



**Public Works Department**  
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## 2018 ANNUAL WATER QUALITY REPORT

The City of Owasso is pleased to submit to you the 2018 Annual Water Quality Report. We take great pride in providing you, our customer, with reliable and safe drinking water that meets all Federal and State regulations. Again this year, contaminant levels in our water are well below the maximum allowable levels.

### **Why are there contaminants in my drinking water?**

Drinking water, including bottled water, may be expected to contain at least small amounts of contaminants. The presence of these contaminants does not necessarily indicate that water poses a health risk. More information about contaminants and potential health effects may be obtained by calling the Environmental Protection Agency's (EPA) Safe Drinking Water Hotline 1(800-426-4791). The sources of drinking water (both tap 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, radioactive material, and can pick up substances resulting from the presence of animals or human activity. Contaminants that may be present in water prior to treatment include: Microbial contaminants which come from sewage treatment plants, septic systems, agricultural livestock operations and wildlife. Inorganic contaminants are naturally-occurring or a result from urban storm water runoff, industrial or domestic wastewater discharges, oil and gas production and mining or farming. Pesticides and herbicides come from a variety of sources such as agricultural urban storm water runoff and residential uses. Chemical contaminants include synthetic chemicals which are byproducts of industrial processes and petroleum production that can come from gas stations, urban storm water runoff and septic systems. Radioactive contaminants are naturally occurring substances or the result of oil and gas production and mining activities. In order to ensure that tap water is safe to drink, the EPA prescribes 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 provide protection for public health.

### **Important Health Information:**

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 microbial contaminants are available from the Safe Drinking Water Hotline (800-426-4791).

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. The City of Owasso 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 or at <http://www.epa.gov/safewater/lead>.

### **Is Owasso's water safe to drink?**

YES! The City of Owasso and the City of Tulsa routinely monitor for contaminants in your drinking water according to Federal and State laws. In 2017, the City of Tulsa analyzed more than 32,000 samples looking for pollutants that might be dangerous to your health and substances that can make the water taste or smell unpleasant. In addition, the City of Owasso collected 300 samples from many different locations throughout the distribution area. The data tabulation table shows the results of our monitoring for the period of January 2017 through December 2017.

### **What does the data mean?**

This report is being provided to show that our drinking water IS SAFE and meets Federal and State requirements. As you can see by the table, the drinking water delivered to Owasso area homes and businesses exceeds all federal requirements. Although some contaminants were detected in 2017, the EPA has determined that your water is safe at these levels.

### **Where does Owasso's water come from?**

Our water is purchased from the City of Tulsa. The water is treated surface water transported from three sources in northeastern Oklahoma (Lake Oologah on the Verdigris River, Lake Spavinaw and Lake Eucha on Spavinaw Creek, and Lake Hudson on the Neosho River). After the water reaches the lakes it travels to Mohawk and A.B. Jewell water treatment plants where it is treated to remove any substances that might affect public health.

### **To Learn More about our Water Utility:**

Please attend any of the regular scheduled meetings of the Owasso City Council and the Owasso Public Works Authority. Meetings are held on the first and third Tuesday of each month at Old Central (109 N. Birch) beginning at 6:30 p.m.

### **How to Contact Us:**

For questions concerning your water utility, please contact the Owasso Public Works Department at 918-272-4959. Inquires about this report may be directed to Roger Stevens (Public Works Director). For questions about your water bill, please contact the City of Owasso Utility Billing Office at 918-376-1500.

**For Additional Information:** Visit our website at: [www.cityofowasso.com](http://www.cityofowasso.com).

## WATER QUALITY DATA TABULATION

### Tulsa's Water Quality Data Collected During 2017:

Regulated Contaminants	Avg.	Min.	Max.	MCL	MCLG	Likely Sources of Contaminants
Turbidity level found			0.21	TT*=less than 0.3 NTU 95% of the time	N/A	Soil runoff
Lowest monthly % meeting regulations	100%					
Barium	0.043	0.032	0.053	2 parts per million	2	Naturally present in the environment, drilling waste, metal refineries
Total Chlorine	2.4	1.5	3.0	MRDL* - 4.0 parts per million annual average	4	Water additive used to control microbes
Chlorite	0.15	0.00	0.29	1 part per million	0.8	By-product of drinking water disinfection
Total Chromium***	0.14	0	0.28	100 parts per billion	100	Discharge from steel and pulp mills; erosion of natural deposits
Copper**	0.28 ppm at 90th percentile; 0 sites above AL			AL*=1.3 parts per million at 90th percentile	1.3	Corrosion of household plumbing systems, erosion of natural deposits
Fluoride	0.68	0.00	0.85	4 parts per million	4	Water additive promoting strong teeth
Lead**	2.28 ppb at the 90th percentile; 0 sites above AL			AL*=15 parts per billion (ppb) at 90th percentile	0	Corrosion of household plumbing systems
Nitrate / Nitrite	0.12	0	0.27	Nitrate =10 parts per million	10;1	Runoff from fertilizer use
Total Organic Carbon	1.9	0.90	2.8	Results are part per million. MCL is TT* percent removal	N/A	Naturally found in the environment
Haloacetic Acids	24	6	32	60 parts per billion LRAA.	N/A	By-product of drinking water disinfection
Total Trihalomethanes	36	19	58	80 parts per billion LRAA	N/A	By-product of drinking water disinfection

Secondary Contaminants	Avg.	Min.	Max.	Recommended Level	*MCLG	Likely Sources of Contaminants
pH	N/A	7.5	8.6	Aesthetic level 6.5-8.5 s.u.*		Measure of acidity, adjusted in drinking water treatment
Chloride	12	11	13	Aesthetic level 250 parts per million		Naturally present, brine from oilfield operations
Sulfate	12	4.2	33	Aesthetic level 250 parts per million		Naturally present in the environment

Other Required Monitoring	Avg.	Min.	Max.	Recommended Level	*MCLG	Likely Sources of Contaminants
Sodium	10	5.9	14	Standards have not been established		Naturally occurring of urban storm water runoff

**Cryptosporidium**  
 Second round of monitoring (over 48 month duration) was completed in 2017. At the time of this report, official reporting calculations have not been finalized by the Oklahoma Department of Environmental Quality. Detections were found in source water only and were not detected at levels of concern; Cryptosporidium is a microbial pathogen found in surface water throughout the U.S. Although filtration removes cryptosporidium, the most commonly-used filtration methods cannot guarantee 100 percent removal. Our monitoring indicates the presence of these organisms in our source water. Current test methods do not allow us to determine if the organisms are dead or if they are capable of causing disease. Ingestion of cryptosporidium may cause cryptosporidiosis, an abdominal infection. Symptoms of infection include nausea, diarrhea, and abdominal cramps. Most healthy individuals can overcome the disease within a few weeks. However, immuno-compromised people are at greater risk of developing life-threatening illness. We encourage immuno-compromised individuals to consult their doctor regarding appropriate precautions to take to avoid infection. Cryptosporidium must be ingested to cause disease, and it may be spread through means other than drinking water.

**Additional Monitoring:** Tulsa was required to participate in Unregulated Contaminant Monitoring (UCMR3) in 2014. Unregulated contaminants are those for which EPA has not established drinking water standards. The purpose of unregulated contaminant monitoring is to assist the EPA in determining the occurrence of unregulated contaminants in drinking water and whether future regulation is warranted. The following are those contaminants that were detected during UCMR3 monitoring.

Unregulated Contaminants	Average (parts per billion)	Minimum (parts per billion)	Maximum (parts per billion)
Bromochloromethane	0.020	0	0.092
Chlorate	79.3	0	244
Hexavalent Chromium	0.011	0	0.055
Molybdenum	0.14	0	1.1
Strontium	157	44.8	362
Vanadium	0.57	0	1.2

### Owasso's Water Quality Data Collected During 2017:

Regulated Contaminants	Avg.	Min.	Max.	MCL	MCLG	Likely Sources of Contaminants
Total Coliform	0 positive			>1 positive	0	Naturally present in the Environment
Total Chlorine	2.1	1.02	3.0	MRDL* - 4.0 parts per million annual average	4	Water additive used to control microbes
Copper	0.16 ppm at 90th percentile; 0 sites above AL			AL*=1.3 parts per million at 90th percentile	1.3	Corrosion of household plumbing system
Lead	0.005 ppb at 90th percentile; 0 sites above AL			AL*=15 parts per billion at 90th percentile	0	Corrosion of household plumbing system
Halo Acetic Acids	8.91	6.4	11.4	60 parts per billion LRAA.	N/A	By-product of drinking water disinfection
Total Trihalomethanes	33.81	20.2	49.9	80 parts per billion LRAA	N/A	By-product of drinking water disinfection

#### Definitions of Terms Found in the Table:

- AL (Action Level):** The concentration of a contaminant, which if exceeded, triggers a treatment or other requirement which a water system must follow.
- MCL (Maximum Contaminant Level):** The highest level of a contaminant allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology and taking cost into consideration. MCLs are enforceable standards.
- 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 and are non-enforceable public health goals.
- MRDL (Maximum Residual Disinfectant Level):** The highest level of a disinfectant allowed in drinking water.
- TT (Treatment Technique):** A required process intended to reduce the level of a contaminant in drinking water.
- LRAA :** Locational Running Annual Average
- NTU (Nephelometric Turbidity Unit):** A measurement of turbidity, or cloudiness of the water. Turbidity has no health effects.
- mrem/yr (millirems per year):** A measure of radiation absorbed by the body.
- ppm (parts per million):** Comparable to 1 minute in two years.
- ppb (parts per billion):** Comparable to 1 minute in 2,000 years.
- s.u. :** Standard Units
- N/A ( Not Applicable)**
- \*\*Data collected in 2016. Monitoring is in compliance with regulations.
- \*\*\*Data collected quarterly in 2014 in conjunction with UCMR3 sampling. Monitoring is in compliance with regulations.