

# **Subiaco City Waterworks**

## **2013 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 water from Subiaco Academy Waterworks whose source is surface water from Subiaco Lake. During 2013, we also purchased water from Scranton Waterworks. Both Scranton Waterworks and Subiaco Academy purchased treated surface water from Paris Water Department whose source is Paris City Lake.

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

The Arkansas Department of Health has completed Source Water Vulnerability Assessments for Subiaco Academy Waterworks and Paris Water Department. The assessments summarize the potential for contamination of our sources of drinking water and can be used as a basis for developing source water protection plans. Based on the various criteria of the assessments, our water sources have been determined to have a medium susceptibility to contamination. You may request summaries of the assessments 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.

### ***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 Kenneth Schneider, Water Operator, at 479-438-0337. 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 third Wednesday of each month at 6:00 PM at Subiaco City Hall.

### **TEST RESULTS**

We, Subiaco Academy Waterworks, Scranton Waterworks, and Paris Water Department 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>, 2013. 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 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.

<b>MICROBIOLOGICAL CONTAMINANTS</b>						
Contaminant	Violation Y/N	Level Detected	Unit	MCLG (Public Health Goal)	MCL (Allowable Level)	Major Sources in Drinking Water
Total Coliform Bacteria (Subiaco City Waterworks)	N	1 Positive sample in October	Present	0	1 positive sample per month	Naturally present in the environment
<b>TURBIDITY</b>						
Contaminant	Violation Y/N	Level Detected	Unit	MCLG (Public Health Goal)	MCL (Allowable Level)	Major Sources in Drinking Water
Turbidity (City of Paris )	Y	Highest yearly sample result: <b>1.49</b> Lowest monthly % of samples meeting the turbidity limit: 95.4%	NTU	NA	<b>Any measurement in excess of 1 NTU constitutes a violation</b>	Soil runoff
Turbidity (Subiaco Academy)	N	Highest yearly sample result: 0.145 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	
<ul style="list-style-type: none"> <li>◆ Turbidity is a measurement of the cloudiness of water. Subiaco Academy and the City of Paris monitor it because it is a good indicator of the effectiveness of our filtration systems.</li> <li>◆ <b>Turbidity has no health effects. However, turbidity can interfere with disinfection and provide a medium for microbial growth. Turbidity may indicate the presence of disease causing organisms. These organisms include bacteria, viruses, and parasites that can cause symptoms such as nausea, cramps, diarrhea, and associated headaches.</b></li> </ul>						
<b>INORGANIC CONTAMINANTS</b>						
Contaminant	Violation Y/N	Level Detected	Unit	MCLG (Public Health Goal)	MCL (Allowable Level)	Major Sources in Drinking Water
Fluoride (City of Paris)	N	Average: 0.82 Range: 0.58 - 1.17	ppm	4	4	Erosion of natural deposits; water additive which promotes strong teeth
Nitrate [as Nitrogen] (Subiaco Academy)	N	0.30	ppm	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits

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 (Subiaco City Waterworks)	1	0.041	ppm	0.015	Corrosion from household plumbing systems; erosion of natural deposits	
Copper (Subiaco City Waterworks)	0	0.23	ppm	1.3		
<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 2013. Our next required monitoring period is in 2016.</li> <li><b>Infants and children who drink water containing lead in excess of the action level could experience delays in their physical or mental development. Children could show slight deficits in attention span and learning abilities. Adults who drink this water over many years could develop kidney problems or high blood pressure.</b></li> </ul>						
TOTAL ORGANIC CARBON						
<ul style="list-style-type: none"> <li>The percentage of Total Organic Carbon (TOC) removal was routinely monitored in 2013 by the City of Paris and Subiaco Academy, 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).</li> </ul>						
REGULATED DISINFECTANTS						
Disinfectant	Violation Y/N	Level Detected	Unit	MRDLG (Public Health Goal)	MRDL (Allowable Level)	Major Sources in Drinking Water
Chlorine (Subiaco City Waterworks)	N	Average: 0.61 Range: 0.3 – 1.2	ppm	4	4	Water additive used to control microbes
BY-PRODUCTS OF DRINKING WATER DISINFECTION						
Contaminant	Violation Y/N	Level Detected	Unit	MCLG (Public Health Goal)	MCL (Allowable Level)	
HAAs [Haloacetic Acids] (Subiaco City Waterworks)	N	Highest Running 12 Month Average: 14.2 Range: 13.9 – 14.4	ppb	NA	60	
TTHM [Total Trihalomethanes] (Subiaco City Waterworks)	N	Highest Running 12 Month Average: 43.5 Range: 43.2 – 43.8	ppb	NA	80	
UNREGULATED CONTAMINANTS						
Contaminant	Level Detected	Unit	MCLG (Public Health Goal)	Major Sources in Drinking Water		
Chloroform (Subiaco Academy)	Average: 16 Range: 6.15 – 31.6	ppb	70	Disinfection By-Products		
Chloroform (City of Paris)	38.5					
Bromodichloromethane (City of Paris)	6.12	ppb	0			
Bromodichloromethane (Subiaco Academy)	Average: 7.12 Range: 4.69 – 11.9					
Dibromochloromethane (Subiaco Academy)	Average: 2.96 Range: 1.31 – 5.07	ppb	60			
Dibromochloromethane (City of Paris)	0.61					
Bromoform (Subiaco Academy)	Average: 0.4 Range: 0– 1.20	ppb	0			
<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>						

## PUBLIC NOTICE

Subiaco City Waterworks recently violated the National Primary Drinking Water Standards for Lead and Copper. Although this incident was not an emergency, as our customers, you have a right to know what happened and what we have done to correct this situation.

Subiaco City Waterworks monitors our drinking water for lead and copper. Subiaco City Waterworks is required to provide Consumer Notification of lead results within 30 days of their receipt. We did not complete the required Consumer Notification within the specified time period. As such, we were issued a violation on January 29, 2014.

This is not an emergency. If it had been you would have been notified within 24 hours. Consumer Notification is a requirement of the National Primary Drinking Water Standards for Lead and Copper, for all consumers submitting water samples for Lead and Copper analysis.

The action level for lead is 0.015 mg/L or 15 parts per billion and the action level for copper is 1.3 mg/L. All of our lead and copper tap samples were well below these action levels.

We delivered the required Public and Consumer Notice with the 2013 Annual Drinking Water Quality Report on:

Subiaco City Waterworks will return to compliance on \_\_\_\_\_ (The date following the delivery of the required Notices and Annual Drinking Water Quality Report).

For more information, please contact **Kenneth Schneider** of Subiaco City Waterworks at 479-438-0337 or you may write to Subiaco City Waterworks, P.O. Box 103, Subiaco, AR. 72865.

Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.

This notice is being sent to you by the Subiaco City Waterworks, PWS ID # 135.

## 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) Subiaco City Waterworks at 479-438-0337 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  
Sorrells Research Associates, Inc.                501-562-8139

**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 (870-624-0073).**

***LEAD AND COPPER SAMPLE REPORT***

135	Subiaco City Waterworks	135YL001	7/26/2013	14100452	Lead	2013	0.003	mg/L	Copper	0.20	mg/L
135	Subiaco City Waterworks	135YL002	7/26/2013	14100453	Lead	2013	0.041	mg/L	Copper	0.20	mg/L
135	Subiaco City Waterworks	135YL003	7/26/2013	14100454	Lead	2013	0.003	mg/L	Copper	0.23	mg/L
135	Subiaco City Waterworks	135YL004	7/26/2013	14100455	Lead	2013	0.003	mg/L	Copper	0.20	mg/L
135	Subiaco City Waterworks	135YL005	7/26/2013	14100456	Lead	2013	0.003	mg/L	Copper	0.20	mg/L