

## **2006 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 Water Department'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 all federal and state drinking water standards.**

### **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 reservoir and watershed management.

The City performs monitoring for the Illinois Environmental Protection Agency Clean Lakes Program for the Lake Bloomington and Evergreen reservoirs. Information on the conditions of the reservoirs, sources of possible contamination, and plans for improving our reservoirs 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 reservoirs have upon water quality.

### **Water Source**

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

### **An Explanation of the Water-Quality Data Table**

The table shows the results of our water quality analyses. Every regulated contaminant that we detected in the water, even the minutest 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 are from the most recent testing done in accordance with regulations.

**Maximum Contaminant Level or MCL:** The highest level of contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available 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 margin of safety.

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

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

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

**Treatment Technique (TT):** A required process intended to reduce the level of a contaminant in drinking water.

Contaminant	Date Tested	Unit	MGLG	MCL	Detected Level	Range	Violation
<b><i>Inorganic Contaminants</i></b>							
Barium	2006	ppm	2	2	0.012	n/a	No
Major sources: Discharge of drilling wastes, metal refineries; erosion of natural deposits.							
Nitrate (as N)	2006	ppm	10	10	5.4	0.61-5.4	No
Major sources: Runoff from fertilizer waste, leaching from septic tanks, sewage; erosion of natural deposits							
Selenium	2006	ppb	50	50	1.4	n/a	No
Major sources: Discharge from petroleum and metal refineries; erosion of natural deposits							
Lead	2005	ppb	0	AL=15	6	n/a	No
				1 site over AL			
Major sources: Corrosion of household plumbing systems; erosion of natural deposits							
Copper	2005	ppm	1.3	AL=1.3	0.05	n/a	No
Major sources: Corrosion of household plumbing systems; erosion of natural deposits							
<b><i>Synthetic Organic Contaminants (including pesticides &amp; herbicides)</i></b>							
Atrazine	2006	ppb	3	3	0.33	0 – 0.33	No
Major sources: Runoff from herbicide used on row crops.							
<b><i>Microbiological Contaminants</i></b>							
Turbidity Compliance	2006	%≤ 0.3 NTU	n/a	TT	100	100-100	No
Major sources: Soil runoff							
Turbidity	2006	NTU	n/a	TT=1 NTU Max	0.25	0.16-0.27	No
Major sources: Soil runoff							
<b><i>Radioactive Contaminants</i></b>							
Beta/Photon Emitters	2002	mRem/yr	0	4	2	2-2	no
Major sources: Decay of natural and man-made deposits							
<b><i>Disinfection/ Disinfectant By-Products</i></b>							
Chloramines	2006	ppm	MRDLG = 4	MRDL = 4	3.08	2.94-3.08	No
Major sources: Water additive to control microbes							
TTHMs (Total Trihalomethane)	2006	ppb	80	80	35	20.3-35	No
Major sources: By-product of drinking water chlorination							

Contaminant	Date Tested	Unit	MGLG	MCL	Detected Level	Range	Violation
<i>Disinfection/ Disinfectant By-Products continued</i>							
Total Haloacetic Acids	2006	ppb	n/a	60	16.4	8.8-16.4	No
Major sources: By-product of drinking water chlorination							
<i>State Unregulated Contaminants</i>							
Sulfate	2006	ppm	n/a	n/a	34	n/a	No
Major sources: Erosion of naturally occurring deposits							
<i>State Regulated Contaminants</i>							
Fluoride	2006	ppm	n/a	n/a	1.1	0.79-1.1	No
Major sources: Water additive which promotes strong teeth							
Sodium	2006	ppm	n/a	n/a	18	n/a	no
Major sources: Erosion of naturally occurring deposits; used in water softening							

**Key to Table:**

AL = Action Level

MCL = Maximum Contaminant Level

MCLG = Maximum Contaminant Level Goal

NTU = Nephelometric Turbidity Units

pCi/l = Picocuries per liter, used to measure radioactivity

ppb = parts per billion or micrograms per liter ( $\mu\text{g}/\text{l}$ )

ppm = parts per million, or milligrams per liter ( $\text{mg}/\text{l}$ )

TT = Treatment Technique

$\% \leq 0.3$  NTU = Percent samples less than or equal to 0.3 NTU

**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 water treatment 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).

**Nitrate**

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 the runoff from agricultural lands. If you are caring for an infant you should get advice from your health care provider. The City of Bloomington is required to immediately notify customers if nitrate levels rise above 10 ppm.

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>

**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 1-800-426-4791.

The sources of drinking water (both tap 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:

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 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, storm water runoff, and residential use.

Organic chemical contaminants, including synthetic and volatile organics, 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.

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, of 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 1-800-426-4791.

### **Lead Monitoring**

Due to consistently low results, the IEPA placed lead and copper sampling for our system on a reduced schedule. Our next round of sampling is scheduled for summer 2008. Infants and young children are typically more vulnerable to lead in drinking water than the general population. It is possible that lead levels in your home could 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. For additional protection, flush your tap for 30 seconds to 2 minutes before using tap water. Additional information is available from the Safe Drinking Water Hotline 1-800-426-4791.

### **Other Monitoring**

In addition to the required testing of our water system for regulated contaminants the Bloomington Water Department performs voluntary tests for additional substances and microscopic organisms to make certain our drinking 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 434-2150.

### **Source Water Assessment Summary**

Community water suppliers are required to report a summary of their source water susceptibility determination. The Illinois EPA has compiled source water assessments for all community water supplies including the City of Bloomington. This assessment is available upon request by calling Rick Twait at 434-2150 or by accessing the Illinois EPA website at [www.epa.state.il.us](http://www.epa.state.il.us)

### **Security**

The City of Bloomington Water Department is working to continually improve the security of our water system. A thorough security assessment was completed and we are working to implement the recommendations of that assessment. Since our water supply and distribution system is large, we ask all of our customers to be aware of any suspicious activities involving the water system. If anything suspicious is noted, please call the Water Department at 434-2426.

For more information about  
the City of Bloomington visit our website at  
<http://www.cityblm.org>

