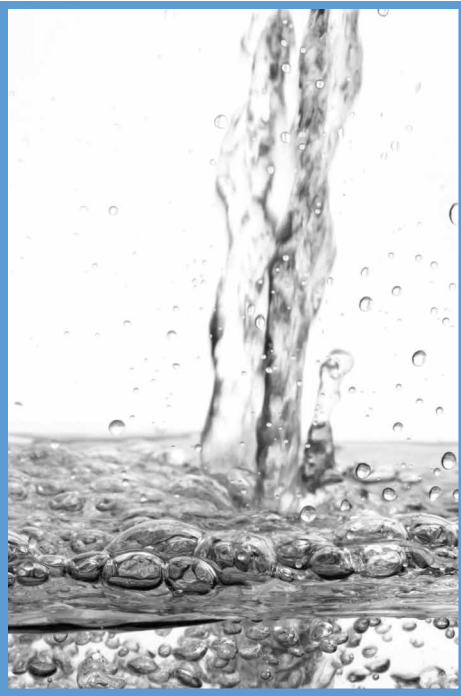




CITY OF
Bloomington
ILLINOIS



2014 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.

Overview

The Bloomington Water department is 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 are part of the study reports. The City is or has been actively engaged in research projects with Illinois State University, the University of Illinois, the Nature Conservancy, McLean County Soil and Water Conservation District, Friends of Everbloom 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.

If you would like to learn more about the decision making process that impacts drinking water quality, please feel welcome to attend any of the regularly-scheduled Council meetings. The City Council meets on the second and fourth Mondays every month at 7 pm in the City Hall Council Chambers. All City Council meetings are open to the public and are handicap accessible.

Water Source

The City of Bloomington obtains water from two manmade 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.

Year Sampled: While most monitoring was conducted in 2014, certain substances are monitored less than one per year because the levels do not change frequently.

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. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

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 do not reflect the benefits of the use of disinfectants to control microbial contaminants.

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

Highest Level Detected: In most cases, the "Highest Level Detected" is the annual average of all samples collected during the calendar year. It may represent a single sample, if only one sample was collected. For contaminants monitored quarterly, a quarterly average is calculated using all routine/confirmation samples collected during the quarter. Next, an annual average is calculated for each location by adding the quarterly averages and dividing by four. The location with the highest annual average is used in the table.

Contaminant	Year Sampled	Unit	MCLG	MCL	Highest Level Detected	Range (Lowest to Highest Detected Level)	Violation
Inorganic Contaminants							
Barium	2014	ppm	2	2	0.011	NA	No
	Typical Sources: Discharge of drilling wastes, metal refineries; erosion of natural deposits						
Fluoride	2014	ppm	4	4	0.93	0.9-1.1	No
	Typical Sources: Water additive which promotes strong teeth						
Iron	2014	ppm	NA	1	0.039	NA	No
	Typical Sources: Erosion from naturally occurring deposits						
Nitrate (as N)	2014	ppm	10	10	2	0.3-2.5	No
	Typical Sources: Runoff from fertilizer wastes, leaching from septic tanks, sewage; erosion of natural deposits						
Sodium	2014	ppm	NA	NA	11	NA	No
	Typical Sources: Erosion from naturally occurring deposits; used in water softening						
Lead and Copper							
Copper	2014	ppm	1.3	AL=1.3	0.078	NA	No
	Typical Sources: Corrosion of household plumbing systems; erosion of natural deposits						
Lead	2014	ppb	0	AL=15	2.1	NA	No
	Typical Sources: Corrosion of household plumbing systems; erosion of natural deposits						
Disinfection/Disinfectant By-Products							
Chloramines	2014	ppm	MRDLG=4	MRDL=4	3.5	3-3.5	No
	Typical Sources: Water additive to control microbes						
Total Haloacetic Acids	2014	ppb	NA	60	33	3.5-35.5	No
	Typical Sources: By-product of drinking water chlorination						
Total Trihalomethane	2014	ppb	NA	80	46	32.38-53.77	No
	Typical Sources: By-product of drinking water chlorination						
Synthetic Organic Chemicals							
Atrazine	2014	ppb	3	3	0.4	ND-0.4	No
	Typical Sources: Runoff from herbicide used on row crops						
Radiological Contaminants							
Combined Radium 226/228	2013	pCi/L	0	5	1.075	NA	No
	Typical Sources: Erosion of natural deposits						
Gross Alpha Emitters	2013	pCi/L	0	15	0.941	NA	No
	Typical Sources: Erosion of natural deposits						

	Date Tested	Limit (TT)	Level Detected	Violation
Turbidity				
Turbidity Highest Single Measurement	2014	1 NTU	0.34	No
	Typical Sources: Soil runoff			
Lowest Monthly % Meeting Limit	2014	0.3 NTU	100%	No
	Typical Sources: Soil runoff			
Total Organic Carbon				
The percentage of Total Organic Carbon (TOC) removal was measured each month, and the system met all TOC removal requirements.				

Key to Table:

AL = Action Level
 ND = None Detected
 MCL = Maximum Contaminant Level
 NTU = Nephelometric Turbidity Units
 MCLG = Maximum Contaminant Level Goal
 pCi/L = picoCuries per Liter
 MRDL = Maximum Residual Disinfectant Level
 ppb = parts per billion or micrograms per liter (µg/l)
 MRDLG = Maximum Residual Disinfectant Level Goal
 ppm = parts per million or milligrams per liter (mg/l)
 NA = Not Applicable
 TT = Treatment Technique

Common Water Quality Parameters for Bloomington Water		
Parameter/Units	Minimum/Maximum Level	Average Level
Total Alkalinity (as CaCO ₃)/(ppm)	37-92	60
Total Hardness (as CaCO ₃)/(ppm)	88-136	107
Calcium Hardness (as CaCO ₃)/(ppm)	58-104	83
Magnesium Hardness (as CaCO ₃)/(ppm)	8-40	24
pH/(units)	8.8-9.1	9

About the Data

Sodium: This contaminant is not currently regulated and there is no MCL for sodium. Monitoring is required to provide information to consumers and health officials who are concerned about sodium intake due to dietary precaution. If you are on a sodium restricted diet, consult a physician about this level.

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.

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 EPA'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, 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

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, people with HIV/AIDS or other immune system disorders and some elderly and infants can be particularly at risk from infections. These people should seek advice about drinking water from their healthcare providers. US Environmental Protection Agency/Communicable Disease Control (USEPA/CDC) guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants are available from the USEPA's Safe Drinking Water Hotline at 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. 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 two minutes before using tap water. Additional information is available from the Safe Drinking Water Hotline at 1-800-426-4791 or at <http://www.epa.gov/safewater/lead>

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 309-434-2150.

Water Supply Protection and Planning: The City of Bloomington is actively involved in watershed protection and lake management activities. An oversight committee holds regular meetings to implement watershed and lake management plans for both reservoirs. The committee members are from the City, the Town of Normal, McLean County, various agriculture agencies and citizen organizations. Long-term water supply planning includes management of our existing resources and development of new sources. Our interim water supply plan is linked at the City of Bloomington website: <http://www.cityblm.org/water>

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. Primary sources of pollution in Illinois lakes can include agricultural runoff, land disposal (septic systems) and shoreline erosion. This assessment is available upon request by calling Rick Twait at 309-434-2150 or by accessing the Illinois EPA website: <http://www.epa.state.il.us/cgi-bin/wp/swap-fact-sheets.pl>

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 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 presence of these compounds at levels of concern is not likely in our source waters, and the water purification process in the City's water treatment facility is well-suited to optimize removal of these compounds. The City of Bloomington is a subscriber to the American Water Works Association Research Foundation, which provides research on emerging topics. 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. For information regarding collection programs and medication disposal locations contact your local pharmacy or visit www.epa.state.il.us/medication-disposal/

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 309-434-2426.

**The 2014 Water Quality Report for Bloomington may be viewed online at:
<http://www.cityblm.org/WaterQuality>**

Demonstrating Innovation & Collaboration...

The City relies upon Lake Bloomington and Evergreen Lake to supply water to more than 80,000 people. Since the mid-1980s, the Water department has been developing and implementing a lake and watershed program to improve source water quality, extend the longevity of the reservoirs and meet water standards. The McLean County Soil and Water Conservation District (SWCD) has been a partner in the program from its inception.

In the early 1990s, Bloomington's drinking water exceeded the nitrate nitrogen standard. The cost to install nitrate removal treatment at the water plant was estimated to cost \$3 million and was not an attractive option to staff. City staff decided to research methods of limiting the delivery of nitrates to the reservoir at their sources instead of removing them at the plant.

The SWCD and Water department staff started a sampling program to measure nitrate concentrations in streams, storm runoff, ponds and tile drainage. After the primary source of nitrate was demonstrated to be agricultural drainage tiles, researchers from Illinois State University joined the City in the effort to limit nitrogen losses through changes in application practices. The City installed an experimental tile system that measured nitrate delivery from six individual five-acre plots, each with a different nitrogen application regime. Two experimental wetlands were built to accept the tile drainage and surface runoff from the research farm.

Many lake and watershed activities with a variety of partners occurred over the past few decades. Some of the projects that were implemented in the watersheds include clean lakes program diagnostic/feasibility studies, nutrient management programs, buffer strip plantings and other conservation practices. Partners included Pheasants Forever, Illinois EPA, USDA, the Sand County Foundation, Illinois Department of Agriculture, Illinois State University, the University of Illinois and Extension and local technical service providers.

Most operators and landowners are very aware of the nitrate issue and are willing to investigate techniques to improve their efficiency. High land prices and delays in cost reimbursement for installation of conservation practices can be impediments to participation. The City is investigating the possibility of a revolving fund to decrease or eliminate out-of-pocket expenses for installing certain practices.

Through innovation and collaboration, great things are possible.

Planning for the Future...

The Water department's greatest responsibility is to deliver safe and adequate amounts of water to the customers and businesses. It is essential to maintain that capability each hour of every day, now and into the future.

The surface water supply in Bloomington has been designed to provide over one year's worth of water supply assuming no additional flow into the reservoirs. Although rare, severe drought conditions can jeopardize the ability to meet water demands. In response to the drought of the late 1980s, the City addressed the need for additional water supply by increasing the Evergreen Lake reservoir capacity by over one billion gallons. The City has also developed the Mackinaw River pumping pool which can be used to extend the capacity of the reservoirs.

The Water department is addressing the issue of long-term water supply sustainability in a variety of ways. First and foremost, it has undertaken strategic source water studies. This includes forecasts of long-term demands, including the City's Interim Water Supply Plan and participation in the Mahomet Aquifer Consortium/Regional Water Supply Planning Committee water demand forecasts. Efforts also include a comprehensive watershed management program which has been successful in attracting hundreds of thousands of grant dollars for long-term watershed management.

The City has an active leak detection program which identifies leaks through very sophisticated means that might otherwise go undetected. This comprehensive program has resulted in the repair of hundreds of leaks, which would have amounted to millions of gallons of water lost each year if they remained undetected. The City has also been upgrading water meters to ensure that water is accurately measured and each customer fairly pays for the water they actually use.

Lastly, the City has been working for nearly twenty years on the development of an additional water supply for quantity purposes in the western part of McLean County. The identification of the optimal locations for wells in this area came about because the City undertook a groundwater research project to identify groundwater resources in the area and the quantity that can be safely withdrawn from the aquifer in the future. In fact, the City of Bloomington and the Town of Normal have jointly funded the Illinois State Water Survey to perform ongoing monitoring of observation wells in the area for decades.

With careful planning, the Water department looks forward to the future.