



Annual Drinking Water Quality Report 2021

PWS ID Number TX2200060

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

This report is a summary of the quality of water provided to Lake Worth customers. Analyses were made by using data from the most recent U.S. Environmental Protection Agency (EPA) testing requirements are presented in the attached documentation. This information helps you become knowledgeable about what's in your drinking water. Lake Worth's constant goal is to provide you with a safe and dependable supply of water. For information regarding this report or concerning your water service, please contact

City of Lake Worth Water Department
(817) 237-1211 ext. 200

En español Este informe incluye información importante sobre el agua potable. Si tiene preguntas o comentarios sobre este informe en español, favor de llamar al tel. (817) 237-1211 ext. 116. Par hablar con una persona bilingüe en español.

TCEQ assesses raw water supplies for susceptibility

The City of Lake Worth produces drinking water from two wells. The water comes from the Paluxy and Trinity Aquifers. Lake Worth also purchases drinking water from the City of Fort Worth. Fort Worth uses surface water from Lake Worth, Eagle Mountain Lake, Lake Bridgeport, Richland Chambers 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 the 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 systems, contact Stacey Walters at (817) 392-8203. Further details about the source-water 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=TX220001212%20&DWWSState=TX

Information about your 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. 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 providers. 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.

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

A Source Water Susceptibility Assessment for your drinking water source(s) is currently being updated by the Texas Commission on Environmental Quality. 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 information contained in the assessment allows us to focus source water protection strategies. For information about your source water, please refer to the Source Water Assessment Viewer available at:

<https://www.teq.texas.gov/gis/swaview> Further details about sources and source water assessments are available in Drinking Water Watch at: <https://www.tceq/Texas.gov/drinkingwater>

Source Water Name		Type of Water	Report Status	Location
3 Azle Ave/Hwy 820 (PS 2)	Aze Ave/Hwy 820	GW	A	Longitude: -97.414927 Latitude: 32.803497
5 Stadium Wall/Boat Club (PS 4)	PS 4	GW	A	Longitude -97.414448 Latitude: 32.818708
SW from Fort Worth	CC From TX22000012 City of Fort Worth	GW	A	Longitude: -97.421449 Latitude: 31.822186

TCEQ 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 is based on this susceptibility and previous sample data. Any detections of these contaminants will be found in this Consumer Confidence Report.

Regulated contaminants – Not all sample results may have been used for calculating the Highest Level Detected because some results may be part of an elevation to determine compliance sampling should occur in the future

City of Lake Worth Water Quality Test Results for calendar year 2021

Disinfection By-Products	Collection Date	Highest Level Detected	Range of Individual Samples	MCLG	MCL	Units	Violation	Likely Source of Contamination
Haloacetic Acids (HAA5)	2021	5	2.2 - 6.1	No goal for the total	60	ppb	N	By-product of drinking water disinfection.

*The value in the Highest Level or Average Detected column is the highest average of all HAA5 sample results collected at a location over a year

Total Trihalomethanes (TTHM)	2021	5	1.15 - 7.43	No goal for the total	80	ppb	N	By-product of drinking water disinfection.
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*The value in the Highest Level or Average Detected column is the highest average of all TTHM sample results collected at a location over a year

Inorganic Contaminants – Nitrate Advisory – Nitrate drinking water at levels above 10 ppm is a health risk for infants of less than six 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 ask advice from your health care provider.

Inorganic Contaminants	Collection Date	Highest Level Detected	Range of Individual Samples	MCLG	MCL	Units	Violation	Likely Source of Contamination
Barium	02/04/2019	0.12	0.012	2	2	ppm	N	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.
Chromium	02/04/2019	1.6	1.5 - 1.6	100	100	ppb	N	Discharge from steel and pulp mills; Erosion of natural deposits.
Cyanide	04/30/2020	57.7	39.4 - 57.7	200	200	ppb	N	Discharge from plastic and fertilizer factories; Discharge from steel/metal factories.
Fluoride	04/30/2020	0.313	0.313 - 0.313	4	4.0	ppm	N	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories.
Nitrate [measured as Nitrogen]	2021	0.213	0.0551 - 0.213	10	10	ppm	N	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.
Nitrite [measured as Nitrogen]	2021	0.0452	0 - 0.0452	1	1	ppm	N	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.

Radioactive Contaminants	Collection Date	Highest Level Detected	Range of Individual Samples	MCLG	MCL	Units	Violation	Likely Source of Contamination
Combined Radium 226/228	01/20/2016	1.5	1.5 - 1.5	0	5	pCi/L	N	Erosion of natural deposits.

Disinfectant Residual

Disinfectant Residual	Year	Average Level	Range of Levels Detected	MRDL	MRDLG	Unit of Measure	Violation (Y/N)	Source in Drinking Water
Chloramines	2021	2.16	0.5 – 3.8	4	4	ppm	N	Water additive used to control microbes.
Lead and Copper	Date Sampled	MCLG	Action Level (AL)	90th Percentile	# Sites Over AL	Units	Violation	Likely Source of Contamination
Copper	08/21/2019	1.3	1.3	0.27	0	ppm	N	Erosion of natural deposits; Leaching from wood preservatives; Corrosion of household plumbing systems.
Lead	08/21/2019	0	15	1.4	0	ppb	N	Corrosion of household plumbing systems; Erosion of

SW From Fort Worth CC Form TX2200012 City of Fort Worth

The following information is provided by the City of Fort Worth since the City of Lake Worth purchases treated water from Fort Worth

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 < 0.03 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/pton 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 & electronics production waste
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	1967	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 & 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
Halo acetic 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

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 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;
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	regulated as a group called Haloacetic Acids
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	ppm	107 to 183
Total Hardness in Grains	grains/gallon	6 to 11

Microorganism testing shows low detections in raw water

Tarrant Regional Water District monitors the raw water at all intake sites for Cryptosporidium, Giardia Lamblia 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



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.

NIA- 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
($\mu\text{g/L}$)

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