2016 City of Topeka Water Quality Report

The City of Topeka is pleased to inform you that **your water consistently met all regulatory compliance standards in 2015**. This report summarizes Topeka's water quality information from 2015 compared to federal and state standards. For further water quality questions, contact Bruce Northup at **785-368-3111**. You are also invited to attend a water quality meeting on August 2, 2016, at 6 p.m. at 3245 NW Waterworks Dr. For special accommodations, call 785-368-3111 or TTY 785-368-3603 8 a.m.-5 p.m. by July 29, 2016.

The source of the City of Topeka's drinking water is surface water from the Kansas River. A Kansas Department of Health and Environment Source Water Assessment has evaluated Topeka's source water as moderately susceptible to contamination and is available upon request or for download at http://www.kdheks.gov/nps/swap/SWreports.html.

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 or at http://www.epa.gov/safewater/lead.

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as those 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 EPA's Safe Drinking Water Hotline (1-800-426-4791).

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 (1-800-426-4791).

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, radioactive material, and can pick up substances resulting from the presence of animals or from human activity.

Contaminants that may be present in source water before we treat it 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 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 storm water runoff, agriculture, and residential users.
- Radioactive contaminants, which can be naturally occurring or the result of mining activity.
- Organic contaminants, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and also come from gas stations, urban storm water runoff, and septic systems.

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 systems. We treat our water according to EPA's regulations. Food and Drug Administration regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

Your water is treated to remove several contaminants and a disinfectant is added to protect you against microbial contaminants. Each month, our water system tested a minimum of 120 samples in accordance with the Total Coliform Rule for microbiological contaminants. Coliform bacteria are usually harmless, but their presence in water can be an indication of disease-causing bacteria. When coliform are found, special follow-up tests are done to determine if harmful bacteria are present in the water supply. If limits are exceeded, the water supplier must notify the public by newspaper, television, or radio.

Cryptosporidium is a microbial parasite found in surface water throughout the United States. Although filtration removes *Cryptosporidium*, the most commonly used filtration cannot guarantee 100 percent removal. Monitoring of our source water indicates the presence of these organisms. Current test methods do not allow us to determine if the organisms are dead or if they are capable of causing disease. 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. Immuno-compromised individuals are encouraged to consult their doctor regarding precautions to take to avoid infection. *Cryptosporidium* must be ingested to cause disease, and it may spread through other means than drinking water.

Definitions of Table Terms and Abbreviations

The definitions below are for terms used in the *2015 Summary of Detected Contaminants in City of Topeka Water* table.

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): The level of a contaminant in drinking water below which there is no known or expected risk to human health. MCLGs allow for a margin of safety.

Treatment Technique (TT): A required process intended to reduce the level of a contaminant in drinking water.

Action Level (AL): The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

Parts Per Million (PPM): Milligrams per liter.

Parts Per Billion (PPB): Micrograms per liter.

Micro-mhos Per Centimeter (umhos/cm): A measurement of the ability of a solution to conduct an electrical current.

Nephelometric Turbidity Units (NTU): A measurement of water cloudiness.

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 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.

2015 Summary of Detected Contaminants in City of Topeka Water

REGULATED CONTAMINANTS

Contaminant	Level Detected	Unit of Measure	MCL	MCLG	Date	Likely Source of Contamination
Inorganic Contaminants						
Barium	46	PPB	2000	2000	5/11/15	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.
Fluoride	0.68 (Range 0.57 - 0.84)	PPM	4	4	Jan - Dec 2015	Water additive which promotes strong teeth.
Nitrate	1.4 (Range 1.1 - 1.4)	PPM	10	10	5/11/15 6/29/15	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.
Selenium	1.4	PPB	50	50	5/11/15	Discharge from petroleum and metal refineries; Erosion of natural deposits; Discharge from mines.
Copper (90 percentile) Number above AL	(Range N.D. - 0.037) (90% = 0.028) Number > AL = 0	PPM	AL = 1.3	1.3	Jun - Aug *2014	Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives.
Lead (90 percentile) Number above AL	(Range N.D. - 8.8) (90% = 1.3) Number > AL = 0	PPB	AL = 15	0	Jun - Aug *2014	Corrosion of household plumbing systems; Erosion of natural deposits.

*We have monitored for copper and lead in specific homes identified with lead pipe or copper pipe with lead solder since 1992. Due to the low levels detected and because concentrations are not expected to vary significantly from year to year, the State requires us to monitor these homes only once every three years.

Organic Contaminants						
Atrazine	0.57 (Range 0.2 -1.8)	PPB	3	3	Jan - Dec 2015	Runoff from herbicide used on row crops.
Chloramine	3.27 (Range 3.04 - 3.58)	PPM	MRDL = 4	MRDLG = 4	Jan - Dec 2015	Water additive used to control microbes.
Haloacetic Acids (HAA5)	59.0 (Range 23.8 - 96.7)	PPB	60	N/A	Jan - Dec 2015	By-product of drinking water disinfection.
Trihalomethanes	51.0 (Range 36.0 - 68.0)	PPB	80	N/A	Jan - Dec 2015	By-product of drinking water chlorination.
Microbiological Contaminants						
Total Coliform Bacteria	0.0% (Range 0.0% - 0.0%)	%	<5% of Monthly Samples	0	Jan - Dec 2015	Coliform are bacteria that are naturally present in the environment and are used as an indicator that other, potentially-harmful bacteria may be present.
Total Organic Carbon	1.85 (Range 1.29 - 2.63)	Ratio	Removal Ratio TT > 1.0	N/A	Jan - Dec 2015	Naturally present in the environment.
Turbidity	*96.4% (Range 0.03 - 0.65 NTU)	NTU	TT=< 0.30 NTU 95% of time. TT= 1 NTU Maximum.	N/A	Jan - Dec 2015	Soil runoff. Turbidity is a measure of cloudiness in the water. We monitor it because it is a good indicator of the effectiveness of our filtration system.

*Lowest Monthly %< 0.30 NTU; N.D. = Not Detected; N/A= Not Applicable

Round 2 Source Water Monitoring for the Long Term 2 Enhanced Surface Water Treatment Rule (LT2)

Contaminant	Untreated Raw Source Water - Kansas River	Unit of Measure	Date	The USEPA requires water suppliers to monitor their raw source water for the contaminant *Cryptosporidium* and other microorganisms. For more LT2 testing information, visit www.topeka.org or contact us at 785-368-3111.
Cryptosporidium	0.100	Oocysts/L	3/10/2015	

SECONDARY UNREGULATED CONTAMINANTS

Contaminant	Level Detected	Range	Unit of Measure	Date	Likely Source of Contamination
Metolachlor	5.5	N/A	PPB	6/22/2015	Runoff from herbicide used on row crops.
Sulfates	89	N/A	PPM	5/11/2015	Erosion of natural deposits.
Calcium	54	N/A	PPM	5/11/2015	Erosion of natural deposits.
pH	9.3	9.0 - 9.7	pH unit	Jan-Dec 2015	Erosion of natural deposits.
Specific Conductance	624	252 - 940	umhos/cm	Jan-Dec 2015	Erosion of natural deposits.
Total Alkalinity (as CaCO3)	97	65 - 146	PPM	Jan-Dec 2015	Erosion of natural deposits.
Total Hardness (as CaCO3)	162	116 - 224	PPM	Jan-Dec 2015	Erosion of natural deposits.
Total Dissolved Solids	310	N/A	PPM	5/11/2015	Erosion of natural deposits.
Chloride	53	N/A	PPM	5/11/2015	Erosion of natural deposits.
Magnesium	5.5	N/A	PPM	5/11/2015	Erosion of natural deposits.
Potassium	7.5	N/A	PPM	5/11/2015	Erosion of natural deposits.
Silica	7.8	N/A	PPM	5/11/2015	Erosion of natural deposits.
Sodium	40	N/A	PPM	5/11/2015	Erosion of natural deposits.
Total Phosphorus (as P)	0.33	N/A	PPM	5/11/2015	Erosion of natural deposits.

During the 2015 calendar year, the City of Topeka had no violations of drinking water regulations.

For more water quality information, visit the EPA website at http://water.epa.gov/drink/ or the City of Topeka at http://www.topeka.org.

Disponible en el Español. Teléfono 785-368-3111. Sitio Web de Internet http://www.topeka.org.