



2016 Water Quality Report

If you have any health concerns related to the information in this report, we encourage you to contact your health care provider. For more information about this report, or for any questions relating to your drinking water, please call the Water Purification Division at 903-237-2780.

Special Health Information

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. EPA/CDC guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the Safe Drinking Water Hotline (1-800-426-4791).

Substances Expected in Drinking Water

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals and can pick up substances resulting from the presence of animals or from human activity. Substances 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 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 stormwater 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 stormwater runoff, and septic systems.
- Radioactive contaminants: which can be naturally-occurring or be the result of oil and gas production and mining.

In order to ensure that tap water is safe to drink, the Environmental Protection Agency (EPA) prescribes regulations that limit the amount of certain contaminants in water provided by public water systems. The Food and Drug Administration (FDA) regulations establish limits for contaminants in bottled water that 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. 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.

Table Definitions

Maximum Contaminant Level Goal (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 Contaminant Level (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 residual disinfectant level goal (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.

Maximum residual disinfectant level (MRDL) – The highest level of a disinfectant allowed in drinking water. This is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

Treatment Technique (TT) – A required process intended to reduce the level of a contaminant in drinking water.

Action Level (AL) – The concentration of a contaminant which, if exceeded, triggers a treatment or other requirement which a water system must follow.

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

pCi/L – picecuries per liter (a measure of radioactivity).

NTU – Nephelometric turbidity units (a measure of turbidity).

ppm – Parts per million, or milligrams per liter (mg/l).

ppb – Parts per billion, or micrograms per liter (ug/l).

NA – Not applicable.

ND – Not detectable at testing limits.

REGULATED SUBSTANCES AT THE TREATMENT PLANTS

Year	Constituent	Average	Detected Range	MCL	MCLG	Typical Source
2016	Chloramines (ppm)	1.72	1.52 – 1.92	4	4	Disinfectant used to control microbes.
2016	Chlorite (ppm)	0.189	0.04 – 0.54	1	0.8	By-product of drinking water disinfection.
2016	Barium (ppm)	0.045	0.03 – 0.06	2	2	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.
2016	Fluoride (ppm)	0.684	0.47 – 0.95	4	4	Erosion of natural deposits; Water additive which promotes strong teeth.
2016	Nitrate (ppm)	0.22	0.07 – 0.34	10	10	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.
2016	Chromium (ppm)	0.00019	ND – 0.0006	0.1	0.1	Discharge from steel and pulp mills. Erosion of natural deposits.
2016	Di (2-ethylexyl) phthalate (ppb)	0.9	ND – 0.9	6	0	Discharge from rubber and chemical factories.
2011	Gross Beta particles & Photon emitters (pCi/L)	1.37	0.0 – 4.1	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
2016	Total Organic Carbon (ppm) – Source Water	6.98	4.78 – 9.48	NA	NA	Naturally present in the environment.
2016	Total Organic Carbon (ppm) – Drinking Water	3.38	1.84 – 4.76	NA	NA	Naturally present in the environment.
2016	Total Organic Carbon % Removal	50.94	31.61 – 73.52	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
2016	Turbidity (NTU)	0.31	100	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 th Percentile	# of Sites Exceeding Action Level	Action Level	Source of Contaminant
2015	Lead (ppb)	0.00109	0	15	Corrosion of household plumbing systems; Erosion of natural deposits.
2015	Copper (ppm)	0.04	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
2016	Total Coliform Bacteria	0%	*	0	Presence	Naturally present in the environment
2016	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. All repeat samples taken were negative and did not indicate the presence of coliform bacteria.

*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
2016	Total Trihalomethanes (ppb)	12.4	0 – 38.2	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.

2016	Total Haloacetic Acids (ppb)	14.8	5.2 – 34.1	60	NA	By-product of drinking water chlorination.
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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
2016	Total Trihalomethanes (ppb)	Location #1	24.42	6.91 – 28.37	80	By-product of drinking water chlorination.
2016		Location #2	21.41	5.83 – 26.67	80	
2016		Location #3	19.17	7.35 – 29.47	80	
2016		Location #4	15.98	1.86 – 15.75	80	
2016		Location #5	15.14	5.39 – 21.31	80	
2016		Location #6	16.38	0.0 – 5.12	80	
2016		Location #7	16.65	7.99 – 38.21	80	
2016		Location #8	15.71	4.22 – 17.00	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.

2016	Total Haloacetic Acids (ppb)	Location #1	21.30	13.40 – 33.50	60	By-product of drinking water chlorination.
2016		Location #2	19.25	12.00 – 30.80	60	
2016		Location #3	20.28	12.40 – 34.10	60	
2016		Location #4	13.00	6.50 – 17.90	60	
2016		Location #5	15.18	7.60 – 19.80	60	
2016		Location #6	13.00	5.20 – 13.90	60	
2016		Location #7	17.65	8.10 – 29.40	60	
2016		Location #8	15.63	7.30 – 17.30	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

Year	Constituent	Average	Range	Source of Contaminant
2016	Chloroform (ppb)	6.62	3.74 – 11.80	By-product of drinking water chlorination.
2016	Dichlorobromomethane (ppb)	2.18	1.46 – 2.89	By-product of drinking water chlorination
2016	Dibromochloromethane (ppb)	1.0	1.0 – 1.0	By-product of drinking water chlorination
2016	Bromoform (ppb)	ND	ND	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	0.18 – 0.94
Manganese	ppm	0.0012 – 0.029
Nickel	ppm	0.00092 – 0.0015
Copper	ppm	0.0006 – 0.0008
Chloride	ppm	8.65 – 21.9
Sulfate	ppm	30.4 – 51.4
pH	pH units	8.2 – 8.5
Conductivity	µmhos/cm	183 – 278
Total Alkalinity as CaCO ₃	ppm	<20.0 – 39.2
Bicarbonate	ppm	<20.0 – 32.8
Dissolved solids	ppm	94 – 176
Cyanide	ppm	0.107 – 0.172
Calcium	ppm	18.9 – 24.8
Magnesium	ppm	3.08 – 3.96
Potassium	ppm	1.27 – 4.43
Sodium	ppm	8.75 – 17.6
Total Hardness as CaCO ₃	ppm	60.1 – 78.2
Total Hardness in Grains	Grains/gallon	3.51 – 4.57

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 2016. In the Water Loss Audit, submitted to the Texas Water Development Board for the time period of January 2016 to December 2016, our system lost an estimated 221,675,212 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.

Storm Water Pollution Prevention Program

Watersheds may be susceptible to contamination resulting from flood, erosion, and pollution; also referred to as storm water runoff. The City of Longview has incorporated a program to help manage Storm Water Pollution. Storm water pollution is being reduced from the monitoring and modification of the City's operations through good municipal housekeeping. Our program also works to control construction runoff resulting in less sediment, the number one pollutant in our watersheds. Finally, one of the most important parts of this program is the education and involvement of the public and citizens of Longview regarding watersheds and storm water pollution.

The Following Guidelines May Help Prevent Storm Water Pollution

- Use fertilizers sparingly
- Sweep up driveways, sidewalks, and gutters
- Never dump, blow, sweep, or wash anything down storm drains
- Don't leave bare spots in your yard
- Compost wastes
- Use less toxic pesticides, follow labels, and learn how to prevent pest problems
- Direct downspouts away from paved surfaces; consider a rain garden to capture runoff
- Take your car to the car wash instead of washing it in the driveway
- Check your car for leaks and recycle your motor oil
- Pick up after your pet

For more information, please feel free to contact the Streets and Drainage Division of the City of Longview's Public Works Department at 903-237-1018.

Thirsty for more information about your water?

- Billing questions 903-237-1030
- Questions about the quality of your drinking water: 903-237-2780
- Water and sewer emergency, service interruptions: 903-236-3030
- To report water security issues: 903-236-3030
- For Backflow Prevention questions: 903-237-2787
- Water conservation or to request a speaker: 903-237-1034
- Source Water Assessment Questions: 903-291-5234
- Storm Water Runoff and Pollution Management 903-237-1067
- To report water pollution: 903-291-5234

The City Council meets every 2nd and 4th Thursday of each month. Call 903-237-1080 or check our website for more information.

You can also find us on the internet

- www.LongviewTexas.gov

The Longview City Hall is located at 300 W. Cotton St. Offices are open from 8 a.m. to 5 p.m.

Este reporte incluye informacion importante sobre el agua para tomar. Para asistencia en espanol, favor de llamar al telefono 903-237-1214, 903-237-2721, 903-237-2786, or 903-237-1199.