CITY OF BLOOMINGTON

2013 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.

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 or have 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 affect drinking water quality, please feel welcome to attend any of the regularly scheduled council meetings. The City Council meets on the 2nd and 4th Mondays every month at 7:00 PM in the City Hall Council Chambers on the 2nd Level. All City Council meetings are open to the public and are handicap accessible.

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.

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

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 of 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.

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	Date Tested	Unit	MCLG	MCL	Highest Level Detected	Range (Lowest to Highest Detected Level)	Violation
Inorganic Contaminants							
Arsenic	2013	ppb	0	10	1.2	NA	No
	Major sources: Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes.						
Barium	2013	ppm	2	2	0.0065	NA	No
	Major sources: Discharge of drilling wastes, metal refineries; erosion of natural deposits.						
Fluoride	2013	ppm	4	4	0.9	0.9—1.1	No
	Major sources: Water additive which promotes strong teeth						
Iron	2013	ppm	NA	1	0.011	NA	No
	Major sources: Erosion from naturally occurring deposits.						
Manganese	2013	ppb	150	150	2	NA	No
	Major sources: Erosion of naturally occurring deposits.						
Nitrate (as N)	2013	ppm	10	10	7	0.3 – 9.3	No
	Major sources: Runoff from fertilizer wastes, leaching from septic tanks, sewage; erosion of natural deposits.						
Sodium	2013	ppm	NA	NA	17	NA	No
	Major sources: Erosion of naturally occurring deposits; used in water softening						
Zinc	2013	ppm	5	5	0.015	NA	No
	Major sources: Naturally occurring; discharge from metal factories						
Lead and Copper							
Lead	2011	ppb	0	AL=15	2.6	NA	No
	Major sources: Corrosion of household plumbing systems; erosion of natural deposits						
Copper	2011	ppm	1.3	AL=1.3	0.076	NA	No
	Major sources: Corrosion of household plumbing systems; erosion of natural deposits						
Disinfection/ Disinfectant By-Products							
Chloramines	2013	ppm	MRDLG=4	MRDL=4	3.3	3.3 – 3.4	No
	Major sources: Water additive to control microbes.						
Total Haloacetic Acids	2013	ppb	NA	60	30	ND-33.6	No
	Major sources: By-product of drinking water chlorination						
Total Trihalo-methane	2013	ppb	NA	80	43	26-54.8	No
	Major sources: By-product of drinking water chlorination						
Radiological Contaminants							
Combined Radium 226/228	2013	pCi/L	0	5	1.075	NA	No
	Major sources: Erosion of natural deposits.						
Gross Alpha emitters	2013	pCi/L	0	15	0.941	NA	No
	Major sources: Erosion of natural deposits.						
Unregulated Contaminants							
Chromium, Total	2013	ppb	100	1000	Entry point into distribution system		
					2.0	1.7 - 2.3	No
					Distribution system		
					2.0	1.7 – 2.4	No
	Major sources: Discharge from steel and pulp mills; erosion of natural deposits						
Chromium-6 or Hexavalent Chromium	2013	ppb	NA	NA	Entry point into distribution system		
					2.0	1.7 – 2.4	No
					Distribution system		
					2.0	1.7 – 2.4	No
	Major sources: Naturally-occurring element; used in making steel and other alloys; chromium-3 or -6 forms are used for chrome plating, dyes and pigments, leather tanning and wood preservation						

Contaminant	Date Tested	Unit	MCLG	MCL	Highest Level Detected	Range (Lowest to Highest Detected Level)	Violation
Unregulated Contaminants continued							
Molybdenum	2013	ppb	NA	NA	Entry point into distribution system		
					0.325	ND – 1.3	No
					Distribution system		
					0.3	ND – 1.2	No
	Major sources: Naturally-occurring element found in ores and present in plants, animals, and bacteria; commonly used form molybdenumtrioxide used as a chemical agent.						
Perfluorooctanoic acid (PFOA)	2013	ppb	NA	NA	Entry point into distribution system		
					0.01	ND – 0.04	No
	Major sources: Perfluorinated aliphatic carboxylic acid; used for its emulsifier and surfactant properties in or as a fluoropolymers (such as Teflon), fire-fighting foams, cleaners, cosmetics, greases and lubricants, paints, polishes, adhesives, and photographic films.						
Strontium	2013	ppb	NA	NA	Entry point into distribution system		
					60	52 - 68	No
					Distribution system		
					63	59 - 65	No
	Major sources: Naturally-occurring element; historically commercial use of strontium has been in the faceplate glass of cathode-ray tube televisions to block x-ray emissions.						
Vanadium	2013	ppb	NA	NA	Entry point into distribution system		
					1.5	1.0 – 2.1	No
					Distribution system		
					1.2	1.0 – 1.7	No
	Major sources: Naturally-occurring elemental metal; used as vanadium pentoxide which is a chemical intermediate and a catalyst.						

Turbidity	Date Tested	Limit (TT)	Level Detected	Violation
Turbidity Highest single measurement	2013	1 NTU	0.21	No
	Major sources: Soil runoff			
Lowest monthly % meeting limit	2013	0.3 NTU	100%	No
	Major 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)	40 - 96	58
Total Hardness (as $CaCO_3$)/(ppm)	90 - 140	117
Calcium Hardness (as $CaCO_3$)/(ppm)	60 - 96	71
Magnesium Hardness (as $CaCO_3$)/(ppm)	30 – 46	44
pH /(units)	8.8 – 9.0	8.9
ppm = parts per million		

About the Data

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 rainfall or agricultural activity. 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.

Unregulated Contaminant Monitoring

A maximum contaminant level (MCL) for these contaminants has not been established by either state of federal regulations, nor has mandatory health effects language been set. The purpose of unregulated contaminant monitoring is to assist USEPA in determining the occurrence of unregulated contaminants in drinking water and whether future regulation is warranted.

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.

Water Supply Protection and Planning

The City of Bloomington is actively involved in watershed protection and lake management activities. An oversight committee holds regular meeting 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.

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, 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 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 2014. 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 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 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. 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 drop off 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 434-2426.

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

The 2013 Water Quality Report for Bloomington may be viewed online at:

http://www.cityblm.org/waterquality2013

For More Information About the City of Bloomington, Please Visit Our Website: www.cityblm.org

City of Bloomington
Water Department
309-434-2426

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