PITTSBURG COUNTY RURAL WATER DISTRICT NO. 5
WATER QUALITY REPORT FOR 2015

We are pleased to present this year's Annual Water Quality Report. The purpose of this report is to inform you about the quality of water and services provided to you by the Water District. This report shows our water quality and what it means. If you have any questions about this report or concerning your water utility, please contact Jim Henley at (918) 426-5555. Our address is P. O. Box 102, McAlester, OK 74502. You are invited to attend any of the regularly scheduled board meetings held at the District Office at 430 S. Chambers Road on the second Thursday of each month at 7:00 pm.
The results of RWD #5's water monitoring program for the period from January 1, 2015 to December 31, 2015:

Microbiological Contaminants

Substance	MCL	Maximum Level Detected	EPA MCLG (EPA Goal)	2015 Violations	Likely Sources of Contaminant
Total Coliform Bacteria	No samples per month testing coliform positive	No monthly samples tested coliform positive	No monthly samples testing coliform positive	0	Naturally present in the environment

Disinfectants & Disinfectant By Products

(There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants)

Contaminants	MCLG or MRDLG	MCL, TT or MRDL	Your Water	Range Low	Range High	Sample Date	Violation	Typical Source
Total Trihalomethanes (TTHMs) ppb	NA	80	.11	NA	109	2015	Yes	By-product of drinking water disinfection
Haloacetic Acids (HAA5) ppb	NA	60		NA	100	2015	Yes	By-product of drinking water disinfection

TTHMs (Total Trihalomethanes) Exceedance
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. We exceeded the allowable TTHM level of 80 ppb during the second and third quarters of 2015. The water we purchase from the City of McAlester exceeded the allowable level of TTHM when it passed into our system through the master meter during those quarters. There is nothing we can do to remove the TTHM's from our purchased water. The City of McAlester is working to reduce the levels of TTHM's but until then, we will not be below the acceptable level.

HAA5s (Haloacetic Acids) Exceedance
Some people who drink water containing haloacetic acids in excess of the MCL over many years may have an increased risk of getting cancer. We exceeded the allowable HAA5 level of 60 ppb during the second and third quarters of 2015. The water we purchase from the City of McAlester exceeded the allowable level of HAA5s when it passed into our system through the master meter during those quarters. There is nothing we can do to remove the HAA5s from our purchased water. The City of McAlester is working to reduce the levels of HAA5s but until then, we will not be able to be below the acceptable level.

Contaminants	MCLG	AL	Your Water	Sample Year	# Samples Exceeding AL	Exceeds AL	Typical Source
Copper – Action level at consumer taps (ppm)	1.3	1.3	.582	2015	0	0	Corrosion of household plumbing systems; erosion of natural deposits.
Lead – action level at consumer taps (ppm)	0	0.015	BPQL	2015	0	0	Corrosion of household plumbing systems; erosion of natural deposits

BPQL (Below practical quantitation Limit) The lead level was so low that none could be detected.

Our water source is the City of McAlester PWA, whose Surface Water source is Lake McAlester, located 4 miles north of McAlester. The following report shows the quality of our water source.

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Jim Henley
Manager

McALESTER PUBLIC WORKS AUTHORITY 2015 WATER REPORT

Is my water safe?
We are pleased to present this year's Annual Water Quality Report (Consumer Confidence Report) as required by the Safe Drinking Water Act (SDWA). This report is designed to provide details about where your water comes from, what it contains, and how it compares to standards set by regulatory agencies. This report is a snapshot of last year's water quality. We are committed to providing you with information because informed customers are our best allies. Last year, we conducted tests for over 80 contaminants. We only detected 10 of those contaminants and found only 4 at a level higher than the EPA allows. As we informed you at the time, our water temporarily exceeded drinking water standards. (For more information see the section labeled Violations at the end of the report).

Do I need to take special precautions?
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 infections. These people should seek advice about drinking water from their health care providers. EPA/CDC guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbiological contaminants are available from The Safe Drinking Water Hotline (800-426-4791).

Where does my water come from?
Lake McAlester

Source water assessment and its availability
City of McAlester Public Works/Engineering Department located at 28 East Washington, McAlester, Oklahoma

Why are there contaminants in my drinking water?
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 Environmental Protection Agency's (EPA) Safe Drinking Water Hotline (800-426-4791). The sources of drinking water (both tap water and bottled water) include rivers, 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, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activity: microbial contaminants, such as viruses and bacteria, that 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 storm water 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 storm water 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 storm water runoff, and septic systems; and radioactive contaminants, which can be naturally occurring or be the result of oil and gas production and mining activities. In order to ensure that tap water is safe to drink, EPA prescribes regulations that 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.

How can I get involved?
Interested individuals may contact the City of McAlester Public Works/Engineering Department located at 28 East Washington or attend the City Council Meetings held at City Hall every 2nd and 4th Tuesday at 6:00 p.m.

Description of water treatment process
Your water is treated by filtration and disinfection. Filtration removes particles suspended in the source water. Particles typically include clays and silts, natural organic matter, iron and manganese, and microorganisms. Your water is also treated by disinfection. Disinfection involves the addition of chlorine or other disinfectant to kill bacteria and other microorganisms (viruses, cysts, etc.) that may be in the water. Disinfection is considered to be one of the major public health advances of the 20th century.

Additional Information for Lead
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. McAlester Public Works Authority 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 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.

WATER QUALITY DATA TABLE

In order to ensure that tap water is safe to drink, EPA prescribes regulations which limit the amount of contaminants in water provided by public water systems. The table below lists all of the drinking water contaminants that we detected during the calendar year of this report. Although many more contaminants were tested, only those substances listed below were found in your water. All sources of drinking water contain some naturally occurring contaminants. At low levels, these substances are generally not harmful in our drinking water. Removing all contaminants would be extremely expensive, and in most cases, would not provide increased protection of public health. A few naturally occurring minerals may actually improve the taste of drinking water and have nutritional value at low levels. Unless otherwise noted, the data presented in this table is from testing done in the calendar year of the report. The EPA or the State requires us to monitor for certain contaminants less that once per year because the concentrations of these contaminants do not vary significantly from year to year, or the system is not considered vulnerable to this type of contamination. As such, some of our data, though representative, maybe more than one year old. In this table, you will find terms and abbreviations that might not be familiar to you. To help you better understand these terms, we have provided the definitions below the table.

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Contaminants	MCLG or MRDLG	MCL, TT or MRDL	Your Water	Range Low	Range High	Sample Date	Violation	Typical Source
Disinfectants & Disinfectant By Products								
(There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants)								
Haloacetic Acids (HAA5)(ppb)	NA	60	NA	NA	98.8	2015	YES	By-product of drinking water disinfection
Chlorine (as CL2)(ppm)	4	4	1	NA		2015	No	Water additive used to control microbes
TTHMs (Total Trihalomethanes) (ppb)	NA	80	83	NA	154	2015	Yes	Byproduct of drinking water disinfection
Inorganic contaminants								
Barium (ppm)	2	2	0.0544	NA	NA	2012	No	Erosion of Natural Deposits; Discharge of drilling water; discharge from metal refineries
Nitrate(measured as Nitrogen) (ppb)	10	10	0.274	NA		2014		Runoff from fertilizer use; Discharge from metal refineries; Erosion of natural deposits.
Microbiological Contaminants								
Total Coliform (positive samples)	0	1	2	NA	NA	2015	No	Naturally present in the environment
A violation occurs when a routine sample and a repeat sample, in any given month, are total coliform positive, and one is also fecal coliform or E. coli positive.								
Total Coliform (positive samples/month)	0	1	2	NA		2015	Yes	Naturally present in the environment
Turbidity (NTU)	NA	0.3	78	NA		2015	Yes	Soil runoff
78% of the samples were below the TT value of 0.3. A value of less than 95% constitutes a TT violation. The highest single measurement was 3.28. Any measurement in excess of 1 is a violation unless otherwise approved by the state.								
Synthetic organic contaminants including pesticides and herbicides.								
Picopram (ppb)	500	500	.08	NA	.08	2015	No	Herbicide runoff

Contaminants	MCLG	AA	Your Water	Sample Date	# Samples Exceeding AL	Exceeds AL	Typical Source
Copper – action level at consumer taps (ppm)	1.3	1.3	0.134	2013	0	No	Corrosion of household plumbing systems; Erosion of natural deposits; leaching from wood preservatives.
Lead – action level at consumer taps (ppb)	0	15	9.5	2013	4	No	Corrosion of household plumbing systems; Erosion of natural deposits

Violations and Exceedances

Haloacetic Acids (HAA5)
Some people who drink water containing haloacetic acids in excess of the MCL over many years may have an increased risk of getting cancer. The violations occurred from 07/01/2015 to 09/20/2015 and 10/01/2015 to 12/31/2015. These violations did not occur in all of the locations tested and these results may not represent the entire distribution system. We are working to minimize the formation of HAA5s while assuring we maintain an adequate level of disinfectant. Several process changes have been made at the water treatment plant as well as implementation of maintenance operations in the distribution system. This has brought us very close to compliance.

TTHMs [Total Trihalomethanes]
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. Testing results received for 01/01/2015 to 03/31/2015, 07/01/2015 to 09/30/2015, and 10/01/2015 to 12/31/2015 show our system exceeds the standard, or maximum contaminant level (MCL), for TTHMs. These violations did not occur in all of the locations tested and

these results may not represent the entire distribution system. We are working to minimize the formation of TTHM's while assuring we maintain an adequate level of disinfectant. Several process changes have been made at the water treatment plant as well as implementation of maintenance operations in the distribution system. This has brought us very close to compliance.

Total Coliform

Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other, potentially harmful bacteria may be present. Coliforms were found in more samples than allowed and this was a warning of potential problems. During routine testing, two (2) out of ten (10) samples tested positive for contaminants. The McAlester PWA was notified on July 9th, 2015. Follow up samples taken the same day tested negative for contaminants.

Turbidity

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. Turbidity violations occurred in January 2015, February 2015, September 2015, and October 2015. The mcAlester PWA is evaluating options for improvements to the filtration system at the Water Treatment Plant to address turbidity problems.

Unit Descriptions			
Term	**Definition**	**Term**	**Definition**
ppm	ppm: parts million or milligrams per liter (mg/L)	**ppb**	ppb: parts per billion or micrograms per liter (µg/L)
NTU	NTU; Nephelometric Turbidity Units. Turbidity is a measure of the cloudiness of the water. We monitor it because it is a good indicator of the effectiveness of our filtration system.	**Positive samples/month**	Positive samples per month: Number of samples taken monthly that were found to be positive.
NA	NA: Not applicable	**ND**	ND: Not detected
NR	NR: Monitoring not required, but recommended.		

Important Drinking Water Definitions	
Term	**Definitions**
MCLG	MCLG: Maximum Contaminant Level 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.
MCL	MCL: Maximum Contaminant Level: 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.
TT	TT: Treatment Technique: a required process intended to reduce the level of a contaminant in drinking water.
AL	AL: Action Level: The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow
Variances & Exceptions	Variances and Exceptions: State or EPA permission not to meet an MCL or a treatment technique under certain conditions.
MRDLG	MRDLG: Maximum Residual Disinfection Level Goal. 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.
MRDL	MRDL: Maximum Residual Disinfection Level. 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.
MNR	MNR: Monitored Not Required.
MPL	MPL: State Assigned Maximum Permissible Level

For more information please contact:

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