Quality on Tap

WaterOne

Water District No. 1 of Johnson County

Drinking Water Quality Report 2004

Your Water at a Glance

Your Water is Safe to Drink!

WaterOne makes the quality of your drinking water our number one priority. It is our goal to continually produce water that meets or exceeds all state and federal standards for safe drinking water. We run hundreds of tests a day to ensure your water is safe. WaterOne continues to make security a high priority and remains proactive to ensure the safety of your water.

Sources of Drinking Water

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. At different times of the year, the content of the water varies. We treat it accordingly to produce high quality water that is safe to drink.

Contact a Customer Service Representative at (913) 895-1800 or visit us on the web at www.waterone.org

Ensuring Safe Tap Water

The Environmental Protection Agency (EPA) prescribes regulations that limit the amount of certain contaminants in water provided by public water systems. Contaminants in bottled water are regulated by the Food and Drug Administration (FDA). The FDA sets limits that protect the public in the same manner as tap water regulations. 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.

Contaminants that may be present in source water include:

A. Microbial contaminants, such as viruses, bacteria, and protozoa which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.

B. Inorganic contaminants, such as salts and metals, which can be naturally-occurring or result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.

C. Pesticides, which may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses.

D. Organic chemical 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 stormwater runoff, and septic systems.

E. Radioactive contaminants, which can be naturally-occurring or be the result of oil and gas production and mining activities.

More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency's Safe Drinking Water Hotline (800-426-4791). To understand the possible health effects described for most customers, consider the following example. A person would have to drink two liters of water every day at the maximum drinking water standard for a lifetime to have a one-in-a-million chance of having the described health effect.

Special Health Requirements

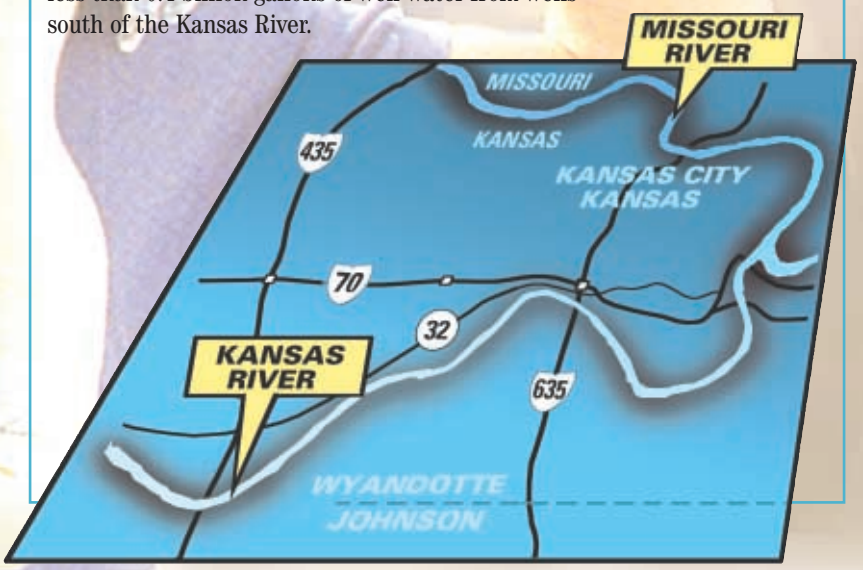
Some people may be more vulnerable to contaminants found in drinking water than the general population. Immuno-compromised persons, such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants, can be particularly at risk from infections. These people should seek advice from their health care providers about drinking water.

Definitions

MCLG	**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.
MCL	**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.
MRDL	**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.
MRDLG	**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.
SMCL	**Secondary Maximum Contaminant Level (SMCL):** Secondary MCLs for various water quality indicators are established to protect public welfare.
TT	**Treatment Technique:** A required process intended to reduce the level of a contaminant in drinking water.
AL	**Action Level:** The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.
ND	**Not Detected**
NTU	**Nephelometric Turbidity Units:** a measure of the clarity of water.
pCi/L	**Picocuries per liter (a measure of radioactivity)**
ppm	**Parts per million, or milligrams per liter**
ppb	**Parts per billion, or micrograms per liter**

Water Treatment

In 2003 we treated approximately 17.1 billion gallons of Missouri River water, 8.4 billion gallons of Kansas River water, and a little less than 0.4 billion gallons of well water from wells south of the Kansas River.



Summary of Water Quality

The USEPA requires monitoring of over 100 drinking water contaminants. Listed below are the only contaminants detected in your drinking water. None of the contaminants detected exceed state or federal standards. The summary shows monitoring results for January 1 to December 31, 2003.

Parameter	MCL	MCLG	WaterOne Value	WaterOne Range	Source
Inorganic Chemicals					
Arsenic	10 ppb[1]	0 ppb	1.6 ppb	ND (1.0) - 1.6 ppb	Erosion of natural deposits; runoff from orchards; runoff from glass and electronic production wastes.
Barium	2 ppm	2 ppm	0.033 ppm	0.014 - 0.033 ppm	Discharge of drilling waters; discharge from metal refineries; erosion of natural deposits.
Chloramines	MRDL= 4 ppm[2]	MRDLG= 4 ppm	2.6 ppm	1.5 - 3.5 ppm	Water additive used to control microbes.
Chlorine Dioxide	MRDL= 800 ppb	MRDLG= 800 ppb	119 ppb	ND (20) - 119 ppb	Water additive used to control microbes.
Chlorite	1 ppm	0.8 ppm	0.16 ppm	0.01 - 0.16 ppm	By-product of drinking water disinfection.
Chromium	100 ppb	100 ppb	2 ppb	ND (1) - 2 ppb	Discharge from steel and pulp mills; erosion of natural deposits.
Copper	AL=1.3 ppm	1.3 ppm	0.019 ppm[3]	0 samples exceeding	Corrosion of household plumbing systems; erosions of natural deposits; leaching from wood preservatives.
Fluoride	4 ppm	4 ppm	1.38 ppm	0.36 - 1.38 ppm	Erosions of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories.
Lead	AL = 15 ppb	0 ppb	5.2 ppb[3]	0 samples exceeding	Corrosion of household plumbing systems; erosions of natural deposits.
Nitrate	10 ppm	10 ppm	2.43 ppm	0.02 - 2.43 ppm	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits.
Selenium	50 ppb	50 ppb	23 ppb	ND (1) - 23 ppb	Discharge from petroleum and metal refineries; erosion of natural deposits; discharge from mines.
Synthetic Organic Chemicals					
Atrazine	3 ppb	3 ppb	0.46 ppb	ND (0.2) - 0.6 ppb	Runoff from herbicide used on row crops.
Volatile Organic Chemicals					
Haloacetic Acids (HAA5)	60 ppb	N/A	14.9 ppb	ND (5) - 22.5 ppb	By-product of drinking water disinfection.
(TTHMs) Total Trihalomethanes	80 ppb	N/A	19.1 ppb	1.5 ppb - 32.1 ppb	By-product of drinking water disinfection.
Microbiological Contaminants					
Total Coliforms	MCL: presence of coliform bacteria in ≥5% of monthly samples	<1/100 mls	1.3% Positive	0 -1.3% Positive samples per month	Naturally present in the environment.
Total Organic Carbon (TOC)	TT removal ratio[4]	N/A	2.2	1.3 - 3.3 TOC removed/required	Naturally present in the environment.
Turbidity	TT	N/A	0.42 NTU[5]	99.1% (lowest monthly % meeting 0.3 NTU)	Soil runoff.
Radiological Contaminants					
Beta Particle & Photon Radioactivity	50 pCi/L	0 pCi/L	6.8 pCi/L[6]	3.9 - 6.8 pCi/L	Decay of natural and man-made deposits.
Gross Alpha Particles	15 pCi/L	0 pCi/L	3.2 pCi/L	ND (2.2) - 3.2 pCi/L	Erosion of natural deposits.
Radium -226 /-228	5 pCi/L	0 pCi/L	1.0 pCi/L	ND (0.6) - 1.0 pCi/L	Erosion of natural deposits.
Uranium	30 ppb	0 ppb	3 ppb	ND (1) - 3 ppb	Erosion of natural deposits.

1. These arsensic values are effective January 23, 2006. Until then, the MCL is 0.05 mg/L, (or 50 ppb) and there is no MCLG.
2. WaterOne is required to maintain a minimum residual of 1.0 ppm throughout our distribution system by the Kansas Dept. of Health & Environment as a means to provide some measure of protection against microbiological contamination.
3. These values are from 2002, which was the most recent testing performed in accordance with the regulations.
4. The monthly TOC removal ratio is calculated as the ratio between the actual TOC removal and the TOC rule removal requirements. The ratio shown is the average of the ratios for the 12 months in 2003.
5. This is the highest turbidity measurement for 2003. Compliance is based on 95% of monthly samples being less than 0.3 NTU. The average turbidity was around 0.06 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.
6. EPA considers 50 pCi/L to be the level of concern for beta particles.

Information Collection Rule

The USEPA implemented the Information Collection Rule (ICR) to collect information to support future regulation of microbial contaminants, disinfectants, and disinfection by-products. Regulations require this 1998 data to be reported for five years.

Parameter	WaterOne Average	Range
THM4 (Trihalomethanes)	19.7 ppb	7 - 43.7 ppb
HAA6 (Haloacetic Acids)	19.6 ppb	3.7 - 34 ppb
HAN (Haloacetonitriles)	1.8 ppb	0 - 7.7 ppb
HK (Haloketones)	0.2 ppb	0 - 1.0 ppb
CP (Chloropicrin)	0.6 ppb	0 - 0.8 ppb
CH (Chloral Hydrate)	2.3 ppb	0.9 - 4.3 ppb
TOX (Total Organic Halides)	74 ppb	50 - 130 ppb
Free Chlorine	0.2 ppm	0.1 - 0.6 ppm
Total Chlorine	2.2 ppm	1.3 - 2.8 ppm
Cyanogen Chloride	0.6 ppb	0.3 - 1.3 ppb
Chlorite*	957 ppb	410- 1720 ppb
Chlorate	125 ppb	54 - 220 ppb
Bromate	0.24 ppb	0.22 - 0.28 ppb
Aldehydes	10.6 ppb	3.3 - 26.2 ppb
Formaldehyde	8.4 ppb	3.3 - 23.6 ppb
Acetaldehyde	3.5 ppb	2.6 - 6.3 ppb

*In March 2000, WaterOne installed a ferrous chlorite feed system to remove the chlorite from our drinking water.

Unregulated Parameters

Unregulated Parameters are monitored in the interest of the customer, and to assist regulators in developing future regulations.

Parameter	Federal Level Recommended	WaterOne Value	Range
Aluminum	200 ppb	37 ppb	21 - 51 ppb
Chloride	250 ppm	44 ppm	21.5 - 146 ppm
Sulfate	250 ppm	144 ppm	57 - 206 ppm
Total Dissolved Solids (TDS)	500 ppm	350 ppm	135 - 599 ppm

Unregulated Contaminant Monitoring Rule (UCMR)

These parameters are monitored under the UCMR. Results from 2002 are the average of four consecutive quarters. No UCMR compounds were detected.

Parameter	WaterOne Average	Range
2,4-Dinitrotoluene	ND (0.002) ppm	ND
2,6-Dinitrotoluene	ND (0.002) ppm	ND
DCPA, mono-acid degradate	ND (0.001) ppm	ND
DCPA, di-acid degradate	ND (0.001) ppm	ND
4,4' -DDE	ND (0.0008) ppm	ND
EPTC	ND (0.001) ppm	ND
Molinate	ND (0.0009) ppm	ND
MTBE	ND (0.005) ppm	ND
Nitrobenzene	ND (0.010) ppm	ND
Terbacil	ND (0.002) ppm	ND
Acetochlor	ND (0.002) ppm	ND
Perchlorate	ND (0.004) ppm	ND

Lead Protection

Public water supplies are required by the EPA and KDHE to take tap samples for lead. Since 1992, WaterOne has had a lead corrosion control program in place. As a result, WateOne lead levels have been well below EPA standards. WaterOne goes beyond federal requirements by sampling for lead and copper every year even though we're required to sample only every three years. This year WaterOne will increase the number of samples to further ensure that lead and copper levels throughout our system are well below federal standards and to determine if any enhancements to water treatment can lower lead and copper levels even further.

Precautions to take - Children under the age of six are the primary group at risk from the effects of lead. Pregnant women should also take care to minimize lead exposure as infants in the womb are at risk. While WaterOne's monitoring shows that lead levels are very low, there will be some variability from home to home. Brass faucets and lead solder are the primary sources of lead. To assist higher risk customers in minimizing their exposure to lead, WaterOne recommends flushing the water from a faucet for 60 seconds before drinking or cooking with it. The longer the water sitsin the plumbing, the more important it is to flush it.

Interested in More Information?

Attend and participate in the WaterOne Board's monthly meeting, held the second Tuesday of each month at 7:00 p.m. at the Byron N. Johnson Administrative Headquarters and Service Center, 10747 Renner Blvd. Water quality fact sheets, answers to frequently asked questions, and additional information is available on our website at www.waterone.org. You are always welcome to call a WaterOne Customer Service Representative at 913-895-1800. Another good source of drinking water information is: www.epa.gov/safewater.

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Vision Statement

Setting the standard for utility excellence.

Mission Statement

Providing a high quality, reliable water supply with superior service and value.

WaterOne Facts

- WaterOne is a quasi-municipal agency that provides water to more than 375,000 individuals. Its Administrative offices are located at 10747 Renner Boulevard, Lenexa, KS.
- WaterOne serves approximately 117,000 residential and 12,000 commercial accounts.
- WaterOne has no taxing authority, nor is it part of Johnson County government. WaterOne's primary sources of revenue are through water sales, and system development charges.
- WaterOne is governed by a seven-member board. Board members are elected to four-year terms.
- WaterOne has over 2,500 miles of transmission and distribution mains, and its service area covers more than 270 square miles.
- WaterOne's current treatment capacity is 165 million gallons per day. A system usage record was set on August 24, 2003 of 148.1 million gallons.
- WaterOne has emergency interconnections with several adjacent water utilities which are tested periodically. From time to time WaterOne may obtain water from these interconnects on a temporary basis, but the quantities that you might receive from them annually is not significant. If you are interested, WaterOne has on file copies of the Water Quality Reports from these utilities.