

**PITTSBURG COUNTY RURAL WATER DISTRICT NO. 5  
WATER QUALITY REPORT FOR 2016**

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, 2016 to December 31, 2016:

**Microbiological Contaminants**

Substance	MCL	Maximum Level Detected	EPA MCLG (EPA Goal)	2016 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	Range		Sample Date	Violation	Typical Source
			Low	High			
Total Trihalomethanes (TTHMs) ppb	NA	80	26.4	115	2016	Yes	By-product of drinking water disinfection
Haloacetic Acids (HAA5) ppb	NA	60	32.7	95.8	2016	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, third and fourth quarters of 2016. 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 first, second and third quarters of 2016. 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	.476	2016	0	0	Corrosion of household plumbing systems; erosion of natural deposits.
Lead – action level at consumer taps (ppm)	0	0.015	BPQL	2016	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.

\_\_\_\_\_  
Jim Henley  
Manager

**McALESTER PUBLIC WORKS AUTHORITY 2016 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.

**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 2<sup>nd</sup> and 4<sup>th</sup> Tuesday at 6:00 p.m.

### **Description of water treatment process**

Your water is treated in a "treatment train" (a series of processes applied in a sequence) that includes coagulation, flocculation, sedimentation, filtration, and disinfection. Coagulation removes dirt and other particles suspended in the source water by adding chemicals (coagulants) to form tiny sticky particles called "floc", which attract the dirt particles. Flocculation (the formation of larger flocs from smaller flocs) is achieved using gentle, constant mixing. The heavy particles settle naturally out of the water in a sedimentation basin. The clear water then moves to the filtration process where the water passes through sand, gravel, charcoal or other filters that remove even smaller particles. A small amount of chlorine or other disinfection method is used to kill bacteria and other microorganisms (viruses, cysts, etc.) that may be in the water before water is stored and distributed to homes and businesses in the community.

### **Water conservation Tips**

Did you know that the average U.S. household uses approximately 400 gallons of water per day or 100 gallons per person per day? Luckily, there are many low-cost and no-cost ways to conserve water, Small changes can make a big difference – try one today and soon it will become second nature.

- Take short showers – a 5-minute shower uses 4 to 5 gallons of water compared to up to 50 gallons for a bath.
- Shut off water while brushing your teeth, washing your hair and shaving and save up to 500 gallons a month.
- Use a water-efficient showerhead. They're inexpensive, easy to install, and can save you up to 750 gallons a month.
- Run your clothes washer and dishwasher only when they are full. You can save up to 1,000 gallons a month.
- Water plants only when necessary.
- Fix leaky toilets and faucets. Faucet washers are inexpensive and take only a few minutes to replace. To check your toilet for a leak, place a few drops of food coloring in the tank and wait. If it seeps into the toilet bowl without flushing, you have a leak. Fixing it or replacing it with a new, more efficient model can save up to 1,000 gallons a month.
- Adjust sprinklers so only your lawn is watered. Apply water only as fast as the soil can absorb it and during the cooler parts of the day to reduce evaporation.
- Teach your kids about water conservation to ensure a future generation that uses water wisely. Make it a family effort to reduce next month's water bill!
- Visit [WWW.epa.gov/watersense](http://www.epa.gov/watersense) for more information.

### **Cross Connection Control Survey**

The purpose of this survey is to determine whether a cross-connection may exist at your home or business. A cross connection is an unprotected or improper connection to a public water distribution system that may cause contamination or pollution to enter the system. We are responsible for enforcing cross-connection control regulations and insuring that no contaminants can under any flow conditions, enter the distribution system. If you have any of the devices listed below, please contact us, so that we can discuss the issue, and if needed, survey your connection and assist you in isolating it if that is necessary.

- Boiler/Radiant heater (water heaters not included)
- Underground lawn sprinkler system
- Additional source(s) of water on the property
- Decorative pond
- Watering trough

### **Source Water Protection Tips**

Protection of drinking water is everyone's responsibility. You can help protect your community's drinking water source in several ways:

- Eliminate excess use of lawn and garden fertilizers and pesticides – they contain hazardous chemicals that can reach your drinking water source.
- Pick up after your pets.
- If you have your own septic system, properly maintain your system to reduce leaching to water sources or consider connecting to a public water system.
- Dispose of chemicals properly; take used motor oil to a recycling center.
- Volunteer in your community. Find a watershed or wellhead protection organization in your community and volunteer to help. If there are no active groups, consider starting one. Use EPA's Adopt Your Watershed to locate groups in your community, or visit the Watershed Information Network's How to Start a Watershed Team.
- Organize a storm drain stenciling project with your local government or water supplier. Stencil a message next to the street drain reminding people "Dump No Waste – Drains to River" or "Protect Your Water." Produce and distribute a flyer for households to remind residents that storm drains dump directly into your local water body.

### **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 than 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.

Contaminants	MCLG or MRDLG	MCL, TT or MRDL	Your Water	Range Low	Range High	Sample Date	Violation	Typical Source
<b>Disinfectants &amp; Disinfectant By Products</b>								
<b>(There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants)</b>								
Haloacetic Acids (HAA5)(ppb)	NA	60	57	16.2	70.5	2016	No	By-product of drinking water disinfection
TTHMs (Total Trihalomethanes) (ppb)	NA	80	67	28.3	107	2016	No	Byproduct of drinking water disinfection
Chlorine (as CL2)(ppm)	4	4	1	NA		2016	No	Water additive used to control microbes
<b>Inorganic contaminants</b>								
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	0.248	NA	NA	2016		Runoff from fertilizer use; Discharge from metal refineries; Erosion of natural deposits.
<b>Radioactive Contaminants</b>								
Alpha emitters (pCi/L)	0	15	.99	NA	NA	2016	No	Erosion of natural deposits
Beta/photom emitters (mrem/yr)	0	4	2.89	NA	NA	2016	No	Decay of natural and man-made deposits.
Radium (combined 226/228) (pCi/L)	0	5	2.36	NA	NA	2016	No	Erosion of natural deposits
<b>Synthetic organic contaminants including pesticides and herbicides.</b>								
Picloram (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	0.526	2016	1	No	Corrosion of household plumbing systems; Erosion of natural deposits; leaching from wood preservatives.	

## Additional Contaminants

In an effort to insure the safest water possible the State has required us to monitor some contaminants not required by Federal regulations. Of those contaminants, only the ones listed below were found in our water.

Contaminants	State MCL	Your Water	Violation	Explanation and comment
Single Combined Filter Effluent	1 NTU	2.9 NTU	Yes	Turbidity violations occurred in January 2016 and March 2016. 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)
NA	NA: Not applicable	ND	ND: Not detected
NR	NR: Monitoring not required, but recommended.	pCi/L	pCi/L: picocuries per liter (a measure of radioactivity)
Mrem/yr	Mrem/yr: millirems per year(a measure of radiation adsorbed by the body)	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.

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

For more information please contact:

Bob Martin  
500 Water Works Road  
McAlester, OK 74501  
Phone: 918-423-0267