Working hard to protect your drinking water

The terrorist acts of September 11, 2001 were a wake-up call for water suppliers everywhere. Since that date, Bloomington Utilities has worked hard to re-examine and improve security for your water system. A federally required vulnerability assessment was recently completed and filed with the Environmental Protection Agency. This assessment is designed to identify weaknesses in the water purification, transmission and storage systems. The study was paid for with grant money appropriated by the Homeland Security Legislation passed by the US Congress last year. The Utilities Department immediately began planning for current and future security concerns recognized in the assessment. The next step in the federal security program will be to complete a formal contingency plan by the end of 2003.

Monroe Water Plant is 36 years old in 2003

Because of our reputation for consistently producing excellent quality drinking water, our customers may not realize that the Monroe Water Treatment Facility will turn 36 years old this year. CBU utilizes an aggressive preventative maintenance program to provide the system reliability our customers expect. But even with rigorous attention to system maintenance, the plant is approaching the end of its design-life. Mindful of the treatment plant's age and condition, the Utilities Service Board (USB) has developed plans and secured funding to upgrade all major plant equipment. The renovation will start late this year and is to be completed in the summer of 2005. Other water system components were evaluated at the same time plant upgrades were reviewed. Customers can view the Long-Range Water System Capital Improvement plan in the Planning and Reports section of the Utilities web site.

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 Monroe 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.

Wow! You love the Taste of Bloomington Water

Early this year CBU made some minor adjustments to disinfectant levels used to discourage bacterial growth in the distribution system (pipes). Many customers called to report a change in the taste of the water. Almost every caller (including world travelers) told us that they like the taste of Bloomington water!! Thanks to our customers for such a positive, supportive response - we'll keep trying.

Water Quality Table

Substance	**Highest Level Allowed** (EPA's MCL*)	**Highest Level Detected**	**Ideal Goals** (EPA's MCLG*)	**Sources of Contamination**
MICROBIOLOGICAL CONTAMINANTS				
Total Coliform	5 percent of samples per month	0.2 percent	0	Naturally present in the environment
Turbidity	Treatment Technique*	.47 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*	0.016 ppm	2 ppm	Erosion of natural deposits
Copper [7]	1.3 ppm (Action Level)*	0.21 ppm (90th Percentile)*	1.3 ppm	Corrosion of household plumbing systems
Fluoride	4 ppm	.88 ppm [3]	4 ppm	Water additive which promotes strong teeth
Nitrate	10 ppm	0.32 ppm	10 ppm	Erosion of natural deposits
Lead [7]	15 ppb (Action Level)*	4.4 ppb (90th Percentile)*	0	Corrosion of household plumbing systems
VOLATILE ORGANIC CONTAMINANTS				
Total Trihalomethanes	100 ppb*	49.4 ppb average [4]	0	By-product of drinking water chlorination
Haloacetic Acids (HAA5)	60 ppb	52.2 ppb average [6]	0	By-product of drinking water chlorination
Toluene	1 ppm	0.0022 ppm	0	Recreational activities at reservoir

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	.3 ppm	Not Regulated	Disinfection process
Chlorine, Total Residual	5.0 ppm	2.9 ppm	None	Disinfection process
Haloacetic Acids (HAA5)	60 ppb (proposed)	52.2 ppb average [6]	Not Regulated	By-product of drinking water chlorination
Heterotrophic Plate Count	500 CFU/ml*	> 200 CFU/ml	None	Natural lake bacteria, wildlife, septic systems
Sodium	Not Regulated	4.5 ppm	Not Regulated	Erosion of natural deposits

LISTED ABOVE are 14 contaminants detected in Bloomington's drinking water during 2002. All are below allowed levels. Not listed are the over 80 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 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 0.05 to 0.47 with an average of 0.26 turbidity units. The lowest level of compliance on a monthly basis was 96%.
2 - Data listed are from 1998 and are the most recent testing done in accordance with regulations.
3 - Fluoride levels ranged from 0.48 to 1.28 with an average of .88 ppm.
4 - Total trihalomethane levels ranged from 25.8 to 81.8 ppb.
5 - Based on community size, CBU is not regulated for Beta emitters.
6 - Haloacetic acids (HAA5) levels ranged from 18.2 to 79.0 ppb.
7 - Data listed are from 2001 and are the most recent testing done in accordance with regulations.