

2016
Annual Drinking Water
Quality Report
(Consumer Confidence Report)



903-798-3850

Texas Public Water System ID #0190004
Arkansas Public Water System ID #360

Texarkana Water Utilities (TWU) is pleased to present to you our 2016 Annual Drinking Water Quality Report. This report is intended to provide you with important information about your drinking water and the efforts we make to provide safe drinking water to our customers. We hope this information will help you become more knowledgeable about your drinking water.

En Español

Este reporte incluye información importante sobre el agua para potable. Si tiene preguntas o comentarios sobre éste informe en español, favor de llamar al telefono 903-798-3800 para hablar con una persona bilingue en español.

SPECIAL NOTICE - Required Language for ALL Community Public Water Supplies:

Some people may be more vulnerable than the general population to certain microbial contaminants, such as Cryptosporidium, in drinking water. People at particular risk of infections include: some elderly, infants, immuno-compromised persons such as those undergoing chemotherapy for cancer, organ transplant recipients, those who are undergoing treatment with steroids, and people with HIV/AIDS or other immune system disorders. These people should seek advice about drinking water from their health care providers. Additional guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants are available from the Safe Drinking Water Hotline at 1-800-426-4791. **No Cryptosporidium has been detected in either of Texarkana's water sources.**

Where do we get our drinking water?

TWU has two surface water sources: **Lake Wright Patman** located in northeast Texas and **Lake Millwood** located in southwest Arkansas. This report provides information about water from both lakes and water treatment plants, as well as the TWU distribution system. For further information on our water sources, see the "Source Water Assessments" section of this report.

TYPES OF WATER SOURCES: 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 materials and, in some cases, radioactive material. It can also pick up substances resulting from the presence of animals or from human activity.

Contaminants that may be present in our source (lake) water include: microbial contaminants such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agriculture, livestock operations and wildlife; inorganic contaminants such as minerals and metals, 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 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 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 can be naturally occurring or the result of oil and gas production and/or mining activities.

In order to assure tap water is safe to drink, the EPA prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. Food and Drug Administration (FDA) regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

Public Participation Opportunities

If you have any questions about this report or concerning your water utility, please contact Rick Barton, Water Production Manager, at 903-798-3850, or J.D. Phillips, Executive Director at 903-798-3821. We want our valued customers to be informed about their water utility. If you want to learn more, please attend the City Council meetings. Texas meetings are held at 6:00 p.m. on the 2nd and 4th Monday of each month at Texas City Hall, located at 220 Texas Blvd. (903-798-3900). Arkansas meetings are held at 6:00 p.m. on the 1st & 3rd Monday of each month at Arkansas City Hall, located at 216 Walnut Street (870-779-4991). Some meeting dates may change due to holidays or other conflicts. Please call the above numbers to confirm specific meeting times and dates.

Source Water Assessments

The Arkansas Department of Health has completed a Source Water Vulnerability Assessment (SWVA) for Texarkana Water Utilities' Lake Millwood source. This assessment summarizes the potential for contamination of Lake Millwood and can be used as a basis for developing a source water protection plan. Based on the various criteria of the assessment, Lake Millwood has been determined to have a low susceptibility to contamination. You may request a summary of the SWVA from the TWU office.

The Texas Commission on Environmental Quality completed an assessment of Lake Wright Patman and results indicate that it is susceptible to certain contaminants. The sampling requirements for our water system are based on this susceptibility and previous sample data. Any detection of these contaminants may be found in this Consumer Confidence Report. For more information on source water assessments and protection efforts at our system contact Rick Barton, Water Production Manager, at 903-798-3850.

All Drinking Water May Contain Contaminants

When drinking water meets federal standards, there may not be any health benefits to purchasing bottled water or point-of-use devices. All 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 the water poses a health risk. More information about contaminants and their potential health effects can be obtained by calling the Environmental Protection Agency's Safe Drinking Water Hotline at 1-800-426-4791.

Lead and Drinking Water

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. Texarkana Water Utilities 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>.

Secondary Contaminants

Many constituents such as calcium, sodium and iron are often found in drinking water and are capable of causing taste, color and odor problems. These taste and odor constituents are called secondary contaminants and are regulated by State regulatory agencies, not the EPA. These constituents are not causes for health concerns, however, they can greatly affect the appearance and taste of your water.

Water Loss

In the water loss audit submitted to the Texas Water Development Board for the time period of January – December 2016, our estimated water loss was 3.74%. If you have any questions about the water loss audit, please call 903-798-3850.

About the Following Table

Texarkana Water Utilities routinely monitors for contaminants in your drinking water according to State and Federal laws. The following table lists all the federally regulated or monitored contaminants which have been found in your drinking water. The U.S. EPA requires water systems to test for over 100 contaminants. The following table shows results for the monitoring period of January 1, 2016 – December 31, 2016. In the following table, you might find terms and abbreviations that are not familiar to you. To help you better understand these terms, we have provided the following definitions.

DEFINITIONS

Action Level (AL) - the concentration of a contaminant which, if exceeded, triggers treatment or other requirements which water **Arkansas Department of Health (ADH)** – the regulatory agency for drinking water in the state of Arkansas systems must follow.

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 Contaminant Level Goal (MCLG) – unenforceable public health goal; 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 (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 (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.

NA – not applicable

Nephelometric Turbidity Unit (NTU) – a unit of measurement for the clarity of water. Turbidity in excess of 5 NTU is just noticeable to the average person.

Parts per million (ppm) – a unit of measurement for detected levels of contaminants in drinking water. One part per million corresponds to one minute in two years or a single penny in \$10,000.

Parts per billion (ppb) - a unit of measurement for detected levels of contaminants in drinking water. One part per billion corresponds to one minute in 2,000 years, or a single penny in \$10,000,000.

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

Texas Commission on Environmental Quality (TCEQ) – the regulatory agency for drinking water in the state of Texas.

ALL SAMPLES WERE COLLECTED DURING THE 2016 CALENDAR YEAR UNLESS OTHERWISE SPECIFIED.

Microbiological Contaminants

Total coliform bacteria are used as indicators of microbial contamination of drinking water because testing for them is easy. While not disease-causing organisms themselves, they are often found in association with other microbes that are capable of causing disease. Coliform bacteria are more hardy than many disease-causing organisms; therefore, their absence from water is a good indication that the water is microbiologically safe for human consumption.

Contaminant	Highest Monthly % of positive samples	MCL	Unit of Measure	Violation Y/N	Source of Contaminant
Total Coliform Bacteria	2.70%	Presence of coliform bacteria in 5% of monthly samples	Presence	No	Naturally present in the environment

Turbidity

Turbidity is a measure of the cloudiness of the water. It is used to indicate water quality and filtration effectiveness (e.g., whether disease-causing organisms are present). Higher turbidity levels are often associated with higher levels of disease-causing microorganisms such as viruses, parasites and some bacteria. These organisms can cause symptoms such as nausea, cramps, diarrhea and associated headaches.

Contaminant	Location	Highest Single Measurement	Lowest Monthly % of Samples Meeting Limits	Turbidity Limits	Unit of Measure	Violation Y/N	Source of Contaminant
Turbidity	Wright Patman	0.31	100%	≤0.3 in 95% of samples	NTU	No	Soil runoff
	Millwood	0.31	100%				

Inorganic Contaminants

Contaminant	Reporting Agency	Highest Level Detected	Range of Detected Level	MCL	MCLG	Unit of Measure	Violation Y/N	Source of Contaminant
Nitrate (as Nitrogen)	TCEQ	0.205	0.04 - 0.205	10	10	ppm	No	Runoff from fertilizer use; leaking from septic tanks, sewage; erosion of natural deposits
Arsenic	TCEQ	0.81	0 - 0.81	10	0	ppb	No	Erosion of natural deposits; runoff from orchards, runoff from glass and electronics production wastes
Cyanide	TCEQ	16.7	0 - 16.7	200	200	ppb	No	Discharge from steel/metal factories; discharge from plastics and fertilizer factories
Thallium	TCEQ	0.3	0 - 0.3	2	0.5	ppb	No	Leaching from ore-processing sites; discharge from electronics, glass and drug factories
Barium	TCEQ	0.034	0.016 - 0.034	2	2	ppm	No	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
	ADH	0.015	0 - 0.015					
Chromium	TCEQ	0.72	0 - 0.72	100	100	ppb	No	Discharge from steel and pulp mills; erosion of natural deposits

Synthetic Organic Contaminants (including pesticides and herbicides)

Contaminant	Reporting Agency	Average Level Detected	Range of Detected Level	MCL	MCLG	Unit of Measure	Violation Y/N	Source of Contaminant
Atrazine	TCEQ	0.44	0.0 - 0.44	3	3	ppb	No	Runoff from herbicide used on row crops.

Lead & Copper Tap Monitoring

Contaminant	Location	The 90th Percentile	Number of Sites Exceeding Action Level	Action Level	MCLG	Unit of Measure	Violation Y/N	Source of Contaminant
Lead	Texas	2.9	0	15	0	ppb	No	Corrosion of household plumbing systems; erosion of natural deposits
	Arkansas	<3	0					
Copper	Texas	0.0456	0	1.3	1.3	ppm	No	
	Arkansas	<0.20	0					

Texarkana Water Utilities is on a reduced lead and copper monitoring schedule which requires sampling every 3 years at the customers' taps. The results above are based on 2014 analysis. Our next required monitoring period is the summer of 2017.

Radioactive Contaminants

Contaminant	Location	Collection Date	Level Detected	MCL	MCLG	Unit of Measure	Violation Y/N	Source of Contaminant
Combined Radium 226/228	Texas	4/12/2011	1	5	0	pCi/L	No	Erosion of natural deposits.
	Arkansas	11/9/2016	1.5				No	

Disinfection By-Product Precursors

Total organic carbon (TOC) has no adverse health effects. TOC provides a medium for the formation of disinfection by-products when water is disinfected. Disinfection is necessary to ensure that water does not have unacceptable levels of pathogens. By-products of disinfection include trihalomethanes (THMs) and haloacetic acids (HAAs) which are reported elsewhere in this report. The percentage of TOC removal was routinely monitored in 2016 and all TOC removal requirements set by the USEPA were met at both Texarkana Water Utilities water treatment facilities.

Disinfectants

Contaminant	Location	Annual Average	Range of Detected Level	MRDL	MRDLG	Unit of Measure	Violation Y/N	Source of Contaminant
Chlorine (total)	Texas & Arkansas	2.97	0.52 - 3.7	4	4	ppm	No	Disinfectant used to control microbes

Disinfection By-Products

Contaminant	Location	Highest Locational Running Annual Average	Range of Detected Level	MCL	MCLG	Unit of Measure	Violation Y/N	Source of Contaminant
Total Trihalomethane (TTHM)	Texas	49.9	28.1 - 63.8	80	N/A	ppb	No	By-product of drinking water disinfection
	Arkansas	82.9	28.6 - 68.2*	80	N/A	ppb	Yes	
<p>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 system, and may have an increased risk of cancer. * The running 12 month average lies outside the range because the highest running 12 month average is calculated using the last 3 quarters of 2015 and the first quarter of 2016. The range reported is from samples collected during 2016 only.</p>								
Haloacetic Acid (HAA5)	Texas	33.1	16.2 - 43.4	60	N/A	ppb	No	By-product of drinking water disinfection
	Arkansas	31.3	18.7 - 42.3	60	N/A	ppb	No	
Contaminant	Location	Highest Level Detected	Range of Detected Level	MCL	MCLG	Unit of Measure	Violation Y/N	Source of Contaminant
Chlorite	Texas	0.677	0 - 0.677	1	0.8	ppm	No	By-product of drinking water disinfection
	Arkansas	0.283	0.02 - 0.283	1	0.8	ppm	No	

Unregulated Contaminants

Unregulated contaminants are those for which the EPA has not established drinking water standards. The purpose of unregulated contaminant monitoring is to assist the EPA in determining the occurrence of unregulated contaminants in drinking water and whether further regulation is warranted. MCLs (Maximum Contaminant Levels) and MCLGs (Maximum Contaminant Level Goals) have not been established for all unregulated contaminants.

Contaminant	Reporting Agency	Range of Detected Level	Average Level Detected	Unit of Measure	MCLG	Violation Y/N	Source of Contaminant
Chloroform	TCEQ	36.3 - 42.9	39.6	ppb	70	No	By-products of drinking water disinfection
	ADH	35.2 - 35.2	35.2			No	
Bromodichloromethane	TCEQ	10.5 - 10.9	10.7	ppb	0	No	
	ADH	12.5 - 12.5	12.5			No	
Dibromochloromethane	TCEQ	2.04 - 2.53	2.29	ppb	60	No	
	ADH	5.48 - 5.48	5.48			No	
Acetone	TCEQ	9.68 - 13.7	11.69	ppb	6000	No	Used in manufacture of plastic, fibers, cosmetics, photographic film and many other kinds of consumer goods.

Violations (Arkansas)

TYPE: Disinfection By-Products	From:	To:	CORRECTIVE ACTION:
The running annual average of Total Trihalomethanes exceeded 80 ppb in the winter quarter, with a value of 83 ppb at site D006* .	1/1/2016	3/31/2016	Reviewing disinfection procedures and working on a solution to lower the levels of disinfection by-products in the distribution system.

* The winter quarter measurements include the last 3 quarters of 2015 plus the 1st quarter of 2016.