

Redland Water Supply Corporation

2021 Annual Drinking Water Quality Report

(Consumer Confidence Report for the Period of January 1 to December 31, 2021)

PWS# TX0030028

2687 FM 2021 •Lufkin, TX 75901

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We are once again proud to present our annual water quality report covering all testing performed between January 1, 2021 to December 31, 2021. This report is intended to provide you with information about your drinking water and the efforts made by the water system to provide safe drinking water. Over the years we have dedicated ourselves to producing drinking water that meets all state and federal standards. We continually strive to adopt new methods for delivering the best quality drinking water to you. As new challenges to drinking water safety emerge, we remain vigilant in meeting the goals of source water protection, water conservation, and community education while continuing to serve the needs of all our water users. Please share with us your thoughts or concerns about the information in this report. After all, well-informed customers are the best allies. For more information about this report, or for any questions relating to your drinking water, please call Guy Ham, Manager, at (936) 634-5070. Este reporte incluye informacion importante sobre el agua para tomar. Para asistencia en espanol, favor de llamar al telefono (936) 634-5070.

COMMUNITY PARTICIPATION

You are invited to participate in our public forum and voice your concerns about your drinking water. Meetings are held the 3rd Tuesday of each month beginning at 4:00 p.m. at the Redland Water Supply office located at 2687 FM 2021.

IMPORTANT HEALTH INFORMATION

You may be more vulnerable than the general population to certain microbial contaminants such as *Cryptosporidium*, in drinking water. Infants, some elderly, or immuno-compromised persons such as those undergoing chemotherapy for cancer; those 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. Additional guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* are available from the **Safe Drinking Water Hotline (800-426-4791)**.

REDLAND WSC WATER SOURCES

Customers of Redland Water Supply Corporation receive their drinking water from two wells and purchased water from the City of Lufkin. Both wells and purchased water are pumped groundwater from the Carrizo Sand aquifer.

EPA prescribes regulations which limit the amount of certain contaminants in water provided by public water systems to ensure that tap water is safe to drink.

The Food and Drug Administration 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 concerns with taste, odor, or color of drinking water, **Safe Drinking Water Hotline (800-426-4791)**.

SOURCE WATER ASSESSMENT

The Texas Commission on Environmental Quality (TCEQ) completed an assessment of our source water and results indicate that some of our sources are susceptible to certain contaminants. The sampling requirements for the water system are based on this susceptibility and previous sample data.

Contaminants that may be present in source water include:

- Microbial contaminants, such as viruses and bacteria, which may come from sewage treat plants, septic systems, agricultural livestock operations and wild life.
- Inorganic contaminants, such as salts and metals, which can be naturally-occurring or results 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.

Any detection 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 the Redland Water Supply Corporation Manager at 936-634-5070.**

Definitions:

ppm – milligrams per liter or parts per million

ppb – micrograms per liter or parts per billion

ppt – nanograms per liter or parts per trillion

ppq - pictograms per liter or parts per quadrillion

PCi/L – picocuries per liter (a measure of radioactivity)

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

Mren/year – millirems per year (a measure of radiation absorbed by the body)

NTU – nephelometric turbidity units (a measure of turbidity)

MCLG – (Maximum Contaminant Level Goal) – The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLG's allow or a margin of safety.

N/A – non applicable

MCL – (Maximum Contamination Level) – The highest level of a contaminant that is allowed in drinking water. MCL's are as close to the MCLC as feasible using the best available treatment technology.

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.

Yellow Highlighted Data indicates data from purchase water from the City of Lufkin.

Coliform Bacteria (testing is conducted once per month)						
MCL	Total Coliform MCL	Highest No. of Positive	Fecal Coliform or E. Coli MCL	Total No. of Positive E. coli or fecal samples	Violation	Likely source of Contamination
0	0	1	0	0	N	Naturally present in the environment
0	5% of monthly samples are positive. *	1.9	0	N	N	

* Positive results were caused by sample contamination during collection. Repeat samples were negative for coliform.

Residual Disinfectant Level (testing is conducted daily)

Disinfectant Type	Average Level	Min Level	Max Level	MRDL	MRDLG	Unit	Source
Chlorine Gas	1.94	0.25	4.70	4.0	4.0	ppm	Disinfectant used to control microbes
	2.5	0.20	4.0	4.0	4.0	ppm	

Lead and Copper (testing is conducted every 3 years)

Analyte	Date Sampled	MCLG	Action Level	90 th Percentile	# of sites over AL	Units	Violation	Likely source of Contamination
Copper	08/21/2019	1.3	1.3	0.461	0	ppm	N	Erosion of natural deposits; leaching from wood preservatives; Corrosion of household plumbing systems.
	08/01/2019	1.3	1.3	0.32	0	ppm	N	
Lead	08/21/2019	0	15	1.03	0	ppb	N	Corrosion of household plumbing systems; Erosion of natural deposits.
	02/15/2019	<.00100	15	1.5	0	ppb	N	

Disinfectants and Disinfectant By-Products

Analyte	Collection date	Highest level Detected	Range	MCLG	MCL	Units	Violation	Likely source of Contamination
Haloacetic Acid (HAA5)	2021	48	33.9-57.3	No Goal for the total	60	ppb	N	By-product of drinking water disinfectant.
	2021	40	25-50	No Goal for the total	60	ppb	N	
Total Trihalomethanes (TTHM)	2021	77	59.7-93.4	No Goal for the total	80	ppb	Y	By-product of drinking water disinfectant.
	2021	59	41.1-73.8	No Goal for the total	80	ppb	N	

Inorganic Contaminants

Analyte	Collection date	Highest level Detected	Range	MCLG	MCL	Units	Violation	Likely source of Contamination
Asbestos	2017	6.2139	6.2139 – 6.2139	7	7	MFL	N	Decay of asbestos cement water mains; erosion of natural deposits.
	10/31/2012	0.3776	0-0.3776	7	7	MFL	N	
Barium	2021	0.014	0.014 – 0.014	2	2	ppm	N	Discharge of drilling wastes; Discharge from metal refineries; erosion of natural deposits.
	2019	0.014	0.00100-0.0004002	2	2	ppm	N	
Chromium	02/20/2019	1.1	1.1-1.1	100	100	ppb	N	Discharge from steel and pulp mills; erosion of natural deposits.
	2018	<0.00100	0.00100 – 0.00040001	100	100	ppb	N	
Cyanide	2014	0.005	0.005 – 0.005	200	200	ppb	N	Discharge from plastic and fertilizer factories; Discharge from steel / metal factories.
	2014	7.68	7.68 – 7.68	200	200	ppb	N	
Fluoride	1/21/2020	0.41	0.208-0.41	4	4.0	ppm	N	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories.
	2021	0.176	0.176-0.176	4	4.0	ppm	N	
Nitrate (measured as Nitrogen)	2021	0.0717	0.037-0.0717	10	10	ppm	N	Run off from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits.
	2021	0.0295	0.0231-0.0295	10	10	ppm	N	
Thallium	07/06/2011 11/27/18	0.014 <0.00100	0.014 – 0.014 0.00100 0.000200 0.002	2	2	Ppb	N	Discharge from electronics, glass, and leaching from ore-processing sites; drug factories.

Radioactive Contaminants

Analyte	Collection date	Highest level Detected	Range	MCLG	MCL	Units	Violation	Likely source of Contamination
Combined Radium 226/228	2021	1.5	1.5 – 1.5	0	5	pCi/L	N	Erosion of natural deposits.
	2017	1.5	1.5-1.5	0	5	pCi/L	N	

Disinfectant residual-2021: Average level-3.195 Range of levels detected- 0.20-6.10

Trihalomethanes (TTHM's) Violations for the year of 2021

7/15/2021 – DBP2-01, 691 Duncan Slough-(80.2)

10/06/2021- DBP-01- Duncan Slough- 93.4- (93.4)

10/06/2021-DBP-02- 7723 US HWY 59 North-(85.1)

3452 FM 2021 Sample Number NOHO45402-Routine Sample TX00962- Positive for Coliform (TCR) 3100 on 8/1/2020

Resample on 8/1/2020 Absent for E-COLI and all others.