



Annual Drinking Water Quality Report

MONTICELLO

IL1470350

Annual Water Quality Report for the period of January 1 to December 31, 2009

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

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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.

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. Immune-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.

To determine Monticello's susceptibility to groundwater contamination, a Well Site Survey, published in 1989 by the Illinois EPA, and the Source Water Protection Program completed by the City of Monticello, was reviewed. Based on the information contained in these documents, six potential sources of groundwater contamination are present that could pose a hazard to groundwater pumped by the Monticello community water supply wells. These include three below ground fuel storages, one above ground storage, one machine shop/shed, and one furniture refinishing. The Illinois EPA has determined that Monticello Wells #1, #2, #4, and #5 are not susceptible to IOC, VOC, or SOC contamination. This determination is based on a number of criteria including: monitoring conducted at the wells; monitoring conducted at the entry point to the distribution system; and the available hydrogeologic data for the wells. In anticipation of the U.S. EPA's proposed Ground Water Rule, the Illinois EPA has determined that Monticello's community water supply wells are not vulnerable to viral contamination. This determination is based upon the evaluation of the following criteria during the Vulnerability Waiver Process: the community's wells are properly constructed with sound integrity and proper site conditions; there is a hydrogeologic barrier that restricts pathogen movement; all potential routes and sanitary defects have been mitigated such that the source water is adequately protected; monitoring data did not indicate a history of disease outbreak; and the sanitary survey of the water supply did not indicate a viral contamination threat. However, having stated this, the U.S. EPA is proposing to require States to identify systems in karst, gravel, and fractured rock aquifer systems as sensitive. Water systems utilizing these aquifer types would be required to perform routine source water monitoring. Because the community's wells are constructed in a confined aquifer, which should provide an adequate degree of protection to prevent the movement of pathogens into the wells, well hydraulics were not considered to be a significant factor in the vulnerability determination. The Illinois Environmental Protection Act provides minimum protection zones of 200 feet for the City of Monticello wells. These minimum protection zones are regulated by the Illinois EPA. As authorized by the Illinois Environmental Protection Act, the City of Monticello enacted a "maximum setback ordinance" which allows county and municipal officials the opportunity to provide additional potential source prohibitions up to 1,000 feet from their wells. Also, to further reduce the risk to the source water, the facility has implemented a source water protection program which included the proper abandonment of potential routes of groundwater contamination and correction of sanitary defects at the water treatment facility. This effort resulted in the community water supply receiving a special permit from the Illinois EPA which allows a reduction in monitoring. The outcome of this monitoring has saved the City of Monticello considerable laboratory analysis costs. To further minimize the risk to the city's groundwater supply, the Illinois EPA recommends that two additional activities be assessed. First, the water supply staff may wish to revisit their contingency planning documents. Contingency planning documents are a primary means to ensure that, through emergency preparedness, a community will minimize their risk of being without safe and adequate water. Second, the water supply staff is encouraged to review their cross connection control program to ensure that it remains current and viable. Cross connections to either the water treatment plant or in the distribution system may negate all of the source water protection initiatives provided by the

community and circumvent the natural protection provided to the aquifer. For a summary of the Source Water Assessment go to <http://www.epa.state.il.us/cgi-bin/wp/swap-fact-sheets.pl>

2009 Regulated Contaminants Detected

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 (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	2 ppb	1	1.3 ppm	1.3 ppm	1.3 ppm	2	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 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 - or one ounce in 7,350 gallons of water. ug/l: micrograms per liter 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.

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]		55	40-67	N/A	80	ppb	No	By-product of drinking water chlorination	Edit
Total Haloacetic Acids (HAA5)		34	23-35	N/A	60	ppb	No	By-product of drinking water chlorination	Edit
Chloramines		1.27	0.25-1.27	MRDLG=4	MRDL=4	ppm		Water additive used to control microbes	Edit

Inorganic Contaminants	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source Of Contaminant	
Arsenic While your drinking water meets EPA's standard for arsenic, it does contain low levels of arsenic. EPA's standard balances the current understanding of arsenic's possible health effects against the costs of removing arsenic from drinking water. EPA continues to research the health effects of low levels of arsenic which is a mineral known to cause cancer in humans at high concentrations and is linked to other health effects such as skin damage and circulatory problems.		9	5-8	0	10	ppb	No	Erosion of natural deposits; Runoff from orchards; Runoff from electronics production wastes	Edit
Barium		0.058	0.058 - 0.058	2	2	ppm	No	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits	Edit

Fluoride		0.96	0.91-1.06	4	4	ppm	No	Erosion of natural deposits; Water additive which promotes strong teeth; Fertilizer discharge	Edit
Radioactive contaminants Combined Radium 226/228		0.782	0.782-0.782	0	5	pCi/l	No	Erosion of natural deposits	Edit
Nitrate (As N)		0.065	0.065-0.065	10	10	ppm	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits	Edit
State Regulated Contaminants	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source Of Contaminant	
Manganese This contaminant is not currently regulated by USEPA. However, the state has set an MCL for this contaminant for supplies serving a population of 1000 or more.	12/04/2008	2	2-2	150	150	ppb	No	Erosion of naturally occurring deposits	Edit
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.	12/04/2008	120	120-120	N/A	N/A	ppm	No	Erosion of naturally occurring 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.

EPA has reviewed the drinking water standard for arsenic because of special concerns that it may not be stringent enough. Arsenic is a naturally-occurring mineral known to cause cancer in humans at high concentrations.