N/A	No	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.

REGULATED AT THE CITY OF FORT WORTH TREATMENT PLANT (FORT WORTH DATA)

Unregulated contaminants are those for which EPA has not established drinking water standards. The purpose of unregulated contaminant monitoring is to assist the EPA in determining the occurrence of unregulated contaminants in drinking water and whether future regulation is warranted.

Contaminant	Measure	Range of Detects	2018 Level	MRDL	MRDLG	Source of Contaminant
Chloral Hydrate	ppb	0.12-0.34	0.34	NR	0	By-product of drinking water disinfection.
Bromoform	ppb	0-5.15	5.15	NR	0	By-products of drinking water disinfection; not regulated individually; included in Total Trihalomethanes.
Bromodichloromethane	ppb	1.99-7.08	7.08	NR	0	
Chloroform	ppb	2.43-8.40	8.4	NR	70	
Dibromochloromethan	ppb	1.31-6.94	6.94	NR	60	
Dibromoacetic Acid	ppb	1-4.3	4.3	NR	N/A	By-products of drinking water disinfection; not regulated individually; included in Haloacetic Acids.
Dichloroacetic Acid	ppb	3.9-8.5	8.5	NR	0	
Monobromoacetic Acid	ppb	0-2.3	2.3	NR	N/A	
Monochloroacetic Acid	ppb	1.5-3.9	3.9	NR	70	
Trichloroacetic Acid	ppb	0-2.2	2.2	NR	20	

FORT WORTH - UCMR4 (UNREGULATER CONTAMINANTS MONITORING RULE)

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.

Compound	Measure	Range of Detects	2018 Level	Common Sources of Substance
Manganese	ppb	0.00 to 1.29	1.29	Naturally occurring; used in drinking water and wastewater treatment; used in steel products, fertilizer, batteries and fireworks.
HAA5	ppb	2.6 to 18.62	18.62	Byproduct of drinking water disinfection
HAA6Br	ppb	0 to 8.88	8.88	Byproduct of drinking water disinfection
HAA9	ppb	0 to 22.98	22.98	Byproduct 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	Your Water	Range of Detects	HAA5	HAA6Br	HAA9
Dichloroacetic Acid	ppb	7.88	2.60-7.88	HAA5		HAA9
Monochloroacetic Acid	ppb	6.22	0-6.22	HAA5		HAA9
Trichlororacetic Acid	ppb	0	0-0	HAA5		HAA9
Monobromoacetic Acid	ppb	0	0-0	HAA5	HAA6Br	HAA9
Dibromoacteic Acid	ppb	4.52	0-4.52	HAA5	HAA6Br	HAA9
Monobromoacetic Acid	ppb	0	0-0	HAA5	HAA6Br	HAA9
Dibromoacteic Acid	ppb	4.52	0-4.52	HAA5	HAA6Br	HAA9
Bromochloroacetic Acid	ppb	4.36	0-4.36		HAA6Br	HAA9
Bromodichloroacetic Acid	ppb	4.36	0-0		HAA6Br	HAA9
Chlorodibromoacetic Acid	ppb	0	0-0		HAA6Br	HAA9
Tribromoacetic Acid	ppb	0	0-0		HAA6Br	HAA9

Additional Information: www.epa.gov/dwucmr

SECONDARY CONSTITUENTS (FORT WORTH)

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

ITEM	MEASURE	2018 RANGE
Bicarbonate	ppm	108 to 144
Calcium	ppm	42 to 52.1
Chloride	ppm	11.8 to 40
Conductivity	µmhos/cm	302 to 471
pH	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 CaCO3	ppm	98.2 to 136
Total Dissolved Solids	ppm	156 to 251
Total Hardness as Ca CO3	ppm	118 to 162
Total Hardness in Grains	grains/gallon	7 to 9

Fort Worth - Microorganism testing shows low detection 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 waster in the watershed. The 2018 sampling showed low level detections of Cryptosporidium, Giardia Lamblia and viruses in some but not all of the water supply sources. Viruses are treated through disinfection processes. Cryptosporidium and Giardia Lamblia are removed through disinfection and / or filtration.

Fort Worth - TCEQ accesses raw water supplies
The City Fort Worth who is the primary provider of water to the City of Hurst, uses water from Lake Worth, Eagle Mountain, 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 water as high for most contaminants. High susceptibility means there are activities near the source water or watershed makes it very likely that chemical constituents may come into contact with the source water. It does not mean that there are any health risk present. Tarrant Regional Water District, from which Fort Worth Purchases its water, received the assessment reports. For more information about Fort Worth's source water assessment and protection efforts for the Fort Worth Water 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:**
https://dww2.tceq.texas.gov/DWW/JSP/WaterSystemFacilities.jsp?tinwsys_is_number=5821&tinwsys_st_code=TX&wsnumber=TX2200054%20%20%20&DWWState=TX) MO 04/26/2019

DEFINITIONS

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

MCL: Maximum Contaminant Level: The highest level of 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 contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for margin and 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.

MRL: Minimum Reporting Level: The lowest concentration of a contaminant that can be measured by a laboratory.

NTU: Nephelometric Turbidity Unit: A measure of water turbidity and clarity.

pCi/L: Picocuries Per Liter: A measure of radioactivity.

MFL: Million fibers per liter (a measure of asbestos)

N/A: Not Applicable

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 ounce I 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 picograms per liter (pg/L)