



Consumer Confidence Report – 2019 Covering Calendar Year – 2018

This brochure is a snapshot of the quality of the water that we provided last year. Included are the details about where your water comes from, what it contains, and how it compares to Environmental Protection Agency (EPA) and state standards. We are committed to providing you with information because informed customers are our best allies. If you would like to observe the decision-making process that affects drinking water quality, please call JEFF JOHNSON at 913-207-3609.

Bonner Springs sources of drinking water

Our drinking water comes from 4 Ground Water Wells located in an alluvial aquifer 75-80 feet deep, just north of the Kansas River. The well water is filtered naturally within this aquifer then is chemically treated and filtered again at the Bonner Springs Public Works (BSPW) Water Treatment Plant. The water is treated to remove contaminants such as iron and manganese and a disinfectant (chlorine) is added to protect you against microbial contaminants. Some of our drinking water is supplied from Kansas City Board of Public Utilities (BPU) through a Consecutive Connection (CC). The water we purchase from BPU is drawn from the Missouri River watershed. This water is collected and filtered through horizontal collector wells in an aquifer located below the Missouri River. BPU filters and treats this water similar to Bonner Springs including the disinfection process. BSPW and BPU perform multiple daily tests of the treated water to ensure that your water is safe to drink. To find out more about your drinking water sources and the chemicals used to treat the water, please contact our office at 913-422-1961.

Is my Water Safe to Drink?

Absolutely! Your water is treated to remove several contaminants and a disinfectant is added to protect you against microbial contaminants. The Safe Drinking Water Act (SDWA) required states to develop a Source Water Assessment (SWA) for each public water supply that treats and distributes raw source water in order to identify potential contamination sources. The state has completed an assessment of our source water.

The sources of drinking water (both tap water and bottled water) included 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. 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 Safe Drinking Water Hotline (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 (800-426-4791).

Contaminants that may be present in sources water before we treat it include:

Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, 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 run-off, 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 run-off, and septic systems.

In order to ensure that tap water is safe to drink, EPA prescribes regulation which limits 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.

Our water system is required to test a minimum of 9 samples per month 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 bacteria are found, special follow-up tests are done to determine if harmful bacteria are present in the water supply. If this limit is exceeded, the water supplier must notify the public.

WATER QUALITY IS MONITORED CONTINUOUSLY – 24/7



We use several on-line analyzers to monitor water quality 24 hours-a-day, 7 days a week. The analyzer data is monitored by our computer control system which alerts our operators if the data is outside of a desired range. Our system will even shut down treatment operations if the data is extremely different than our allowable range. We monitor pH, chlorine and turbidity (clarity).

Water Quality Data

The following tables list all of the drinking water contaminants which were detected during the 2018 calendar year. The presence of these contaminants does not necessarily indicate the water poses a health risk. Unless noted, the date presented in this table is from the testing done January 1st-December 31st 2018. The state requires us to monitor for certain contaminants less than once per year because the concentrations of these contaminants are not expected to vary significantly from year to year. Some of the data, though representative of the water quality, is more than one year old.

Filter Media Replacement

In late 2018 Bonner Springs contracted Walters Morgan to remove the old rock, media, and anthracite from the two pressure filters at the Water Treatment Plant and replace it with new rock, Green Sand Plus (media), and anthracite. The old media wasn't removing manganese from the water like it used to. This wasn't a health issue, but an aesthetic issue. Upon removing all the old rock, media, and anthracite there was some damage found to the North filter. The issues were repaired and the inside of both filters were coated with food grade epoxy, which will not contaminate the water. Then the new rock, media, and anthracite were placed in the filters. This has greatly improved the water quality coming out of the Water Plant.

The bottom line is that the water provided to you is safe.

Terms & 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. MCLGs allow for a margin of safety.

Maximum Contaminant Level (MCL): the "Maximum Allowed" MCL is 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.

Secondary Maximum Contaminant Level (SMCL): recommended level for a contaminant that is not regulated and has no MCL.

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

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

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.

Non-Detects (ND): lab analysis indicates that the contaminant is not present.

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

Parts per Billion (ppb) or micrograms per liter (µg/l)

Picocuries per Liter (pCi/L): a measure of the radioactivity in water.

Millirems per Year (mrem/yr): measure of radiation absorbed by the body.

Monitoring Period Average (MPA): An average of sample results obtained during a defined time frame, common examples of monitoring periods are monthly, quarterly and yearly.

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

Running Annual Average (RAA): an average of sample results obtained over the most current 12 months and used to determine compliance with MCLs.

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





Testing Results for: CITY OF BONNER SPRINGS

Regulated Contaminants	Collection Date	Highest Value	Range (low/high)	Unit	MCL	MCLG	Typical Source
ARSENIC	1/11/2017	1.9	1.9	ppb	10	0	Erosion of natural deposits
ATRAZINE	9/25/2018	0.9	0.44 - 0.9	ppb	3	3	Runoff from herbicide used on row crops
BARIUM	1/11/2017	0.15	0.15	ppm	2	2	Discharge from metal refineries
CHROMIUM	1/11/2017	2.3	2.3	ppb	100	100	Discharge from steel and pulp mills
FLUORIDE	7/11/2018	0.77	0.26 - 0.77	ppm	4	4	Natural deposits; Water additive which promotes strong teeth.
NITRATE	2/7/2018	0.45	0.45	ppm	10	10	Runoff from fertilizer use
SELENIUM	1/11/2017	2.8	2.8	ppb	50	50	Erosion of natural deposits

Disinfection Byproducts	Monitoring Period	Highest RAA	Range (low/high)	Unit	MCL	MCLG	Typical Source
TOTAL HALOACETIC ACIDS (HAA5)	2018	36	30 - 36	ppb	60	0	By-product of drinking water disinfection
TTHM	2018	54	52 - 54	ppb	80	0	By-product of drinking water chlorination

Lead and Copper	Monitoring Period	90 th Percentile	Range (low/high)	Unit	AL	Sites Over AL	Typical Source
COPPER, FREE	2015 - 2017	1.6	0.023 - 1.8	ppm	1.3	5	Corrosion of household plumbing
LEAD	2015 - 2017	3.9	1.1 - 7.5	ppb	15	0	Corrosion of household plumbing

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>.

Secondary Contaminants-Non Health Based Contaminants-No Federal Maximum Contaminant Level (MCL) Established.	Collection Date	Highest Value	Range (low/high)	Unit	SMCL
ALKALINITY, TOTAL	1/11/2017	230	230	MG/L	300
CALCIUM	1/11/2017	130	130	MG/L	200
CHLORIDE	1/11/2017	96	96	MG/L	250
CONDUCTIVITY @ 25 C UMHOS/CM	1/11/2017	1000	1000	UMHO/CM	1500
CORROSIVITY	1/11/2017	-0.057	-0.057	LANG	0
HARDNESS, TOTAL (AS CaCO3)	1/11/2017	410	410	MG/L	400
MAGNESIUM	1/11/2017	18	18	MG/L	150
MANGANESE	1/11/2017	0.035	0.035	MG/L	0.05
METOLACHLOR	6/25/2014	0.41	0.41	ppb	
NICKEL	1/11/2017	0.0018	0.0018	MG/L	0.1
PH	1/11/2017	7.1	7.1	PH	8.5
PHOSPHORUS, TOTAL	1/11/2017	0.67	0.67	MG/L	5
POTASSIUM	1/11/2017	6.6	6.6	MG/L	100
SILICA	1/11/2017	21	21	MG/L	50
SODIUM	1/11/2017	56	56	MG/L	100
SULFATE	1/11/2017	150	150	MG/L	250
TDS	1/11/2017	630	630	MG/L	500
ZINC	1/11/2017	0.65	0.65	MG/L	5

During the 2018 calendar year, we had no violation(s) of drinking water regulations.

Additional Required Health Effects Language:

Copper is an essential nutrient, but some people who drink water containing copper in excess of the action level over a relatively short amount of time could experience gastrointestinal distress. Some people who drink water containing copper in excess of the action level over many years could suffer liver or kidney damage. People with Wilson's Disease should consult their personal doctor.

In certain parts of our City, some or all of our drinking water is supplied from Board of Public Utilities. The table below lists all of the drinking water contaminants, which were detected during the 2018 calendar year from the water systems that we purchase drinking water from.

Regulated Contaminants	Collection Date	Water System	Highest Value	Range (low/high)	Unit	MCL	MCLG	Typical Source
ATRAZINE	8/23/2018	KANSAS CITY BOARD OF PUBLIC UTILITIES	0.068	0.068	ppb	3	3	Runoff from herbicide used on row crops
BARIUM	5/16/2018	KANSAS CITY BOARD OF PUBLIC UTILITIES	0.12	0.12	ppm	2	2	Discharge from metal refineries
DI(2-ETHYLHEXYL) PHTHALATE	10/30/2018	KANSAS CITY BOARD OF PUBLIC UTILITIES	1	1	ppb	6	0	Discharge from rubber and chemical factories
FLUORIDE	10/30/2018	KANSAS CITY BOARD OF PUBLIC UTILITIES	0.74	0.00089 - 0.74	ppm	4	4	Natural deposits; Water additive which promotes strong teeth.
NITRATE	5/16/2018	KANSAS CITY BOARD OF PUBLIC UTILITIES	1.6	1.6	ppm	10	10	Runoff from fertilizer use
NITRATE-NITRITE	5/17/2016	KANSAS CITY BOARD OF PUBLIC UTILITIES	3.6	3.6	ppm	10	10	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
Secondary Contaminants	Collection Date	Water System	Highest Value	Range (low/high)	Unit	SMCL		
ALKALINITY, CACO3 STABILITY	5/17/2016	KANSAS CITY BOARD OF PUBLIC UTILITIES	190	190	MG/L			
ALKALINITY, TOTAL	2/8/2018	KANSAS CITY BOARD OF PUBLIC UTILITIES	260	180 - 260	MG/L		300	
BICARBONATE AS HCO3	5/13/2014	KANSAS CITY BOARD OF PUBLIC UTILITIES	200	200	MG/L			
CALCIUM	5/17/2016	KANSAS CITY BOARD OF PUBLIC UTILITIES	75	75	MG/L		200	
CALCIUM	5/16/2018	KANSAS CITY BOARD OF PUBLIC UTILITIES	81	81	MG/L			
CARBON, DISSOLVED ORGANIC (DOC)	7/10/2018	KANSAS CITY BOARD OF PUBLIC UTILITIES	2.8	2.2 - 2.8	MG/L			
CHLORIDE	5/17/2016	KANSAS CITY BOARD OF PUBLIC UTILITIES	26	26	MG/L		250	
CONDUCTIVITY @ 25 C UMHOS/CM	5/17/2016	KANSAS CITY BOARD OF PUBLIC UTILITIES	25	25	UMHO/CM		1500	
HARDNESS, TOTAL (AS CACO3)	5/16/2018	KANSAS CITY BOARD OF PUBLIC UTILITIES	320	320	MG/L		400	
MAGNESIUM	5/16/2018	KANSAS CITY BOARD OF PUBLIC UTILITIES	29	29	MG/L		150	
METOLACHLOR	8/23/2018	KANSAS CITY BOARD OF PUBLIC UTILITIES	0.11	0.05 - 0.11	ppb			
NICKEL	5/16/2018	KANSAS CITY BOARD OF PUBLIC UTILITIES	0.0052	0.0052	MG/L		0.1	
ORTHOPHOSPHATE	5/17/2016	KANSAS CITY BOARD OF PUBLIC UTILITIES	0.18	0.18	MG/L			
PH	5/16/2018	KANSAS CITY BOARD OF PUBLIC UTILITIES	7.2	7.2	PH		8.5	
POTASSIUM	5/16/2018	KANSAS CITY BOARD OF PUBLIC UTILITIES	7	7	MG/L		100	
SILICA	5/16/2018	KANSAS CITY BOARD OF PUBLIC UTILITIES	15	15	MG/L		50	
SODIUM	5/16/2018	KANSAS CITY BOARD OF PUBLIC UTILITIES	57	57	MG/L		100	
SULFATE	5/17/2016	KANSAS CITY BOARD OF PUBLIC UTILITIES	130	130	MG/L		250	
SUVA (SPECIFIC ULTRAVIOLET ABSORBANCE)	8/15/2018	KANSAS CITY BOARD OF PUBLIC UTILITIES	2.4	1.6 - 2.4	UNITS			
TDS	5/17/2016	KANSAS CITY BOARD OF PUBLIC UTILITIES	480	480	MG/L		500	
UV ABSORBANCE @254 NM	7/10/2018	KANSAS CITY BOARD OF PUBLIC UTILITIES	0.064	0.0395 - 0.064	CM-1			

During the 2018 calendar year, the water systems that we purchase water from had no violation(s) of drinking water regulations.