



**2007
Kirkwood
Water Quality
Report**



Produced by the City of Kirkwood
Water Department
PWS ID: MO6010430
June 2008

Kirkwood's Water Quality Report

As part of our ongoing quality assurance program, the City of Kirkwood Water Department has published this “report card” for our customers to use in evaluating the quality of their drinking water. This “Consumer Confidence Report” lists any detected substances found in the water as a result of testing, the concentration detected, and the maximum contaminant level (MCL) allowed for that substance as established by the Environmental Protection Agency (EPA) in compliance with the Safe Drinking Water Act and regulated by the Missouri Department of Natural Resources. **Drinking water in the City of Kirkwood meets or exceeds all state and federal regulations.**

Source Of Your Drinking Water

Drinking water in Kirkwood comes from and is treated by the Missouri American Water Company, purchased by the city and redistributed to Kirkwood customers through city mains. This water that is purchased from Missouri American originates from the Missouri River.

Special Water Tips

High Water Bill? The majority of high water bills are usually due to undetected leaks. The number one culprit? A leaking toilet.

Don't Cover That Meter! The round meter cover in your yard serves an important purpose. Please don't cover it with landscaping or mulch. City crews need access to that cover in order to read and maintain your meter.

Have An Inground Sprinkler System?

It must be equipped with a backflow prevention device. This device protects the public water supply from potentially contaminated water in your sprinkler system. This device must be tested each year. Please notify the Kirkwood Water Department if you've recently had a sprinkler system installed on your property.

History of Kirkwood Water

- **November 30, 1901:** Voters of Kirkwood by a vote of 292 to 86 authorized the aldermen to issue bonds to cover the cost of constructing the necessary facilities for distributing water in Kirkwood.
- **December 21, 1901:** Voters returned to the polls and approved the signing of a contract with the Missouri Light and Traction Company to supply “filtered Missouri River water for public, domestic and all other purposes for which water may be used ...”
- **October 12, 1903:** it appeared that everything was ready. The Board of Aldermen advised the company that it was ready for “the water to be turned on and received by the City into its mains and pipes ...” Fifty years had elapsed since the Kirkwood Association had sold lots to potential

suburbanites and for the first time Kirkwood had a municipal water supply for both public and private use.

- **As of 1911:** There were 80 fire hydrants located in various places throughout Kirkwood.
- **March 1923:** When the Water & Light Company announced it would raise Kirkwood's water prices, voters responded overwhelmingly and by 1924, residents were enjoying their new waterworks system, now entirely owned and operated by the city.
- **December 2004-June 2007:** Due to aging infrastructure and the exorbitant cost to repair or rebuild, the City Council approved a plan to discontinue treating water and to purchase 100% of the city's water supply from Missouri-American Water Company. The conversion process took three years and now includes six interconnection points bridging the city's water supply with Missouri-American's system. For Kirkwood Water customers, the benefits of this

solution are three-fold: 1) Kirkwood remains in the water distribution business, which means residents will continue to receive high quality customer service provided by Kirkwood's own Water Department, 2) Kirkwood is no longer responsible for the costly responsibility of complying with increasingly stringent water quality regulations, and 3) The new distribution system provides for six distribution points of water to Kirkwood customers located around the perimeter of the city. The additional interconnects improve the city's water flow and water pressure to certain areas of the city during periods of high demand.

- **Today:** The city maintains more than 135 miles of water main, 3,000 valves, 1,000 fire hydrants, and 10,000 meters. An average of 3.75 million gallons of water is consumed each day in Kirkwood.

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Why Are There Contaminants In The Water & Where Do They Come From?

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.

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, the Department of Natural Resources prescribes regulations that limit the amount of certain contaminants in water provided by public water systems. Department of Health regulations establish limits for contaminants in bottled water that must provide the same protection for public health.

If You Have Questions

If you have questions about this consumer confidence report or about any water quality issue, please contact:

City of Kirkwood Water Department
Katie Stimetz
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REGULATED CONTAMINANTS

Substance	Where It Comes From	Unit of Measure	Goal (MCLG)	Max. Level Allowed (MCL)	Lowest	Average	Highest
Barium	Erosion of natural deposits; discharge of drilling wastes; discharge from metal refineries	PPM	2	2	0.012	0.021	0.026
Nitrate (As N)	Erosion of natural deposits; fertilizer runoff; leaching from septic tanks; sewage	PPM	10	10	0.85	1.4	2.32
Lead	Corrosion of household plumbing; erosion of natural deposits	PPB	0	AL = 15	90% of samples less than 1.1		
Copper		PPM	1.3	AL = 1.3	90% of samples less than 0.0091		
Arsenic	Erosion of natural deposits; runoff from orchards; runoff from glass & electronics production wastes	PPB	0	10	1	1.2	2
Atrazine	Runoff from herbicide used on row crops	PPB	3	3	ND	0.25	0.9
Beta/Photon Emitters (MREM/YR)	Decay of natural and manmade deposits	pCi/L	0	50		4.2 ('04)*	
Selenium	Discharge from petroleum & metal refineries; erosion of natural deposits; discharge from mines	PPB	50	50	ND	2.7	5
Fluoride	Erosion of natural deposits; water additive that promotes strong teeth; discharge from fertilizer & aluminum factories	PPM	4	4	0.8	0.93	1.0
Total Trihalomethanes	By-product of drinking water chlorination	PPB	0	80	6.03	14.03	24.2
Turbidity	Soil runoff	NTU	NA	TT (No sample to exceed 5.0 NTU; 95% of monthly samples <= 0.3 NTU)	NA	NA	0.27
Total Coliform	Naturally present in environment	% Positive	0	Presence of coliform bacteria in no more than 5% of monthly samples	NA	NA	0.0
Haloacetic Acids	By-product of drinking water chlorination	PPB	0	60	ND	20.73	40.1
Total Organic Carbon	Naturally present in environment	PPM	NA	TT	1.0	1.4	2.2
Chloramines	Water additive used to control microbes	PPM	MRDLG = 4	MRDL = 4	1.7	2.6	3.4
Combined Radium	Erosion of natural deposits	pCi/L	0	5	ND	0.2	1.3
Nitrite(As N)	Erosion of natural deposits; fertilizer runoff; leaching from septic tanks; sewage	PPM	1	1	0.004	0.016	0.05
Antimony	Discharge from petroleum refineries; fire retardants; ceramics;electronics; solder.	PPB	6	6	ND	0.01	0.05

UNREGULATED CONTAMINANTS

Substance	Where It Comes From	Unit of Measure	Goal (MCLG)	Max. Level Allowed (MCL)	Lowest	Average	Highest
Bromodichloromethane	By-product of disinfection.	PPB	NA	NA	0.6	6.3	26.2
Bromoform	By-product of disinfection.	PPB	NA	NA	ND	0.125	1.5
Chlorodibromomethane	By-product of disinfection.	PPB	NA	NA	ND	1.8	7.9
Chloroform	By-product of disinfection.	PPB	NA	NA	1.1	22.5	84
Sulfate	Erosion of natural deposits	PPM	None Established	250	63.4	88	127.8

– Regulated contaminants not contained in this table have not been detected. –

The Kirkwood Water system participates in the unregulated contaminants monitoring by the EPA. This special monitoring helps the EPA decide if new contaminants of concern are found in drinking water at levels that need to be controlled.

Definitions of Terms Used In This Report

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

Maximum Contaminant Level (MCL): 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.

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.

NA: Not Applicable

ND: Not Detectable at testing limits

NTU (Nephelometric Turbidity Unit): Used to measure cloudiness in drinking water.

pCi/L: Picocuries per Liter

PPB: Parts Per Billion (or micrograms per liter)

PPM: Parts Per Million (or milligrams per liter)

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

Turbidity: A measure of the cloudiness of drinking water. We monitor turbidity because it is a good indicator of the effectiveness of our filtration system.

Maximum Residual Disinfectant Level (MRDL): The highest level of a disinfectant allowed in drinking water.

Maximum Residual Disinfectant Level Goal (MRDLG): The level of a drinking water disinfectant below which there is no known or expected risk to health.

Millirems Per Year (MREM/YR): A measure of radiation absorbed by the body.

* The state has reduced monitoring requirements for certain contaminants to less often than once per year because the concentrations of these contaminants are not expected to vary significantly from year to year. This data, though representative, is more than one year old. Most recent monitoring year is noted in parentheses if not 2007.

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The City of Kirkwood is interested in effective communication for all people. Upon request, the information contained in this report can be made available in an alternate format, such as audio tape, within 3 working days, by calling 314-984-5936.

Special Health Information

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).

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 can 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 **Safe Drinking Water Hotline (1-800-426-4791)**.

**A reproduction of this
2007 Consumer Confidence Report
can be found on the
City of Kirkwood's website:
www.ci.kirkwood.mo.us**

Our Mission Statement

The Kirkwood Water Department is committed to providing a clean, safe, and abundant supply of drinking water while meeting or exceeding all standards set by the EPA and DNR, those agencies charged with reviewing and approving water treatment, supply, and distribution practices and procedures.

Public Participation Opportunities

Kirkwood City Council meetings are typically held at 7:00 p.m. on the first and third Thursday of each month, in the Council Chambers, located on the top floor of Kirkwood City Hall, 139 South Kirkwood Road. These meetings provide opportunity for public participation in decisions that affect drinking water quality.