

TYLER COUNTY SPECIAL UTILITY DISTRICT

TCEQ-DESIGNATED as a SUPERIOR WATER SYSTEM

2021 ANNUAL WATER QUALITY REPORT

OUR DRINKING WATER IS REGULATED BY THE TEXAS COMMISSION ON ENVIRONMENTAL QUALITY. This Report is a summary of the quality the water we provide to our customers. The analysis was made by using the data from the most recent required tests (in 2021), in conjunction with the Federal (EPA) Drinking Water Standards, and is presented in the following pages. *PLEASE NOTE: Except for the Monthly Bacteriological Samples (taken by TCSUD Employees), all Samples are taken by the TCEQ Sampling Contractor and these Samples are processed (analyzed) by the Texas Department of Health Services.*

All drinking water may contain contaminants. When drinking water meets Federal Standards there may not be any health-based benefits for purchasing bottled water or point of use devices. Drinking water, including bottled water, may reasonably be expected to contain at least some contaminants. The presence of contaminants does not necessarily indicate that 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 (1-800-426-4791).

Lead and Copper Sampling: The TCSUD, because it has consistently met the TCEQ Standards for Lead and Copper, is currently on a Reduced Sampling Regimen (sampling every three years).

Secondary Constituents: Many constituents (such as calcium, sodium, iron, or manganese) which are often found in drinking water, can cause taste, color, and odor problems, these are called Secondary Constituents and are regulated by the State of Texas (TCEQ), not EPA. These constituents are not a cause for health concerns and are not part of this Report, but may affect the appearance and taste of your water.

Special Notice for the Elderly, Infants, Cancer Patients, People with HIV/AIDS, or other Immune Problems: Some people (as these listed or with similar health problems) may be more vulnerable to contaminants in drinking water than the general population. These people should seek advice about drinking water from their care providers. EPA/Centers for Disease Control and Prevention (CDC) guidelines on appropriate means to lesson the risk of infection by *Cryptosporidium* and other microbial contaminants (normally present in surface water supplies) are available from the Safe Drinking Water Hotline (1-800-426-4791).

Water Sources: The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, springs, and wells. Tyler County Special Utility District obtains 100% of its water supply from Groundwater Wells. **The Tyler County Special Utility District** obtains its Groundwater Supply (drinking water supply) from the GULF COAST AQUIFER. Groundwater Supplies, as utilized by the TCSUD, must – at a minimum – be disinfected (a Chlorine Residual must be maintained at all times), and this is successfully accomplished by the District on a daily basis.

Surface Water Supplies (rivers, lakes, and streams) are more likely to be contaminated by microbial contaminants that travel over the land surface due to rainfall and runoff. Subsequently, Surface Water Supplies require a more complicated water treatment process (coagulation, flocculation, sedimentation, filtration, and disinfection).

Definitions and Water Quality Information: The following definitions pertain to the terms and abbreviations listed on the WATER QUALITY REPORT displayed on the following pages. Telephone numbers for obtaining additional water quality information include TCEQ (512-239-1000) and the Tyler County SUD (409-429-3994).

- **Maximum Contaminant Level (MCL)** = The highest permissible level of a contaminant (constituent) in drinking water. MCLs are set as close to MCLGs as feasible using the best available treatment technology.
- **Maximum Contaminant Level Goal (MCLG)** = The level of a contaminant in drinking water below which there is no known or expected health risk. MCLGs allow for a margin of safety.
- **Maximum Residual Disinfectant Level (MRDL)** = The highest level of disinfectant allowed in drinking water. Disinfection is necessary for control of microbial contaminants.
- **Maximum Residual Disinfectant Level Goal (MRDLG)** = The level of disinfectant (chlorine) 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 contamination.
- **Treatment Technique (TT)** = A required process intended to reduce the level of a water contaminant.
- **Action Level (AL)** = The concentration of a contaminant, which – if exceeded – triggers treatment or other requirements which a water system must follow.
- **VOCs** = Volatile Organic Chemicals
- *Measurement Definitions:* **pCi/l** or **mrem/year** (picocuries per liter or millirems per year – measures of radioactivity); **ppm** or **mg/l** (parts per million or milligrams per liter); **ppb** (parts per billion or milligrams per liter); **NTU** (Nephelometric Turbidity Units – a measure of the degree of turbidity); **ppt** (parts per trillion or nanograms per liter; and, **ppq** (parts per quadrillion or picogram per liter).

Public Participation: The Tyler County SUD Board of Directors meets once per month to discuss important issues for the benefit of the District's Customers. If you have any questions about this Annual Water Quality Report, please contact the District's General Manager at the TCSUD Office (phone number 409-429-3994). *En Espanol: Este reporte incluye informacion importante sobre el agua para tomar. Si tiene preguntas o discusiones sobre este reporte en espanol, favor de llamar al tel. (409) 429-3994 par hablar con una persona bilingue en espanol.*

NOTE: In 2015, based on the outstanding performance of the Tyler County Special Utility District, the TCEQ designated the TCSUD as a SUPERIOR PUBLIC WATER SYSTEM.

Lead and Copper	Date Sampled	MCLG	Action Level (AL)	90th Percentile	# Sites Over AL	Units	Violation	Likely Source of Contamination
Copper	09/11/2019	1.3	1.3	0.18	0	ppm	N	Erosion of natural deposits; Leaching from wood preservatives; Corrosion of household plumbing systems

2021 Water Quality Test Results

Disinfection By-Products	Collection Date	Highest Level Detected	Range of Individual Samples	MCLG	MCL	Units	Violation	Likely Source of Contamination
Haloacetic Acids (HAA5)	2021	4	4.1 - 4.1	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)	Collection Date	Highest Level Detected	Range of Individual Samples	MCLG	MCL	Units	Violation	Likely Source of Contamination
	2021	14	13.9 - 13.9	No goal for the total	80	ppb	N	By-product of drinking water disinfection.

*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	Collection Date	Highest Level Detected	Range of Individual Samples	MCLG	MCL	Units	Violation	Likely Source of Contamination
Barium	08/20/2020	0.146	0.0598 - 0.146	2	2	ppm	N	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.
Fluoride	08/20/2020	0.12	0 - 0.12	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	1	0 - 1.42	10	10	ppm	N	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.

CHLORINE DISINFECTANT RESIDUALS: These Free Chlorine Residuals are taken on a Daily Basis by a TCSUD Water System Operator. The Minimum Free Chlorine Residual is 0.2 mg/l and the Maximum Chlorine Residual is 4.0 mg/l. Per TCEQ Requirements, the District submits information to the TCEQ, as regarding these Residuals, on a Quarterly Basis (DLQOR = Disinfectant Level Quarterly Operating Report).

NOTE: The District takes seven (7) samples per day (throughout the water system), for 365 days per year: First Quarter (630 samples), Second Quarter (637 samples), Third Quarter (644 samples), and Fourth Quarter (644 samples).

There were NO VIOLATIONS as related to Disinfectant (Chlorine) Residuals.

	AVERAGE OF ALL RESIDUALS	LOWEST RESIDUAL	HIGHEST RESIDUAL
FIRST QUARTER	1.35 mg/l	0.48 mg/l	2.08 mg/l
SECOND QUARTER	1.31 mg/l	0.41 mg/l	2.30 mg/l
THIRD QUARTER	1.41 mg/l	0.23 mg/l	1.94 mg/l
FOURTH QUARTER	1.43 mg/l	0.21 mg/l	2.04 mg/l
AVERAGES FOR YEAR	1.38 mg/l	0.33 mg/l	2.09 mg/l

As can be seen via the information provided below, there were NO VIOLATIONS as regarding Radioactive Constituents. The “Public Notice Violation” was due to the Monitoring Process, as the Texas Department of Health Services did not analyze (test) the samples in a timely manner, and this is indicated by listing that this issue has been resolved (2021).

Radioactive Contaminants	Collection Date	Highest Level Detected	Range of Individual Samples	MCLG	MCL	Units	Violation	Likely Source of Contamination
Beta/ photon emitters	2021	7.7	6.8 - 7.7	0	50	pCi/L*	N	Decay of natural and man-made deposits.
Combined Radium 226/228	2021	3	2.55 - 3.15	0	5	pCi/L	N	Erosion of natural deposits.
Gross alpha excluding radon and uranium	2021	11.6	7.7 - 11.6	0	15	pCi/L	N	Erosion of natural deposits.

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

Public Notification Rule			
The Public Notification Rule helps to ensure that consumers will always know if there is a problem with their drinking water. These notices immediately alert consumers if there is a serious problem with their drinking water (e.g., a boil water emergency).			
Violation Type	Violation Begin	Violation End	Violation Explanation
PUBLIC NOTICE RULE LINKED TO VIOLATION	09/18/2021	2021	We failed to adequately notify you, our drinking water consumers, about a violation of the drinking water regulations.