

Kirkwood Water Quality Report 2010

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	0.01	0.02	0.04
Nitrate (As N)	Erosion of natural deposits; fertilizer runoff; leaching from septic tanks, sewage	PPM	10	10	1.2	1.6	2.0
Lead	Corrosion of household plumbing; erosion of natural deposits	PPB	0	AL = 15	90% of samples ND		
Copper		PPM	1.3	AL = 1.3	90% of samples less than 0.0118		
Arsenic	Erosion of natural deposits; runoff from orchards; runoff from glass & electronics production wastes	PPB	0	10	ND	0.2	1.0
Atrazine	Runoff from herbicide used on row crops	PPB	3	3	ND	0.2	0.4
Antimony	Discharge from petroleum refineries; fire retardants; ceramics; electronics; solder	PPB	6	6	ND	0.13	0.5
Selenium	Discharge from petroleum & metal refineries; erosion of natural deposits; discharge from mines	PPB	50	50	ND	1.2	3.0
Fluoride	Erosion of natural deposits; water additive that promotes strong teeth; discharge from fertilizer & aluminum factories	PPM	4	4	0.9	1.0	1.1
Total Trihalomethanes	By-product of drinking water chlorination	PPB	NA	80	7.68	22.57 ('08)*	77.6
Turbidity	Soil runoff	NTU	NA	TT (No sample to exceed 5.0 NTU; 95% of monthly samples ≤0.3 NTU)	NA	NA	7.12**
Total Coliform	Naturally present in environment	% Positive	0	Presence of coliform bacteria in no more than 5% of monthly samples	NA	NA	0.28%
Haloacetic Acids	By-product of drinking water chlorination	PPB	NA	60	18.2	30.47 ('08)*	46.2
Total Organic Carbon	Naturally present in environment	PPM	NA	TT	0.7	1.4	2.1
Chloramines	Water additive used to control microbes	PPM	MRDLG = 4	MRDL = 4	0.26	2.19	2.88
Combined Radium	Erosion of natural deposits	pCi/L	0	5	ND	0.2 ('07)*	1.3
Nitrite (As N)	Erosion of natural deposits; fertilizer runoff; leaching from septic tanks; sewage	PPM	1	1	ND	0.01	0.03
2,4-D	Runoff from herbicide used on row crops	PPB	70	70	ND	0.02	0.2
Di(2-Ethylhexyl) phthalate	Discharge from rubber and chemical factories	PPB	0	6	ND	0.1	0.7

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



Definitions of Terms Used In This Report

Action Level (AL): 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 2010. **Not applicable in Kirkwood.

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
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June 2011
Produced by the City of Kirkwood Water Department
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.

Into the Future: In the last two fiscal years, the City has replaced 17,900 feet of deteriorated and falling water main at Kirkwood water mains and pipes are approximately 50 to 60 years old. Most existing water mains are four and six inches in diameter and lie beneath street pavement. Most new water mains are eight and 12 inches in diameter and are typically installed beneath grass, between the street curb and the sidewalk. We repair an average of 150 main breaks per year. 24 inches. We repair an average of 150 main breaks per year. smallest diameter water main is two inches, and our largest is 24 inches. We repair an average of 150 main breaks per year. system covers approximately 135 miles of water main. Our and more accountability. The Kirkwood Water distribution system covers approximately 135 miles of water main. Our Kirkwood customers, that means better service, local control, Kirkwood owns and operates its own water utility. For

Kirkwood's Water Quality Report
 A 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



2010 Kirkwood Water Quality Report



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Produced by the City of Kirkwood
 Water Department

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Kirkwood Water: Quenching Your Thirst since 1903 and Into the Future

Why is this important? Drinking water treatment plants, water distribution lines (mains and pipes), and water storage facilities help ensure protection of public health and the environment. Nationally, we have built an extensive network of infrastructure to provide the public with access to water and sanitation, but much of that network was built right after World War II and is now 60 years old. As a nation, we face a

When measured as a percentage of household income, Americans pay less for water treatment and delivery than most other developed countries. Because of this, we have become accustomed to the idea of cheap, readily available water. We need to shift our thinking to meet our essential infrastructure needs in the coming years and ensure the health and well-being of future generations. For more information on this topic, please visit the Website for the United States Environmental Protection Agency at <http://water.epa.gov>.

Source Water Assessment
 The Department of Natural Resources conducted a source water assessment to determine the susceptibility of our water source to potential contaminants. This process involved the establishment of source water area delineations for each well or surface water intake, and then a contaminant inventory was performed within those delineated areas to assess potential threats to each source. Assessment maps and summary information sheets are available on the Internet at <http://maproom.missouri.edu/wipmaps/pwsid.htm>. To access the maps for your water system, you will need the State-assigned identification code for the Missouri American Water Company, which is MO 6010716. The Source Water Inventory Project maps and information sheets provide a foundation upon which a more comprehensive source water protection plan can be developed.

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.

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 from their health care providers about drinking water. 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)**.

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.

A reproduction of this 2010 Consumer Confidence Report can be found on the City of Kirkwood's Website: www.kirkwoodmo.org