



CITY OF HOT SPRINGS

2019

Annual Drinking Water Quality Report

We are pleased to present this year's Annual Drinking Water Quality Report. This report is designed to inform you about the quality water and services we deliver to you every day. Our goal is to provide you with a safe and dependable supply of drinking water, and we want you to understand, and be involved in, the efforts we make to continually improve the water treatment process and protect our water resources.

Where Does Our Drinking Water Come From

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. Our source is surface water from Lakes Hamilton and Ricks. We have two water treatment plants: Lakeside and Ouachita. The Lakeside Plant treats surface water from Lake Ricks. The Ouachita Plant treats surface water from Lake Hamilton.

How Safe Is the Source of Our Drinking Water

The Arkansas Department of Health has completed a Source Water Vulnerability Assessment for City of Hot Springs. The assessment summarizes the potential for contamination of our sources of drinking water and can be used as a basis for developing a source water protection plan. Based on the various criteria of the assessment, our water sources have been determined to have a low to high susceptibility to contamination. You may request a summary of the Source Water Vulnerability Assessment from our office.

What Contaminants Can Be in Our Drinking Water

As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals and, in some cases, can pick up substances resulting from the presence of animals or from human activity. 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 stormwater 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 activities.

In order to assure tap water is safe to drink, EPA has 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.

Am I at Risk

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. However, 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 small amounts of contamination. These people should seek advice about drinking water from their health care providers. More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency's Safe Drinking Water Hotline at 1-800-426-4791. In addition, EPA/CDC guidelines on appropriate means to lessen the risk of infection by microbiological contaminants are also available from the Safe Drinking Water Hotline.

What is Cryptosporidium

Cryptosporidium is a microbial pathogen found in surface water throughout the U.S. It lives and reproduces only with the host. In the environment, *Cryptosporidium* exists as a thick walled oocyst, containing four organisms. Monitoring by Hot Springs Water Department in 2019 indicated no oocysts in the proposed Lake Ouachita Intake that is being considered for construction. It is important to know that although filtration removes *Cryptosporidium*, the most commonly used filtration methods cannot guarantee 100 percent removal. Ingestion of *Cryptosporidium* may cause cryptosporidiosis, an abdominal infection. Symptoms of infection include nausea, diarrhea, and abdominal cramps. Most healthy individuals can overcome the disease within a few weeks. However, immuno-compromised people are at greater risk of developing life threatening illness. We encourage immuno-compromised individuals to consult their doctor regarding appropriate precautions to take to avoid infection. *Cryptosporidium* must be ingested to cause disease, and it may be spread through means other than drinking water.

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. We are 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>.

How Can I Learn More About Our Drinking Water

If you have any questions about this report or concerning your water utility, please contact Cody Howell, Water Production Facilities Manager, at 501-767-4888. We want our valued customers to be informed about their water utility. If you want to learn more, please visit our website www.cityhs.net. We hold regular meetings on the first and third Tuesday of each month at 7:00 PM at the Hot Springs City Hall Board of Chambers. Please contact Cody Howell if you have any questions.

TEST RESULTS

We routinely monitor for constituents in your drinking water according to Federal and State laws. The test results table shows the results of our monitoring for the period of January 1st to December 31st, 2019. In the table you might find terms and abbreviations you are not familiar with. To help you better understand these terms we've provided the following definitions:

Action Level - *the concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system 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.*

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

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.*

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.*

TURBIDITY

Contaminant	Violation Y/N	Level Detected	Unit	MCLG (Public Health Goal)	MCL (Allowable Level)	Major Sources in Drinking Water
Turbidity (Lakeside Plant)	N	Highest yearly sample result: 0.08	NTU	NA	Any measurement in excess of 1 NTU constitutes a violation	<ul style="list-style-type: none"> Soil runoff
		Lowest monthly % of samples meeting the turbidity limit: 100%				
Turbidity (Ouachita Plant)	N	Highest yearly sample result: 0.08				
		Lowest monthly % of samples meeting the turbidity limit: 100%				

Turbidity is a measurement of the cloudiness of water. We monitor it because it is a good indicator of the effectiveness of our filtration system.

INORGANIC CONTAMINANTS

Contaminant	Violation Y/N	Level Detected	Unit	MCLG (Public Health Goal)	MCL (Allowable Level)	Major Sources in Drinking Water
Fluoride (Ouachita Plant)	N	Average: 0.65 Range: 0.46 – 0.85	ppm	4	4	<ul style="list-style-type: none"> Erosion of natural deposits water additive which promotes strong teeth Discharge from fertilizer and aluminum factories
Nitrate (as Nitrogen) (Ouachita Plant)	N	Average: 0.09 Range: 0 – 0.17		10	10	<ul style="list-style-type: none"> Runoff from fertilizer Use Leaching from septic tanks Sewage Erosion of natural deposits

LEAD AND COPPER TAP MONITORING

Contaminant	Number of Sites Sampled	Number of Sites Over Action Level	90 th Percentile Result	Unit	Action Level	Major Sources in Drinking Water
Lead	31	0	<0.001	ppm	0.015	<ul style="list-style-type: none"> Corrosion from household plumbing systems Erosion of natural deposits
Copper	31	0	0.10		1.3	

We are currently on a reduced monitoring schedule and required to sample once every three years for lead and copper at the customer's taps. The results above are from 2019. Our next required monitoring period is in 2022.

TOTAL ORGANIC CARBON

The percentage of Total Organic Carbon (TOC) removal was routinely monitored in 2019, and all TOC removal requirements set by USEPA were met. TOC has no health effects. However, Total Organic Carbon provides a medium for the formation of disinfection by-products. These by-products include trihalomethanes (THMs) and haloacetic acids (HAAs).

REGULATED DISINFECTANTS

Contaminant	Violation Y/N	Level Detected	Unit	MRDLG (Public Health Goal)	MRDL (Allowable Level)	Major Sources in Drinking Water
Chlorine	N	Average: 1.02 Range: 0.3 – 4	ppm	4	4	<ul style="list-style-type: none"> Water additive used to control microbes

BY-PRODUCTS OF DRINKING WATER DISINFECTION

Contaminant	Violation Y/N	Level Detected	Unit	MCLG	MCL
HAA5 (Haloacetic Acids)	N	Highest running 12-month Average: 33 Range: 24.8 – 42.8	ppb	0	60
TTHM (Total Trihalomethanes)	Y	Highest running 12-month Average: 87* Range: 30.8 – 75.1		NA	80

While only the upper end of the TTHM range exceeded the MCL, it should be noted that 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.

**This average lies outside the range because the highest running 12-month average is calculated using the last three quarters of 2018 and all four quarters of 2019. The range reported is during 2019 only.*

UNREGULATED CONTAMINANTS

Contaminant	Level Detected	Unit	MCLG	Major Sources in Drinking Water
Chloroform (Lakeside Plant)	22.0	ppb	70	<ul style="list-style-type: none"> By-products of drinking water disinfection
Chloroform (Ouachita Plant)	13.2			
Bromodichloromethane (Lakeside Plant)	3.42		0	
Bromodichloromethane (Ouachita Plant)	2.20			

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. MCLs (Maximum Contaminant Levels) and MCLGs (Maximum Contaminant Level Goals) have not been established for all unregulated contaminants.

UNREGULATED CONTAMINANTS

(Unregulated Contaminant Monitoring Rule 4)

Contaminant	Level Detected	Unit	Major Sources in Drinking Water
Manganese (UCMR4)	Average: 6.28 Range: 1.7 – 16.1	ppb	<ul style="list-style-type: none"> Naturally occurring element; commercially available in combination with other elements and minerals; used in steel production, fertilizer, batteries and fireworks; drinking water and wastewater treatment chemical; essential nutrient.

HAA5 GROUPS

Contaminant	Level Detected	Unit	Major Sources in Drinking Water
HAA5 (UCMR4)	Average: 33.39 Range: 26.89 – 38.78	ppb	<ul style="list-style-type: none"> By-products of drinking water disinfection
HAA6Br (UCMR4)	Average: 4.52 Range: 3.27 – 10.87		
HAA9 (UCMR4)	Average: 37.06 Range: 30.27 – 42.39		

The Objective of the UCMR program is to collect national occurrence data for suspected drinking water contaminants that do not have health-based standards set under the Safe Drinking Water Act. Drinking water occurrence information is used to support future regulatory actions to protect public health. The public will benefit from information about whether or not unregulated contaminants are present in their drinking water.

VIOLATIONS – CITY OF HOT SPRINGS

TYPE: Disinfection By-Products	FROM:	TO:	CORRECTIVE ACTION:
The running annual average of Total Trihalomethanes exceeded 80 ppb (87 ppb in 1st Quarter)	1/1/2019	3/31/2019	<ul style="list-style-type: none">Reviewing disinfection procedures and working on a solution to lower the levels of disinfection by-products in the distribution system.

CITY OF HOT SPRINGS UTILITIES DEPARTMENT

Utility Billing Services

501-321-6880

- Customer Service
 - To establish, discontinue or transfer service
 - Billing information
 - Utility rates, charges and procedures
 - Meter issues

- Emergency Service - 501-623-5621

If you need your water turned off because you have a leak or need to make repairs, call 501-623-5621. Available 24-hours a day, 7 days a week.

Utility Field Operations Emergency Service Center

501-321-6200

- To report a leak
- To report discolored water