Annual Drinking Water Quality Report

MASCOUTAH

IL1630800

Annual Water Quality Report for the period of January 1 to December 31, 2005

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 Water.

For more information regarding this report contact:

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Este informe contiene información muy importante sobre el agua que usted bebe. Tradúzcalo ó hable con alguien que lo entienda bien.

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

Source Water Assessment

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

Illinois EPA 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 EPA 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.

2005 Regulated Contaminants Detected

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	2	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		Yes	Naturally present in the environment	Edit

Lead and Copper

Date Sampled: 9/13/2005

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 (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.

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	15 ppb	10 ppb	1	1.3 ppm	1.3 ppm	0.23 ppm	0	Corrosion of household plumbing systems; Erosion of natural deposits	Edit

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 Maxium 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 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.

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Regulated Contaminants

Disinfectants & Disinfection By-Products	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source Of Contaminant	
TTHMs [Total Trihalomethanes]	8/9/2005	67.6	27.8 - 67.6	N/A	80	ppb	No	By-product of drinking water chlorination	Edit
Total Haloacetic Acids (HAA5)	10/25/2005	38.3	19.2 - 38.3	N/A	60	ppb	No	By-product of drinking water chlorination	Edit

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.

2005 Violation Summary Table:

This table is intended to assist you in the identification of year 2005 violation(s) that are required to be reported and explained in your CCR. The table does NOT include the required explanation of the noted violation(s) and you will need to provide this information as explained in the CCR Guidance Manual.

Rule or Contaminant	Violation Type	Violation Duration
COLIFORM, TOTAL (TCR) Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other, potentially-harmful, bacteria may be present. Coliforms were found in more samples than allowed and this was a warning of potential problems.	MCL (TCR), MONTHLY	9/1/2005 To 9/30/2005

MASCOUTAH has taken the following actions specific to the VIOLATION(S) listed above:

Two samples for sample period 9/1/05 – 9/30/05 were above Total Coliform Max. Contaminant Level. This may cause symptoms of nausea, cramps, diarrhea and associated headaches.
The City of Mascoutah took repeat samples at original two sites plus two upstream and two downstream from original. The City of Mascoutah did not find any of these bacteria in our subsequent testing and further testing shows that this problem has been resolved.

The City of Mascoutah purchases its water from SLM Water Commission. Attached is the detected contaminant levels for SLM Water Commission as required by E.P.A.

Inorganic Contaminants	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source Of Contaminant	
Arsenic	8/9/2005	0.65	Not Applicable	0	50	ppb	No	Erosion of natural deposits; Runoff from orchards; Runoff from electronics production wastes	Edit
Barium	8/9/2005	0.058	Not Applicable	2	2	ppm	No	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits	Edit
Fluoride	8/9/2005	0.9	Not Applicable	4	4	ppm	No	Erosion of natural deposits; Water additive which promotes strong teeth; Fertilizer discharge	Edit
Nitrate-Nitrite	5/3/2005	0.97	Not Applicable	10	10	ppm	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits	Edit
Nitrate (As N)	5/3/2005	0.97	Not Applicable	10	10	ppm	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits	Edit
Synthetic Organic Contaminants (including pesticides and herbicides)	**Collection Date**	**Highest Level Detected**	**Range of Levels Detected**	**MCLG**	**MCL**	**Units**	**Violation**	**Likely Source Of Contaminant**	
Simazine	2/14/2005	0.75	0 - 0.75	4	4	ppb	No	Herbicide runoff	Edit
Atrazine	5/18/2005	1	0 - 1	3	3	ppb	No	Runoff from herbicide used on row crops	Edit
Benzo (a) Pyrene	5/18/2005	22	0 - 22	0	200	ppt	No	Leaching from linings of water storage tanks and distribution lines	Edit
State Regulated Contaminants	**Collection Date**	**Highest Level Detected**	**Range of Levels Detected**	**MCLG**	**MCL**	**Units**	**Violation**	**Likely Source Of Contaminant**	
Sodium There is not a state or 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.	8/9/2005	27	Not Applicable	N/A	N/A	ppm	No	Erosion of naturally occuring deposits; used in water softener regeneration	Edit

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.

Turbidity

Limit (Treatment Technique)	Lowest Monthly % meeting limit	Violation	Source	
0.3 NTU	100	No	Soil Runoff	Edit
Limit (Treatment Technique)	**Highest Single Measurement**	**Violation**	**Source**	
1 NTU	0.2	No	Soil Runoff	Edit

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.

Total Organic Carbon

The percentage of Total Organic Carbon (TOC) removal was measured each month and the system met all TOC removal requirements set by IEPA, unless a TOC violation is noted in the violations section.