

2016 EMWC Water Quality Report

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. U.S. Environmental Protection Agency and Centers for Disease Control 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.

Detected Contaminants Table

Substance	Highest Level Allowed (EPA's MCL*)	Highest Level Detected	Ideal Goals (EPA's MCLG's*)	Sources of Contamination
Microbiological Contaminants				
Heterotrophic Plate Count	Treatment Technique (TT)*	> 200 CFU/ml	None	Natural lake bacteria, wildlife, septic systems
Total Coliform Bacteria	5 percent	2.1 percent	0	Naturally present in the environment
Total Organic Carbon (TOC)	minimum 35% removal	38.1% removal average ¹	None	Naturally present in the environment
Turbidity	Treatment Technique	0.16 turbidity units ²	None	Soil runoff
Inorganic Contaminants				
Barium	2 ppm*	0.018 ppm	2 ppm	Erosion of natural deposits
Copper	TT; Action Level* = 1.3 ppm	0.016 ppm ^{(90th Percentile)*}	1.3 ppm	Corrosion of household plumbing systems; erosion of natural deposits
Chloramines (as Chlorine)	4.0 ppm (MRDL)*	3.90 ppm	4 ppm (MRDLG)*	Water additive to control microbes
Fluoride	4 ppm	0.78 ppm ³	4 ppm	Water additive which promotes strong teeth
Lead	TT; Action Level = 15 ppb*	1.0 ppb ^(90th Percentile)	0	Corrosion of household plumbing systems; erosion of natural deposits
Organic Contaminants				
Haloacetic Acids (HAA5)	60 ppb	40.8 ppb average ⁴	0	By-product of drinking water disinfection
Total Trihalomethanes (TTHM)	80 ppb	45.2 ppb average ⁵	0	By-product of drinking water chlorination
LISTED ABOVE are 11 contaminants detected in Bloomington's and EMWC's drinking water during 2016. All are within allowable levels. Not listed are the over 70 primary contaminants for which we tested that were not detected.				

* DEFINITIONS:

90th Percentile - Ninety percent of samples had lower values than the value indicated.

Action Level - The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.

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.

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 contaminant in drinking water below which there is no known or expected risk to health.

MCLGs allow for a margin of safety.

Maximum Residual Disinfectant Level (MRDL) - The highest level of a 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 (MRDLG) - The level of a drinking water disinfectant 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 contamination.

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.

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

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

Total Organic Carbon (TOC) - a measurement of natural and man-made organic material in the water. TOC reacts with disinfectants to form disinfection by-products.

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

ADDITIONAL INFORMATION:

¹ Total Organic Carbon (TOC) removal percentages ranged from 27.3% to 48.9%.

² Turbidity levels ranged from 0.04 to 0.16 with an average of 0.08 turbidity units. The lowest level of compliance on a monthly basis was 100%.

³ Fluoride levels ranged from 0.51 to 0.96 with an average of 0.78 ppm.

⁴ Haloacetic acids (HAA5) levels ranged from 26.0 to 53.0 ppb. Some people who drink water containing haloacetic acids in excess of the MCL over many years may have an increased risk of getting cancer.

⁵ Total trihalomethane levels ranged from 33.0 to 55.1 ppb. Some people who drink water containing trihalomethanes in excess of the MCL over many years could experience problems with their liver, kidneys, or central nervous systems, and may have increased risk of getting cancer.