

## ABOUT YOUR WATER SYSTEM

### Water Production:

Primary water supply: Melvern Lake  
Secondary water supply: Osage City Lake

The raw water intake is located at Melvern Lake. Capacity: 2 -150 horsepower pumps, each capable of delivering 1,200 gallons per minute.

### Water Treatment Plant:

- Original construction in 1910
- Present plant constructed in 1974
- Major improvements in 1986 & 2003
- Plant capacity: 1.6 million gallons per day
- Total population served: 5,894
- 4 State certified operators on staff

### Wholesale Water Sales:

Water is distributed to other entities such as, Osage Co. RWD's #6 & #7, Reading, Burlingame and Harveyville.

- In 2016, Osage City supplied 86,385,000 gallons to these entities.

### The Water Tower:

- Constructed in 1968
- Capacity: 500,000 gallons
- Diameter: 50 ft., bowl height: 37 ft.
- Overall height: 138 ft.

### Water Distribution:

- Original construction was in 1910
- There are 1,315 meter connections
- 198 fire hydrants
- There are presently 31 miles of water distribution mains
- 25 miles of the original system has been replaced with PVC pipe
- Average system static pressure is 52 psi
- Average monthly residential water use in 2016 was 3,891 gallons

# City of Osage City Water Consumer Confidence Report For 2016



City Council Meets  
Second and Fourth Tuesdays, 7 p.m.  
At 221 South Fifth St. Osage City

**City Hall**  
201 South Fifth St. Osage City, KS 66523  
(785) 528-3714

As part of our continuing commitment to quality, the City of Osage City has joined with the United States Environmental Protection Agency and the Kansas Department of Health and Environment to assure our community a continued safe drinking water supply.

Osage City's source of water is provided by surface water, with our primary water supply coming from Melvern Lake, located approximately 10 miles south of Osage City. The Osage City Lake serves as a secondary water supply, in times of need. A source water assessment has been completed and is available upon request. Or you may view it on-line at the following site:  
<http://www.kdheks.gov/nps/swap/SWreports.html>

During the 2016 calendar year, we had no violations of drinking water standards.

The City of Osage City has four (4) state certified water treatment plant operators on staff, with more than 60 years of combined experience, to ensure that you have an uninterrupted and safe supply of potable water.

### Terms and Abbreviations

**Maximum Contaminant Level Goal (MCLG):** the "Goal" is the level of a contaminant in drinking water below which there is no known or expected risk to human health.

**Maximum Contaminant Level (MCL):** highest level allowed of a contaminant in drinking water.

**Secondary Maximum Contaminant Level (SMCL):** recommended level not regulated and has no MCL.

**Action Level (AL):** concentration of a contaminant, if exceeded, triggers treatment or other requirements.

**Treatment Technique (TT):** required process intended to reduce levels of contaminant in drinking water.

**Maximum Residual Disinfectant Level (MRDL):** highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of disinfectant is necessary for control of microbial contaminants.

**Non-Detects (ND):** lab analysis indicates contaminant not present.

**Parts Per Million (ppm):** or milligrams per liter (mg/l)

**Parts Per Billion (ppb):** or micrograms per liter (ug/l)

**Picocuries Per Liter (pCi/l):** radioactivity in water

**Millirems Per Year (mrem/yr):** radiation absorbed by the body.

**Monitoring Period Average (MPA):** Average of sample results obtained during a defined time frame, (Monthly, Quarterly, Yearly)

**Nephelometric Turbidity Unit (NTU):** Measure of clarity of water. Turbidity in excess of 5 NTU is noticeable to the average person. Turbidity is not regulated for groundwater systems.

**Running Annual Average (RAA):** Average of sample results over 12 months used to determine compliance with MCLs.

**Locational Running Annual Average (LRAA):** Average of sample analytical results taken at a particular location during previous four calendar quarters.

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 in some cases radiological material and can pick up substances resulting from the presence of animals or from human activity.

Turbidity has no direct health effects. However, turbidity can interfere with disinfection and provide a medium for microbial growth. Turbidity is a measure of the clarity of the water. Our turbidity standards are: turbidity goal = 0 NTU, the maximum turbidity level is 0.3 NTU in 95% of samples. Our highest turbidity was 0.3 NTU,

The required combined chlorine residual in a distribution system is: a minimum of 1.0 mg/L and a maximum of 4.0 mg/L RAA. Our highest chlorine residual was 4.5 mg/L, our average was 2.98 mg/L, and our lowest was 1.0 mg/L.

Coliform bacteria in the water is an indicator that pathogens may be present. Samples required, 4 per month-Results: One positive sample in October, all follow up samples were negative.

Contaminants that may be present in source water include: **Microbial Contaminants**, such as viruses from bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations and wildlife. Microbiological quality, bacteria and viruses are controlled by chlorine residuals throughout the treatment plant and distribution system.

## Organic Contaminants

Contaminant	MCLG	MCL	Results	Date Tested:	Likely Source of Contamination
Atrazine	3ppb	3ppb	1.7 ppb	5/2/16	Runoff from agricultural herbicide
Inorganic Contaminants					
Contaminant	MCLG	MCL	Results	Date Tested:	Likely Source of Contamination
Barium	2 ppm	2 ppm	0.057 ppm	5/2/16	Discharge from metal refineries
Coliform(TCR)	0		1 positive sample	October	Naturally present in the environment
Fluoride	4 ppm	4 ppm	0.67 ppm / RAA	7/6/16	Natural deposits; water additive which promotes strong teeth
Nitrate	10 ppm	10 ppm	.64 ppm	5/2/16	Runoff from fertilizer use
Contaminant	MCLG	MCL	Highest Detected		Date Tested
			RAA	Range	
Total Haloacetic Acids	0	60	20.0 ppb	20 ppb	2016
Total Trihalomethanes	0	80	58 ppb	58 ppb	2016

The typical source for all secondary contaminants is erosion of natural deposits.

**The following secondary contaminants are not presently regulated.**

Secondary Contaminants	MCLG	SMCL	Highest Detected	Date Tested
Alkalinity as CaCO3	N/A	300 ppm	81 MG/L	5/2/16
Aluminum	N/A	50 ppb	.03 MG/L	5/2/16
Calcium	N/A	200 ppm	35 MG/L	5/2/16
Chloride	N/A	250 ppm	13 MG/L	5/2/16
Corrosivity	N/A	0	-.81	5/2/16
Magnesium	N/A	150 ppm	7.1 MG/L	5/2/16
Manganese	N/A	0.05 ppm	<.0015 MG/L	5/2/16
Metolachlor	N/A		0.77 ppb	6/15/14
Potassium	N/A	100 ppm	3.8 MG/L	5/2/16
Silica	N/A	50 ppm	7.9 ppm	5/2/16
pH	N/A	8.5	7.3	5/2/16
Sodium	N/A	100 ppm	8.2 ppm	5/2/16
Specific Conductivity	N/A	1500 umho/cm	280 umho/cm	5/2/16
Sulfate	N/A	250 ppm	32 MG/L	5/2/16
T.D.S.	N/A	500 ppm	160 MG/L	5/2/16
Total Hardness	N/A	400 ppm	120 MG/L	5/2/16
Total Phosphorus	N/A	N/A	.023 MG/L	5/2/16
Raw T.O.C.	N/A	N/A	5.1 ppm	5/2/16

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 the EPA's Safe Drinking Water Hotline (800-426-4791). Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as those with cancer under-going chemotherapy, persons who have undergone organ transplants and 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/Centers for Disease Control and Prevention (CDC) guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants are available from the Safe Drinking Water Hotline : (1-800-426-4791).

Many other contaminants such as these listed below may also enter our source water supplies, bringing their own challenges.

**Inorganic Contaminants**, such as salts and minerals which can be naturally occurring or result from urban storm water runoff, industrial or domestic sewer discharges, oil and gas production and mining or farming.

**Pesticides and Herbicides**, which may come from a variety of sources such as agriculture, urban storm water runoff and residential uses.

Atrazine is a widely used herbicide that controls weeds in agricultural production.  
MCL = 3.0 ppb    Highest value = 1.7 ppb  
Annual sample taken did not exceed the MCL.

**Organic 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.

**Radioactive Contaminants**, which can be naturally occurring or be the result of oil and gas production and mining activities.

Radiological Quality Testing: MCL = 15 pCi/L

Highest Sample = < 3 pCi/L    Next Test: 2018

In order to ensure that tap water is safe to drink, EPA prescribes regulations which limit the amount of certain contaminants in water provided by public water supply systems. FDA regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

### NEIGHBORHOOD WATER WATCH PROGRAM

In the on going process of producing and supplying a quality finished product (drinking water), the City of Osage City is committed to maintaining the safety and integrity of our water system. To assist us in these efforts, we are asking you as neighbors, to help us by reporting any suspicious or unusual activity, persons or vehicles at or around the City Lake, Water Tower, Water Treatment Plant, fire hydrants or any of our other facilities.

**Please Call 785-528-3714 to report these activities.**

### Lead and Copper testing:

Most recent test results (8-19-2014)

Lead AL = 15 ppb Copper AL = 1.3 ppm

90th percentile lead value 1.8 ppb

90th percentile copper value .23 ppm

The City of Osage City will continue triennial sampling for lead and copper.

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. Your water system 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 (800-426-4791) or at <http://www.epa.gov/safewater/lead>.

2016 Summary: This brochure was developed to inform consumers about their drinking water source and quality, regulations that protect health, programs that protect the quality of our water supply sources and treatment processes that assure our drinking water meets or exceeds all State and Federal Standards.

Additional questions or comments about this report may be directed to City Hall at 201 South Fifth St. (785-528-3714).

Copies of this report are available at City Hall, Utility Maintenance Building and the Water Treatment Plant. This report was produced by Ken Talkington and Joey Lamond and can be obtained by calling 785-528-3714.