

## 2021 Consumer Confidence Report for Public Water System GUM SPRINGS WSC 2

This is your water quality report for January 1 to December 31, 2021

GUM SPRINGS WSC 2 provides surface water from Lake Cherokee located in Gregg County.

For more information regarding this report contact:

Name Gum Springs WSC

Phone 903-660-3420

Este reporte incluye información importante sobre el agua para tomar. Para asistencia en español, favor de llamar al telefono (903) 660-3420.

### Definitions and Abbreviations

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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 svstem.

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 whv 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)

## Definitions and Abbreviations

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 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

GUM SPRINGS WSC 2 purchases water from CITY OF LONGVIEW. CITY OF LONGVIEW provides purchase surface water from Lake Cherokee in Gregg County.

### REGULATED SUBSTANCES AT THE TREATMENT PLANTS

Year	Constituent	Average	Detected Range	MCL	MCLG	Typical Source
2021	Chloramines (ppm)	2.30	2.06 - 2.49	4	4	Disinfectant used to control microbes.
2021	Chlorite (ppm)	0.122	0.010 - 0.320	1	0.8	By-product of drinking water disinfection.
2021	Barium (ppm)	0.046	0.038 - 0.053	2	2	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.
2021	Fluoride (ppm)	0.62	0.42 - 0.81	4	4	Erosion of natural deposits; Water additive which promotes strong teeth.
2021	Nitrate (ppm)	0.126	0.038 - 0.185	10	10	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.
2017	Gross Beta particles & Photon emitters (pCi/L)	1.467	ND - 4.4	50	NA	Decay of natural and man-made deposits of certain minerals that are radioactive and may emit forms of radiation known as photons and beta radiation.

### REGULATED SUBSTANCES AT THE TREATMENT PLANTS

Year	Constituent	Average	Detected Range	Typical Source
2021	Total Organic Carbon (ppm) – Source Water	6.14	3.97 – 9.84	Naturally present in the environment.
2021	Total Organic Carbon (ppm) – Drinking Water	2.76	0.77 – 4.28	Naturally present in the environment.
2021	Total Organic Carbon % Removal	54.52	27.1 – 83.7	The TOC removal ratio is the percent of TOC removed through the treatment process divided by the percent of TOC required by the TCEQ to be removed. The City of Longview water system provides the alternative compliance criteria removal ratio required.

Total Organic Carbon (TOC) has no adverse health effects. The disinfectant can combine with TOC to form disinfection by-products. Disinfection is necessary to ensure that water does not have unacceptable levels of pathogens. Total organic carbon provides a medium for the formation of disinfection by-products when water is disinfected. By-products of disinfection include trihalomethanes (THMs) and haloacetic acids (HAA) which are reported elsewhere in this report.

### REGULATED AT THE TREATMENT PLANTS

Year	Constituent	Highest Single Measurement	Lowest Monthly % of Samples Meeting Limits	Turbidity Limits	Source of Contaminant
2021	Turbidity (NTU)	0.61	98%	0.3	Soil runoff

Turbidity has no health effects. However, turbidity can interfere with disinfection and provide a medium for microbial growth. Turbidity is measured in Nephelometric Turbidity Units (NTU) and is a measurement of water clarity. This water quality parameter is monitored as a treatment technique (TT).

### REGULATED SUBSTANCES AT THE CUSTOMER'S TAP

Year	Constituent	The 90 <sup>th</sup> Percentile	# of Sites Exceeding Action Level	Action Level	Source of Contaminant
2021	Lead (ppb)	0	1	15	Corrosion of household plumbing systems; Erosion of natural deposits.
2021	Copper (ppm)	0.0648	0	1.3	Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives.

The City of Longview is on a reduced sampling schedule for lead and copper, due to an excellent compliance history. The results listed above are distribution samples taken from the customers' tap. Lead and copper has not been detected in water leaving the water treatment facilities. The source of lead and copper is corrosion of household plumbing systems.

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. This water supply is responsible for providing high quality drinking water, but 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>."

### REGULATED AT THE CUSTOMER'S TAP

Year	Constituent	Highest Monthly % of Positive Samples	MCL	MCLG	Units of Measure	Source of Contaminant
2021	Total Coliform Bacteria	2.3%	*	0	Presence	Naturally present in the environment
2021	Fecal Coliform Bacteria	ND	*	0	Presence	Naturally present in the environment

Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other, potentially harmful bacteria may be present. Longview analyzes over 984 samples each year. 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. We found coliforms indicating the need to look for potential problems in water treatment or distribution. When this occurs, we are required to conduct assessment(s) to identify problems and to correct any problems that were found

during these assessments. No Fecal Coliform Bacteria was detected.

\*Presence of coliform in 5% or more of the monthly samples.

**REGULATED SUBSTANCES IN THE DISTRIBUTION SYSTEM:**

**Stage 2 Disinfection By-Products**

Year	Constituent	Average	Range	MCL	MCLG	Source of Contaminant
2021	Total Trihalomethanes (ppb)	11.0	1.2 - 19.9	80	NA	By-product of drinking water chlorination.
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.						
2021	Total Haloacetic Acids (ppb)	11.5	2.9 – 26.3	60	NA	By-product of drinking water chlorination.
Some people who drink water containing haloacetic acids in excess of the MCL over many years may have an increased risk of getting cancer.						

**REGULATED SUBSTANCES IN THE DISTRIBUTION SYSTEM:**

**Stage 2 Disinfection By-Products Locational Running Annual Averages**

In October 2012, sampling for the Stage 2 Disinfection By-Products Rule began for the City of Longview. This monitoring is very similar to that of the Stage 1 Disinfection By-Products sampling. However, it is based on more stringent monitoring requirements.

Year	Constituent	Location	Highest LRAA	Range	MCL	Source of Contaminant
2021	Total Trihalomethanes (ppb)	Location #1	18.9	6.40 – 18.9	80	By-product of drinking water chlorination.
2021		Location #2	17.3	6.60 - 17.3	80	
2021		Location #3	19.9	8.60– 19.9	80	
2021		Location #4	13.9	1.40 - 13.9	80	
2021		Location #5	18.5	6.10 – 18.5	80	
2021		Location #6	8.5	1.20 – 8.50	80	
2021		Location #7	17.5	4.20 – 17.50	80	
2021		Location #8	12.9	5.70 – 12.9	80	
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.						
2021	Total Haloacetic Acids (ppb)	Location #1	26.3	5.40 - 26.3	60	By-product of drinking water chlorination.
2021		Location #2	25.7	6.00 - 25.7	60	
2021		Location #3	20.0	10.2 - 20.0	60	
2021		Location #4	20.0	6.90 - 20.0	60	
2021		Location #5	18.3	7.00 - 18.3	60	
2021		Location #6	8.90	2.90 - 8.90	60	
2021		Location #7	18.7	4.90 - 18.7	60	
2021		Location #8	20.1	5.60 - 20.1	60	
Some people who drink water containing haloacetic acids in excess of the MCL over many years may have an increased risk of getting cancer.						

## REGULATED AT THE SOURCE WATER

The City of Longview testing of lake and river water detected low levels of *Cryptosporidium*, *Giardia lamblia* and *Escherichia coli* (*E. coli*) commonly found in surface water. Required levels of inactivation are achieved through disinfection and filtration; however, these treatment methods cannot guarantee 100 percent removal nor can the testing methods determine if the organisms are alive and capable of causing diarrhea, cramps and fever when ingested. Although these organisms have been detected in the source waters, the City of Longview utilizes excellent treatment methods of removal and inactivation at the water treatment plants.

## UNREGULATED SUBSTANCES

### Unregulated Contaminant Monitoring Regulation Fourth Cycle

Year	Constituent	Average	Range	Source of Contaminant
2021	Chloroform (ppb)	7.70	1.20 - 14.30	By-product of drinking water chlorination.
2021	Dichlorobromomethane (ppb)	2.80	1.10 - 4.70	By-product of drinking water chlorination
2021	Dibromochloromethane (ppb)	<1.00	ND - 2.40	By-product of drinking water chlorination
2021	Acetone (ppb)	2.24	ND - 6.71	By-product of drinking water chlorination

Bromoform, chloroform, dichlorobromomethane, and dibromochloromethane are disinfection by-products. There is no maximum contaminant level for these chemicals at the entry point to distribution.

Unregulated contaminants are those for which EPA has not established drinking water standards. The purpose of unregulated contaminant monitoring is to assist EPA in determining the occurrence of unregulated contaminants in drinking water and whether future regulation is warranted.

### ADDITIONAL PARAMETERS TESTED IN YOUR WATER SYSTEM:

This chart lists other items for which the water is tested. These items do not relate to public health but rather to the aesthetic quality. These parameters are often important to industrial water users or customers with special needs.

Constituent	Units of measure	Longview water
Aluminum	ppm	0.16 - 0.64
Manganese	ppm	ND - 0.003
Nickel	ppm	ND - 0.0012
Chloride	ppm	14.2 - 25.7
Sulfate	ppm	30.8 - 59.2
pH	pH units	8.5 - 9.3
Conductivity	µmhos/cm	205 - 262
Total Alkalinity as CaCO <sub>3</sub>	ppm	23.3 - 45.0
Bicarbonate	ppm	21.4 - 36.2
Dissolved solids	ppm	97 - 143
Calcium	ppm	19.6 - 25.0
Magnesium	ppm	3.38 - 3.90
Potassium	ppm	2.55 - 4.19
Cyanide	ppb	ND - 0.0631
Chromium	ppb	ND - 1.60
Sodium	ppm	9.25 - 15.9

Total Hardness as CaCO <sub>3</sub>	ppm	65.0 - 77.1
Total Hardness in Grains	Grains/gallon	3.80 - 4.50

### Longview's Sources of Drinking Water and Distribution System

Longview uses surface water from three sources: Lake Cherokee, Sabine River, and Lake O' the Pines. A source water assessment has been completed by the Texas Commission on Environmental Quality (TCEQ) for all three water sources and the report is available to review by calling us at 903-291-5234 or 903-237-2780. It allows us to focus on our source water protection activities. The results indicate that some of our sources are susceptible to certain contaminants. The sampling requirements for your water system are based on this susceptibility and previous sample data. Any detection of these contaminants will be found in this report. For more information on source water assessments and protection efforts at our system contact us at 903-291-5234. To monitor water quality in local rivers, streams, and reservoirs, the City of Longview has a Watershed Management Program. We work closely with the Sabine River Authority, Cherokee Water Company, Northeast Texas Municipal Water District, Texas Railroad Commission, Texas Commission on Environmental Quality (TCEQ), Texas Parks and Wildlife Commission, American Water Works Association, Texas Water Utilities Association and local industries to monitor and maintain a high level of water quality.

The City of Longview did not experience any water shortages or implement any conservation plans during 2021. In the Water Loss Audit, submitted to the Texas Water Development Board for the time period of January 2021 to December 2021, our system lost an estimated 246,465,302 gallons of water. While this is less than 5% of our water pumped, this includes any water line breaks or flushing water lines. If you have any questions about the Water Loss Audit, please call the Water Supply and Purification Division at 903-237-2780.

TCEQ completed a Source Water Susceptibility for all drinking water systems that own their sources. This report describes the susceptibility and types of constituents that may come into contact with the drinking water source based on human activities and natural conditions. The system(s) from which we purchase our water received the assessment report. For more information on source water assessments and protection efforts at our system contact Derrick Todd (903) 660-3420.

Lead and Copper	Date Sampled	MCLG	Action Level (AL)	90th Percentile	# Sites Over AL	Units	Violation	Likely Source of Contamination
Copper	07/30/2019	1.3	1.3	0.039	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	20	7.7 - 40.6	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)	2021	32	9.28 - 83.9	No goal for the total	80	ppb	N	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 Contaminants	Collection Date	Highest Level Detected	Range of Individual Samples	MCLG	MCL	Units	Violation	Likely Source of Contamination
Nitrate [measured as Nitrogen]	2021	0.277	0.277 - 0.277	10	10	ppm	N	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.

**Disinfectant Residual**

A blank disinfectant residual table has been added to the CCR template, you will need to add data to the fields. Your data can be taken off the Disinfectant Level Quarterly Operating Reports (DLQOR).

Disinfectant Residual	Year	Average Level	Range of Levels Detected	MRDL	MRDLG	Unit of Measure	Violation (Y/N)	Source in Drinking Water
Chloramines	2021	2.27	1.0 – 3.1	4	4	ppm	N	Water additive used to control microbes.