2023 Consumer Confidence Report for Public Water System CITY OF SHALLOWATER

This is your water quality report for January 1 to December 31, 2023

CITY OF SHALLOWATER provides ground water from **the Ogallala Aquifer,** located in **Lubbock County**.

For more information regarding this report contact:

Name Ruben Ponce

Phone (806)696-4300

Este reporte incluye información importante sobre el agua para tomar. Para asistencia en español, favor de llamar al telefono (806) 696-4300.

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. If you are interested in opportunities for public participation in decisions that may affect the quality of the water our City Council meets every third Tuesday of the month at 7:00 PM at the Police Annex located at 607 Ave G, Shallowater, Texas 79363.

The city's water loss audit submitted to the Texas Water Development Board for the calendar year 2023 indicates that our system lost an estimated 13,907,368 gallons of water out of the 149,440,126 gallons of water volume. This loss represents a 9.31% of our total water use.

Definitions and Abbreviations

Definitions and Abbreviations	The following tables contain scientific terms and measures, some of which may require explanation.
Action Level:	The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.
Avg:	Regulatory compliance with some MCLs are based on running annual average of monthly samples.
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.
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 a 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)
na:	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
ppm:	milligrams per liter or parts per million
ppq	parts per quadrillion, or picograms per liter (pg/L)
ppt	parts per trillion, or nanograms per liter (ng/L)
Treatment Technique or TT:	A required process intended to reduce the level of a contaminant in drinking water.

Information about your Drinking Water

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 EPAs 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, the 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 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 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.

This is an alert about your drinking water and a cosmetic dental problem that might affect children under nine years of age. At low levels, fluoride can help prevent cavities, but children drinking water containing more than 2 milligrams per liter (mg/L) of fluoride may develop cosmetic discoloration of their permanent teeth (dental fluorosis). The drinking water provided by your community water system **the City of Shallowater** has a fluoride concentration of **2.47** mg/L.

Dental fluorosis, in its moderate or severe forms, may result in a brown staining and/or pitting of the permanent teeth. This problem occurs only in developing teeth, before they erupt from the gums. Children under nine should be provided with alternative sources of drinking water or water that has been treated to remove the fluoride to avoid the possibility of staining and pitting of their permanent teeth. You may also want to contact your dentist about proper use by young children of fluoride-containing products. Older children and adults may safely drink the water.

For more information, please call **Ruben Ponce** of **the City of Shallowater** at **806-696-4300**. Some home water treatment units are also available to remove fluoride from drinking water. To learn more about available home water treatment units, you may call NSF International at 1-877-8-NSF-HELP.

Information about Source Water

CITY OF SHALLOWATER purchases water from LUBBOCK PUBLIC WATER SYSTEM. LUBBOCK PUBLIC WATER SYSTEM provides purchase ground water from **the Ogallala Aquifer** located in **Bailey County.**

The City of Lubbock's diverse water supply comes from several water sources, including both groundwater and surface water. The Ogallala Aquifer provides the groundwater which amounts to 70% of Lubbock's water usage. Lake Meredith and Lake Alan Henry provide the surface water that accounts for 30% of Lubbock's water usage.

PUBLIC NOTICE

The City of Lubbock's drinking water meets or exceeds all regulatory standards.

In June 2022, EPA reached out to Texas Commission on Environmental Quality (TCEQ) and the Texas Public Water Systems (PWS) and required certain Texas PWSs to collect drinking water samples for 29 Per- and Polyfluoroalkyl Substances (PFAS) and lithium analysis for the fifth Unregulated Contaminant Monitoring Rule (UCMR 5).

PFAS are a category of chemicals (i.e. non-stick cookware, waterproof clothing, firefighting foam) that persist in the environment and pose health risks. Lithium, a naturally occurring metal, is also monitored. During 2023, we found lithium and one PFAS, perfluorobutanoic acid (PFBA), in our water during three rounds of testing.

The EPA has not set enforceable levels for lithium or PFBA. EPA uses the UCMR 5 program to collect data for 30 contaminants that are suspected to be present in drinking water and do not have health-based standards set under the Safe Drinking Water Act (SDWA).

WATER ANALYSIS 2023 - UNREGULATED							
Unregulated Compound	**Detected Average**	**Detected Range**	**MRL**	**MCL/G**	**MCL**	**Violation**	**Source**
Perfluorobutanoic acid (PFBA) (ng/L)	*7.1	*7.1	5.0	N/A	N/A	No	Industrial discharge, firefighting foams, land fills
Lithium (ug/L)	41.48	36.7 – 46.5	9.0	N/A	N/A	No	Naturally occurring element

Abbreviations &Definitions

MRL – Minimum Reporting Limit

MCL/G – Minimum Contaminant Level Goal

ug/L – micrograms per Liter (ppb- parts per billion)

* Single Reading

NWTP – North Water Treatment Plant SWTP – South

Water Treatment Plant BCG – Bailey County Groundwater

ND – Not detected- results are below reporting limit MCL – Maximum

Contaminant Level

ng/L – also expressed as parts per trillion (ppt)

HI – Hazard Index – health risk from a chemical mixture (i.e. exposure to multiple chemicals); HI is made up of a sum of fractions

Under the SDWA, EPA sets the standards for drinking water quality through programs like the UCMR 5. In April 2024, the EPA announced the final National Primary Drinking Water Regulation (NPDWR) establishing legally enforceable levels, called Maximum Contaminant Levels (MCLs) for six PFAS in drinking water. In 2023, our drinking water indicates no detection of the new regulated contaminants.

City of Lubbock

WATER ANALYSIS 2023 – NEW REGULATED CONTAMINANTS

Regulated PFAS Contaminant (ng/L)	NWTP Test Results (ng/L)	SWTP Test Results ng/L (ppt)	BCG Test Results ng/l (ppl)	Final MCL (enforceable levels) ng/L (ppt)	Violation	Likely Source of Contamination
Perflurooctanoic acid (PFOA)	ND	ND	ND	4.0 ppt	No	Industrial discharge, firefighting foams, landfills, non-stick cookware
Perfluorooctane sulfonic acid (PFOS)	ND	ND	ND	4.0 ppt	No	Industrial discharge, firefighting foams, landfills, non-stick cookware
Perfluorohexane sulfonic acid (PFHxS)	ND	ND	ND	10 ppt	No	Industrial discharge, firefighting foams, landfills, non-stick cookware
Perfluorononanoic acid (PFNA)	ND	ND	ND	10 ppt	No	Industrial discharge, firefighting foams, landfills, non-stick cookware
Hexafluoropropylene oxide dimer acid (HFPO-DA) - commonly known as GenX Chemicals	ND	ND	ND	10 ppt	No	Industrial discharge, firefighting foams, landfills, non-stick cookware
Mixtures containing two or more PFHxS, PFNA, HFPODA, and PFBS	ND	ND	ND	10 ppt	No	Industrial discharge, firefighting foams, landfills, non-stick cookware

Lubbock Public Water System, 1520002, continues ongoing compliance monitoring, ensuring that our drinking water remains safe and meets regulatory requirements. If you have questions regarding this matter, you may contact Michael Lowe, Water System Superintendent, at 806-775-2616.

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. For more information on source water assessments and protection efforts at our system contact **Ruben Ponce at (806)696-4300.**

Lead and Copper	Date Sampled	MCLG	Action Level (AL)	90th Percentile	# Sites Over AL	Units	Violation	Likely Source of Contamination
Copper	2023	1.3	1.3	0.24	0	ppm	N	Erosion of natural deposits; Leaching from wood preservatives; Corrosion of household plumbing systems.
Lead	2023	0	15	1.31	0	ppb	N	Corrosion of household plumbing systems; Erosion of natural deposits.

2023 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)	2023	1	1.3 - 1.3	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

Inorganic Contaminants	Collection Date	Highest Level Detected	Range of Individual Samples	MCLG	MCL	Units	Violation	Likely Source of Contamination
Arsenic	2023	5.9	5.9 - 5.9	0	10	ppb	N	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes.

While your drinking water meets EPA standards for arsenic, it does contain low levels of arsenic. EPAs standard balances the current understanding of arsenics possible health effects against the costs of removing arsenic from drinking water. EPA continues to research the health effects of low levels of arsenic, which is a mineral known to cause cancer in humans at high concentrations and is linked to other health effects such as skin damage and circulatory problems.

Barium	2023	0.071	0.071 - 0.071	2	2	ppm	N	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.
Chromium	2023	2.2	2.2 - 2.2	100	100	ppb	N	Discharge from steel and pulp mills; Erosion of natural deposits.
Cyanide	2023	24	24 - 24	200	200	ppb	N	Discharge from plastic and fertilizer factories; Discharge from steel/metal factories.
Fluoride	2023	2.47	2.47 - 2.47	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]	2023	2	1.8 - 1.84	10	10	ppm	N	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.
Selenium	2023	42	42 - 42	50	50	ppb	N	Discharge from petroleum and metal refineries; Erosion of natural deposits; Discharge from mines.

Radioactive Contaminants	Collection Date	Highest Level Detected	Range of Individual Samples	MCLG	MCL	Units	Violation	Likely Source of Contamination
Beta/photon emitters	06/16/2022	7	7 - 7	0	50	pCi/L*	N	Decay of natural and man-made deposits.

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

Gross alpha excluding radon and uranium	06/16/2022	4	4 - 4	0	15	pCi/L	N	Erosion of natural deposits.
Uranium	06/16/2022	5.7	5.7 - 5.7	0	30	ug/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
Chlorine (Free)	2023	1.14	0.20-3.30	4	4	ppm	N	Water additive used to control microbes.