Real East Texas

CITY OF LONGVIEW

2012 Water Quality Report

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).

Longview's Drinking Water: From the Source to Your Tap

As a Division of the City of Longview's Public Works Department, Water Supply and Purification provides safe and potable water because safe drinking water is an essential and precious resource for our community. Our primary goal and responsibility is to provide you with safe and reliable drinking water. We are committed to maintaining an adequate raw water supply and for producing potable water at sufficient pressure, volume and quality for our customers. The City of Longview Public Water Supply employees are proud of the role they play in protecting public health and providing safe and potable water to the City of Longview. We strive to continuously improve the service to the community and wholesale customers by monitoring the watershed and our water treatment plants and distribution system to ensure that they meet or exceed local, state and federal regulations. We also strive to meet the demands of our community and maintain fire protection by operating and maintaining our facilities, booster stations, valves, and elevated storage towers throughout the City.

The licensed water professionals of the City of Longview are committed to providing quality, innovative services that set the standard for professionalism and excellence. As new challenges to drinking water safety emerge, we will be vigilant in maintaining our objective of providing quality drinking water at an affordable price.

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 numerous state, local, and federal agencies and associations and local industries to monitor and maintain a high level of water quality.

Under normal operating conditions, the Cherokee, Sabine River, and Lake O' the Pines Water Treatment Plants treat and distribute water to elevated and ground storage tanks with the capacity of approximately 6 million gallons of water throughout the city in over 600 miles of pipeline. The east and southeast regions of Longview typically receive water from the Cherokee Water Treatment Plant. The west and southwest regions of Longview receives water from the Sabine River Water Treatment Plant. The north region receives water from the Lake O' the Pines Water Treatment Plant. Due to changes in demand and normal or emergency maintenance requirements, the typical distribution of water may change and residents may receive water from any of the water treatment plants.

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.

Frequently Asked Questions and Interesting Facts about Your Water

If my water tastes or smells different, is it still safe to drink?

All water has its own unique taste and odor characteristics. Contaminants may be found in drinking water that can cause taste, color or odor problems. These types of problems are not necessarily causes for health concerns. The City of Longview, like many other water suppliers, occasionally experiences changes in taste and odor. Algae and bacteria naturally found in surface waters can produce different types of tastes and odors. Geosmin and 2-Methylisoborneol (MIB) have been identified as odor-causing compounds and are detectable at levels as low as five parts per trillion (ppt or nanograms per liter). When conditions are favorable (changes in temperature, excessive rainfall, flooding, drought, or dry weather conditions), the bacteria and certain blue-green algae produce a musty or earthy taste and odor. Although these contaminants impart an unpleasant taste and odor, they do not have an established Maximum Contaminant Level (MCL) nor pose any known health risks. Water that has been stored in a pipe for a long time, especially during warm weather, also may develop an odor. That explains why you may notice a change in your water after returning from vacation.

INTERESTING WATER FACTS

- **One gallon of gasoline can contaminate approximately 750,000 gallons of water.**
- **A single tree will give off 70 gallons of water per day in evaporation.**
- **It takes 1,850 gallons of water to refine one barrel of crude oil.**
- **An acre of corn gives off 4,000 gallons of water per day in evaporation.**

What is the hardness of the water?

Water supplied to you is considered soft to moderately hard in the Lake O' the Pines service area and moderately hard in the Lake Cherokee and Sabine River service areas. What makes water hard is a combination of minerals that are present in nearly all natural waters. The average hardness for water in 2012 from Lake Cherokee is 104 mg/L (6.1 grains/gallon), Lake O' the Pines is 72 mg/L (4.2 grains/gallon), and Sabine is 92 mg/L (5.4 grains/gallon).

Why does my water appear cloudy or milky at times?

Cloudy water is often caused by dissolved oxygen being released from the water. Cold water can hold more oxygen than warm water. Water saturated with oxygen will release oxygen as it warms or as the pressure is released. This release makes the water appear milky or cloudy, but it does not affect the safety of the water. The cloudiness usually will disappear in about 30 seconds.

INTERESTING WATER FACTS

- **The average person in the United States uses 80-100 gallons of water per day. Flushing the toilet actually takes up the largest amount of this water.**
- **Water leaves the stomach approximately 5 minutes after consumption.**

Why does my water sometimes look brown or red?

Often your water is discolored because of pipeline breaks and repairs. The color comes from iron or mineral deposits inside the pipe that become dislodged during the repairs. If the color is due to line breaks, run the faucet until the water is clear. If the water does not clear within several minutes, call the water and sewer emergency line at 903-236-3030 for assistance.

INTERESTING WATER FACTS

- **At birth, water accounts for approximately 80% of an infant's body weight.**
- **Less than 1% of the water supply on earth can be used as drinking water.**
- **In a 100-year period, a water molecule spends 98 years in the ocean, 20 months as ice, about 2 weeks in lakes and rivers, and less than a week in the atmosphere.**

What is the white build-up on my faucet strainers?

The white build-up is calcium carbonate. Lime is added to the water to adjust the pH to provide a stable water to prevent premature corrosion of the distribution system. This calcium carbonate product places a protective film that coats the inside of the water pipes much like the paint on your car or house protects the metal or wood. When there is a change in flow or the water usage increases in the pipeline, calcium carbonate build-up may break off and enter the water stream.

Calcium carbonate may accumulate in the water heater or sink faucet strainers. To alleviate this problem, you can flush the lower drain system on your water heater or rinse off the deposits on the sink faucet strainer.

INTERESTING WATER FACTS

- **Water helps to maintain healthy body weight by increasing metabolism and regulating appetite. It also leads to increased energy levels. The most common cause of daytime fatigue is actually mild dehydration. By the time a person feels thirsty; their body has lost over 1 percent of its total water amount. Water can even prevent and alleviate headaches, and joint and back pain. Water regulates the temperature of the human body, just as it regulates the earth's temperature. If you have caught a fever, you should drink lots of water. Water is essential to the human body's survival. A person can live for about a month without food, but only about a week without water.**
- **The average residence uses 107,000 gallons of water during a year. An individual person uses 50 gallons of water daily.**

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.

Water Security: Water you save might be Your Own.

Water Security is a shared responsibility involving water suppliers, wastewater utilities, government, law enforcement and citizens. We can all be involved in homeland security by playing an important role in protecting our critical water resources. Local drinking water and wastewater systems may be targets for terrorist and other would be criminals wishing to disrupt and cause harm to your community water supplies or wastewater facilities. Water utilities are often located in isolated areas. Drinking water sources and wastewater collection systems may cover large areas that are difficult to secure and patrol. Residents can be educated to notice and report any suspicious activity, in and around local water utilities. Interested and dedicated citizens are essential to increase the security eyes and ears in your community.

What Can You Do?

Form and operate a citizen's watch network within your community to communicate regularly with law enforcement, your public water supplier and wastewater operator. Communication is the key to a safer community! Be alert! Become aware of your surroundings.

When Reporting an Incident:

- Call the Water & Sewer Emergency Line at 903-236-3030
- State the nature of the incident
- Identify yourself and your location
- Identify location of activity
- Describe any vehicle involved (color, make, model, license plate #)
- Describe the participants (how many, sex, race, color of hair, height, weight, clothing)

For more information on water security visit: www.epa.gov/safewater/security

Backflow Prevention

The protection of the public water supply in the City of Longview is a matter of great concern and benefit to the community. As the water supplier, the City of Longview has the responsibility to prevent contamination of our public water system from backflow and cross-connections. In the exercise of this duty, we must take reasonable precautions to protect the water distribution system from the hazards that could possibly originate on the premises of our customers.

State regulations require the City of Longview to maintain a Backflow Prevention Program to track the installation and annual testing of backflow prevention assemblies on all actual or potential hazardous cross-connections (potential points of contamination). This applies to all commercial/industrial, large multi-family, and some smaller multi-family customers connected to the City's water supply. Properly working backflow prevention assemblies keep your drinking water clean and safe. For more information, please contact us at 903-237-2780.

Hydrant Testing Information

From April 1 to August 31, you may see the City of Longview Fire Department anywhere throughout the City completing their Annual Fire Hydrant Maintenance program. This program ensures that all fire hydrants in the City of Longview are operable, visible, unobstructed, and maintained for their use during emergency response.

During this time, if you see any of the Fire Companies (Fire Engines and Ladder Trucks) from any of the 8 fire stations in your area, you may want to run water from your household faucet for a few minutes to ensure that any sediment that may have been stirred up from the hydrant maintenance process is flushed out before using the water. The water is safe, but could have some short term discoloration due to the flushing of the fire hydrants. If you have any questions or concerns or for more information about the Longview Fire Department, including fire prevention efforts and emergency preparedness, contact 903-237-1210.

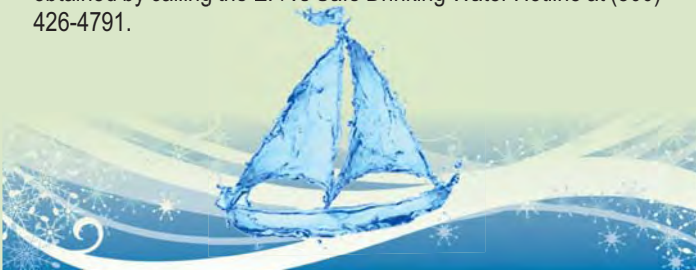
Substances Expected in Drinking Water

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.



What's In the Water?

We are pleased to report that during the past year, the water delivered to your home or business met or surpassed all state and federal drinking water requirements. We analyze water samples for numerous regulated and non-regulated substances for your safety and satisfaction. For your information, in the following tables, we have listed the substances that were detected in our drinking water during the year. Although all of the substances listed are under the Maximum Contaminant Level (MCL) set by U.S. EPA, we believe it is important that you know exactly what was detected and how much of the substance was present in the water.

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
2012	Chloramines (ppm)	1.40	1.21 – 1.67	4	4
Disinfectant used to control microbes.					
2012	Chlorite (ppm)	0.203	0.05 – 0.44	1	0.8
By-product of drinking water disinfection.					
2011	Barium (ppm)	0.051	0.04 – 0.06	2	2
Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.					
2012	Fluoride (ppm)	0.48	0.37 - 0.63	4	4
Erosion of natural deposits; Water additive which promotes strong teeth.					
2012	Nitrate (ppm)	0.227	0.17 – 0.31	10	10
Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.					
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.					

Year	Constituent	Average	Detected Range	MCL	MCLG
2012	Total Organic Carbon (ppm) – Source Water	5.87	3.41 – 10.30	NA	NA
Naturally present in the environment					
2012	Total Organic Carbon (ppm) – Drinking Water	3.37	2.01 – 4.77	NA	NA
Naturally present in the environment.					
2012	Total Organic Carbon % Removal	40.91	18.04 – 78.83	NA	NA
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
2012	Turbidity (NTU)	0.28	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).				

Unregulated Substances At The Treatment Plants:

Stage 1 Disinfection By-products

Year	Constituent	Average	Range
2012	Chloroform (ppb)	40.24	34.18 – 45.24
By-product of drinking water chlorination.			
2012	Dichlorobromomethane (ppb)	22.39	8.83 – 30.93
By-product of drinking water chlorination.			
2012	Dibromochloromethane (ppb)	13.00	3.21 – 19.54
By-product of drinking water chlorination.			
2012	Bromoform (ppb)	2.48	ND – 1.17
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.

Regulated Substances In The Distribution System:

Stage 1 Disinfection By-products

Year	Constituent	Average	Range	MCL	MCLG
2012	Total Trihalomethanes (ppb)	37.9	21.8 – 62.0	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.					
2012	Total Haloacetic Acids (ppb)	14.8	5.8 – 23.7	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

In October 2012, sampling for the Stage 2 Disinfection By-Products Rule began for the City of Longview. This new monitoring is very similar to that of the Stage 1 Disinfection By-Products sampling. The following tables display the results of this new monitoring.

Year	Constituent	Average	Range	MCL	MCLG
2012	Total Trihalomethanes (ppb)	54.8	50.7 – 59.5	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.					
2012	Total Haloacetic Acids (ppb)	14.7	12.2 – 17.3	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

Year	Constituent	Location	LRAA	Range	MCL
2012	Total Trihalomethanes (ppb)	Site 1	56.2	NA	80
2012		Site 2	59.5	NA	80
2012		Site 3	52.9	NA	80
2012		Site 4	50.7	NA	80
2012		Site 5	56.7	NA	80
2012		Site 6	55.9	NA	80
2012		Site 7	54.2	NA	80
2012		Site 8	52.2	NA	80
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.					
Year	Constituent	Location	LRAA	Range	MCL
2012	Total Haloacetic Acids (ppb)	Site 1	12.3	NA	60
2012		Site 2	15.4	NA	60
2012		Site 3	12.2	NA	60
2012		Site 4	13.3	NA	60
2012		Site 5	15.5	NA	60
2012		Site 6	17.3	NA	60
2012		Site 7	16.3	NA	60
2012		Site 8	15.2	NA	60
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 At The Customer's Tap

Year	Constituent	The 90th Percentile	# of Sites Exceeding Action Level	Action Level
2012	Lead (ppb)	0.00082	0	15
Corrosion of household plumbing systems; Erosion of natural deposits.				
2012	Copper (ppm)	0.025	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."

Year	Constituent	Highest Monthly % of Positive Samples	MCL	MCLG	Units of Measure
2012	Total Coliform Bacteria	1.7%	*	0	Presence
Naturally present in the environment					
2012	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.**

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	0.17 - 0.54
Manganese	ppm	0.001 – 0.002
Nickel	ppm	0.0013 – 0.0014
Zinc	ppm	0.005 – 0.009
Selenium	ppm	0.002 – 0.003
Chromium	ppm	0.0004 – 0.0016
Copper	ppm	0.0005 – 0.003
Chloride	ppm	17.0 – 41.1
Sulfate	ppm	46.7 – 106.0
pH	pH units	8.7 – 9.4
Conductivity	µmhos/cm	236 – 355
Total Alkalinity as $CaCO_3$	ppm	17 - 24
Bicarbonate	ppm	17 - 22
Dissolved solids	ppm	141 - 223
Calcium	ppm	18.3 – 24.9
Magnesium	ppm	3.47 – 4.96
Sodium	ppm	13.3 – 23.5
Iron	ppm	0.015 – 0.015
Total Hardness as $CaCO_3$	ppm	69.2 – 82.6
Total Hardness in Grains	Grains/gallon	4.04 – 4.82

How to contact us for more information

• Billing questions	903-237-1028
• 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:	903-237-2780
• Water conservation or to request a speaker:	903-237-1034
• Source Water Assessment Questions:	903-291-5234
• Storm Water Runoff and Pollution Management	903-237-1018
• To report water pollution:	903-291-5234

Find more information online:
LongviewTexas.gov

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

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 asistancia en espanol, favor de llamar al telefono 903-237-1060, 903-237-1236, 903-232-0063, or 903-237-1199.

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