

# 2008 Annual Water Quality Report



**Jefferson City**  
PWS ID: M03010409

Este informe contiene información muy importante sobre su agua potable. Tradúzcalo o hable con alguien que lo entienda bien.

## Dear Missouri American Water Customer,

*As a trusted leader in the industry, Missouri American Water places a strong emphasis on sharing information with our customers about the quality of the water service we provide.*

*One way we do this is by reporting to you annually the results of various tests that we conduct. Please review this Consumer Confidence Report (CCR), which outlines information applicable to your local water system for testing completed through December 2008. You'll find that we provide water service that surpasses or meets all federal and state water quality regulations. In fact, we often address regulations well before they go into effect.*

*Just as important, Missouri American Water makes the necessary investments to maintain and upgrade its facilities so that we can provide quality water service to your home 24 hours a day, seven days a week.*

*Our customers are our top priority. We are committed to providing the highest quality drinking water service possible now and in the years to come. In addition to this written report, you can view information about Missouri American Water and your water system on the website <http://www.missouriamwater.com>. For more information or for any questions about this report relating to your drinking water service, please contact us at (866) 430-0820.*

*Sincerely,  
Terry Gloriod  
President  
Missouri American Water*

## What is a Water Quality Report?

To comply with state and U.S. Environmental Protection Agency (EPA) regulations, Missouri American Water issues a report annually describing the quality of your drinking water. The purpose of this report is to raise your understanding of drinking water and awareness of the need to protect drinking water sources. In 2008, we conducted tests for hundreds of contaminants, all of which were below state and federal maximum allowable levels. This report provides an overview of last year's (2008) water quality. It includes details about where your water comes from and what it contains.

If you have any questions about this report or your drinking water, please call our Customer Service Center at (toll-free) 1-866-430-0820.

## About Missouri American Water

Founded in 1886, American Water is the largest investor-owned U.S. water and wastewater utility company. With headquarters in Voorhees, N.J., the company employs more than 7,000 dedicated professionals who provide drinking water, wastewater and other related services to approximately 15 million people in 32 states and Ontario, Canada. More information can be found by visiting [www.missouriamwater.com](http://www.missouriamwater.com).

At Missouri American Water, and all of American Water, we work hard every day to provide our customers with water they can enjoy and use with confidence.

## Source Water Information

Missouri American Water supplies quality drinking water to more than 10,600 residential, commercial and industrial customers in Jefferson City. The water treated by Missouri American Water's Jefferson City plant is surface water from the Missouri River.

## Partnership for Safe Drinking Water Program

In 2002 the Jefferson City system was awarded the prestigious Director's Award under the Partnership for Safe Water program administered by the U.S. Environmental Protection Agency (EPA), Missouri Department of Natural Resources, and other water-related organizations. The award honors water utilities for achieving operational excellence, by voluntarily optimizing their treatment facility operations and adopting more stringent performance goals than those required by federal and state drinking water standards. We are proud to report that we have maintained those standards, and in 2008 we received the 5-Year Director's Award.



## How to Contact Us

For more information regarding this report or any of the other services provided by Missouri American Water, please call our Customer Service Center at (toll-free) 1-866-430-0820, or you may visit us at [www.missouriamwater.com](http://www.missouriamwater.com).

## Water Information Sources

- **Missouri American Water**  
[www.missouriamwater.com](http://www.missouriamwater.com)
- **Missouri Department of Natural Resources**  
[www.dnr.mo.gov](http://www.dnr.mo.gov)
- **United States Environmental Protection Agency**  
[www.epa.gov/safewater](http://www.epa.gov/safewater)
- **Safe Drinking Water Hotline:** (800) 426-4791
- **Centers for Disease Control and Prevention**  
[www.cdc.gov](http://www.cdc.gov)
- **American Water Works Association**  
[www.awwa.org](http://www.awwa.org)
- **Water Quality Association**  
[www.wqa.org](http://www.wqa.org)
- **National Library of Medicine/  
National Institute of Health**  
[www.nlm.nih.gov/medlineplus](http://www.nlm.nih.gov/medlineplus)

## Substances Expected to be in Drinking Water

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and groundwater 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.

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:

**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 may 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 by-products 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.

For more information about the contaminants and potential health effects, call the USEPA Safe Drinking Water Hotline at (800) 426-4791.

## Special Health Information

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, people with HIV/AIDS or other immune system disorders, some elderly, and infants may be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. EPA/CDC guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the USEPA Safe Drinking Water Hotline (800) 426-4791.

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. Missouri American Water 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 water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline or at <http://www.epa.gov/safewater/lead>.

To ensure that tap water is of high quality, U.S. Environmental Protection Agency prescribes regulations limiting the amount of certain substances in water provided by public water systems. U.S. Food and Drug Administration regulations establish limits for contaminants in bottled water, which must provide the same protection for public health. Missouri American Water's advanced water treatment processes are designed to reduce any such substances to levels well below any health concern.

## How to Read This Table

Missouri American Water conducts extensive monitoring to ensure that your water meets all water quality standards. The results of our monitoring are reported in the following tables. While most monitoring was conducted in 2008, certain substances are monitored less than once per year because the levels do not change frequently. For help with interpreting this table, see the "Table Definitions" section.

Starting with a **Substance**, read across. **Year Sampled** is usually in 2008 or year prior. **MCL** shows the highest level of substance (contaminant) allowed. **MCLG** is the goal level for that substance (this may be lower than what is allowed). **Results** represents the measured amount (less is better). **Range** tells the highest and lowest amounts measured. A **Yes** under **Compliance Achieved** means the amount of the substance met government requirements. **Typical Source** tells where the substance usually originates.

Unregulated substances are measured, but maximum contaminant levels have not been established by the government.

### Definitions of Terms Used in This Report

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

**MCL (Maximum Contaminant Level):** The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.

**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.

**MRDL (Maximum Residual Disinfectant Level):** The highest level of 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 contamination.

**mrem/year:** Millirems per year (a measure of radiation absorbed by the body).

**NA:** Not applicable

**ND:** Not detected

**NTU (Nephelometric Turbidity Units):** Measurement of the clarity, or turbidity, of the water.

**ppm (parts per million):** One part substance per million parts water, or milligrams per liter.

**ppb (parts per billion):** One part substance per billion parts water, or micrograms per liter.

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

## Water Quality Statement

We are pleased to report that during the past year, the water delivered to your home or business complied with all state and federal drinking water requirements. For your information, we have compiled a list in the table, showing what substances were detected in your drinking water during 2008.

Monitoring was also done during 2003 under the U.S. Environmental Protection Agency (EPA) Unregulated Contaminant Monitoring Rule (UCMR). No compounds were detected. Data is available on the EPA's web site ([www.epa.gov/safewater/data/ucmrgetdata.html](http://www.epa.gov/safewater/data/ucmrgetdata.html)).

There are many unforeseen and unpredictable factors that may cause a source water to be contaminated. The Missouri Department of Natural Resources routinely monitors all public water supplies to ensure public health is protected. Source Water Assessments have been assembled by the Missouri Department of Natural Resources to evaluate the susceptibility of contamination to our drinking water sources. For more information about these assessments call the Missouri Department of Natural Resources at (800) 361-4827.

## Water Quality Results

### Regulated Substances (Measured on the Water Leaving the Treatment Facility)

Substance (units)	Year Sampled	MCL	MCLG	Results	Range Low-High	Compliance Achieved	Typical Source
2,4-D (ppb)	2008	70	70	0.28	ND - 0.5	Yes	Runoff from herbicide used on row crops
Antimony (ppb)	2008	6	6	0.1	ND - 0.5	Yes	Discharge from petroleum refineries; Fire retardants; Ceramics; Electronics; Solder
Arsenic (ppb)	2008	10	0	1.5	1.0 - 2.0	Yes	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes
Atrazine (ppb)	2008	3	3	0.5	0.2 - 1.1	Yes	Runoff from herbicide used on row crops
Beta/photon emitters (pCi/L)	2004	50**	0**	4.8	4.8 - 4.8	Yes	Decay of natural and man-made deposits
Barium (ppm)	2008	2	2	0.044	0.023 - 0.096	Yes	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
Beryllium (ppb)	2008	4	4	0.080	ND - 0.3	Yes	Discharge from metal refineries and coal-burning factories; Discharge from electrical, aerospace, and defense industries
Chloramines (ppm)	2008	MRDL = 4	MRDLG = 4	2.5	2.0 - 2.8	Yes	Water additive used to control microbes
Fluoride (ppm)	2008	4	4	1.05	1.0 - 1.2	Yes	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories
Hexachlorocyclopentadiene (ppb)	2008	50	50	0.025	ND - 0.1	Yes	Discharge from chemical factories
Nitrate (as N) (ppm)	2008	10	10	2	1.45 - 2.64	Yes	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
Nitrite (as N) (ppm)	2008	1	1	0.01	0.007 - 0.015	Yes	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
Selenium (ppb)	2008	50	50	3.8	3 - 5	Yes	Discharge from petroleum and metal refineries; Erosion of natural deposits; Discharge from mines
Total Organic Carbon (ppm)	2008	TT	NA	1.7	1.0 - 2.5	Yes	Naturally present in the environment

\*\* The MCL for Beta/photon emitters is written as 4 millirem/year (measure of rate of radioactive decay). EPA considers 50 pCi/L as the level of concern for beta emitters.

### Bacterial Results (from the Distribution System)

Year Sampled	MCL	MCLG	Highest Percentage Detected	Compliance Achieved	Typical Source
2008	5% Positive Samples	0	4.0%	Yes	Naturally present in the environment

### Other Compounds (Measured in the Distribution System)

Substance (units)	Year Sampled	MCL	MCLG	Results	Range Low-High	Compliance Achieved	Typical Source
TTHMs [Total trihalomethanes] (ppb)	2008	80	NA	50.3	18.7 - 82.1*	Yes	By-product of drinking water disinfection
HAA5 [Haloacetic Acids] (ppb)	2008	60	NA	21.5	11.5 - 35.5	Yes	By-product of drinking water disinfection

\*Some people who drink water containing trihalomethanes in excess of the MCL over many years may experience problems with their liver, kidneys, or central nervous system, and may have an increased risk of getting cancer.

### Turbidity: A Measure of the Clarity of the Water (at the Treatment Facility)

Substance (units)	Year Sampled	MCL	MCLG	Highest Single Measurement	Compliance Achieved	Typical Source
Turbidity (NTU)	2008	TT	NA	0.14	Yes	Soil runoff

### Unregulated Substances (Measured on the Water Leaving the Treatment Facility)

Substance (units)	Year Sampled	Results	Range Low-High	Typical Source
Bromodichloromethane (ppb)	2008	6.2	4.0 - 11.4	By-product of disinfection
Bromoform (ppb)	2008	0.35	ND - 1.4	By-product of disinfection
Chlorodibromomethane (ppb)	2008	2.6	1.0 - 6.7	By-product of disinfection
Chloroform (ppb)	2008	37.8	16.1 - 62.1	By-product of disinfection
Sulfate (ppm)	2008	112.6	89.2 - 126.1	Erosion of natural deposits

### Tap Water Samples: Lead and Copper Results

Substance (units)	Year Sampled	Action Level	MCLG	Number of Samples	90th Percentile	Number of Samples Above Action Level	Typical Source
Copper (ppm)	2007	AL = 1.3	1.3	30	0.057	0	Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives
Lead (ppb)	2007	AL = 15	0	30	3.8	2	Corrosion of household plumbing systems; Erosion of natural deposits