

Annual Drinking Water Quality Report

METROPOLIS ▪ IL 1270150

Annual Water Quality Report for the period of January 1 to December 31, 2006

This report is intended to provide you with important information about your drinking water and the efforts made by the METROPOLIS water system to provide safe drinking water. The source of drinking water used by METROPOLIS is Ground Water. For more information regarding this report, contact: J.K. Thomas 618-524-3445.

This report will not be mailed to each customer this year. Copies of this report are available at Metropolis City Hall, 106 West 5th Street, Metropolis, IL 62960.

Sources of 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 materials, 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 storm water 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 storm water 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 storm water runoff, and septic systems;
- Radioactive contaminants, which can be naturally occurring or be the result of oil and gas production and mining activities.

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 (800-426-4791).

In order to ensure that tap water is safe to drink, EPA prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. FDA regulations establish limits for contaminants in bottled water, which must provide the same protection for public health.

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 EPA's Safe Drinking Water Hotline (800-426-4791).

Source Water Assessment

A Source Water Assessment Summary is included below for your convenience.

To determine Metropolis' susceptibility to groundwater contamination, the Illinois Rural Water Association conducted a well site survey in December 2002. Based on the information obtained in this document, there are 17 potential sources of groundwater contamination that could pose a hazard to groundwater utilized by Metropolis' community water supply. These include 1 auto repair shop, 1 paint store, 1 waste landfill, 1 animal feed and supplies store, 1 railroad storage area, 1 salvage yard, 1 fertilizer warehouse, 1 waste water treatment facility, 1 below ground fuel storage tank, 1 above ground fuel storage tank, 2 lumber yards, 2 manufacturing processes, and 3 hardware stores. In addition, information provided by the Leaking Underground Storage Tank and Remedial Project Management Sections of the Illinois EPA indicated sites with on-going remediation that might be of concern. Based upon this information, the Illinois EPA has determined that the Metropolis Community Water Supply's source is not susceptible to contamination. The Illinois EPA is in the process of delineating 5-year recharge areas for Metropolis' wells. The land use within the minimum and maximum protection zones of the wells was analyzed as part of this susceptibility determination. This land use includes residential and commercial properties. The Illinois Environmental Protection Act provides minimum protection zones of 200 feet for Metropolis' wells. These minimum protection zones are regulated by the Illinois EPA. To further reduce the risk to the source water, a maximum protection zone may be established, which is authorized by the Illinois Environmental Protection Act and allows county and municipal officials the opportunity to provide additional potential source prohibitions up to 1,000 feet from their wells. To further minimize the risk to the city's groundwater supply, the Illinois EPA recommends the following to be considered. First, the water supply staff may wish to conduct contingency planning. Contingency planning documents are a primary means to ensure that, through emergency preparedness, a community will minimize their risk of being without safe or adequate water. Second, the water supply staff is encouraged to conduct biennial cross connection survey of the distribution system as outlined in the cross connection control ordinance [Section 18 of the Environmental Protection Act 415 ILCS 5/1 et seq. (Act); 35 Illinois Act Code, Sections 607.104d, 653.801c] and to review their cross connection control ordinance to ensure that it remains current and viable. Cross connections to either the water treatment plant (for example, at bulk water loading stations) or in the distribution system may negate all source water protection initiatives. Finally, the Illinois EPA recommends that the city investigate additional source water protection management options to address the land use activities within the wells' recharge area. To further reduce the risk to source water, Metropolis may wish to implement a wellhead protection program, which includes the proper abandonment of potential routes of groundwater contamination within the wellhead protection area and correction of any sanitary defects that might be present at the water treatment facility. This effort may result in the community water supply receiving a special exception permit from the Illinois EPA, which allows a reduction in monitoring and laboratory analysis costs.

2006 Regulated Contaminants Detected

Water Quality Test Results

Definitions: The following tables contain scientific terms and measures, some of which may require explanation.

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

Action Level Goal (ALG): The level of a contaminant in drinking water below which there is no known or expected risk to health. ALG's allow for a margin of safety.

Maximum Contaminant Level (MCL): The highest level of a contaminant that is allowed in drinking water. MCL's are set as close to the Maximum Contaminant Level Goal 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. MCLG's allow for a margin of safety.

mg/L: milligrams per liter or parts per million (ppm) - or one ounce in 7,350 gallons of water.

ug/L: micrograms per liter or parts per billion (ppb) - or one ounce in 7,350,000 gallons of water.

pCi/L: picocuries per liter (a measure of radioactivity)

N/A: Not Applicable.

Avg: Regulatory compliance with some MCL's is based on running annual average of monthly samples.

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

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

Coliform Bacteria

Maximum Contaminant Level Goal	Total Coliform Maximum Contaminant Level	Highest No. of Positive	Fecal Coliform or E. Coli Maximum Contaminant Level	Total No. of Positive E. Coli or Fecal Coliform Samples	Violation	Likely Source of Contamination
0	1 positive monthly sample	1	Fecal Coliform or E. Coli MCL: A routine sample and a repeat sample are total coliform positive, and one is also fecal coliform or E. coli positive	0	No	Naturally present in the environment

Note: Repeat samples tested negative for total coliform. Cause for original sample positive was determined to be a contaminated faucet.

Lead and Copper

Date Sampled: 12/31/2005

Lead MCLG	Lead Action Level (AL)	Lead 90th Percentile	# Sites Over Level AL	Copper MCLG	Copper Action Level (AL)	Copper 90th Percentile	# Sites Over Copper AL	Likely Source of Contamination
0	15 ppb	1 ppb	0	1.3 ppm	1.3 ppm	0.077 ppm	0	Corrosion of household plumbing systems; Erosion of natural deposits

Regulated Contaminants

Disinfectants & Disinfection By-Products	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contaminant
Total Haloacetic Acids (HAA5)	7/10/2006	0	N/A	N/A	60	ppb	No	By-product of drinking water chlorination
TTHM's (Total Trihalomethanes)	7/10/2006	4.8	N/A	N/A	80	ppb	No	By-product of drinking water chlorination
Chlorine	12/31/2006	0.9059	0.8944 - 0.9059	MRDLG=4	MRDL=4	ppm	No	Water additive used to control microbes
Inorganic Contaminants	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contaminant
Barium	7/19/2005	0.031	N/A	2	2	ppm	No	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
Fluoride	7/19/2005	0.96	N/A	4	4	ppm	No	Erosion of natural deposits; Water additive which promotes strong teeth; Fertilizer discharge
Nitrate-Nitrite	2/7/2006	0.058	N/A	10	10	ppm	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
Nitrate (As N)	2/7/2006	0.058	N/A	10	10	ppm	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
Selenium	7/19/2005	1	N/A	50	50	ppb	No	Discharge from petroleum and metal refineries; Erosion of natural deposits
Radioactive Contaminants	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contaminant
Alpha Emitters	4/19/2005	2.44	1.01 - 2.44	0	15	pCi/L	No	Erosion of natural deposits
Combined Radium	4/19/2005	4.6	0.93 - 4.6	0	5	pCi/L	No	Erosion of natural deposits

NOTE: The state requires monitoring of certain contaminants less than once per year because the concentrations of these contaminants do not change frequently. Therefore, some of this data may be more than one year old.