

2022 Annual Drinking Water Quality Report (Consumer Confidence Report-CCR)
 City of Zavalla, TX PWS No. 0030030, Phone Number: (936) 897-3311
 Annual Water Quality Report for the period of January 1, 2022 to December 31, 2022

This is your water quality report for January 1, 2022 to December 31, 2022. 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. The source of drinking water used by City of Zavalla is Ground Water under Direct Influence (GUDI) of Surface Water and Ground Water from the Jackson Group and Yegua Aquifers located in Zavalla, Texas in Angelina County. For more information regarding this report contact: Tom Bailey at (936) 897-3311. Este reporte incluye informacion importante sobre el agua para tomar. Para asistencia en español, favor de llamar al telefono (936) 897-3311. The City of Zavalla conducts City Council Meetings the second Monday of every month located at 242 E. Main St. at 6:00 PM. At this time, the public is invited to participate in decisions that may affect the quality of the City's water.

Definitions and Abbreviations:

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 Action Level:

The following tables contain scientific terms and measures, some of which may require explanation. The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

Avg:
 Level 1 Assessment:

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

ppt:

parts per trillion, or nanograms per liter (ng/L)

ppq:

parts per quadrillion, or pictograms per liter (pg/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 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 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>.

Information about Source Water

TCEQ completed an assessment of your source water, and results indicate that some of your 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 our source water assessments and protection efforts at our system contact Tom Bailey at (936) 897-3311.

Lead and Copper	Date Sampled	MCLG	Action Level (AL)	90th Percentile	# Sites Over AL	Units	Violation	Likely Source of Contamination
Copper	2022	1.3	1.3	1.34	2	ppm	N	Erosion of natural deposits; Leaching from wood preservatives; Corrosion of household plumbing systems.
Lead	2022	0	15	39	3	Ppb	N	Corrosion of household plumbing systems; Erosion of natural deposits.

2022 Water Quality Test Results

Disinfection By-Products	Collection Date	Highest Level or Average Detected	Range of Individual Samples	MCLG	MCL	Units	Violation	Likely Source of Contamination
Haloacetic Acids (HAA5)	2022	61	0 - 131	No goal for the total	60	ppb	Y	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)	2022	157	0 - 314	No goal for the total	80	ppb	Y	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 Contaminates	Collection Date	Highest Level or Average Detected	Range of Individual Samples	MCLG	MCL	Units	Violation	Likely Source of Contamination
Barium	2022	0.072	0.025 – 0.072	2	2	ppm	N	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.
Fluoride	2022	0.0136	0.0136 – 0.0136	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)	2022	1	0.0559 – 1.24	10	10	Ppm	N	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.

Radioactive Contaminates	Collection Date	Highest Level or Average Detected	Range of Individual Samples	MCLG	MCL	Units	Violation	Likely Source of Contamination
Combined Radium 226/228	02/12/2018	1.5	1.5 – 1.5	0	5	pCi/L	N	Erosion of natural deposits

Volatile Organic Contaminants	Collection Date	Highest Level or Average Detected	Range of Individual Samples	MCLG	MCL	Units	Violation	Likely Source of Contamination
Xylenes	2022	0.00106	0 – 0.00106	10	10	Ppm	N	Discharge from petroleum factories; Discharge from chemical factories

Disinfectant Residual

Disinfectant Residual	Year	Average Level	Range of Levels Detected	MRDL	MRD LGL	Units of Measure	Violation (Y/N)	Source in Drinking Water
Chlorine, Free	2022	1.25	0.20 – 4.12	4	4	ppm	N	Water additive used to control microbes.

Turbidity

	Level Detected	Limit (Treatment Technique)	Violation	Likely Source of Contamination
Highest single measurement	0.98 NTU	1 NTU	N	Soil runoff.
Lowest monthly % meeting limit	98%	0.3 NTU	N	Soil runoff.

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.

Violations Table

Consumer Confidence Rule			
The consumer Confidence Rule requires community water systems to prepare and provide to their customers annual consumer confidence reports on the quality of the water delivered by the systems.			
Violation Type	Violation Begin	Violation End	Violation Explanation
CCR ADEQUACY/AVAILABILITY/CONTENT	07/01/2022	07/06/2021	We failed to provide to you, our drinking water customers, an annual report that adequately informed you about the quality of our drinking water and the risks from exposure to contaminants detected in our drinking water.
Haloacetic Acids (HAA5)			
Some people who drink water containing haloacetic acids in excess of the MCL over many years may have an increased risk of getting cancer.			
Violation Type	Violation Begin	Violation End	Violation Explanation
FAILURE SUBMIT OEL REPORT FOR HAA5	07/01/2022	08/25/2022	We failed to submit our operational evaluation level (OEL) report to our regulator. The report is needed to determine best treatment practices necessary to minimize possible future exceedances of HAA5.
MCL, LRAA	10/01/2022	12/31/2022	Water samples showed that the amount of this contaminant in our drinking water was above its standard (called a maximum contaminant level and abbreviated MCL) for the period indicated.
Interim Enhanced SWTR			
The Interim Enhanced Surface Water Treatment Rule improves control of microbial contaminants, particularly Cryptosporidium, in systems using surface water, or ground water under the influence of surface water. The rule builds upon the treatment technique requirements of the Surface Water Treatment Rule.			
Violation Type	Violation Begin	Violation End	Violation Explanation
MONITORING, ROUTINE (IESWTR/LT1), MAJOR	09/01/2022	09/30/2022	We failed to test our drinking water for the contaminant and period indicated. Because of this failure, we cannot be sure the quality of our drinking water during the period indicated.
MONITORING, ROUTINE (IESWTR/LT1), MAJOR	10/01/2022	12/31/2022	We failed to test our drinking water for the contaminant and period indicated. Because of this failure, we cannot be sure the quality of our drinking water during the period indicated.
MONITORING, ROUTINE (IESWTR/LT1), MAJOR	12/01/2022	12/31/2022	We failed to test our drinking water for the contaminant and period indicated. Because of this failure, we cannot be sure the quality of our drinking water during the period indicated.
MONITORING, ROUTINE (IESWTR/LT1), MINOR	04/01/2022	04/30/2022	We failed to complete all the required tests of our drinking water for the contaminant and period indicated.
MONITORING, ROUTINE (IESWTR/LT1), MINOR	05/01/2022	05/31/2022	We failed to complete all the required tests of our drinking water for the contaminant and period indicated.
MONITORING, ROUTINE (IESWTR/LT1), MINOR	06/01/2022	06/30/2022	We failed to complete all the required tests of our drinking water for the contaminant and period indicated.
MONTHLY COMB FLTR EFFLUENT (IESWTR/LT1)	07/01/2022	07/31/2022	Turbidity levels, though relatively low, exceeded a standard for the month indicated. Turbidity (cloudiness) levels are used to measure effective filtration of drinking water.

Interim Enhanced SWTR

The Interim Enhanced Surface Water Treatment Rule improves control of microbial contaminants, particularly Cryptosporidium, in systems using surface water, or ground water under the influence of surface water. The rule builds upon the treatment technique requirements of the Surface Water Treatment Rule.

Violation Type	Violation Begin	Violation End	Violation Explanation
MONTHLY COMB FLTR EFFLUENT (IESWTR/LT1)	08/01/2022	08/31/2022	Turbidity levels, though relatively low, exceeded a standard for the month indicated. Turbidity (cloudiness) levels are used to measure effective filtration of drinking water.
MONTHLY COMB FLTR EFFLUENT (IESWTR/LT1)	11/01/2022	11/30/2022	Turbidity levels, though relatively low, exceeded a standard for the month indicated. Turbidity (cloudiness) levels are used to measure effective filtration of drinking water.
MONTHLY COMB FLTR EFFLUENT (IESWTR/LT1)	12/01/2022	12/31/2022	Turbidity levels, though relatively low, exceeded a standard for the month indicated. Turbidity (cloudiness) levels are used to measure effective filtration of drinking water.
SINGLE COMB FLTR EFFLUENT (IESWTR/LT1)	06/01/2022	06/30/2022	One turbidity measurement exceeded a standard for the month indicated. Turbidity (cloudiness) levels are used to measure effective filtration of drinking water.
SINGLE COMB FLTR EFFLUENT (IESWTR/LT1)	07/01/2022	07/31/2022	One turbidity measurement exceeded a standard for the month indicated. Turbidity (cloudiness) levels are used to measure effective filtration of drinking water.
SINGLE COMB FLTR EFFLUENT (IESWTR/LT1)	08/01/2022	08/31/2022	One turbidity measurement exceeded a standard for the month indicated. Turbidity (cloudiness) levels are used to measure effective filtration of drinking water.
SINGLE COMB FLTR EFFLUENT (IESWTR/LT1)	11/01/2022	11/30/2022	One turbidity measurement exceeded a standard for the month indicated. Turbidity (cloudiness) levels are used to measure effective filtration of drinking water.
SINGLE COMB FLTR EFFLUENT (IESWTR/LT1)	12/01/2022	12/31/2022	One turbidity measurement exceeded a standard for the month indicated. Turbidity (cloudiness) levels are used to measure effective filtration of drinking water.

Long Term Enhanced SWTR

The Long Term Enhanced Surface Water Treatment Rule supplements existing regulations by targeting additional Cryptosporidium treatment to higher risk systems. It also contains provisions to reduce risks from uncovered finished water reservoirs and to ensure that systems maintain microbial protection when reducing the formation of disinfection by products.

Violation Type	Violation Begin	Violation End	Violation Explanation
FAILURE MAINTAIN MICROBIAL TREAT. (LT2)	06/01/2022	06/30/2022	We failed to adequately treat our drinking water for microbial contaminants. Adequate disinfection is required to ensure safe drinking water.
FAILURE MAINTAIN MICROBIAL TREAT. (LT2)	07/01/2022	07/31/2022	We failed to adequately treat our drinking water for microbial contaminants. Adequate disinfection is required to ensure safe drinking water.
FAILURE MAINTAIN MICROBIAL TREAT. (LT2)	08/01/2022	08/31/2022	We failed to adequately treat our drinking water for microbial contaminants. Adequate disinfection is required to ensure safe drinking water.
FAILURE MAINTAIN MICROBIAL TREAT. (LT2)	11/01/2022	11/31/2022	We failed to adequately treat our drinking water for microbial contaminants. Adequate disinfection is required to ensure safe drinking water.
FAILURE MAINTAIN MICROBIAL TREAT. (LT2)	12/01/2022	12/31/2022	We failed to adequately treat our drinking water for microbial contaminants. Adequate disinfection is required to ensure safe drinking water.

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	03/01/2022	06/21/2022	We failed to adequately notify you, our drinking water consumers, about a violation of the drinking water regulations.
PUBLIC NOTICE RULE LINKED TO VIOLATION	06/10/2022	10/28/2022	We failed to adequately notify you, our drinking water consumers, about a violation of the drinking water regulations.
PUBLIC NOTICE RULE LINKED TO VIOLATION	07/09/2022	09/19/2022	We failed to adequately notify you, our drinking water consumers, about a violation of the drinking water regulations.
PUBLIC NOTICE RULE LINKED TO VIOLATION	08/05/2022	09/19/2022	We failed to adequately notify you, our drinking water consumers, about a violation of the drinking water regulations.
PUBLIC NOTICE RULE LINKED TO VIOLATION	08/14/2022	10/28/2022	We failed to adequately notify you, our drinking water consumers, about a violation of the drinking water regulations.
PUBLIC NOTICE RULE LINKED TO VIOLATION	08/28/2022	11/4/2022	We failed to adequately notify you, our drinking water consumers, about a violation of the drinking water regulations.
PUBLIC NOTICE RULE LINKED TO VIOLATION	08/31/2022	10/28/2022	We failed to adequately notify you, our drinking water consumers, about a violation of the drinking water regulations.
PUBLIC NOTICE RULE LINKED TO VIOLATION	09/01/2022	11/04/2022	We failed to adequately notify you, our drinking water consumers, about a violation of the drinking water regulations.
PUBLIC NOTICE RULE LINKED TO VIOLATION	09/13/2022	11/04/2022	We failed to adequately notify you, our drinking water consumers, about a violation of the drinking water regulations.
PUBLIC NOTICE RULE LINKED TO VIOLATION	10/01/2022	11/04/2022	We failed to adequately notify you, our drinking water consumers, about a violation of the drinking water regulations.
PUBLIC NOTICE RULE LINKED TO VIOLATION	12/30/2022	01/26/2023	We failed to adequately notify you, our drinking water consumers, about a violation of the drinking water regulations.
PUBLIC NOTICE RULE LINKED TO VIOLATION	07/09/2022	09/19/2022	We failed to adequately notify you, our drinking water consumers, about a violation of the drinking water regulations.
PUBLIC NOTICE RULE LINKED TO VIOLATION	08/05/2022	09/19/2022	We failed to adequately notify you, our drinking water consumers, about a violation of the drinking water regulations.

Surface Water Treatment Rule (SWTR)

The Surface Water Treatment Rule seeks to prevent waterborne diseases caused by viruses, Legionella, and Giardia lamblia. The rule requires that water systems filter and disinfect water from surface water sources to reduce the occurrence of unsafe levels of the microbes.

Violation Type	Violation Begin	Violation End	Violation Explanation
MONITORING, RTN/RPT MAJOR (SWTR-FILTER)	05/01/2022	05/31/2022	We failed to test our drinking water for the contaminant and period indicated. Because of this failure, we cannot be sure of the quality of our drinking water during the period indicated.
MONITORING, RTN/RPT MAJOR (SWTR-FILTER)	06/01/2022	06/30/2022	We failed to test our drinking water for the contaminant and period indicated. Because of this failure, we cannot be sure of the quality of our drinking water during the period indicated.
MONITORING, RTN/RPT MAJOR (SWTR-FILTER)	09/01/2022	09/30/2022	We failed to test our drinking water for the contaminant and period indicated. Because of this failure, we cannot be sure of the quality of our drinking water during the period indicated.
MONITORING, RTN/RPT MAJOR (SWTR-FILTER)	10/01/2022	10/31/2022	We failed to test our drinking water for the contaminant and period indicated. Because of this failure, we cannot be sure of the quality of our drinking water during the period indicated.
MONITORING, RTN/RPT MAJOR (SWTR-FILTER)	11/01/2022	11/30/2022	We failed to test our drinking water for the contaminant and period indicated. Because of this failure, we cannot be sure of the quality of our drinking water during the period indicated.
MONITORING, RTN/RPT MAJOR (SWTR-FILTER)	12/01/2022	12/31/2022	We failed to test our drinking water for the contaminant and period indicated. Because of this failure, we cannot be sure of the quality of our drinking water during the period indicated.
RES DISINFECT CONCENTRATION (SWTR)	04/01/2022	04/30/2022	Measurements of disinfectant indicate that adequate disinfection did not occur for the period indicated. Adequate disinfection is required to ensure safe drinking water.
RES DISINFECT CONCENTRATION (SWTR)	06/01/2022	06/30/2022	Measurements of disinfectant indicate that adequate disinfection did not occur for the period indicated. Adequate disinfection is required to ensure safe drinking water.
RES DISINFECT CONCENTRATION (SWTR)	07/01/2022	07/31/2022	Measurements of disinfectant indicate that adequate disinfection did not occur for the period indicated. Adequate disinfection is required to ensure safe drinking water.
RES DISINFECT CONCENTRATION (SWTR)	11/01/2022	11/30/2022	Measurements of disinfectant indicate that adequate disinfection did not occur for the period indicated. Adequate disinfection is required to ensure safe drinking water.

Total Trihalomethanes (TTHM)

Some people who drink water containing trihalomethanes in excess of the MCL over many years may experience problems with their liver, kidneys, or central nervous systems, and may have an increased risk of getting cancer.

Violation Type	Violation Begin	Violation End	Violation Explanation
FAILURE SUBMIT OEL REPORT FOR TTHM	07/12/2022	08/25/2022	We failed to submit our operational evaluation level (OEL) report to our regulator. The report is needed to determine best treatment practices necessary to minimize possible future exceedances of TTHM.
MCL, LRAA	04/01/2022	06/30/2022	Water samples showed that the amount of this contaminant in our drinking water was above its standard (called a maximum contaminant level and abbreviated MCL) for the period indicated.
MCL, LRAA	07/01/2022	09/30/2022	Water samples showed that the amount of this contaminant in our drinking water was above its standard (called a maximum contaminant level and abbreviated MCL) for the period indicated.
MCL, LRAA	10/01/2022	12/31/2022	Water samples showed that the amount of this contaminant in our drinking water was above its standard (called a maximum contaminant level and abbreviated MCL) for the period indicated.