

Annual Drinking Water Quality Report

MASCOUTAH

IL1630800

Annual Water Quality Report

For the period of January 1 to December 31, 2003.

This report is intended to provide you with important information about your drinking water and the efforts made by the MASCOUTAH water system to provide safe drinking water. The source of drinking water used by MASCOUTAH is Purchase.

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Source 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 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. More information about contaminants and potential health effects can be obtained by calling the EPA's Safe Drinking Water Hotline at (800) 426-4791.

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.

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 Safe Drinking Water Hotline (800-426-4791).

Source Water Assessment Availability.

When available, a Source Water Assessment summary is included below for your convenience.

Illinois EP A considers all surface water sources of community water supply to be susceptible to potential pollution problems, hence, the reason for mandatory treatment for all surface water supplies in Illinois. Mandatory treatment includes coagulation, sedimentation, filtration, and disinfection. Primary sources of pollution in Illinois lakes can include agricultural runoff, land disposal (septic systems) and shoreline erosion. Under Section 319 of the Federal Clean Water Act, U.S. EPA provides grants for the Illinois EP A to finance projects that demonstrate cost-effective solutions to non point source (NPS) pollution problems and promote public knowledge and awareness of NPS pollution. Projects in the Middle and Lower Kaskaskia Watershed have included:

- **Constructed Wetlands & Sustainable Agriculture** - This project constructed three small wetlands within the small watershed of a tributary of Richland Creek to filter contaminants from surface water. The project was designed to determine the effects sustainable agricultural practices have on reducing nitrate and pesticide levels in surface water and also established an education and information program.
- **Ninemile Creek Watershed Sinkhole Stabilization Project** - This project demonstrated and provided information/education to residents and landowners in the Ninemile Creek watershed as to cost-effective practices and methods to improve water quality. Ten (10) sinkholes were stabilized with appropriate land treatment practices applied to the surrounding land.
- **Conservation Reserve Enhancement Program** - The Conservation Reserve Enhancement Program (CREP) is a cooperative effort between the USDA and the State of Illinois to protect water quality in the Illinois River and some of its tributaries. USDA and Illinois will work with other Federal, State and local authorities to reduce sedimentation and runoff, and encourage the growth of local wildlife. The Illinois program will establish CRP contracts with owners and operators of farm properties to plant specific kinds of vegetation near streams and rivers in return for rental payments and other incentives. More information on CREP may be found on Illinois DNR's website at <http://dnr.state.il.us>.
- **Pesticide Monitoring Survey** - The United States Geological Survey (USGS), as part of the Toxic Substances Hydrology Program, in cooperation with the Illinois EPA installed automatic samplers for the collection of surface water samples in three watersheds in Iroquois, Piatt and St. Clair Counties. The samples were used to determine the magnitude and duration of concentrations of triazine herbicides during the first runoff event following the application of herbicides in 1990. The three sites were selected to represent different areas of the state and different size drainage basins. The predominate land use in the selected sites is agricultural with a crop rotation of corn and soybeans.

In order to help farmers in adopting sound agricultural practices the Illinois Council on Best Management Practices (C-BMP) was formed. The Council is a coalition of agribusiness and agricultural producer organizations with the support of the University of Illinois Extension and serves as a clearinghouse on current research to protect water quality in Illinois. The Council also provides information and support to local watershed groups to help implement sound water quality initiatives and can offer educational assistance and help facilitate the technical and financial resources needed to carry out water quality objectives. For more information on C-BMP contact Dr. George Czapar, Springfield Extension Center, P.O. Box 8199, Springfield, IL 62791, email: g-czapar@uiuc.edu. For more information on BMPs, please refer to the web site at <http://www.ctic.purdue.edu>, as well as "A Guide to Illinois Lake Management" available from Illinois EPA. The Illinois Agronomy Handbook should also be used as guidance in implementing BMPs.

In a national effort to ensure adequate protection against groundwater contamination from the herbicide atrazine, U.S. EPA made significant changes to the atrazine use label in 1990. It is a violation of law to apply, mix, or load atrazine within 50 feet of any well, including water wells, irrigation wells, livestock water wells, abandoned wells or sinkholes. In 1992, the atrazine label was further amended to protect surface waters by requiring a 200 foot application setback for lakes and reservoirs. In addition, there is a 66 foot setback from any point where field surface water runoff enters a stream or river. A concerted effort to incorporate best management practices for atrazine applications is on-going, an atrazine BMP document is available from Novartis Crop Protection, or by contacting the Illinois Fertilizer & Chemical Association at (800) 892-7122.

In an effort to minimize the impact of livestock facilities on water resources on a statewide basis, livestock facilities are now regulated under the Livestock Management Facilities Act. This legislation is designed to keep Illinois' livestock industry productive and environmentally responsible by establishing requirements for design, construction, operation and management of livestock facilities and waste-handling structures. Detailed information on the Livestock Management

Facilities Act may be found at the website <http://www.agr.state.il.us>. In addition, further watershed protection efforts and priorities of the Illinois EPA, Illinois Department of Agriculture, Illinois Department of Natural Resources, U. S. Department of Agriculture's Natural Resources Conservation Service, U.S. Army Corps of Engineers, and The Nature Conservancy are described and illustrated at the web site <http://www.epa.state.il.us/water/unified-watershed-assessment/index.html>.

Regulated Contaminants Detected in 2003 (collected in 2003 unless noted)

Lead and Copper Definitions: 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 (AGL): The level of a contaminant in drinking water below which there is no known or expected risk to health. AGL's allow for a margin of safety.								
Lead MCLG	Lead Action Level (AL)	Lead 90th Percentile	# Sites Over Lead AL	Copper MCLG	Coper Action Level (AL)	Copper 90th Percentile	#Sites Over Copper AL	Likely Source of Contamination
0 ppb	15 ppb	6	0	1.3 ppm	1.3 ppm	0.22	0	Corrosion of household plumbing systems; Erosion of natural deposits

Water Quality Test Results

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

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 litre or parts per million - or one ounce in 7,350 gallons of water.

ug/l: micrograms per litre or parts per billion - or one ounce in 7,350,000 gallons of water.

na: not applicable.

Avg: Regulatory compliance with some MCLs are 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 (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.

Regulated Contaminants	Highest Level	Range of Levels Detected	Unit of Measurement	MCLG	MCL	Violation?	Likely Source of Contamination
Disinfectants & Disinfection By-Products							
Total Haloacetic Acids (HAA5)	53.1	28.4-53.1	ppb		60*	No	By-product of drinking water chlorination
TTHMs [Total Trihalomethanes]	58.9	38.3-58.9	ppb	n/a	80*	No	By-product of drinking water chlorination

*MCL Statement: The maximum contaminant level (MCL) for TTHM and HAA5 is 80 ppb and 60 ppb respectively and is currently only applicable to surface water supplies that serve 10,000 or more people. These MCLs will become effective 01/01/2004 for all groundwater supplies and surface supplies serving less than 10,000 people. Until 01/01/2004, surface water supplies serving less than 10,000 people, any size water supply that purchase from a surface water source, and groundwater supplies serving more than 10,000 people must meet a state imposed TTHM MCL of 100 ppm. Some people who drink water containing trihalomethanes in excess of the MCL over many years experience problems with their livers, kidneys, or central nervous systems, and may have increased risk of getting cancer.

S L M WATER COMMISSION

Source Water Assessment Availability

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In an effort to minimize the impact of livestock facilities on water resources on a statewide basis, livestock facilities are now regulated under the Livestock Management Facilities Act. This legislation is designed to keep Illinois' livestock industry productive and environmentally responsible by establishing requirements for design, construction, operation and management of livestock facilities and waste-handling structures. Detailed information on the Livestock Management Facilities Act may be found at the website <http://www.agr.state.il.us>. In addition, further watershed protection efforts and priorities of the Illinois EPA, Illinois Department of Agriculture, Illinois Department of Natural Resources, U. S. Department of Agriculture's Natural Resources Conservation Service, U.S. Army Corps of Engineers, and The Nature Conservancy are described and illustrated at the web site <http://www.epa.state.il.us/water/unified-watershed-assessment/index.html>.

SLM WATER COMMISSION

Regulated Contaminants Detected in 2003 (collected in 2003 unless noted)

Lead and Copper Data Sampled: 9/30/2001

Lead MCLG	Lead Action Level (AL)	Lead 90th Percentile	# Sites Over Lead AL	Copper MCLG	Copper Action Level (AL)	Copper 90th Percentile	# Sites Over Copper AL	Likely Source of Contamination
0 ppb	15 ppb	7 ppb	0	1.3 ppm	1.3 ppm	0.94 ppm	1	Corrosion of household plumbing systems; Erosion of natural deposits

Regulated Contaminants	Highest Level Detected	Range of Levels Detected	Unit of Measurement	MCLG	MCL	Violation?	Likely Source Of Contaminant
Disinfectants & Disinfection By-Products							
Total Haloacetic Acids (HAA5)	34.5	Not Applicable	ppb		60*	No	By-product of drinking water chlorination
TTHMs [Total Trihalomethanes]	57.6	Not Applicable	ppb	n/a	80*	No	By-product of drinking water chlorination
Inorganic Contaminants							
Barium	0.051	Not Applicable	ppm	2	2	No	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
Fluoride	1.07	Not Applicable	ppm	4	4	No	Erosion of natural deposits; Water additive which promotes strong teeth; Fertilizer discharge
Nitrate-Nitrite	0.422	Not Applicable	ppm	10	10	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
Synthetic Organic Contaminants (Including pesticides and herbicides)							
Atrazine	1.9	0.35-1.9	ppb	3	3	No	Runoff from herbicide used on row crops
Simazine	0.95	0.91-0.95	ppb	4	4	No	Herbicide runoff
State Regulated Contaminants							
Sodium	25	Not Applicable	ppm	n/a	n/a	No	Erosion of naturally occurring deposits; used in water softener regeneration

There is not a state of federal MCL for sodium. Monitoring is required to provide information to consumers and health officials that are concerned about sodium intake due to dietary precautions. If you are on a sodium-restricted diet, you should consult a physician about this level of sodium in the water.

*MCL Statement: The maximum contaminant level (MCL) for TTHM and HAA5 is 80 ppm and 60 ppm respectively and is currently only applicable to surface water supplies that serve 10,000 or more people. These MCLs will become effective 01/01/2004 for all groundwater supplies and surface supplies serving less than 10,000 people. Until 01/01/2004, surface water supplies serving less than 10,000 people, any size water supply that purchase from a surface water source, and groundwater supplies serving more than 10,000 people must meet a state imposed TTHM MCL of 100 ppm. Some people who drink water containing trihalomethanes in excess of the MCL over many years experience problems with their livers, kidneys, or central nervous systems, and may have increased risk of getting cancer.

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

ppm: parts per million

ppb: parts per billion

ppt: parts per trillion

pCi/l: picoCuries per liter (measurement of radioactivity)

TURBIDITY

Limit (Treatment Technique)	Lowest Monthly % meeting limit	Violation	Source
0.5 NTU (POP served < 10,000)	100	No	Soil runoff.
0.3 NTU (POP served > 9,999)			
Limit (Treatment Technique)	Highest Single Measurement	Violation	Source
5 NTU (POP served < 10,000)	0.3	No	Soil runoff.
1 NTU (POP served > 9,999)			

Information Statement: Turbidity is a measurement of the cloudiness of the water caused by suspended particles. We monitor it because it is a good indicator of water quality and the effectiveness of our filtration system and disinfectants.

S.L.M.'s water source is surface water from the Kaskaskia River.