WaterOne

Water District No. 1 of Johnson County

WATER QUALITY REPORT 2015

WHAT IS THIS REPORT?

This report is to let you - our customers - know that water produced by WaterOne meets or exceeds all standards for safe, high-quality water.

WaterOne is required by drinking water regulations to make this water quality report available to customers. It's like a nutritional label for the substance you probably consume the most - water!

This data and information can be complex, so we've tried to make it readable while also including the required language. Congress, the EPA, and WaterOne want to be sure that consumers know what's in their drinking water.

WHAT DO WE TEST FOR?

WaterOne tests for over 100 regulated and unregulated contaminants in drinking water. Our state-of-the art water quality lab utilizes multiple monitoring systems to continuously test our water every single day of the year to ensure the finest water reaches our customers' taps.

All data in this report is from 2014. **If a known health-related contaminant is not listed in this report, WaterOne did not detect it in the water.**

Best Tasting Water in Kansas
KSAWWA

Platinum Award for Utility Excellence
AMWA

HOW MUCH WATER DOES WATERONE PRODUCE?

In 2014, WaterOne treated approximately 12.2 billion gallons of Kansas River water, 1.5 billion gallons of Missouri River water, 6.6 billion gallons from its Wolcott Collector Well (adjacent to the Missouri River), and 1.4 billion gallons of water from collector wells south of the Kansas River.

WaterOne customers consume an average of 30-150 million gallons per day (MGD), depending on the time of year. The most water consumed in one day was 157.5 MGD, set on July 23, 2012.

SETTING THE STANDARD FOR UTILITY EXCELLENCE

Winner of the "Best Tasting Water In Kansas," WaterOne is certified as a Platinum Level utility for excellence in utility management by the Association of Metropolitan Water Agencies. We are proud to deliver great-tasting, high-quality water to your tap.

WATER AT A GLANCE

ALL DRINKING WATER, including bottled water, can 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.*

In order to ensure that tap water is safe to drink, the EPA has regulations that limit the amount of certain contaminants in water provided by public water systems and require monitoring for these contaminants.

More information about contaminants and potential health effects can be found at the Environmental Protection Agency's Safe Drinking Water Hotline at **800/426-4791** or at **www.epa.gov/safewater.**

Ensuring Safe, Reliable Water

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, persons with HIV/AIDS or other immune system disorders, some elderly people, and infants can be particularly at risk from infections.

These people should seek advice about drinking water from their health care providers. Guidelines from the Environmental Protection Agency (EPA) and Centers for Disease Control and Prevention (CDC) on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the Safe Drinking Water Hotline at **800/426-4791.**

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. WaterOne 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 drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline or at www.epa.gov/safewater/lead.

WATER QUALITY DATA

TERMS, ABBREVIATIONS & SYMBOLS

Some of the terms used in this report are unique to the water industry and might not be familiar to all customers. Explanations are provided below.

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

Maximum Contaminant Level (MCL): 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.

Maximum Contaminant Level Goal (MCLG): 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.

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.

Not Detected (ND): Not detected in the water.

Nephelometric Turbidity Units (NTU): A measure of the clarity of water.

Picocuries per liter (pCi/L): A measure of radioactivity.

Parts per million (ppm): Or milligrams per liter.

Parts per billion (ppb): Or micrograms per liter.

Parts per trillion (ppt): Or nanograms per liter.

pH Units: A measure of acidity or basicity of the water.

Saturation Index (S.I.): Measure of corrosivity.

Secondary Maximum Contaminant Level (SMCL): Secondary MCLs for various water quality indicators are established to protect public welfare.

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

µmhos/cm: Or micromhos/cm; a measure of the ability of a solution to carry an electric current.

Sources of Drinking Water

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, and 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 in drinking water sources may include:

- **Microbial contaminants**, such as viruses and bacteria, which may come from wildlife or septic systems.
- **Inorganic contaminants**, such as salts and metals, which can occur naturally or result from urban stormwater runoff, industrial or domestic wastewater discharges or farming.
- **Pesticides and herbicides**, which may come from a variety of sources such as farming, urban stormwater runoff and home or business use.
- **Organic chemical contaminants**, including synthetic and volatile organic chemicals, which are byproducts of industrial processes, and can also come from gas stations, urban stormwater runoff and septic systems.
- **Radioactive contaminants**, which can occur naturally.

WATER QUALITY: WHAT IS IN THE WATER?

REGULATED PARAMETERS

Parameter	MCL	MCLG	WaterOne Result	WaterOne Range	Sample Date	Met Standard	Source
Inorganic Contaminants							
Arsenic	10 ppb	0 ppb	1.5 ppb	ND (1) ppb - 1.5 ppb	Quarterly	✓	Erosion of natural deposits; Run-off from orchards, glass and electronics production wastes
Barium	2 ppm	2 ppm	0.11 ppm	0.02 ppm - 0.11 ppm	Quarterly	✓	Discharge of drilling wastes; discharge from metal refineries, erosion of natural deposits
Chromium	100 ppb	100 ppb	3.0 ppb	1.1 ppb - 3.0 ppb	Quarterly	✓	Discharge from steel and pulp mills; erosion of natural deposits
Copper	AL=1.3 ppm	1.3 ppm	0.017 ppm[2]	0 samples exceeding;2014	Annually	✓	Corrosion of household plumbing; erosion of natural deposits; leaching from wood preservatives
Fluoride	4 ppm	4 ppm	0.82 ppm	0.10 ppm - 0.82 ppm	Monthly	✓	Erosion of natural deposits; water additive (oral health); discharge - fertilizer and aluminum factories
Lead	AL=15 ppb	0 ppb	5.2 ppb[2]	0 samples exceeding;2014	Annually	✓	Corrosion of household plumbing systems; erosion of natural deposits
Nitrate	10 ppm	10 ppm	1.4 ppm	ND (0.1) ppm - 1.4 ppm	Annually	✓	Fertilizer run-off; leaching from septic tanks, sewage; erosion of natural deposits
Selenium	50 ppb	50 ppb	2.7 ppb	1.2 ppb - 2.7 ppb	Quarterly	✓	Discharge from petroleum and metal refineries; erosion of natural deposits; discharge from mines
Synthetic Organic Contaminants							
Atrazine	3 ppb	3 ppb	ND (0.2) ppb	ND (0.2) ppb - 1.6 ppb	Monthly	✓	Run-off from herbicide used on row crops
Di (2-ethlhexyl) phthalate	6 ppb	0 ppb	1.9 ppb	ND (0.6) ppb - 1.9 ppb	Quarterly	✓	Discharge from rubber and chemical factories
Volatile Organic Contaminants							
Xylenes, Total	10 ppm	10 ppm	.0006 ppm	ND (0.0005) - 0.0006 ppm	Monthly	✓	Discharge from petroleum factories and chemical factories.
Disinfectants/Disinfection By-Products							
Chloramines	MRDL=4 ppm	MRDLG=4 ppm	2.9 ppm[1]	1.0 ppm - 4.2 ppm[1]	Daily	✓	Water additive used to control microbes
Chlorine Dioxide	MRDL=800 ppb	MRDLG=800 ppb	613 ppb	ND (50) ppb - 613 ppb	Monthly	✓	Water additive used to control microbes
Chlorite	1 ppm	0.8 ppm	0.4 ppm	0.14 ppm - 0.72 ppm	Monthly	✓	By-product of drinking water disinfection
Haloacetic Acids (HAA)	60 ppb	n/a	20 ppb	1.0 ppb - 30.6 ppb	Monthly	✓	By-product of drinking water disinfection
Total Trihalomethanes (THMs)	80 ppb	n/a	27 ppb	9.6 ppb - 45.1 ppb	Monthly	✓	By-product of drinking water disinfection
Microbiological Contaminants							
Total Coliforms	Presence in ≤ 5% of monthly samples	0 (<1/100 mls)	3.3%	0 - 3.3% positive samples/month	Daily	✓	Naturally present in the environment
Total Organic Carbon	Removal ratio[3] (1.0 required)	TT	1.7	1.0-2.3 RAA Removal Ratio	Monthly	✓	Naturally present in the environment
Turbidity	TT NTU	TT NTU	0.59	100% lowest monthly % meeting 0.3 NTU	Daily	✓	Soil run-off
Radiological Contaminants							
Beta Particle & Photon Radioactivity	50 pCi/L	0 pCi/L	2.8 pCi/	3.0 pCi/L - 7.8 pCi/L	Annually	✓	Decay of natural and man-made deposits
Radium - 226	5pCi/L	0 pCi/L	0.45 pCi/L	ND (0.1) pCi/L - 1.4 pCi/L	Annually	✓	Erosion of natural deposits

1. WaterOne is required to maintain a minimum residual of 1.0 ppm throughout its distribution system by the Kansas Dept. of Health & Environment as a means to provide some measure of protection against microbiological contamination. Maximum residual compliance is based on monthly averages. WaterOne's highest value, 4.2 ppm, was an instantaneous reading.
2. Data from 2014 annual monitoring, though not required by a "reduced monitoring schedule" as a result of low levels of lead and copper. This value is the 90th percentile result. The 95th percentile value for lead is 5.7 ppb; the 95th percentile value for copper is 0.018 ppm.
3. Monthly TOC removal ratio is calculated as the ratio between the actual TOC removal *achieved* and the TOC rule removal requirements.
4. This is the highest turbidity measurement for 2014. Compliance is based on 95% of monthly samples being less than 0.3 NTU. The average turbidity was less than 0.10 NTU. Turbidity is measured as an indicator of the effectiveness of the water treatment process. The lower the turbidity, the more effective the treatment process.
5. EPA considers 50 pCi/L to be the level of concern for beta particles.

UNREGULATED PARAMETERS

WaterOne conducted testing according to the EPA guidelines for the following Unregulated Parameters.

Parameter	Federal Level Recommended	Goal	WaterOne Results (Ave.)	Range
Alkalinity, Total*	300 ppm	> 40 ppm	72 ppm	44 ppm - 105 ppm
Bromodichloromethane	n/a	0 ppb	3.0 ppb	1.6 ppb - 6.9 ppb
Calcium	n/a	n/a	38 ppm	24 ppm - 60 ppm
Carbon, Total Organic (TOC)	10,000 ppm	n/a	2.7 ppm	1.8 ppm - 3.6 ppm
Chlorate	n/a	n/a	130 ppb	ND (62) ppb - 219 ppb
Chlorodibromomethane	n/a	60 ppb	ND (1.0) ppb	ND (1.0) - 3.1 ppb
Chloroform	n/a	70 ppb	12 ppb	6.3 ppb - 27.5 ppb
Conductivity	1,500 µmhos/cm	n/a	578 µmhos/cm	369 - 1190 µmhos/cm
Dicholoroacetic acid**	n/a	0 ppm	11 ppb	ND (1.0) ppb - 24 ppb
Hardness, Calcium*	200 ppm	> 50 ppm	94 ppm	61 ppm - 150 ppm
Hardness, Magnesium*	150 ppm	50 ppm	39 ppm	6 ppm - 83 ppm
Hardness, Total*	400 ppm	200 ppm	133 ppm	95 ppm - 186 ppm
Magnesium	150 ppm	50 ppm	9 ppm	1 ppm - 20 ppm
Monochloroacetic acid	n/a ppb	70 ppb	ND (1.0) ppb	ND (1.0) ppb - 3.3 ppb
pH	8.5 pH units	> 9.0 pH units	9.6 pH units	9.3 - 10.0 pH units
Phosphorus, Total	5 ppm	n/a	0.10 ppm	ND (0.05) - 0.2 ppm
Potassium	100 ppm	20 ppm	7.5 ppm	5.1 ppm - 10.1 ppm
Radon	300 pCi/L	300 pCi/L	13 pCi/L	ND (12) - 53 pCi/L
Silica	50 ppm	n/a	8.8 ppm	1.8 ppm - 15.0 ppm
Sodium	100 ppm	20 ppm	71 ppm	60 ppm - 84 ppm
Trichloroacetic acid	n/a	20 ppb	1.5 ppb	ND (1.0) ppb - 3.2 ppb

* As $CaCO_3$ ** The MCLG for Dicholoroacetic acid is listed as zero (in ppm) in the Regulatory Statutes.

Radon

Radon is a radioactive gas that you cannot see, taste, or smell. It is found throughout the U.S. Radon can move up through the ground and into a home through cracks and holes in the foundation. Radon can build up to high levels in all types of homes. Radon an can also get into indoor air when released from tap water from showering, washing dishes, and other household activities. Compared to radon entering the home through soil, radon entering the home through tap water will in most cases be a small source of radon in indoor air. Radon is a known human carcinogen. Breathing air containing radon can lead to lung cancer. Drinking water containing radon may also cause increased risk of stomach cancer. If you are concerned about radon in your home, test the air in your home. Testing is an inexpensive and easy. (You should pursue radon removal for your home if the level of radon in your air is 4 picocuries per liter of air (pCi/L) or higher. There are simple ways to fix a radon problem that are not too costly. For additional information, call your state radon program or call EPA's Radon Hotline (800-SOS-RADON).

CONSTITUENTS HAVING SECONDARY MCL'S

Monitored in the interest of consumers and to assist regulators in developer future regulations.

Parameter	Federal Level Recommended (SMCL)	WaterOne Results (Ave.)	Range (Low - High)
Chloride	250 ppm	58 ppm	18 ppm - 114 ppm
Copper	1000 ppb	1 ppb	ND (1) ppb - 3 ppb
Corrosivity*	0 S.I.	1.37 S.I.	0.87 S.I. - 1.86 S.I.
Fluoride	2.0 ppm	0.51 ppm	0.10 ppm - 0.82 ppm
Odor-Threshold (T.O.N.)	3 T.O.N.	1 T.O.N.	1 T.O.N. - 4 T.O.N.
Sulfate	250 ppm	116 ppm	51 ppm - 195 ppm
Total Dissolved Salts (TDS)	500 ppm	347 ppm	221 ppm - 714 ppm
Zinc	5000 ppb	22 ppb	ND (5) ppb - 55 ppb

*Positive values indicate tendency of water to be non-corrosive. Non-corrosive water reduces the likelihood of lead or copper leaching into the water from plumbing.

**UNREGULATED CONTAMINANT MONITORING RULES

Third cycle (UCMR3) [Sampling period: July - December 2013]

Parameter	Federal Level Recommended	Goal	WaterOne Results (Ave.)	Range
1,1 - Dichloroethane	n/a ppt	n/a ppt	36 ppt	ND (30) - 36 ppt
Chlorate	n/a ppb	n/a ppb	178 ppb	140 ppb - 200 ppb
Chromium, Hexavalent	n/a ppb	n/a ppb	1.8 ppb	1.4 ppb - 2.0 ppb
Chromium, Total	n/a ppb	n/a ppb	1.8 ppb	1.3 ppb - 2.4 ppb
Molybdenum	n/a ppb	n/a ppb	4.2 ppb	3.6 ppb - 5.0 ppb
Strontium	n/a ppb	n/a ppb	254 ppb	210 ppb - 340 ppb
Vanadium	n/a ppb	n/a ppb	3.1 ppb	1.5 ppb - 5.6 ppb

Third cycle (UCMR3) [Sampling period: January - June 2014]

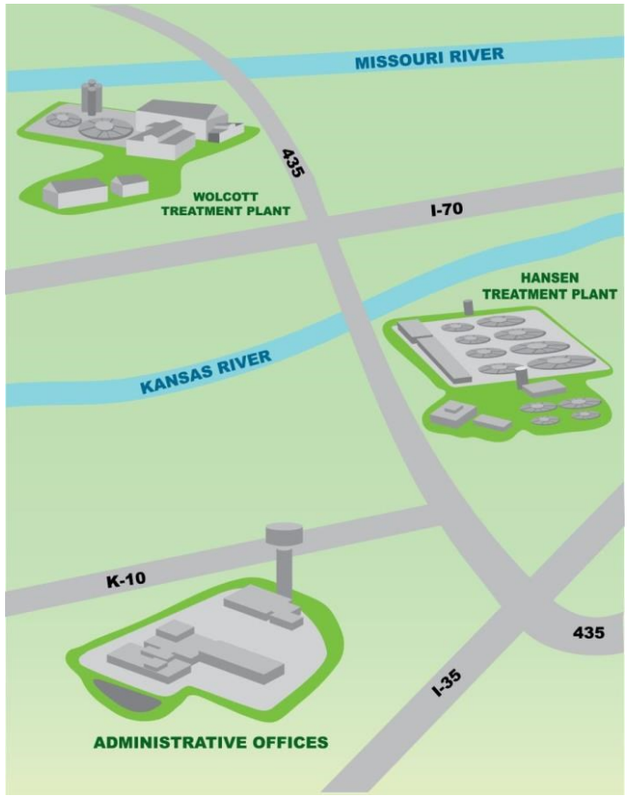
Parameter	Federal Level Recommended	Goal	WaterOne Results (Ave.)	Range
1,1 - Dichloroethane	n/a ppt	n/a ppt	8 ppt	ND (30) - 41 ppt
Chlorate	n/a ppb	n/a ppb	109 ppb	74 ppb - 170 ppb
Chromium, Hexavalent	n/a ppb	n/a ppb	2.0 ppb	1.5 ppb - 2.4 ppb
Chromium, Total	n/a ppb	n/a ppb	1.9 ppb	1.6 ppb - 2.4 ppb
Molybdenum	n/a ppb	n/a ppb	3.5 ppb	2.6 ppb - 4.3 ppb
Strontium	n/a ppb	n/a ppb	261 ppb	200 ppb - 380 ppb
Vanadium	n/a ppb	n/a ppb	2.3 ppb	1.4 ppb - 3.7 ppb

**Unregulated contaminant monitoring helps EPA determine where certain contaminants occur and whether the Agency should consider regulating those containments in the future.

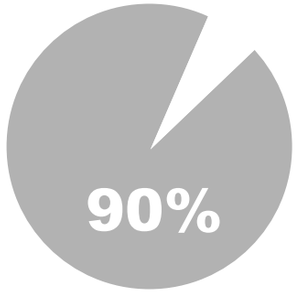
MORE ABOUT WATERONE

WHERE DOES YOUR WATER COME FROM?

WaterOne's drinking water comes from the Kansas and Missouri Rivers. With multiple water sources, we have less vulnerability during drought and an ample supply of fresh water year-round.



CUSTOMER SATISFACTION



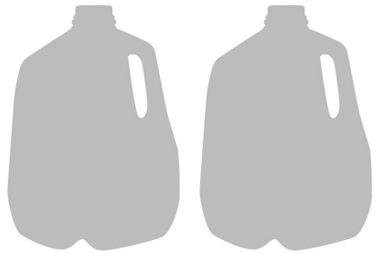
We're proud to carry an average overall customer satisfaction score above 90%. Our customers consistently give us high marks for water quality, reliability, customer service, and the responsiveness of our friendly, professional staff.

GREAT VALUE

WaterOne customers enjoy some of the lowest rates for water service in the metro area.

Did you know? A PENNY buys you 2 gallons of WaterOne.

Based on 2014 rates for the average residential customers.



THE TRADITION CONTINUES

Water touches everything we care about.
WaterOne is an independent public utility. We've been proudly serving the Johnson County, Kansas area since 1957. Every day, over 400,000 customers rely on WaterOne to provide fresh, clean water on demand. It's a responsibility we deliver on.

HOW CAN I GET WATER ALERTS?

Sign-up for water alerts at **www.NotifyJoCo.org**. Customize your contact info, alert preferences, and tag your locations - home, work, school, etc. You'll automatically get a phone, text, or email if we need to take water down for maintenance or emergency repair as well as important water quality or water use alerts.

NotifyJoCo is made possible by a partnership of local governments and public utilities in Johnson County. Learn more at www.NotifyJoCo.org.

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GOING GREEN FOR A BLUE PLANET

Stewardship is a big deal at WaterOne - whether it's using our rate dollars wisely, taking care of our infrastructure, or being a friend to the environment.

This report is available 24/7 at www.waterone.org/2015Report.
To request a paper copy, contact Customer Service at 913/895-1800.