



Looking Back...

Recent efforts by the City of Bloomington Utilities have been focused on maintaining and improving water quality. Residents have become used to a water supply that is both plentiful and reliable. Early settlers to Monroe County, however, faced an entirely different situation. They depended on springs and streams, which frequently dried up. As a result, citizens looked to local government for help in securing an adequate supply of water.

Within months of the county's founding in 1818, a well was drilled on the courthouse square. In 1860, citizens petitioned the county commissioners to construct a cistern to collect rainwater running off the courthouse roof. Continued water shortages, and the lack of a municipal fire department, led to a ban on wood construction in downtown Bloomington. In 1885, a 2670-ft. well was drilled on the courthouse square. No usable water was found.

In 1891 an ordinance established a water franchise to provide water service to the city. After a series of ownership changes, the plant was sold to the city in 1898 to pay off labor claims. Lack of rainfall, and higher than normal temperatures severely limited the plant's ability to provide water during much of the next twenty years. In late 1922, the waterworks shut down three days per week because there wasn't enough water to pump.

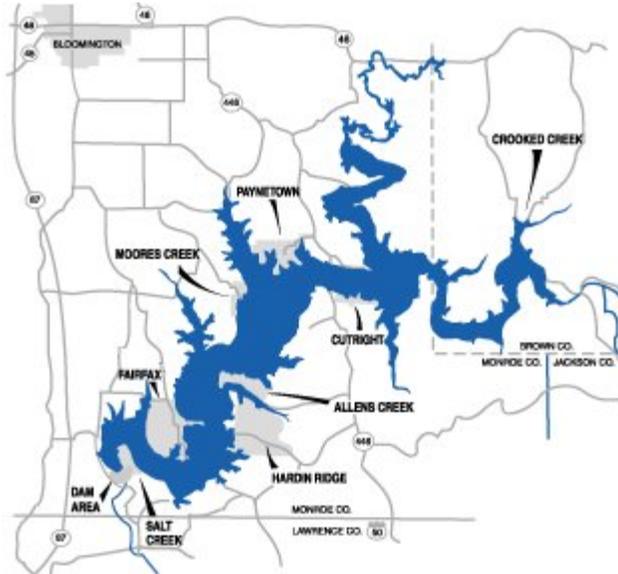
The original water plant and retention basin had been constructed West of town in very porous soil. A second lake was built in 1905 to catch leakage from the first, and a third, Weimer, was constructed in 1909 to solve the problems of the first two. A dam at Leonard's Spring in 1915 didn't solve the problem either. The drought in 1922 precipitated a multi-year debate over where future construction should take place. The local chamber of commerce formed at this time to work for a reliable source of water for Bloomington. For the first time, a scientific study was used to determine the feasibility of potential sites.

Bloomington's "water question" was solved when construction began on Lake Griffy in 1924. The city completed its purchase of this plant in 1939. Leonard Springs continued to supply 1/3 of Bloomington's water until 1943. Improvements to Griffy, and construction of Lake Lemon in the 1950's were, however, followed by another period of drought. As a solution to projected water needs, construction on Lake Monroe began in 1965. Monroe Plant went online in September of 1967, and continues to provide Bloomington with an adequate, reliable source of water.

CBU water again surpasses all requirements

Bloomington had excellent drinking water again in 2000. No violations of federal, state or local regulations were detected.

Your Water Source



The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs and wells. The source of the City of Bloomington Utilities drinking water is surface water that is obtained from Monroeville Reservoir. As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals and, in some cases, 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, stormwater runoff, and residential uses
- organic chemicals including synthetic and volatile organic chemicals, which are byproducts of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, and septic systems
- radioactive materials 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, EPA prescribes regulations that limit the amount of certain contaminants in water provided by public water systems. Food and Drug Administration (FDA) regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

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 the 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 (800) 426-4791.

Special Concerns

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, 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. EPA and CDC guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the Safe Drinking Water Hotline at (800) 426-4791.

Thirty years experience caring for Bloomington's drinking water



John Trotter was born in Bloomington in 1946. He has lived his entire life here in Monroe County except for 1965 to 1969 while he was away serving with the United States Air Force. Upon completing military service he returned to Bloomington and began employment with City of Bloomington Utilities. His first job in water treatment was as plant operator at the Griffy Water Plant on north Dunn Street. He was promoted to Superintendent of the Monroe Water Treatment Plant in 1971. One of the things John enjoys most is telling people about the care and treatment their water receives.

Water Quality Table

Substance	Highest Level Allowed (EPA's MCL*)	Highest Level Detected	Ideal Goals (EPA's MCLGs*)	Sources of Contamination
MICROBIOLOGICAL CONTAMINANTS				
Turbidity	Treatment Technique*	.28 turbidity units ¹	None	Soil runoff
RADIOACTIVE CONTAMINANTS				
Alpha emitters ²	15 pCi/l*	0.4 1.3 pCi/l	0	Erosion of natural deposits
INORGANIC CONTAMINANTS				
Barium	2 ppm*	0.018 ppm	2 ppm	Erosion of natural deposits
Copper ²	1.3 ppm (Action Level)*	0.20 ppm (90th Percentile)*	1.3 ppm	Corrosion of household plumbing systems
Fluoride	4 ppm	1.20 ppm ³	4 ppm	Water additive which promotes strong teeth
Nitrate	10 ppm	0.099 ppm	10 ppm	Erosion of natural deposits
Lead ²	15 ppb (Action Level)*	4.4 ppb (90th Percentile)*	0	Corrosion of household plumbing systems
VOLATILE ORGANIC CONTAMINANTS				
Total Trihalomethanes	100 ppb*	45 ppb average ⁴	0	By-product of drinking water chlorination
UNREGULATED CONTAMINANTS				
Beta emitters ^{2,5}	50 pCi/l	1.3 2.1 pCi/l	0	Decay of natural and man-made deposits
Chlorine, Free Residual	Not Regulated	1.7 ppm	Not Regulated	Disinfection process
Chlorine, Total Residual	5.0 ppm	2.7 ppm	None	Disinfection process
Haloacetic Acids (HAA5)	60 ppb (proposed)	19.1 ppb average	Not Regulated	By-product of drinking water chlorination
Heterotrophic Plate Count	500 CFU/ml*	31 colony forming units*	None	Natural lake bacteria, wildlife, septic systems

Sodium	Not Regulated	4.2 ppm	Not Regulated	Erosion of natural deposits
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LISTED ABOVE are 14 contaminants detected in Bloomington's drinking water during 2000. All are below allowed levels. Not listed are the 81 contaminants for which we tested that were not detected.

***DEFINITIONS:**

MAXIMUM CONTAMINANT LEVEL (MCL) - The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to to the MCLGs as feasible using the best available treatment technology.

MAXIMUM CONTAMINANT LEVEL GOAL (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.

ppm - parts per million. Equivalent to milligrams per liter (mg/l).

ppb - parts per billion. Equivalent to micrograms per liter (ug/l).

pCi/l - Picocuries per liter is a measure of radioactivity in water. A picocurie is 10^{-12} curies and is the quantity of radioactive material producing 2.22 nuclear transformations per minute.

Action Level - The concentration of a contaminant which, if exceeded, triggers treatment or other requirement, which a water system must follow. Action Levels are reported at the 90th percentile for homes at the greatest risk.

Treatment Technique - A required process intended to reduce the level of a contaminant in drinking water.

CFU/ml - Colony forming units per milliliter.

Colony Forming Unit - An area of visually distinct bacterial growth which may result from a single bacterium or pairs, clusters or chains of bacteria.

ADDITIONAL INFORMATION:

1 - Turbidity levels ranged from 0.08 to .28 with an average of 0.14 turbidity units. The lowest level of compliance on a monthly basis was 100%.

2 - Data listed are from 1998 and are the most recent testing done in accordance with regulations.

3 - Fluoride levels ranged from 0.25 to 1.2 with an average of 1.00 ppm.

4 - Total trihalomethane levels ranged from 26 to 61 ppb.

5 - Based on community size, CBU is not regulated for Beta emitters.