

Providing Sustainability with Green Initiatives



WaterOne has a history of being environmentally responsive and is an advocate of sustainable solutions in its daily operations. In fact, we are a leader in reducing the utility's energy carbon footprint created by our treatment processes. Some green initiatives that have been implemented include:



Join the Lean, Green, Watering Scene



Each summer WaterOne's energy consumption increases greatly to meet the demand of summer irrigation.

A smart approach to outdoor watering will not only help us conserve energy, it will also save you money on your water bill. Be our partner in the *lean green watering scene*.

Water during non-peak hours. Watering between the hours of 4:00 a.m. to 6:00 a.m., or as an alternative, from 8 p.m. to midnight, would help WaterOne meet peak demand hours more efficiently and reduce our energy needs.

Avoid watering during the heat of the day. During midday, water is lost to evaporation which makes the application less effective. Higher winds at this time also distort the sprinkler pattern, resulting in poor coverage.

Need a Speaker for Your Meeting or Special Program?

WaterOne can provide your group or special program with a speaker to present on various conservation related topics. These include creating a healthy lawn, irrigation repair, and low maintenance landscaping. Give us a call to schedule a speaker at **913-895-1814** or visit us on the web at www.waterone.org.

Your Drinking Water Quality is 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. Immunocompromised 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.



WaterOne joins water utilities across the nation in celebrating water and spreading the message of being good stewards of the environment.

Specialized Excavation Equipment Provides Green Alternative

WaterOne uses special pipe bursting equipment to minimize excavation of streets and driveways when replacing old water mains. This equipment allows for the installation of new water mains in the same space as the old main, without having to remove the old main. The pipe bursting equipment is placed into the ground where it bursts open the old main and installs the new main.

When it comes to dollars and cents, the use of pipe bursting equipment saves the utility up to 30% in clean-up costs. These include costs normally associated with replacing driveways, streets, grass and trees.

Utilizing this process is considered a "green" initiative. The process reduces

Ensuring Top Quality Service

Main breaks are a fact of life for any water utility. They can occur at any time due to a variety of reasons. These include the normal aging process of the water mains, extremely dry weather conditions or accidental breaks caused by outside contractors.

WaterOne places a high priority on service and when disrupting situations occur, we work hard to minimize inconvenience to customers. Most breaks are contained without any water damage and rarely result in a water quality issue for customers. Occasionally, after a break, the aesthetics of the water can change slightly and some water discoloration may be present. When this occurs, customers are encouraged to run cold water for a few minutes until it runs clear.

Research Continues on Pharmaceuticals in Drinking Water

Media reports in recent months have raised questions about the potential presence of pharmaceutical compounds in drinking water throughout the country. It is important to note that WaterOne continues to meet or surpass all state and federal standards for safe drinking water.

WaterOne is committed to protecting public health. We are monitoring research that is being conducted concerning the occurrence of personal care products and pharmaceutical compounds in water. To date, research throughout the world has not demonstrated an impact on human health from pharmaceuticals and endocrine disrupting compounds in drinking water.

While these compounds may be detected at very low levels, people regularly consume or expose themselves to products containing these compounds in much higher concentrations through medicines, food and beverage and other sources. The level in which they are found in source waters is very small in comparison.

We invite you to read more about this on our website. Go to www.waterone.org, and click on Water Quality, Fact Sheets.

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, 2008.

Parameter	MCL	MCLG	WaterOne Value	WaterOne Range	Sample Date	Met Standard	Source
Inorganic Contaminants							
Antimony	6 ppb	6 ppb	0.64 ppb	ND(0.5) - 0.64 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	3.0 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	121 ppb	ND(50) ppb - 121 ppb	Monthly	Yes	Water additive used to control microbes.
Chlorite	1 ppm	0.8 ppm	0.42 ppm	ND(0.02) ppm - 0.83 ppm	Monthly	Yes	By-product of drinking water disinfection
Chromium	100 ppb	100 ppb	2.8 ppm	1.3 ppm - 2.8 ppm	Quarterly	Yes	Discharge from steel and pulp mills; Erosion of natural deposits
Copper	AL = 1.3 ppm	1.3 ppm	0.014 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	0.88 ppm	0.25 ppm - 0.88 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	5.7 ppb ²	1 sample exceeding	Annually	Yes	Corrosion of household plumbing systems; Erosion of natural deposits
Nitrate	10 ppm	10 ppm	2.2 ppm	0.09 ppm - 2.2 ppm	Quarterly	Yes	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
Selenium	50 ppb	50 ppb	3.1 ppb	1.0 ppb - 3.1 ppb	Quarterly	Yes	Discharge from petroleum and metal refineries; Erosion of natural deposits; Discharge from mines
Synthetic Organic Contaminants							
Atrazine	3 ppb	3 ppb	0.23 ppb	ND(0.2) ppb - 2.7 ppb	Monthly	Yes	Runoff from herbicide used on row crops
Volatile Organic Contaminants							
Halogenated Acids (HAA)	60 ppb	n/a	22.9 ppb	3.9 ppb - 38.5 ppb	Monthly	Yes	By-product of drinking water disinfection
Total Trihalomethanes	80 ppb	n/a	28.3 ppb	2.9 ppb - 58.2 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)	0.5%	0 - 0.50% positive samples per month	Daily	Yes	Naturally present in the environment
Total Organic Carbon	removal ratio ³ (25% required)	TT	43%	30% - 58% removed	Monthly	Yes	Naturally present in the environment
Turbidity	TT NTU	TT NTU	0.35 NTU ⁴	99.7% lowest monthly % meeting 0.3 NTU	Daily	Yes	Soil runoff
Radiological Contaminants							
Beta Particle & Photon Radioactivity	50 pCi/L	0 pCi/L	8.6 pCi/L ⁵	5.1 pCi/L - 8.6 pCi/L	Annually	Yes	Decay of natural and man-made deposits
Radium-228	5 pCi/L	0 pCi/L	0.98 pCi/L	ND(0.95) pCi/L - 0.98 pCi/L	Annually	Yes	Erosion of natural deposits
Uranium	30 ppb	0 ppb	0.4 ppb	0.3 ppb - 0.4 ppb	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 monthly averages. WaterOne's highest value, 4.9 ppm, was an instantaneous reading.

2. Data from 2008 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 9.3 ppb & the 95th percentile value for copper is 0.016 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 2008. 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—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.

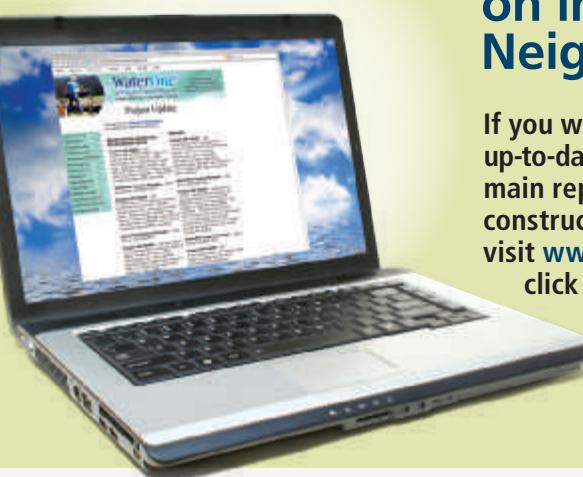
µhos/cm—(Or micromhos/cm)

A measure of the ability of a solution to carry an electric current.



Water Treatment

In 2008 we treated approximately 8.0 billion gallons of Missouri River water, 12.4 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.



What's Going on in Your Neighborhood?

If you would like to stay up-to-date on the latest WaterOne main replacement and construction projects please visit www.waterone.org and click on Project Update.

