

# 2018 City of Athens Annual Water Quality Report



The City of Athens is pleased to present the 2018 Annual Water Quality Report. Our goal is to meet the water usage needs of our customers by providing the highest quality water available. Public participation regarding the water system is offered through attending public meetings, calling 903.675.5131, emailing [utilities@athenstx.gov](mailto:utilities@athenstx.gov), or visiting [www.athenstx.gov](http://www.athenstx.gov). Specific questions or concerns about water quality may be directed to 903.675.6667.

## Our Drinking Water Meets or Exceeds All Federal (EPA) Drinking Water Requirements

This report is a summary of water quality provided to our customers. The analysis was made by using the data from the most recent U.S. Environmental Protection Agency (EPA) required tests and is presented in the following pages. We hope this information helps you become more knowledgeable about what's in your drinking water.

## Where Do We Get Our Drinking Water?

The City of Athens (PWS #1070005) water system distributed 693,072,000 gallons of water during 2018. The Athens Municipal Water Authority (AMWA) (PWS #1070252) provided 290,969,000 gallons of treated surface water and 236,225,000 gallons of ground water. An additional 165,878,000 gallons of ground water was produced by water wells operated by the City of Athens to supplement the total annual consumption. Water loss, which includes water not accounted for through metering and/or estimation, totaled 93,597,228 gallons for 2018. Athens water includes surface water, obtained from Lake Athens, and ground water produced from water wells. The TCEQ Source Water Susceptibility 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. Please call 903.677.6666 for more information on source water assessments and protection efforts of our system.

## Secondary Constituents

Constituents, such as calcium, sodium, or iron, commonly found in drinking water at varying concentration, can influence the taste, color, and odor of water. The State of Texas regulates these taste and odor constituents, called secondary constituents, but does not consider them cause for health concern. The secondary constituents are not presented in this annual report, however, can be performed as needed in response to a water quality concern.

## En Español

Este informe incluye información importante sobre el agua potable. Si tiene preguntas o comentarios sobre éste informe en español, favor de llamar al tel. 903.675.5131 para hablar con una persona bilingüe en español.

## All Drinking Water May Contain Contaminants and Cryptosporidium

When drinking water meets federal standards there may not be any health-based benefits to purchasing bottled water or point-of-use devices. 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.

Cryptosporidium is a microscopic intestinal parasite found naturally in the environment. Although filtration removes most Cryptosporidium, the most commonly used filtration methods cannot guarantee 100 percent removal. Athens regularly collects treated and untreated water samples to test for this pathogen. Results of those tests did not indicate the presence of cryptosporidium during 2018. Not everyone exposed to the organism becomes ill. Individuals with healthy immune systems usually overcome the effects within a few weeks. However, immune-compromised people are at a greater risk of developing life-threatening illness. We encourage at risk individuals to consult their doctor regarding appropriate precautions to prevent infection. To request more information on Cryptosporidium, please call the U.S. EPA's Safe Drinking Water Hotline at 800.426.4791.

## Definitions / Abbreviations

**Action Level (AL)** - The concentration of a contaminant that, if reached, triggers treatment or other requirements that a water system must follow.

**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 (MRDL)** - The highest level of disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

**NTU** - Nephelometric Turbidity Units

**MFL** - million fibers per liter (a measure of asbestos)

**pCi/L** - picocuries per liter (a measure of radioactivity)

**ppm** - parts per million, or milligrams per liter (mg/L)

**ppb** - parts per billion, or micrograms per liter (µg/L)

**ppt** - parts per trillion, or nanograms per liter

**ppq** - parts per quadrillion, or picograms per liter

## Water Quality Monitoring Results

The table on this page includes a list all of federally regulated or monitored constituents that have been found in your drinking water. The U.S. EPA requires water systems to test up to 90 constituents. As the table illustrate, the drinking water provided to Athens customers met or exceeded all established standards. The table identifies contaminants detected during 2018, or the most recent testing done in accordance with regulations, including the maximum amounts allowed by state and federal regulations.

Contaminants that may be present in source water are introduced by a variety of means. Contaminants can include micro-organisms, inorganic compounds, pesticides, herbicides, organic chemicals and radioactive contaminants. Introduction is typically the result of storm water runoff, and can include sources such as sewage treatment plants, septic systems, livestock operations/wildlife, or naturally forming formations. Other human activity sources include by-products of industrial processes, petroleum production, gas stations, and mining operations.

### Lead and Copper

Elevated levels of lead can cause serious health problems, especially for pregnant women and young children, if present in drinking water. Lead in drinking water is primarily introduced 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. Lead and copper concentrations can become elevated as the water remains in contact with plumbing for long periods.

### REGULATED CHARACTERISTICS

#### DETECTED INORGANIC CONTAMINANTS

Contaminant	Water District	Date Sampled	Average Amount Detected	Range of Detected Levels	MCL	MCLG	Source of Contaminant
Barium (mg/l)	City of Athens AMWA	2018	0.0827	.0788 - .0867	2.0	2.0	Erosion of natural deposits; discharge of drilling wastes or metal refineries.
		2018	0.063	0.063			
Fluoride (mg/l)	City of Athens AMWA	2018	0.109	0.106 - .113	4.0	4.0	Water additive to promote strong teeth; erosion of natural deposits.
		2018	0.07	0.07			
Nitrate (mg/l)	City of Athens AMWA	2018	0.07125	.0441 - .0984	10.0	10.0	Runoff from fertilizer use; leaching from septic tanks, sewage, erosion of natural deposits.
		2018	0.051	0.051			
Aluminum (mg/l)	AMWA	2018	0.018	0.018	0.2	0.2	Coagulation chemical added to remove turbidity from raw water
Nitrite (mg/l)	AMWA	2018	0.189	0.189	1.0	1.0	Runoff from fertilizer use; leaching from septic tanks, sewage, erosion of natural deposits.

#### DETECTED RADIOACTIVE CONTAMINANTS

Combined Radium (226 & 228) (pCi/L)	City of Athens	2018	1.5	1.5	5.0	0.0	Erosion of natural deposits.
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#### DISINFECTION BY-PRODUCTS

Total Trihalomethanes (ppb)	City of Athens AMWA	2018	29.5	6.63 - 52.8	80.0	0.0	By-product of drinking water disinfection
		2018	23.3	20.3 - 49.8			
Total Haloacetic Acids (ppb)	City of Athens AMWA	2018	22.4	3.4 - 39.7	60.0	0.0	By-product of drinking water disinfection
		2018	17.3	13.7 - 34.2			

#### MAXIMUM RESIDUAL DISINFECTANT LEVEL

Contaminant	Water District	Date Sampled	Average Level	Maximum Level	Minimum Level	MRDL	MRDLG
Total Chloramine Residual (ppm)	City of Athens AMWA	2018	1.7	4.1	.5	4.0	<4.0
		2018	3.4	4.3	2.0	4.0	

Total Coliform Bacteria	Total Coliform MCL	Violation	Positive E. Coli or Fecal Coliform Samples	Highest Number of Positive Samples	Source of Contaminant
MCLG: 0	1	NO	0	1	Naturally present in the environment

Contaminant	Water District	Date Sampled	90th Percentile Values	Sites Exceeding Action Level	MCL	Source of Contaminant
Lead (ppb)	City of Athens AMWA	2018	0.00359	0.0	15.0	Corrosion of household plumbing systems
		2018	0.1225	0.0	1.3	Corrosion of household plumbing systems
Copper (mg/l)	City of Athens AMWA	2018	0.0052	0.0	1.3	

#### UNREGULATED DISINFECTION BY-PRODUCTS

Contaminant	Water District	Date Sampled	Average Level	Maximum Level	Minimum Level	Source of Contaminant
Chloroform	City of Athens AMWA	2018	21.1	36.8	4.96	By-product of drinking water disinfection
			22.7	35.0	11.5	
Bromodichloromethane	City of Athens AMWA	2018	7.21	12.9	1.67	By-product of drinking water disinfection
			8.1	12.4	5.4	

Unregulated contaminant monitoring is conducted to help the EPA determine where certain parameters occur, and whether those contaminants need to be monitored.

Turbidity	Water District	Level Detected	Limit	Violation	Source of Contaminant
Highest Single Measurement	AMWA	0.39	1.0	N	Soil Runoff
Lowest Monthly % of Samples Meeting Limits	100%	100	0.3	N	Soil Runoff

Total Organic Carbon : The percentage of Total Organic Carbon (TOC) removal was measured each month and the system met all established TOC removal requirements.

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 by visiting [www.epa.gov/safewater/lead](http://www.epa.gov/safewater/lead).

VIOLATIONS		
Violation Period	Violation Name	Description of Violation
04/01/2018 - 6/30/2018	MONITORING, ROUTINE (DBP), MAJOR	The TCEQ did not receive a Disinfectant Level Quarterly Operating Report (DLQOR) by the reporting deadline.
<b>Corrective Actions</b>	The required DLQOR reports have been filed with TCEQ as of 8/15/2019.	
<p>The City of Athens water system PWS ID 1070005 has violated the monitoring and reporting requirements set by Texas Commission on Environmental Quality (TCEQ) in Title 30, Texas Administrative Code (30 TAC), Section 290, Subchapter F. Public water systems are required to properly disinfect water before distribution, maintain acceptable disinfection residuals within the distribution system, monitor the disinfectant residual at various locations throughout the distribution system, and report the results of that monitoring to the TCEQ on a quarterly basis.</p>		