


Proudly standing behind our results.







# What's in your 2014 Water Quality Report?



You are receiving this 2014 Water Quality Report in accordance with the Consumer Confidence Rule of the federal Safe Drinking Water Act (SDWA). The report contains information about the quality of your drinking water, the sources of your drinking water, and Central Arkansas Water's (CAW) efforts to comply with federal and state drinking water standards. We understand how important water is to the people we serve; that's why its quality is so important to us.

## **SOURCE WATER ASSESSMENT STATEMENT**

The Arkansas Department of Health has completed a Source Water Vulnerability Assessment for CAW. 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 medium to high susceptibility to contamination. CAW actively works to reduce or eliminate sources of contaminants to our water supplies. You may request a summary of the Source Water Vulnerability Assessment from our office.

## **MULTIPLE LAYERS OF PROTECTION**

CAW utilizes a multi-barrier approach to ensure safe, high quality drinking water for our customers. Our safeguards begin with the protection of our sources, [Lake Maumelle](#) and [Lake Winona](#). Additional protection is provided through our conventional treatment process that includes pre-oxidation, flash mixing, coagulation/flocculation, sedimentation, filtration, and disinfection. Other safeguards



CENTRAL ARKANSAS WATER RECEIVES ITS SUPPLY FROM TWO SURFACE WATER SOURCES, LAKE MAUMELLE IN PULASKI COUNTY AND LAKE WINONA IN SALINE COUNTY. BOTH LAKES CAN SUPPLY WATER TO JACKSON RESERVOIR, A REGULATING RESERVOIR LOCATED WITHIN THE LITTLE ROCK CITY LIMITS AT RESERVOIR PARK. WATER IS DELIVERED BY PIPELINE TO THE JACK H. WILSON WATER TREATMENT PLANT AND OZARK POINT WATER TREATMENT PLANT. BOTH TREATMENT PLANTS ARE LOCATED WITHIN THE CITY LIMITS OF LITTLE ROCK. 🏠

include the training and certification of personnel responsible for water treatment and distribution, cross-connection control and backflow prevention programs to maintain quality in the distribution system, and testing at the customer's tap for certain contaminants.

### LAKE MAUMELLE WATERSHED MANAGEMENT 🏠

Providing the highest quality water begins with protecting the source of that water, and CAW is leading water utilities across the nation in watershed management and protection. In 2007, the CAW Board of Commissioners adopted the [Lake Maumelle Watershed Management Plan](#) following an extensive study that identified comprehensive and proactive strategies to safeguard against potential pollution sources in the watershed of the lake. Underscoring the importance of protecting our sources, CAW dedicated a budget of over \$3.5 million to the [Watershed Management Program](#) and implementation of the Lake Maumelle Watershed Management Plan in 2014.

A primary objective of the Lake Maumelle Watershed Management Plan is to ensure that as land development occurs, it is in a manner that maintains the high water quality of Lake Maumelle, protects our drinking water, and ensures the continued viability of the lake as our primary water source for generations to come. CAW has worked with numerous partners to [implement a wide range of strategies identified in the plan](#) including prohibiting wastewater

discharges, establishing regulations for new development, purchasing over 2,400 additional acres for water quality protection, conservation-oriented management of the 10,220 acres owned by CAW, and expanded water quality monitoring.

### INFORMATION FOR VULNERABLE POPULATIONS

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](#).

### ABOUT DRINKING WATER

The 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 minerals and,

### Water Quality Terms:

**Action Level (AL)** The concentration of a contaminant which – if exceeded – triggers treatment or other requirements which a drinking water system must follow.

**Disinfection By-Products (DBPs)** Contaminants that are formed during the water treatment process by the combination of disinfectants or oxidants with organic compounds from sources such as decomposed leaves, pine needles, and wood. DBPs are classified as probable carcinogens and are regulated by the USEPA under the SDWA.

**Maximum Contaminant Level Goal (MCLG)** An 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 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 a disinfectant allowed in drinking water. There is convincing evidence that the addition of a disinfectant is necessary for the 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.



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, the U.S. Environmental Protection Agency (USEPA) has regulations which limit the amount of certain contaminants in water provided by public water systems. U.S. Food and Drug Administration (FDA) regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

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 potential health effects can be obtained by calling the [USEPA Safe Drinking Water Hotline at 1-800-426-4791](tel:1-800-426-4791).



Click on the video icons and links in this document to view recent distribution and treatment improvements and our many watershed management activities.



## ABOUT CRYPTOSPORIDIUM

*Cryptosporidium parvum* is a microbial contaminant linked to animal and human wastes that is commonly found in untreated surface waters, including streams and lakes. CAW began monitoring quarterly for *Cryptosporidium* in the untreated source water and the treated water supplied to your tap in 1994. Of the 252 samples collected over the past 21 years, there have been only two detections of *Cryptosporidium* in CAW's untreated source water.

Monitoring by CAW in 2014 indicated no presence of *Cryptosporidium* in Lake Maumelle, Lake Winona, or Jackson Reservoir. In addition, *Cryptosporidium* has never been detected in the treated water supplied to your tap by CAW. To date, there have been no known cases of Cryptosporidiosis (the disease caused by *Cryptosporidium*) attributed to CAW's drinking water.

## ABOUT LEAD IN DRINKING WATER

If present in drinking water, 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.

CAW 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 two 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](http://www.epa.gov/safewater/lead) or at <http://www.epa.gov/safewater/lead>.

## PUBLIC PARTICIPATION

If you are interested in learning more about your public water supplier, there are various opportunities to do so. [Our seven-member Board of Commissioners](#) meets at 2 p.m. each second



Thursday of the month at the James T. Harvey Administration Building. The building location is 221 East Capitol Avenue in Little Rock. The Board announces changes in meeting locations and times, as well as special meetings, prior to the meeting dates. All sessions are open to the public and news media.

## REGULATED SUBSTANCES

CAW routinely monitors for constituents in your drinking water according to Federal and State laws. The test results table in this report shows the results of our monitoring for the period of January 1 to December 31, 2014. We have not listed numerous substances for which we monitored but did not have a detectable level. In the charts, "W" indicates water quality monitoring results for the Wilson Plant and "OP" indicates water quality monitoring results for the Ozark Point Plant.

- [The Jack H. Wilson Water Treatment Plant](#) primarily serves the areas of Little Rock and Pulaski County west of University Avenue, and the areas of North Little Rock north of Interstate 40.
- [The Ozark Point Water Treatment Plant](#) primarily serves the areas of Little Rock and Pulaski County east of University Avenue, and the areas of North Little Rock south of Interstate 40.

Some blending of water from the two treatment plants takes place within the [pipelines of the distribution system](#).

### Water Quality Terms Continued:

**Micromhos per centimeter** ( $\mu\text{mho/cm}$ ) Measurement of conductivity.

**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.

**Not Applicable** (N/A) Does not apply.

**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.

**Secondary Maximum Contaminant Level** (SMCL) Recommended guideline for enhancing aesthetic quality of water (odor and appearance). The Secondary Standards are not required for compliance with the federal Safe Drinking Water Act.

**SU** - Standard pH Unit

**TON** - Threshold Odor Number

**WTP** - Water Treatment Plant

## Central Arkansas Water 2014 CCR Data Tables

MICROBIOLOGICAL CONTAMINANTS						
Contaminant	Violation Y/N	Level Detected	Unit	MCLG (Public Health Goal)	MCL (Allowable Level)	Major Sources in Drinking Water
Total Coliform Bacteria	N	Highest monthly percentage of positive samples: 1.9%	Present	0	Presence of Coliform bacteria in 5% of monthly samples	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 (Ozark Point WTP)	N	Highest yearly sample result: 0.22	NTU	NA	At no time can turbidity go higher than 1 NTU, and samples for turbidity must be ≤ 0.3 NTU in at least 95 % of the samples in any month	Soil runoff
		Lowest monthly % of samples meeting the turbidity limit: 100%				
Turbidity (Jack Wilson WTP)	N	Highest yearly sample result: 0.20				
		Lowest monthly % of samples meeting the turbidity limit: 100%				
<p>◆ 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.</p>						

INORGANIC CONTAMINANTS						
Contaminants	Violation Y/N	Levels Detected	Unit	MCLG (Public Health Goal)	MCL (Allowable Level)	Major Sources in Drinking Water
Fluoride (Ozark Point WTP)	N	Annual Average: 0.70 Range: 0.54 – 0.91	ppm	4	4	Water additive which promotes strong teeth; erosion of natural deposits; discharge from fertilizer and aluminum factories
Fluoride (Jack Wilson WTP)	N	Annual Average: 0.66 Range: 0.56 – 0.87				

LEAD AND COPPER TAP MONITORING					
Contaminants	Number of Sites over Action Level	90 <sup>th</sup> Percentile Result	Unit	Action Level	Major Sources in Drinking Water
Lead	1	0.004	ppm	0.015	Corrosion from household plumbing systems; erosion of natural deposits
Copper	1	<0.20	ppm	1.3	
<p>◆ 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 was in 2013. Our next required monitoring period is in 2016.</p>					

TOTAL ORGANIC CARBON
<p>◆ The percentage of Total Organic Carbon (TOC) removal was routinely monitored in 2014, 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).</p>

REGULATED DISINFECTANTS						
Disinfectant	Violation Y/N	Level Detected	Unit	MRDLG (Public Health Goal)	MRDL (Allowable Level)	Major Sources in Drinking Water
Chlorine	N	Average: 0.59 Range: 0.07 – 1.48	ppm	4	4	Water additive used to control microbes

BY-PRODUCTS OF DRINKING WATER DISINFECTION						
Contaminants	Violation Y/N	Levels Detected	Unit	MCLG (Public Health Goal)	MCL (Allowable Level)	
HAA5 [Haloacetic Acids]	N	Highest Running 12 Month Average: 21 Range: 5.1 – 31.5	ppb	0	60	
TTHM [Total Trihalomethanes]	N	Highest Running 12 Month Average: 48 Range: 2.6 – 90.8	ppb	NA	80	
Chlorite	N	12 Month Average: 200 Range: 20 - 605	ppb	800	1000	
<p>◆ While only the upper end of the range for TTHMs 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.</p>						
<p>◆ In order to meet the requirements of the Stage 2 DBPR, we were granted an extension until September 30, 2014. This allowed us to make capital improvements to our water system to ensure compliance with the TTHM and HAA5 MCL's.</p>						

UNREGULATED CONTAMINANTS				
Contaminants (Both WTPs)	Levels Detected	Unit	MCLG (Public Health Goal)	Major Sources in Drinking Water
Chloroform (Ozark Point WTP)	6.89	ppb	70	By-products of drinking water disinfection
Chloroform (Jack Wilson WTP)	29.4	ppb	70	
Bromodichloromethane (Ozark Point WTP)	1.20	ppb	0	
Bromodichloromethane (Jack Wilson WTP)	7.22	ppb	60	
Dibromochloromethane (Jack Wilson WTP)	1.96	ppb	0	
<p>◆ 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.</p>				

VIOLATIONS – Central Arkansas Water			
TYPE: Chlorite Monitoring	FROM:	TO:	CORRECTIVE ACTION:
Failure to monitor daily entry point Chlorite.	4/18/2014	4/18/2014	Resumed Chlorite monitoring as required by state and federal regulations.
<p>◆ Central Arkansas Water did not collect and analyze a chlorite sample from one of its treatment plants on April 18, 2014. This oversight posed no health threat, but the federal Safe Drinking Water Act requires CAW to inform its customers of this monitoring violation. Chlorite levels in the water before and after April 18, as well as at CAW's second treatment plant on April 18, were all well below the regulatory standard. CAW has modified its sampling procedures to prevent a repeat of this oversight.</p>			

## Additional Water Quality Information for Calendar Year 2014

(Not required in CCR)

SECONDARY STANDARDS				
Physical Parameters	Unit of Measure	SMCL	Level Detected (OP)	Level Detected (W)
Apparent Color	Color Units	15	0	0
Threshold Odor	TON	3	0	0

SECONDARY STANDARDS				
Inorganic Chemicals	Unit of Measure	SMCL	Level Detected (OP)	Level Detected (W)
Aluminum	ppm	0.05 – 0.2	0.09	<0.05
Chloride	ppm	250	2.9	4.6
Iron	ppm	0.3	<0.05	<0.05
Manganese	ppm	0.05	0.006	0.003
Silver	ppm	0.1	<0.005	<0.005
Sulfate	ppm	250	13.3	8.5
Total Dissolved Solids	ppm	500	31	36
Zinc	ppm	5	0.08	0.08
Hydronium (pH)	SU	6.5 – 8.5	Average Value 7.6	Average Value 7.8

UNREGULATED PHYSICAL & CHEMICAL PARAMETERS			
Parameter	Unit of Measure	Level Detected (OP)	Level Detected (W)
Alkalinity (Phenolphthalein)	ppm	0	1
Alkalinity (Total)	ppm	7	10
Calcium	ppm	5.64	5.39
Conductivity	µmho/cm	63	63
Hardness	grains/gallon	1.3	1.3
Magnesium	ppm	<1.00	1.24
Potassium	ppm	<1.00	<1.00
Sodium	ppm	2.71	3.54
Sediment	ppm	<0.5	< 0.5

### Quality Facts



We distribute over 60 million gallons of water each day that meet or exceed EPA safe drinking water standards.



We maintain over 2,300 miles of water mains and respond to emergencies 24 hours a day, 7 days a week.



We deliver 5 gallons of our high quality water to our customers for only one penny.



Essential & Exceptional  
carkw.com

221 East Capitol Avenue  
P.O. Box 1789  
Little Rock, AR 72203

## Central Arkansas Water WATER QUALITY REPORT 2014 COMPLIANCE PERIOD January 1, 2014 through December 31, 2014



Central Arkansas Water is pleased to provide our 2014 Water Quality Report. We continue to strive to bring you high-quality water that meets or exceeds federal and state regulations for drinking water quality. This 2014 Water Quality Report contains information about the quality and sources of your water as well as the

results of the 115,000 water quality tests that we perform each year. We hope you will take a few minutes to review the report and learn more about the water you drink.

Graham W. Rich, P.E., BCEE  
Chief Executive Officer

### Board of Commissioners

- Eddie Powell, Chair
- Roby Robertson, PhD, Vice Chair
- Anthony Kendall, Secretary
- Jay Hartman, Member
- Carmen Smith, Member
- Marie-Bernarde Miller, Member
- John Braune, Member

### For additional information about this report, please write or call:

Central Arkansas Water 221 East Capitol Avenue P.O. Box 1789 Little Rock, AR 72203	U.S. Environmental Protection Agency Safe Drinking Water Hotline 1.800.426.4791
---	---

[Sharon Sweeney](#), Water Quality Specialist  
501.210.4914

[Jane Hurley](#), Assistant Director of Water Quality  
501.223.1577

**IMPORTANTE:** Este informe contiene información importante acerca de la agua que consume, las fuentes de su agua potable y el monitoreo, reporting y requisitos de calidad de la Ley Federal de agua potable segura y el estado de Arkansas. Si usted no habla a Inglés, por favor póngase en contacto con una persona que pueda traducir esta información para usted.



Public Water Supply  
Environmental Excellence  
Award Recipient, Region 6



American Water Works  
Association Member  
Southwest Section



America's Crown  
Communities  
Award Recipient



Arkansas  
Department  
of Health



WATER  
RESEARCH  
FOUNDATION



ASSOCIATION OF  
WATER AGENCIES