

# **Saline County Water & Sewer**

## **2015 Annual Drinking Water Quality Report**

We're pleased to present to you 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. We purchase treated surface water from Central Arkansas Water and Bryant Waterworks. Bryant Waterworks also purchases water from Central Arkansas Water. Central Arkansas' source of water is from two lakes, Lake Winona and Lake Maumelle. Both lakes can supply Jackson Reservoir, a regulating reservoir located in Little Rock. Water is delivered by pipeline to the Jack H. Wilson and Ozark Point water treatment plants. Both treatment facilities are located in Little Rock.

### ***How Safe Is The Source Of Our Drinking Water?***

The Arkansas Department of Health has completed a Source Water Vulnerability Assessment for Central Arkansas Water. 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, Central Arkansas Water has been determined to have a medium 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 Central Arkansas Water in 2015 indicated no presence of these organisms in their Lake Maumelle, Lake Winona, or Jackson Reservoir water sources. 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.

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 Robert McKeon, General Manager, at 501-847-0562. We want our valued customers to be informed about their water utility. If you want to learn more, please attend any of our regularly scheduled meetings. They are held on the second Thursday of each month at 6:00 PM at the Water Office located at 15250 Highway 111 in Alexander.

### TEST RESULTS

We, Central Arkansas Water and Bryant Waterworks 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 1<sup>st</sup> to December 31<sup>st</sup>, 2015. 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.

**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 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.

MICROBIOLOGICAL CONTAMINANTS						
Contaminant	Violation Y/N	Level Detected	Unit	MCLG (Public Health Goal)	MCL (Allowable Level)	Major Sources in Drinking Water
Total Coliform Bacteria (Saline Co. Water & Sewer)	N	none	Present	0	1 positive sample per month	Naturally present in the environment
TURBIDITY						
Contaminant	Violation Y/N	Level Detected	Unit	MCLG (Public Health Goal)	MCL (Allowable Level)	Major Sources in Drinking Water
Turbidity (Central Ark. Water)	N	Highest yearly sample result: 0.21	NTU	NA	Any measurement in excess of 1 NTU constitutes a violation	Soil runoff
		Lowest monthly % of samples meeting the turbidity limit: 100%			A value less than 95% of samples meeting the limit of 0.3 NTU, constitutes a violation	
♦ Turbidity is a measurement of the cloudiness of water. Central Arkansas Water monitors it because it is a good indicator of the effectiveness of their filtration system.						
INORGANIC CONTAMINANTS						
Contaminant	Violation Y/N	Level Detected	Unit	MCLG (Public Health Goal)	MCL (Allowable Level)	Major Sources in Drinking Water
Fluoride (Central Ark. Water)	N	Average: 0.73 Range: 0.55 -0.83	ppm	4	4	Erosion of natural deposits; water additive which promotes strong teeth
SYNTHETIC ORGANIC CONTAMINANTS INCLUDING PESTICIDES AND HERBICIDES						
Contaminant	Violation Y/N	Level Detected	Unit	MCLG (Public Health Goal)	MCL (Allowable Level)	Major Sources in Drinking Water
Benzo(a)pyrene [PAH] (Central Ark. Water)	N	0.03	ppb	0	0.2	Leaching from linings of water storage tanks and distribution lines
LEAD AND COPPER TAP MONITORING						
Contaminant	Number of Sites over Action Level	90 <sup>th</sup> Percentile Result	Unit	Action Level	Major Sources in Drinking Water	
Lead (Saline Co. Water)	0	0.001	ppm	0.015	Corrosion from household plumbing	

Copper (Saline Co. Water)	0	0.05	ppm	1.3	systems; erosion of natural deposits	
<ul style="list-style-type: none"> <li>We are currently on a reduced monitoring schedule and required to sample once every three years for lead and copper at the customers' taps. The results above are from our last monitoring period in 2015. Our next required monitoring period is in 2018.</li> </ul>						
<b>TOTAL ORGANIC CARBON</b>						
<ul style="list-style-type: none"> <li>The percentage of Total Organic Carbon (TOC) removal was routinely monitored by Central Arkansas Water in 2015, and all TOC removal requirements set by USEPA were met. Total organic carbon (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).</li> </ul>						
<b>REGULATED DISINFECTANTS</b>						
Disinfectant	Violation Y/N	Level Detected	Unit	MRDLG (Public Health Goal)	MRDL (Allowable Level)	Major Sources in Drinking Water
Chlorine (Saline Co. Water)	N	Average: 0.38 Range: 0.2 – 0.9	ppm	4	4	Water additive used to control microbes
<b>BY-PRODUCTS OF DRINKING WATER DISINFECTION</b>						
Contaminant	Violation Y/N	Level Detected	Unit	MCLG (Public Health Goal)	MCL (Allowable Level)	
HAA5 [Haloacetic Acids] (Saline Co. Water)	N	Highest Running 12 Month Average: 17 Range: 8.1 – 26.6	ppb	0	60	
TTHM [Total Trihalomethanes] (Saline Co. Water)	N	Highest Running 12 Month Average: 62 Range: 29 – 71.6	ppb	NA	80	
Chlorite (Central Arkansas Water)	N	Average: 228 Range: 62 - 376	ppb	800	1000	
<b>UNREGULATED CONTAMINANTS</b>						
Contaminant	Level Detected	Unit	MCLG (Public Health Goal)	Major Sources in Drinking Water		
Chloroform (Central Arkansas Water)	Average: 21.7 Range: 11.5 – 31.9	ppb	70	By-product of drinking water disinfection		
Bromodichloromethane (Central Arkansas Water)	Average: 4.39 Range: 2.45 – 6.33	ppb	0			
Dibromochloromethane (Central Arkansas Water)	0.94	ppb	60			
Chlorate (Central Arkansas Water)	Average: 206.2 Range: 102 - 358	ppb	NA	Undetermined		
Strontium (UCMR3) (Central Arkansas Water)	Average: 11.81 Range: 6.6 – 15.7	ppb	Undetermined	Naturally-occurring element; historically, commercial use of strontium has been in the faceplate glass of cathode-ray tube televisions to block x-ray emissions		
Vanadium (UCMR3) (Central Arkansas Water)	Average: 0.48 Range: 0.38 – 0.56	ppb	Undetermined	Naturally-occurring elemental metal; used as vanadium pentoxide which is a chemical intermediate and a catalyst		
Chromium (UCMR3) (Central Arkansas Water)	Average: 0.22 Range: 0.20 – 0.25	ppb	Undetermined	Naturally-occurring element; used in making steel and other alloys; chromium-3 or -6 forms are used for chrome plating, dyes and pigments, leather tanning, and wood preservation		
Chromium-6 (UCMR3) (Central Arkansas Water)	Average: 0.065 Range: 0.041 – 0.104	ppb	Undetermined			
<ul style="list-style-type: none"> <li>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.</li> </ul>						

## CONSUMER NOTICE

### LEAD IN DRINKING WATER

Lead in drinking water, although rarely the sole cause of lead poisoning can significantly increase a person's total lead exposure, particularly the exposure of infants who drink baby formulas and concentrated juices that are mixed with water. The Environmental Protection Agency (EPA) estimates that drinking water can make up 20 percent or more of a person's total exposure to lead. Lead is unusual among drinking water contaminants in that it seldom occurs naturally in water supplies like rivers and lakes. Lead enters drinking water primarily as a result of the corrosion, or wearing away, of materials containing lead in the water distribution system and household plumbing. These materials include lead-based solder used to join copper pipe, brass and chrome plated brass faucets, and in some cases, pipes made of lead that connect your house to the water main (service lines). In 1986, Congress banned the use of lead solder containing greater than 0.2% lead, and restricted the lead content of faucets, pipes and other plumbing materials to 8.0%. When water stands in lead pipes or plumbing systems containing lead for several hours or more, the lead may dissolve into your drinking water. This means the first water drawn from the tap in the morning, or later in the afternoon after returning from work or school, can contain fairly high levels of lead.

### STEPS YOU CAN TAKE TO REDUCE EXPOSURE TO LEAD IN DRINKING WATER

(A) Let the water run from the tap before using it for drinking or cooking any time the water in a faucet has gone unused for more than six hours. The longer water resides in your home's plumbing the more lead it may contain. Flushing the tap means running the cold water faucet until the water gets noticeably colder, usually about 15-30 seconds. If your house has a lead service line to the water main, you may have to flush the water for a longer time, perhaps one minute, before drinking. Although toilet flushing or showering flushes water through a portion of your home's plumbing system, you still need to flush the water in each faucet before using it for drinking or cooking. Flushing tap water is a simple and inexpensive measure you can take to protect your family's health. It usually uses less than one or two gallons of water. To conserve water, fill a couple of bottles for drinking water after flushing the tap, and whenever possible use the first flush water to wash the dishes or water the plants or other than consumptive purposes.

(B) Do not to cook with, or drink water from the hot water tap. Hot water can dissolve more lead more quickly than cold water. If you need hot water, draw water from the cold tap and heat it on the stove.

(C) The steps described above will reduce the lead concentrations in your drinking water. However, if you are still concerned you may wish to purchase bottled water for drinking and cooking.

(D) You can consult a variety of sources for additional information. Your family doctor or pediatrician can perform a blood test for lead and provide you with information about the health effects of lead.

### MAXIMUM CONTAMINANT LEVEL GOAL AND LEAD ACTION LEVEL DEFINITIONS

Maximum Contaminant Level Goal or MCLG: The level of a contaminant in drinking water below which there is no known or expected risk to health. The Environmental Protection Agency has set the Maximum Contaminant Level Goal at zero. The MCLG allows for a margin of safety.

Action level: The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow. The Environmental Protection Agency has set the lead action level at 0.015 milligrams per liter (mg/L), or 15 parts of lead per one billion parts of water. The action level is a 90<sup>th</sup> percentile value calculated from 10 percent of the water system samples with the highest concentration of lead. In order for the action level to be triggered, it requires that 10 percent or more of the water samples exceed 0.015 mg/L of lead.

### HELPFUL STATE, LOCAL AND ANALYTICAL AGENCIES

(A) Saline Co. Water and Sewer at 501-847-0562 can provide you with information about your community's water supply, and a list of local laboratories that have been certified by EPA for testing water quality.

(B) The Arkansas Department of Health at 1-800-462-0599 or 1-501-661-2000 and your local County Health Unit can provide you with information about the health effects of lead.

(C) A few laboratories you can call to have your water tested for lead:

American Interplex Corporation                      501-224-5060

### RESULTS OF TAP SAMPLING

**Please call us to find out the results of your home or business if you participated in lead and copper tap sampling program (589-3760).**

PWS ID	System name	Site ID	Test Date	Lead Results	Unit	Copper Results	Unit
491	Saline Co. Water and Sewer	491YL002	7/23/2015	<0.001	mg/L	<0.02	mg/L
491	Saline Co. Water and Sewer	491YL004	7/23/2015	0.001	mg/L	0.03	mg/L
491	Saline Co. Water and Sewer	491YL008	7/23/2015	0.001	mg/L	<0.02	mg/L
491	Saline Co. Water and Sewer	491YL009	7/23/2015	<0.001	mg/L	<0.02	mg/L
491	Saline Co. Water and Sewer	491YL011	7/23/2015	0.001	mg/L	0.07	mg/L
491	Saline Co. Water and Sewer	491YL014	7/23/2015	<0.001	mg/L	<0.02	mg/L
491	Saline Co. Water and Sewer	491YL015	7/23/2015	<0.001	mg/L	<0.02	mg/L
491	Saline Co. Water and Sewer	491YL016	7/23/2015	<0.001	mg/L	<0.02	mg/L
491	Saline Co. Water and Sewer	491YL017	7/23/2015	<0.001	mg/L	<0.02	mg/L
491	Saline Co. Water and Sewer	491YL018	7/23/2015	0.001	mg/L	0.05	mg/L