

WaterOne Times

SPECIAL EDITION 2008 WATER QUALITY REPORT • PUBLISHED ANNUALLY • FREE

WaterOne First Runner-Up in 'Best of the Best' Water Tasting Contest

WaterOne's water was named first runner-up as the best tasting water throughout North America based on a best tasting water contest in 2007. The contest was sponsored by the American Water Works Association (AWWA) at its annual Conference and Exposition in Toronto, Canada. AWWA is an international nonprofit scientific and educational society dedicated to the improvement of water quality and supply. Its membership includes over 5,000 water utilities throughout North America.

To compete in the 'Best of the Best' water contest, water utilities across the country must first win their state's competition. WaterOne earned the

right to compete in Toronto in June, 2007 by winning the Kansas Section AWWA contest.

Following strict packaging and shipping guidelines, a sample of WaterOne's water was sent to the Toronto conference where a diverse panel of judges blind tasted, evaluated and ranked water samples. Judges included representatives from the University of California; AWWA Research Foundation, water utilities, and the food and beverage industry. After the initial tasting and elimination, the field was narrowed to five finalists. When the tasting was completed and the scores tallied, WaterOne was pronounced first runner-up to Oklahoma City,

who received top honors.

No one was more pleased to receive the honor than WaterOne's General Manager, Mike Armstrong, who said, "I am very proud of our entire production staff for their efforts. Our operators and lab personnel do a tremendous job each day producing water that is great tasting and aesthetically pleasing. The sources of our raw water, the Kansas and Missouri Rivers, present unique treatment challenges and we pride ourselves on the high quality water we produce. It is very gratifying to have it judged to be some of the best tasting in the nation."



Speaking of River Challenges...



Despite being runner up in a "best of the best" water tasting contest, the Missouri River demonstrated its power earlier this spring by creating strong taste and odor problems in the finished water. Changing river conditions are a fact of life for any water utility and WaterOne changes its treatment processes

to adjust for changing river conditions to minimize taste and odor issues.

This spring, higher than normal river levels were experienced on the Missouri River due to the increased run off in the tributaries that feed the Missouri River. As a result, the raw river water carried a strong 'earthy' smell and taste that was difficult to completely neutralize. Although the water continued to meet all Safe Drinking Water Standards, it was not of the quality that WaterOne customers have come to expect. We're happy to report that incident has passed, and we are producing water that once again, meets our customers' expectations.



Lab Personnel Repeat Perfect Score on EPA Evaluation

As a testament to its high standards, WaterOne Lab employees repeated a perfect score on its most recent EPA performance evaluation. This evaluation is performed every six months and the WaterOne team has consistently received perfect scores on each of the 54 water quality parameters evaluated.

Progress Continues on New Treatment Facility, Other Phase V Projects

Population and water use projections indicate that additional capacity will be needed in the future to meet WaterOne's customers' needs. The existing WaterOne treatment facilities are fully optimized and cannot be expanded.

To meet future capacity requirements, WaterOne broke ground on a new treatment facility in 2007. The new treatment facility is being constructed in Wyandotte County near the Missouri River and is part of the utility's Phase V Expansion project. The new facility is scheduled to be completed in 2009. Other Phase V projects include construction of:

- A 60-inch transmission main, 17 miles in length, that will bring water

from the new treatment facility to Johnson County;

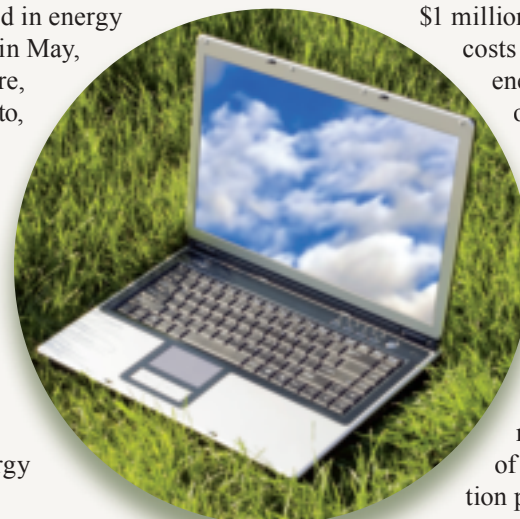
- An underground tunnel that runs below the Kansas River that will house a portion of the 60" main;
- A horizontal collector well near the Missouri River; and
- An elevated storage reservoir near K-7 and 77th Street in Johnson County.

The Missouri River was selected as the best site for a new treatment facility after an extensive evaluation of alternatives. WaterOne held a number of public information meetings with citizens and elected officials in preparation for this project.

For more information visit the utility's website at www.waterone.org.

WaterOne Takes "Green Approach" to Energy Savings

As part of its ongoing commitment to sustainability of resources, WaterOne invested in energy savings software in May, 2006. The software, produced by Derceto, works on-line in real-time to reduce the costs of treated water distribution. The software optimizes pumping and storage schedules to minimize distribution and energy costs.



Since implementing the Derceto software, WaterOne has saved over \$1 million in operational costs and has shaved energy use by 30% over the past two years. These savings help minimize rate increases by reducing the utility's overall energy budget, and result in reducing the environmental footprint of the water production process.

What does *your* water have to say?



If your water system could speak, it might remind you that it:

- ✓ Protects public health,
- ✓ Fights fires,
- ✓ Supports our economy, and
- ✓ Provides us with the high quality of life we all enjoy.

Only Tap Water Delivers

Speakers Bureau Provides Presentations on Water Related Topics

Are you in charge of identifying a speaker for a professional group, civic organization or community club? If so, please consider contacting WaterOne. Through our Speakers' Bureau, we can help you fill speaking engagements with knowledgeable presenters on a variety of topics. Presentations are generally 20-30 minutes in length but can be adapted to suit your group's program. Topics include:

Water Conservation Series

- Irrigation Repair
- Xeriscape: Low Maintenance Landscaping
- Spring Steps for a Healthy Lawn
- Lawn Renovation

WaterOne 101: Who We Are, Where We've Been and Where We're Going

This presentation provides an overview of WaterOne and includes facts about the utility and its service area, water treatment and distribution, and the Phase V expansion.

Youth Programs (grades 1-8)

- The Wonder of Water
- The Amazing Magical Water Show
- Environmental topics (tapes)

For more information about these programs, visit our website at www.waterone.org or to schedule a speaker, please call 913-895-1814.

WaterOne Going Green by Going 'Bottle-Less'



It's no secret that bottled water has become one of the most widely purchased products spanning all age groups, nationalities, and socio-economic levels. And, for several years WaterOne utility has provided bottled water for various local community and chamber events as a convenience. But for all its convenience, those handy plastic bottles come at a high environmental price.

Because of growing awareness of the environmental impacts associated with manufacturing, transporting, and disposing of plastic bottles, WaterOne has made a decision to go 'bottle-less' and will no longer be providing bottled water. Instead, the utility is encouraging the public to switch to reusable containers filled with tap water.

Research shows that each year Americans buy about 28 billion water bottles and 80% of those bottles end

up in landfills. Only 20% actually get recycled. Approximately 1.5 million gallons of oil are used to make plastic water bottles each year, and transporting the bottles uses even more oil.

By discouraging the use of bottled water and encouraging more sustainable practices, WaterOne is taking an active role in helping our community reduce its carbon footprint. Chicago recently became the first major U.S. city to put a 5-cent tax on bottled water to encourage recycling and discourage consumption, and many cities are debating similar measures.

Recognizing that the use of bottled water will not be discontinued entirely, we do encourage any users of bottled water to recycle to cut down on litter and landfill waste. And, please, never throw plastic bottles or any waste into our primary water sources, the Kansas and Missouri Rivers.

Water Hardness

WaterOne softens the water using lime and sometimes soda ash to reduce the mineral content related to hardness. WaterOne has a goal to keep the hardness between 120 and 140 milligrams per liter (mg/l). At times, however, due to river water quality, the hardness may vary somewhat below or above the target ranges. This range helps reduce the leaching of lead and copper from customers' plumbing systems. Rarely does the hardness exceed 160 mg/l. Although significantly less than the hardness of the raw river water which often exceeds 250 mg/l and is considered very hard, our water is still classified as hard water. Further reducing the hardness would add significant cost to the water treatment process, and there is no evidence that further softening the water would improve the health or safety of the water.



WaterOne Makes The Quality Of Your Drinking Water Our Number One Priority

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.

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) or go online at www.epa.gov/safewater.

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, 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 from their health care providers about drinking water.



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, 2007.

Parameter	MCL	MCLG	WaterOne Value	WaterOne Range	Sample Date	Met Standard	Source
*Definitions listed below							
Inorganic Chemicals							
Antimony	6 ppb	6 ppb	0.6 ppb	ND(0.5) - 0.6 ppb	Quarterly	Yes	Discharge from petroleum refineries; Fire retardants; Ceramics; Electronics; Solder
Arsenic	10 ppb	0 ppb	1.7 ppb	ND(1) - 1.7 ppb	Quarterly	Yes	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	Yes	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.
Chloramines	MRDL = 4 ppm	MRDLG = 4 ppm	3.1 ppm ¹	1.3 ppm - 4.9 ppm ¹	Daily	Yes	Water additive used to control microbes.
Chlorine Dioxide	MRDL = 800 ppb	MRDLG = 800 ppb	71 ppb	ND(50) ppb - 71 ppb	Monthly	Yes	Water additive used to control microbes.
Chlorite	1 ppm	0.8 ppm	0.36 ppm	ND(0.02) ppm - 0.82 ppm	Monthly	Yes	By-product of drinking water disinfection
Chromium	100 ppb	100 ppb	2.1 ppb	0.9 ppb - 2.1 ppb	Quarterly	Yes	Discharge from steel and pulp mills; Erosion of natural deposits
Copper	AL = 1.3 ppm	1.3 ppm	0.026 ppm ²	0 samples exceeding	Annually	Yes	Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives
Fluoride	4 ppm	4 ppm	1.1 ppm	0.3 ppm - 1.1 ppm	Monthly	Yes	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories
Lead	AL = 15 ppb	0 ppb	8.5 ppb ²	0 samples exceeding	Annually	Yes	Corrosion of household plumbing systems; Erosion of natural deposits
Nitrate	10 ppm	10 ppm	2.1 ppm	0.04 ppm - 2.1 ppm	Quarterly	Yes	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
Nitrite	1 ppm	1 ppm	0.023 ppm	ND(0.008) - 0.023 ppm	Quarterly	Yes	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
Selenium	50 ppb	50 ppb	3.4 ppb	1.1 ppb - 3.4 ppb	Quarterly	Yes	Discharge from petroleum and metal refineries; Erosion of natural deposits; Discharge from mines
Volatile Organic Chemicals							
Haloacetic Acids (HAA)	60 ppb	n/a	22.6 ppb	5.4 ppb - 46.7 ppb	Monthly	Yes	By-product of drinking water disinfection
Total Trihalomethanes	80 ppb	n/a	28.5 ppb	6.0 ppb - 46.9 ppb	Monthly	Yes	By-product of drinking water disinfection
Microbiological Contaminants							
Total Coliforms	presence of Coliform bacteria in ≥ 5% of monthly samples	0 (< 1/100 mls)	0.8%	0 - 0.80% positive samples per month	Daily	Yes	Naturally present in the environment
Total Organic Carbon	removal ratio ³ (25% required)	TT	46%	29% - 66% removed	Monthly	Yes	Naturally present in the environment
Turbidity	TT NTU	TT NTU	0.72 NTU ⁴	98.83% lowest monthly % meeting 0.3 NTU	Daily	Yes	Soil runoff
Radiological Contaminants							
Beta Particle & Photon Radioactivity	50 pCi/L	0 pCi/L	6.8 pCi/L ⁵	5.5 pCi/L - 6.8 pCi/L	Annually	Yes	Decay of natural and man-made deposits
Radium-226	5 pCi/L	0 pCi/L	0.1 pCi/L	ND(0.1) pCi/L - 0.1 pCi/L	Annually	Yes	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 montly averages. WaterOne’s highest value, 4.9 ppm, was an instantaneous reading.

2. Data from 2007 when we conducted additional sampling. This value is the 90th percentile result.

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 2007. 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.

5. EPA considers 50 pCi/L to be the level of concern for beta particles.

*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—Picrouries 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.

Compliance Update

We are required to monitor your drinking water for specific contaminants on a regular basis. Results of regular monitoring are an indicator of whether or not our drinking water meets health standards. During the day of November 8, 2007, we did not monitor for chlorite or chlorine dioxide in the finished water as required. However, samples collected on November 8, were later analyzed for chlorite, and results indicate that chlorite levels were well below the MCL of 1.0 mg/L on the day in question. Samples were tested for chlorine dioxide at a location prior to the finished water on November 8, 2007, and results indicate chlorine dioxide levels were below the MCL of 0.8 mg/L. Additional measures have been put in place to make sure the tests are run every day.

Please share this information with all other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.

For more information, please contact a WaterOne Customer Service Representative at 913-895-1800 or visit us at 10747 Renner Blvd., Lenexa, KS 66219 (State Water System ID# P9010).



Water Treatment

In 2007 we treated approximately 13.5 billion gallons of Missouri River water, 9.3 billion gallons of Kansas River water, and a little less than 0.3 billion gallons of well water from wells south of the Kansas River.

Lead Protection

Public water suppliers 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, WaterOne lead levels have been consistently below EPA standards. WaterOne goes beyond federal requirements by taking more samples than are required for lead and copper every year.



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Governing Board



Terry Frederick
Chairman



Rob Olson
Vice Chairman



Brenda Cherpitel
Board Member



Dick Noon
Board Member



Bob Reese
Board Member



Jim Vader
Board Member



Joe H. Vaughan
Board Member



Mike Armstrong
General Manager

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.

→ 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	WaterOne Value (Avg.)	Range (Low - High)
Aluminum*	200 ppb	42 ppb	12 ppb - 130 ppb
Chloride	250 ppm	60 ppm	24 ppm - 164 ppm
Copper	1000 ppb	3 ppb	ND(1) ppb - 11 ppb
Corrosivity**	0 S.I.	1.09 S.I.	0.61 S.I. - 1.55 S.I.
Fluoride	2000 ppb	590 ppb	300 ppb - 1050 ppb
Iron	300 ppb	55 ppb	ND(5) - 106 ppb
Odor-Threshold (T.O.N.)	3 T.O.N.	1 T.O.N.	1 T.O.N. - 3 T.O.N.
Sulfate	250 ppm	99 ppm	61 ppm - 175 ppm
Total Dissolved Solids (TDS)	500 ppm	316 ppm	199 ppm - 596 ppm
Zinc	5000 ppb	20 ppb	3 ppb - 200 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 took sample tests according to the EPA guidelines and met the EPA goal for the following Unregulated Parameters.

Parameter	Federal Level Recommended	Goal	WaterOne Value	Range
Alkalinity, Total (as CaCO ₃)	300 ppm	> 40 ppm	58 ppm	40 ppm - 81 ppm
Bromide*	n/a	n/a	33 ppb	31 ppb - 34 ppb
Calcium Hardness (as CaCO ₃)	200 ppm	> 60 ppm	78 ppm	61 ppm - 121 ppm
Carbon, Total Organic (TOC)	10,000 ppm	n/a	2.7 ppm	2.0 ppm - 4.5 ppm
Chlorate*	n/a	n/a	193 ppb	62 ppb - 545 ppb
Conductivity	1,500 µmhos/cm	n/a	526 µmhos/cm	332 -994 µmhos/cm
Hardness, Total (as CaCO ₃)	400 ppm	200 ppm	118 ppm	90 ppm - 163 ppm
Magnesium	150 ppm	50 ppm	9 ppm	3 ppm - 17 ppm
Magnesium Hardness (as CaCO ₃)	150 ppm	50 ppm	41 ppm	9 ppm - 72 ppm
Nickel	100 ppb	100 ppb	1.8 ppb	0.5 ppb - 2.5 ppb
pH	8.5 pH units	> 9.0 pH units	9.5 pH units	9.0 pH units - 9.9 pH units
Potassium	100 ppm	20 ppm	5.6 ppm	5.4 ppm - 5.8 ppm
Silica	50 ppm	n/a	10.4 ppm	6.7 ppm - 16.2 ppm
Sodium	100 ppm	20 ppm	51 ppm	20 ppm - 101 ppm

*The EPA has not established guidelines for these parameters. The levels found in WaterOne water are not considered to be a health concern.

Setting the Standard for Utility Excellence

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. EPA Hotline: 1-800-426-4791.

INTERESTED IN ?

Water District No. 1 of Johnson County
10747 Renner Boulevard
Lenexa, Kansas 66219

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