

ENGINEERING & WATER

2002 Annual Consumer Report on the Quality of Tap Water

The City of Bloomington Water Department is committed to providing residents with a safe and reliable supply of high-quality drinking water. We test our water using sophisticated equipment and advanced procedures. The City of Bloomington's water meets state and federal standards for both appearance and safety. This annual "Consumer Confidence Report," required by the Safe Drinking Water Act (SDWA), tells you where your water comes from, what our tests show about it, and other things you should know about drinking water.

Bloomington's drinking water meets or surpasses all federal and state drinking-water standards.

More information is available from the Safe Drinking Water Hotline 1-800-426-4791 or visit the EPA website at http://www.epa.gov/safewater

Overview

We at the Bloomington Water Department are grateful for the opportunity to provide safe drinking water to our customers. In order to ensure that your water is the best quality possible, the City is continually making improvements to our treatment facilities and is actively engaged in lake and watershed management research. Two phases expansion and of at the water treatment plant have been completed. The first phase increased our clarifier capacity from 22 million gallons per day (MGD) to 30 MGD by installing new, more efficient units. The second phase replaced our older lime slaking equipment with a more reliable and sophisticated system. Lime is a chemical that is used in the water softening process. A new transmission main for delivering treated water from the plant at Lake Bloomington to the pumping stations in town is in the construction stage.

The City is preparing reports of the Illinois Environmental Protection Agency Clean Lakes Program Studies for Lake Bloomington and Evergreen Lake. Information on the conditions of the lakes, sources of possible contamination, and plans for improving our lakes will be part of the study reports. We are also actively engaged in research projects with Illinois State University, the University of Illinois, the Nature Conservancy, McLean County Soil and Water Conservation District, and many other agencies. The goal of these projects is to lessen the impact that farming, construction, and other activities on the land that drains into our lakes have upon water quality.

Water Source

The City of Bloomington obtains water from two man-made lakes, Lake Bloomington and Lake Evergreen.Lake Bloomington is fed by runoff from 70 square miles of land, while the drainage area for Evergreen Lake is 41 square miles.

An Explanation of the Water-Ouality Data Table

The table shows the results of our water quality analyses. Every regulated contaminant that we detected in the water, even in the most minute traces, is listed here. The table contains the name of each substance, the highest level allowed by regulation (MCL), the ideal goals for public health (MCLG), the amount detected, the usual



sources of such contamination, footnotes explaining our findings, and a key to units of measurement. Definitions of MCL and MCLG are important. The data presented in this report is from the most recent testing done in accordance with regulations.

- Maximum Contaminant Level or 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 or 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.
- Action Level (AL): The concentration of a contaminant which, if exceeded, triggers treatment or other requirement that a water system must follow.
- **Treatment Technique (TT)**: A required process intended to reduce the level of a contaminant in drinking water.

About the Data

Turbidity

Turbidity is a measure of the cloudiness of the water. We monitor it because it is a good indicator of water quality and the effectiveness of our filtration system and disinfectants. As a treatment requirement, turbidity levels of water leaving the plant cannot be greater than 0.3 Nephelometric Turbidity Units (NTU) in more than 5% of our routine measurements, and is never to exceed 1.0 NTU.

Beta/Photon Emitters

The MCL for beta particles is 4 mrem/year (a measure of radiation absorbed by the body). The EPA considers 50 pCi/l to be a level of concern for beta particles.

Nitrate and Nitrite

Nitrate in drinking water at levels above 10 ppm is a health risk for infants of less than six months of age. High nitrate levels in drinking water can cause methemoglobinemia (blue baby syndrome). Nitrate levels may rise quickly for short periods of time because of rainfall or agricultural activity. If you are caring for an infant you should ask advice from your health care provider.

2002 Water Quality Data								
Contaminant	Date Tested	Unit	MCLG	MCL	Detecte d Le vel	Range	Major Sources	Viola- tion
	_			Ind	organic (Contamina	tes	
Barium	2002	ppm	2	2	0.026	0.026-0.026	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits	NO
Nitrate	2002	ppm	10	10	3.7	0.93-7.300	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits	NO
Lead	2002	ppb	0	AL=15	1	n/a	Corrosion of household plumbing systems; Erosion of natural deposits.	NO
Copper	2002	ppm	1.3	AL=1.3	0.09	n/a	Corrosion of household plumbing systems; Erosion of natural deposits.	NO
				Micro	biologic	al Contami	inants	
Turbidity Compliance	2002	% <u>≤</u> 0.3 NTU	n/a	TT	100	100-100	Soil runoff	NO
Turbidity	2002	NTU	n/a	TT = 1 NTU max	0.3	0.14-0.3	Soil runoff	NO
Total Coliform Bacteria	2002	%pos/ mo	5	5	1.4	0-1.4	Naturally present in the environment	NO
Fecal Coliform and E.coli	2002	#/mo	0	0	1	0-1	Human and animal fecal waste	NO
				Rad	lioactive	Contamina	ints	
Beta/Photon Emitters	2002	pCi/l	0	50*	2	2-2	Decay of natural and man-made deposits	NO
	Svn	thetic (Organic	Conta	minants	Including	Pesticides and Herbicides	
Atrazine	2002	ppb	3	3	0.623	nd-1.3	Runoff from herbicide used on row crops	NO
Di(2-Ethylhexyl)phthalate	2002	ppb	0	6	4.5	4.5-4.5	Discharge from rubber and chemical factories.	
			Dis	<u>infecti</u>	on/Disin	fectant By-	-Products	
TTHMs (Total Trihalomethanes)	2002	ppb	n/a	80	25.5	24-26	By-product of drinking water chlorination	NO
				State	<i>Re</i> gulate	ed Contami	nants	
Sodium	2002	ppm	n/a	n/a	14	14-14	Erosion of naturally occurring deposits; Used as water softener	NO
Fluoride	2002	ppm	n/a	n/a	1.075	0.9-1.2	Water additive which promotes strong teeth.	NO
Nd = Not Detected n/a = not applicable								

Water-Quality Table Footnotes

National Primary Drinking Water Regualtion Requirements No violations occured in 2002.

Although we ran many tests, only substances listed above were found. They are all below MCL required.

State Regulated Contaminants

Fluoride - Fluoride is added to the water supply to help promote strong teeth. The Illinois Department of Public Health recommends an optimal fluoride range of 0.9 to 1.2 mg/l.

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 the concentration level ever becomes greater than 20 mg/l, and you are on a sodium-restricted diet, you should consult a physician. Our maximum level for 2002 was 14 mg/l.

Required Additional Health Information

To ensure that tap water is safe to drink, The Environmental Protection Agency (EPA) prescribes limits on the amount of certain contaminants in water provided by public water systems. The Food and Drug Administration (FDA) regulations establish limits for contaminants in bottled water. 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 Environmental Protection Agency's Safe Drinking Water Hotline (800) 426-4791. The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally-occurring minerals and 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:

(A) Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.

(B) Inorganic contaminants, such as salts and metals, which can be naturally-occurring or result from urban storm runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.

(C) Pesticides and herbicides, which may come from a variety of sources such as agriculture, storm water runoff, and residential uses.

(D) Organic chemical contaminants, including synthetic and volatile organics, which are by-products of industrial processes and petroleum production, and can also come from gas stations, urban storm water runoff and septic systems.

(E) 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 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 those with cancer undergoing chemotherapy, or those who have undergone organ transplants, or 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. Environmental Protection Agency/Communicable Disease Control (EPA/CDC) guidelines on appropriate means to lessen the risk of infection by Cryptosporidium are available from the Safe Drinking Water Hotline (800) 426-4791.

<u>A Note About Lead</u>

Due to consistently low results, lead and copper sampling for our system was placed on a reduced schedule. Our next round of sampling is scheduled for summer 2005. Infants and young children are typically more vulnerable to lead in drinking water than the general population. It is possible that lead levels at your home may be higher than at other homes in the community as a result of materials used in your home's plumbing. If you are concerned about elevated lead levels in your home's water, you may wish to have your water tested and flush your tap for 30 seconds to 2 minutes before using tap water. Additional information is available from the Safe Drinking Water Hotline (800) 426-4791.

Other Monitoring

In addition to the required testing of our water system for regulated contaminates, we perform voluntary tests for additional substances and microscopic organisms to make certain our water is safe and of high quality. If you are interested in more detailed information, contact Rick Twait, Superintendent of Water Purification, or Jill Mayes, Laboratory Manager, at (309)747-2455. Water Quality Data for community water systems throughout the United States is available at www.waterdata.com.

Utility Affiliations

The City of Bloomington is proud to be a member of the American Water Works Association and a subscriber to the American Water Works Association Research Foundation. We also support staff membership in the Illinois Potable Water Supply Operators Association, the Illinois Lake Management Association, and the North American Lake Management Society.

2002 Source Water Assessment Summary

Community water suppliers are required to report a summary of their source water susceptiblity determination. The Illinois EPA compiles the water susceptiblity determination and must have completed all source water assessments by May 2003. This assessment is available on request by calling Rick Twait at (309)747-2455.

For more information about

the City of Bloomington

visit our Web Site at

http://www.cityblm.org