



2019 Annual Drinking Water Quality Report Consumer Confidence Report (CCR) CITY OF RIVER OAKS, TEXAS

4900 RIVER OAKS BLVD.
RIVER OAKS, TEXAS 76114

817-626-5421 Ext. 322 PWS ID NUMBER: TX 2200069

Annual Water Quality Report for the period of January 1 to December 31, 2019

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. **For more information contact: Gordon Smith @ 817-626-5421, extension 322 and Marvin Gregory, extension 324.**

EN ESPANOL

Este reporte incluye información importante sobre el agua para tomar. Para asistencia en español, favor de llamar a María Tueme al tel. 817-626-5421 ext 322.

SOURCES OF DRINKING WATER

The City of River Oaks provides surface water from Lake Worth located in Tarrant County treated at Surface Water Treatment Plant located at 1900 Nancy Ln. 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 pickup 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 the 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 and 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 at 817-626-5421 Extension 322. These constituents (such as calcium, sodium, or iron) are called secondary contaminants and are not causes for health concern; but may greatly affect the appearance and taste of your drinking water.

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 at (800-426-4791).*

Information about Source Water Assessments

The Texas Commission on Environmental Quality completed an assessment of River Oaks source waters 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. For more information on source water assessments and protection efforts at our system contact *Gordon Smith @ 817-626-5421, extension 322 and Marvin Gregory, extension 324.*

High susceptibility means there are activities near the source water or a water shed that make it 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 River Oaks purchases its water, received the assessment reports. The information contained in the assessment allows us to focus source water protection strategies. Further details about sources and source-water assessments are available in Texas Commission on Environmental Quality's Drinking Water Watch Database at the following URL: https://dww2.tceq.texas.gov/DWW/JSP/SWAP.jsp?tinwsys_is_number=5827&tinwsys_st_code=TX&wsnumber=TX2200069

Water Quality Test Results 2019

Definitions and Abbreviations: The following tables contain scientific terms and measures, some of which may require explanation.

Avg: Regulatory compliance with some MCLs are based on running annual average of monthly samples.

Maximum Contaminant Level or (MCL): 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.

Maximum Contaminant Level Goal or (MCLG): 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.

Maximum Residual Disinfectant Level or (MRDL): The highest level of 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 or (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.

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

mrem: millirems per year (a measure of radiation absorbed by the body)

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 in 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) **na:** not applicable

Treatment Technique or TT: A required process intended to reduce the level of a contaminant in drinking water.

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 have been found in our water system.

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 E. coli MCL violation has occurred and/or why total coliform bacteria have been found in our water system on multiple occasions.

2019 REGULATED CONTAMINANTS

Disinfections and Disinfection By-Products	Collection Date	Highest Level Detected	Range of Individual Samples	MCLG	MCL	Units	Violation	Likely Source of Contamination
Haloacetic Acids (HAA5)	2019	31	3.9 - 54.4	No Goal for the total	60	ppb	No	By-product of drinking water disinfection.
Total Trihalomethanes (TTHM)	2019	64	2.55 -134	No Goal for the total	80	ppb	No	By-product of drinking water disinfection.

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

INORGANIC CONTAMINANTS

Inorganic Contaminants	Collection Date	Highest Level Detected	Range of Individual Samples	MCLG	MCL	Units	Violation	Likely Source of Contamination
Barium	2019	0.066	0.066 - 0.066	2	2	ppm	No	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.
Chromium	2019	1.1	1.1 - 1.1	100	100	ppb	No	Discharge from steel and pulp mills; Erosion of natural deposits.
Cyanide	2019	69.4	69.4- 69.4	200	200	ppb	No	Discharge from plastic and fertilizer factories; Discharge from steel/metal factories.
Fluoride	2019	0.1	0.116- 0.116	4	4.0	ppm	No	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories.
Nitrate (measured as nitrogen)	2019	0.106	0.106 - 0.106	10	10	ppm	No	Runoff from fertilizer use; Leaching from Septic Tanks; sewage, Erosion of natural deposits

RADIOACTIVE CONTAMINANTS

Inorganic Contaminants	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Beta/Photon emitters	03/01/2016	4.6	4.6– 4.6	0	50	pCi/L*	No	Decay of natural and man-made deposits

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

Microorganism testing shows low detections in raw water:

Tarrant Regional Water District monitors the raw water at all intakes sites for *Cryptosporidium*, *Giardia Lamblia* and viruses. The source is human and animal fecal waste in the water shed. The 2019 sampling showed low level detections of *Cryptosporidium*, *Giardia Lamblia* and viruses in some but not all of the water sources . Viruses are treated through disinfection processes. *Cryptosporidium* and *Giardia Lamblia* are removed through disinfection

2019 REGULATED CONTAMINANTS continued

Total Organic Carbon

The percentage of Total Organic Carbon (TOC) removal was measured each month and the system met all TOC removal requirements set, unless a TOC violation is noted in the violation section.

Disinfectant Residual Reporting

Year	Disinfectant	Average Level	Min Level	Max Level	MRDL	MRDLG	Unit of Measure	Violations	Source of Chemical
2019	Chloramines	1.99	0.5	4.0	4.0	<4.0	ppm	No	Water Additive used to control microbes

TURBIDITY: Information Statement: Turbidity is a measurement of the cloudiness of the water caused by suspended particles. We monitor it because it is a good indicator of water quality and the effectiveness of our filtration system and disinfectants.

Turbidity	Limit Detected	Level (Treatment Technique)	Violation	Likely Source of Contamination
Highest Single Measurement	0.34 NTU	1 NTU	No	Soil Run Off
Lowest Monthly % meeting limit	100%	0.3 NTU	No	Soil Run Off

COLIFORM BACTERIA

Maximum Contaminant Level Goal	Total Coliform Maximum Contaminant Level	Highest No. of Positive	Fecal Coliform or E. Coli Maximum Contaminant Level	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 environment

Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other, potentially harmful, waterborne pathogens may be present or that a potential pathway exists through which contamination may enter the drinking water distribution system. City of River Oaks collects the EPA / TCEQ required 8 water samples monthly distribution system wide. All 96 test were negative for any bacteriological containments.

SYNTHETIC ORGANIC CONTAMINANTS

Synthetic organic contaminants including pesticides and herbicides	Collection Date	Highest Level Detected	Range of Individual Samples	MCLG	MCL	Units	Violation	Likely Source of Contamination
Atrazine	2019	0.1	0.1- 0.1	3	3	ppb	No	Runoff from herbicide used on row crops
Heptachlor Epoxide	2018	40	40 - 40	0	200	ppt	No	Breakdown of heptachlor
Simazine	2018	0.07	0.07 – 0.07	4	4	ppb	No	Herbicide runoff

2019 REGULATED CONTAMINANTS continued

Lead and Copper

Definitions:

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.

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

Lead and Copper	Date Sampled	MCLG	Action Level (AL)	90th Percentile	# Sites Over AL	Units	Violation	Likely Source of Contamination
Copper	2019	1.3	1.3	0.36	0	ppm	No	Erosion of natural deposits; Leaching from wood preservatives; Corrosion of household plumbing systems.
Lead	2019	0	15	2.4	0	ppb	No	Corrosion of household plumbing systems; Erosion of natural deposits.

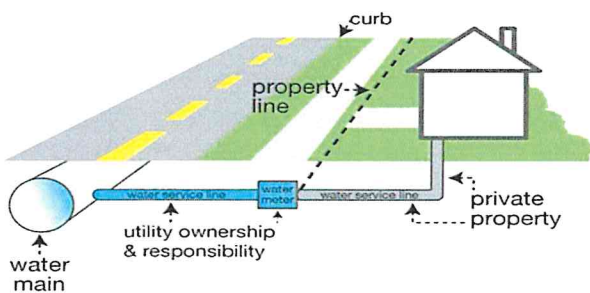
What you should know about lead in drinking water:

If present, elevated lead levels 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 your home 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 two (2) minutes before using the tap 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 your exposure is available from the **Safe Drinking Water Hotline (800) 426-4791**, or at <http://www.epa.gov/safewater/lead>.

River Oaks in 2018 collected water samples from 40 homes to monitor for lead and copper. Out of the 40 water samples taken Zero (0) were over the action level for lead and Zero (0) were over the action level for copper.

90th Percentile Value: 90 percent of the samples were at or below this value. EPA considers the 90th percentile value the same as an “average” value for other contaminants. Lead and copper are regulated by a treatment technique that requires systems to control the corrosiveness of their water. If more than 10 percent of tap water samples exceed the action level, water systems must take additional steps.

Eliminating lead plumbing is a shared responsibility



EPA defines the service line as from the main to the point it enters the home. There is a shared ownership.

The utility owns the portion from the water main to the meter, including the meter.

The property owner is responsible for the line exiting the meter and all plumbing and fixtures inside

VIOLATION TABLE

The City of River Oaks received no violations during the physical year January 1, 2019 to December 31, 2019

City of River Oaks Emergency Water Supply Interconnection with City of Fort Worth

In accordance with the requirements of 290.272. (g)(6) Systems that use an interconnect or emergency source to augment the drinking water supply during the calendar year of the report must provide the source of the water length of time, an explanation of why it was used and whom to call for the water quality information.

City of River Oaks used the treated water emergency interconnection with the City of Fort Worth to supply water to River Oaks Water Distribution System while upgrades and/or repairs were being made at the water treatment plant.

January 1 - March 1 2019 (28.2 MG) Rapid mix impeller bearing and shaft failure occurred in the clear well. Repairs were made under warranty. When bringing the plant back online, the Cla-val mix water and post Cl2 ejector presented problems and repairs were also made during the time frame.

June 7 - June 21 2019 (3.68 MG) Blower Motor for clear-well; TTHM abatement process removal and rapid mix VFD repairs.

June 24 - June 27 (.26 MG) Cl2 vacuum regulator repairs on finished water.

July 1 - September 22 (60.41 MG) Rapid mix impeller VFD failures (multiple)

October 18 - December 26 (34.61 MG) Damaged inlet from dam, Divers replaced inlet screen on intake, TCEQ required installation of sample stations for Disinfection zones 2 and 4, SCADA computer failure and repairs, Cl2 ejector leak on finished water.

Below is the City of Fort Worth Drinking Water Quality Test Results.

To obtain the full City of Fort Worth water quality data report: please visit the City of Fort Worth Website @ <http://fortworthtexas.gov/tapwater/> or contact Gordon Smith 817-626-5421 ext.322.

Drinking Water Quality Test Results

Compound	Measure	MCL	MCLG	Your water	Violation	Common Sources of Substance	
Turbidity	NTU	TT=1 TT= Lowest monthly % of samples ≤ 0.3 NTU	N/A	0.5 99.9%	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.)	
Compound	Measure	MCL	MCLG	Your water	Range	Violation	Common Sources of Substance
Total Coliforms (including fecal coliform & E. coli)	TT = 5% of monthly samples are positive	0	1%	0 to 1%	No	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	MCL	MCLG	Your water	Range	Violation	Common Sources of Substance
Beta/Photon emitters ¹	pCi/L	50	0	5.6	4.4 to 5.6	No	Decay of natural and man-made deposits
Combined Radium ¹	pCi/L	5	0	2.5	N/A	No	Erosion of natural deposits
Uranium ¹	ppb	30	0	1.1	0 to 1.1	No	Erosion of natural deposits
Arsenic	ppb	10	0	1.50	0 to 1.50	No	Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes
Atrazine	ppb	3	3	0.1	0 to 0.1	No	Runoff from herbicide used on row crops
Barium	ppm	2	2	0.06	0.05 to 0.06	No	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Cyanide	ppb	200	200	126	74.8 to 126	No	Discharge from plastic and fertilizer factories; discharge from steel and metal factories
Fluoride	ppm	4	4	0.54	0.15 to 0.54	No	Water additive which promotes strong teeth; erosion of natural deposits; discharge from fertilizer and aluminum factories
Nitrate (as Nitrogen)	ppm	10	10	0.58	0.18 to 0.58	No	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Nitrite (as Nitrogen)	ppm	1	1	0.02	0.01 to 0.02	No	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Bromate	ppb	10	0	4.35	0 to 14.8	No	By-product of drinking water disinfection
Haloacetic Acids	ppb	60	N/A	13.9	3.5 to 12.9	No	By-product of drinking water disinfection
Total Trihalomethanes	ppb	80	N/A	19.0	2.44 to 29.2	No	By-product of drinking water disinfection
Compound	Measure	MCL	MCLG	Your water	Range	Violation	Common Sources of Substance
Chloramines ²	ppm	4	4	3.37	0.89 to 4.40	No	Water additive used to control microbes
Compound	MCL	MCLG	High	Low	Average	Violation	Common Sources of Substance
Total Organic Carbon ³	TT = % removal	N/A	1	1	1	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. A removal ratio of 1 in SUVA calculations is considered passing.

¹ Because Fort Worth historically has had low levels of radionuclides in its water, TCEQ requires this monitoring occur only once every six years. The test results shown above are from 2017. The next monitoring will occur in 2023.

City of River Oaks
Water Department
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River Oaks, Texas 76114-3007



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City of River Oaks 2019 Annual Drinking Water Quality Report

This report details where your water comes from, what it contains and how that it compares with regulatory standards. City of River Oaks wants you to know this information so you will be able to better understand and support the improvements necessary to maintain the highest drinking water standards.

2019 Annual Drinking Water Quality Report

About This Report

This Water Quality Report, also known as “The Consumer Confidence Report” (CCR), is published to the public as mandated by the EPA as controlled by the Texas Commission on Environmental Quality (TCEQ). Our water system is under the regulations mandated by the “Surface Water Rule” for drinking water supply systems in the State of Texas.



City Staff welcomes you to visit the City of River Oaks Website at www.riveroakstx.com. On the website there is a section to sign up to receive email updates from the City. Due to amount of on-going capital construction, Town Hall meetings are taking place the first Tuesday of each month 6:00 pm at River Oaks Event Center 5300 Blackstone River Oaks, Texas. 76114. COVID-19 Regulations may effect scheduled meetings. Check website for constant updates.