CITY OF BLOOMINGTON

WATER DEPARTMENT

# 2008 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 Lake 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 (it's watershed) while the drainage area (it's watershed) 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 a 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. MRDLG's 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 | MCLG | MCL | Highest Detected Level | Range (Lowest to Highest Detected Level) | Violation |
|---|---|---|---|---|---|---|---|
| ***Inorganic Contaminants*** | | | | | | | |
| Arsenic | 2008 | ppb | n/a | 10 | 2 | n/a | No |
| | Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes. | | | | | | |
| Barium | 2008 | ppm | 2 | 2 | 0.046 | n/a | No |
| | Major sources: Discharge of drilling wastes, metal refineries; erosion of natural deposits. | | | | | | |
| Copper | 2008 | ppm | 1.3 | AL=1.3 | 0.082 | n/a | No |
| | Major sources: Corrosion of household plumbing systems; erosion of natural deposits | | | | | | |
| Iron | 2008 | ppb | n/a | 1000 | 29 | n/a | No |
| | Erosion from naturally occurring deposits. | | | | | | |
| Lead | 2008 | ppb | 0 | AL=15 | 2.4 | n/a | No |
| | Major sources: Corrosion of household plumbing systems; erosion of natural deposits | | | | | | |
| Nitrate (as N) | 2008 | ppm | 10 | 10 | 5 | 1 - 5 | No |
| | Major sources: Runoff from fertilizer waste, leaching from septic tanks, sewage; erosion of natural deposits | | | | | | |
| Selenium | 2008 | ppb | 50 | 50 | 1 | n/a | No |
| | Major sources: Discharge from petroleum and metal refineries; erosion of natural deposits | | | | | | |
| ***Microbiological Contaminants*** | | | | | | | |
| Turbidity Compliance | 2008 | %≤ 0.3 NTU | n/a | TT | 100 | 99.4 -100 | No |
| | Major sources: Soil runoff | | | | | | |
| Turbidity | 2008 | NTU | n/a | TT=1 NTU Max | 0.42 | 0.17-0.42 | No |
| | Major sources: Soil runoff | | | | | | |
| ***Radioactive Contaminants*** | | | | | | | |
| Beta/Photon Emitters | 2002 | mrem /yr | 0 | 4 | 2 | n/a | No |
| | Major sources: Decay of natural and man-made deposits | | | | | | |
| ***Disinfection/ Disinfectant By-Products*** | | | | | | | |
| Chloramines | 2008 | ppm | MRDLG = 4 | MRDL = 4 | 3.93 | 1.12-3.99 | No |
| | Major sources: Water additive to control microbes | | | | | | |
| Total Trihalomethane | 2008 | ppb | ppb | 80 | 36 | 26-36 | No |
| | Quarterly running annual average is 34. Major sources: By-product of drinking water chlorination | | | | | | |
| Total Haloacetic Acids | 2008 | ppb | n/a | 60 | 22 | 14-22 | No |
| | Quarterly running annual average is 18. Major sources: By-product of drinking water chlorination | | | | | | |

| Contaminant | Date Tested | Unit | MCLG | MCL | Highest Detected Level | Range (Lowest to Highest Detected Level) | Violation |
|---|---|---|---|---|---|---|---|
| ***State Unregulated Contaminants*** | | | | | | | |
| Sulfate | 2008 | ppm | n/a | n/a | 35 | n/a | No |
| | Major sources: Erosion of naturally occurring deposits | | | | | | |
| ***State Regulated Contaminants*** | | | | | | | |
| Fluoride | 2008 | ppm | n/a | n/a | 1.1 | 0.8 -1.1 | No |
| | Major sources: Water additive which promotes strong teeth | | | | | | |
| Sodium | 2008 | ppm | n/a | n/a | 17 | 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
MRDL = The highest level of disinfectant allowed in drinking water
MRDLG = The level of disinfectant in drinking water below which there is no known or expected risk to health
mrem/yr. = millirems per year, a measure of radiation absorbed by the body
ppb = parts per billion or micrograms per liter (µg/l)
ppm = parts per million, or milligrams per liter (mg/l)
TT = Treatment Technique
%≤0.3 NTU = Percent samples less than or equal to 0.3 NTU
% positive/month = percent of samples positive per month

***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.

***A Statement about Pharmaceutical Compounds.*** Recently, there has been media attention concerning the detection of a broad class of chemicals known as pharmaceutically active compounds (PAC's) in the environment and drinking water. Pharmaceutically active compounds include prescription and over the counter drugs, veterinary drugs, fragrances, and cosmetics. Advanced testing methods can detect these compounds at a level of parts per trillion. People expose themselves to products containing these compounds at much higher concentrations through foods, beverages, medicines, and cosmetics. The City of Bloomington is a subscriber to the American Water Works Association Research Foundation, which provides research on emerging topics. The presence of these compounds at levels of concern is not likely in our source waters because we do not have likely concentrated sources of these compounds in our watersheds. These sources would include public wastewater treatment plants or large animal production operations. We have conducted testing of our source waters and this has detected a few PAC's at very low levels. However, the water purification process in the City's water treatment facility is well-suited to optimize removal of these compounds. Citizens can help keep water clean by not flushing prescription drugs down the toilet unless the drug information instructs it is safe to do so.

***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 at 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 at 1-800-426-4791.

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

***Cryptosporidium monitoring.*** Cryptosporidium is a naturally occurring microbial pathogen found in surface water throughout the U.S. Monitoring done in 2008 indicates the presence of these organisms in the raw (untreated) source water. Although the water treatment process includes filtration and sedimentation, which removes Cryptosporidium; complete removal of all organisms at all times cannot be guaranteed. We encourage immuno-compromised individuals to consult their doctor regarding appropriate precautions to take to avoid infection.

***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 2011. Infants and young children are typically more vulnerable to lead in drinking water then 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 by a private laboratory. 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 at 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

***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

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ILLINOIS