Governing Board

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Constituents Having Secondary MCL's

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

Parameter	Federal Level Recommended (SMCL)	WaterOne Result (Avg.)	Range (Low - High)
Aluminum*	200 ppb	4 ppb	2.5 ppb - 5.3 ppb
Chloride	250 ppm	43 ppm	10 ppm - 100 ppm
Copper	1000 ppb	2 ppb	ND(1) ppb - 4 ppb
Corrosivity**	0 S.I.	0.73 S.I.	-0.67 S.I. - 1.55 S.I.
Fluoride	2.0 ppm	0.68 ppm	0.22 ppm - 0.68 ppm
Odor-Threshold (T.O.N.)	3 T.O.N.	1 T.O.N.	1 T.O.N. - 5 T.O.N.
Sulfate	250 ppm	148 ppm	100 ppm - 216 ppm
Total Dissolved Solids (TDS)	500 ppm	268 ppm	197 ppm - 412 ppm
Zinc	5000 ppb	10 ppb	3 ppb - 60 ppb

*Aluminum also has a SMCLG of 50 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 Parameters

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

Parameter	Federal Level Recommended	Goal	WaterOne Result (Avg.)	Range
Alkalinity, Total (as $CaCO_3$)	300 ppm	> 40 ppm	61 ppm	45 ppm - 85 ppm
Bromodichloromethane	n/a	0 ppb	4.1 ppb	1.6 - 9.1 ppb
Carbon, Total Organic (TOC)	10,000 ppm	n/a	2.3 ppm	1.3 ppm - 3.7 ppm
Chlorodibromomethane	n/a	60 ppb	1 ppb	ND(0.5) - 5.0 ppb
Chloroform	n/a	70 ppb	12 ppb	4.0 ppb - 28.7 ppb
Conductivity	1,500 µmhos/cm	n/a	536 µmhos/cm	394 - 824 µmhos/cm
Dichloroacetic acid*	n/a	zero ppm	10 ppb	4.3 - 25 ppb
Hardness, Calcium (as $CaCO_3$)	200 ppm	> 60 ppm	72 ppm	54 ppm - 93 ppm
Hardness, Magnesium (as $CaCO_3$)	150 ppm	50 ppm	48 ppm	17 ppm - 98 ppm
Hardness, Total (as $CaCO_3$)	400 ppm	200 ppm	123 ppm	85 ppm - 188 ppm
Nickel	100 ppb	100 ppb	1.6 ppb	ND(0.5) - 4.9 ppb
pH	8.5 pH units	> 9.0 pH units	9.5 pH units	9.1 pH units - 9.8 pH units
Phosphorus, Total	5 ppm	n/a	0.08 ppm	ND(0.05) - 0.16 ppm
Potassium	100 ppm	20 ppm	7.4 ppm	5.4 ppm - 10 ppm
Silica	50 ppm	n/a	10.4 ppm	3.1 ppm - 13.8 ppm
Sodium	100 ppm	20 ppm	74 ppm	53 ppm - 89 ppm
Trichloroacetic acid	n/a	20 ppb	1.3 ppb	ND(1.0) - 3.4 ppb

*The MCLG for Dichloroacetic acid is listed as zero (in ppm) in the Regulatory Statutes.

Unregulated Contaminant Monitoring Rule

Second cycle (UCMR2)

Parameter	Federal Level Recommended	Goal	WaterOne Result (Avg.)	Range
N-nitroso-dimethylamine (NDMA)	n/a	n/a	0.006 ppb	ND(0.002) ppb - 0.011 ppb

Outdoor Watering Tips

Over half the water used during the summer is used outdoors, and most of that is for watering lawns. By watering your lawn wisely, you can conserve a precious resource and save money on your water bill. Following are some tips to help you save water this summer.

Check all valves and hoses for leaks. Make sure there are no leaks in your hoses and sprinkler valves.

Avoid watering during the heat of the day. During midday, water is lost to evaporation. Higher winds also distort the sprinkler pattern, resulting in poor coverage.

Water deeply and infrequently. Deep, infrequent watering promotes deep, strong, drought-tolerant root systems.

Do not overwater. Excess moisture can weaken the plant's root system.

See more outdoor watering tips at **waterone.org**.

Attend and participate in monthly WaterOne Board meetings, held the second Tuesday of each month at 7:00 p.m. at the Byron N. Johnson Administrative Headquarters and Service Center, 10747 Renner Boulevard, Lenexa, Kansas.

Water quality fact sheets, answers to frequently asked questions, and additional information are available on our website at **www.waterone.org**. You are always welcome to call a WaterOne Customer Service Representative at **913-895-1800**.

If you would like extra copies of this report, visit our website, **www.waterone.org** to download your free report.

WaterOne
Water District No. 1 of Johnson County

Quality on Tap

2012 Water Quality Report • Published Annually

Water Quality — OUR TOP PRIORITY

Producing safe drinking water is our top priority at WaterOne. WaterOne's water quality consistently meets or exceeds all Federal and State standards for safe drinking water.

Sources of Drinking Water

Our sources of drinking water are rivers 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.

The Environmental Protection Agency (EPA) prescribes regulations that limit the amount of certain contaminants in water provided by public water systems. 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)**.

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.

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 **(1-800-426-4791)** or online at **www.epa.gov/safewater**.

(continued inside)

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, persons 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.

WaterOne Enhances Public Notification Processes

CODE RED

WaterOne continues to enhance its customer notification processes during potential emergency situations. These new options include automated phone calls, text messaging and emails using CodeRED.

CodeRED gives WaterOne customers an easy and secure method for inputting information and receiving relevant alerts and emergency notices when needed. WaterOne encourages all businesses and individuals to visit **waterone.org**, and follow the CodeRED link to register to receive water related alerts via phone, email or text.

New Payment Option Available

WESTERN UNION

Customers will be able to pay their water bills at more than 60 Western Union payment locations, beginning in May, 2012. Customers will need their account number to complete their transaction. Payments must be made in cash and a $2.00 convenience fee applies. To find the Western union payment location nearest to you, visit waterone.org and follow the Western Union link, after May 1st.

Mike Orth, KsAWWA Chair, presenting Best Tasting Water Award to Rob Olson, WaterOne Board Chairman

WaterOne Wins First Place in Best Tasting Water Contest

WaterOne was the winner of the Best Tasting Water Contest held in conjunction with the 2011 conference of the Kansas Section, American Water Works Association (KsAWWA). WaterOne will represent KsAWWA at the national Best Tasting Water Contest in June.

WaterOne Earns Gold Award for Exceptional Utility Performance

AMWA President James McDaniel presenting the Gold Award to Mike Armstrong, WaterOne General Manager

WaterOne was one of three utilities nationwide to receive the Gold Award for Exceptional Utility Performance from the Association of Metropolitan Water Agencies (AMWA). The award was presented to WaterOne at AMWA's 2011 annual meeting in Newport, Rhode Island.

Each year AMWA honors a small group of public water agencies that exemplify the attributes of effectively managed utilities. Among the attributes credited to WaterOne were its long-term planning with the completion of a new state-of-the-art treatment facility and laboratory; operational optimization throughout the utility; utilization of innovative energy savings software; community sustainability; high scores on customer satisfaction surveys; implementation of employee development programs; strategic financial planning and high bond ratings.

Water Treatment

In 2011 we treated approximately 2.9 billion gallons of Missouri River water, 8.9 billion gallons of Kansas River water, 10 billion gallons from the Wolcott Collector Well, and 1.6 billion gallons of well water from wells south of the Kansas River.

Customers Give WaterOne High Satisfaction Scores

WaterOne implemented quarterly phone surveys in 2011 to measure the satisfaction levels of its customers in a number of key service areas. The surveys are conducted by the independent research firm, ETC Institute, Olathe.

We are pleased to report that customers gave the utility high satisfaction ratings in each quarterly survey administered, with satisfaction scores ranging from 92% to 96%. High scores were also reported for reliability of service, water quality, customer service contacts, and response to main breaks. To see a full copy of the most recent survey, visit **waterone.org** and look for it under the News page.

(continued from front page)

Contaminants that may be present in source water 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 stormwater 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 agriculture, urban stormwater runoff, and residential uses.
- Organic chemical contaminants, including synthetic and volatile organic chemicals, which are byproducts of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, and septic systems.
- Radioactive contaminants, which can be naturally-occurring or be the result of oil and gas production and mining activities.

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. Food and Drug Administration regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

Definitions

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.

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.

MLS—Milliliters

MRDL—Maximum Residual Disinfectant Level: 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: 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: 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.

pH units—A unit of measurement: A measure of acidity or basicity of the water.

µmhos/cm—(Or micromhos/cm): A measure of the ability of a solution to carry an electric current.

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, 2011.

Parameter	MCL	MCLG	WaterOne Result	WaterOne Range	Sample Date	Met Standard	Source
Inorganic Contaminants							
Antimony	6 ppb	6 ppb	0.7 ppb	ND(0.5) - 0.7 ppb	Quarterly	✓	Discharge from petroleum refineries; Fire retardants; Ceramics; Electronics; Solder
Arsenic	10 ppb	0 ppb	2.1 ppb	ND(1.0) - 2.1 ppb	Quarterly	✓	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes
Barium	2 ppm	2 ppm	0.06 ppm	0.02 ppm- 0.06 ppm	Quarterly	✓	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.
Chloramines	MRDL = 4 ppm	MRDLG = 4 ppm	3.0 ppm[1]	1.4 ppm - 4.3 ppm[1]	Daily	✓	Water additive used to control microbes.
Chlorine Dioxide	MRDL = 800 ppb	MRDLG = 800 ppb	224 ppb	ND(50) ppb - 224 ppb	Monthly	✓	Water additive used to control microbes.
Chlorite	1 ppm	0.8 ppm	0.2 ppm	ND(0.025) ppm - 0.8 ppm	Monthly	✓	By-product of drinking water disinfection
Chromium	100 ppb	100 ppb	3.7 ppb	ND(1) ppb - 3.7 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	Annually	✓	Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives
Fluoride	4 ppm	4 ppm	0.68 ppm	0.22 ppm - 0.68 ppm	Monthly	✓	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories
Lead	AL = 15 ppb	0 ppb	5.8 ppb[2]	0 samples exceeding	Annually	✓	Corrosion of household plumbing systems; Erosion of natural deposits
Nitrate	10 ppm	10 ppm	1.9 ppm	ND(0.1) ppm - 1.9 ppm	Quarterly	✓	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
Selenium	50 ppb	50 ppb	3.2 ppb	ND(0.5) - 3.2 ppb	Quarterly	✓	Discharge from petroleum and metal refineries; Erosion of natural deposits; Discharge from mines
Synthetic Organic Contaminants							
Atrazine	3 ppb	3 ppb	0.2	ND(0.2) ppb - 1.1 ppb	Monthly	✓	Runoff from herbicide used on row crops
Volatile Organic Contaminants							
Haloacetic Acids (HAA)	60 ppb	n/a	22 ppb	4.6 ppb - 31 ppb	Monthly	✓	By-product of drinking water disinfection
Total Trihalomethanes (THM's)	80 ppb	n/a	24 ppb	7.4 ppb - 36 ppb	Monthly	✓	By-product of drinking water disinfection
Microbiological Contaminants							
Total Coliforms	presence of Coliform bacteria in ≥ 5% of monthly samples	0 (< 1/100 mls)	0.9%	0 - 0.9% positive samples per month	Daily	✓	Naturally present in the environment
Total Organic Carbon	removal ratio[3] (25% required)	TT	49%	32% - 60% removed	Monthly	✓	Naturally present in the environment
Turbidity	TT NTU	TT NTU	0.4 NTU[4]	99.96% lowest monthly % meeting 0.3 NTU	Daily	✓	Soil runoff
Radiological Contaminants							
Beta Particle & Photon Radioactivity	50 pCi/L	0 pCi/L	8.0 pCi/L[5]	3.8 pCi/L - 8.6 pCi/L	Annually	✓	Decay of natural and man-made deposits
Gross Alpha Particles	15 pCi/L	0 pCi/L	1.4 pCi/L	ND(0.2) pCi/L - 0.9 pCi/L	Annually	✓	Erosion of natural deposits
Radium-226	5 pCi/L	0 pCi/L	0.3 pCi/L	ND(0.1) pCi/L - 0.3 pCi/L	Annually	✓	Erosion of natural deposits
Radium-228	5 pCi/L	0 pCi/L	1 pCi/L	ND(0.6) pCi/L - 1.1 pCi/L	Annually	✓	Erosion of natural deposits
Uranium	30 ppb	0 ppb	3.0 ppb	ND(0.7) ppb - 3.0 ppb	Annually	✓	Erosion of natural deposits

1. 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. Maximum residual compliance is based on monthly averages. WaterOne's highest value, 4.3 ppm, was an instantaneous reading.
2. Data from 2011 when we conducted sampling according to the required "reduced monitoring schedule". This value is the 90th percentile result. The 95th percentile value for lead is 6.8 ppb & the 95th percentile value for copper is 0.019 ppm.
3. The monthly TOC removal ratio is calculated as the ratio between the actual TOC removal and the TOC rule removal requirements.
4. This is the highest turbidity measurement for 2011. 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.