

Your Drinking Water Source

The source of the City of Bloomington’s drinking water is surface water from Monroe Reservoir, located nine miles southeast of Bloomington. The City of Bloomington has received a copy of the Indiana-Monroe Reservoir Source Water Assessment. Federal guidelines require the State of Indiana to issue Source Water Assessments in order to identify significant or possible sources of contamination. Information concerning Monroe Reservoir’s Source Water Assessment is available by contacting the City of Bloomington’s Water Quality Office.

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, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or human activity.

Contaminants that may be present in source water include:

- Microbial contaminants, such as viruses and bacteria, that may come from sewage treatment plants, septic systems, agricultural livestock operations and wildlife.
- Inorganic contaminants, such as salts and metals, that can be naturally occurring or result from urban stormwater runoff, industrial or domestic waste water discharges, oil and gas production, mining, or farming.
- Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses
- Organic chemical contaminants, include synthetic and volatile organic chemicals, that are byproducts of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, and septic systems.
- Radioactive contaminants, which can be naturally occurring or be the result of oil and gas production and mining activities.

***DEFINITIONS:**

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

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 technique.

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): A level of a disinfectant added for water treatment that may not be exceeded at the consumer’s tap without an unacceptable possibility of adverse health effects.

Maximum Residual Disinfectant Goal (MRDLG): A maximum level of disinfectant added for water treatment and for which no known or anticipated adverse effect on human health would occur.

ppm: Parts per million. Equivalent to milligrams per liter (mg/l).

ppb: Parts per billion. Equivalent to micrograms per liter (ug/l).

Action Level (AL): The concentration of a contaminant that triggers treatment or other requirements that 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 levels of contaminants in drinking water.

CFU/ml: Colony forming units per milliliter. Colony Forming Units are an area of visually distinct bacterial growth which may result from a single bacterium or pairs, clusters or chains of bacteria.

Oocyst: The earliest stage of the life cycle of a protozoan, or single-celled organism.

NTU: Nephelometric turbidity unit is a measure of the clarity of water. Turbidity in excess of 5 NTU is just noticeable to the average person.



Listed Below are the 13 contaminants detected in Bloomington’s drinking water during 2008. All are within allowable levels. Not listed are the over 75 primary contaminants for which we tested that were not detected.

Detected Contaminants Table				
Substance	Highest Level Allowed (EPA's MCL*)	Highest Level Detected	Ideal Goals (EPA's MCLG's)	Sources of Contamination
Microbiological Contaminants				
Total Coliform Bacteria	5 percent ¹	1.3 percent	0	Naturally present in the environment
Heterotrophic Plate Count	500 CFU/ml*	49 CFU/ml	None	Natural lake bacteria; wildlife; septic systems
Turbidity	TT*	0.27 NTU* ²	None	Soil runoff
Cryptosporidium	TT*	0.1 oocysts*	0	Natural lake bacteria; wildlife; septic systems
Inorganic Contaminants				
Barium	2 ppm*	0.014 ppm	2 ppm	Erosion of natural deposits
Copper	1.3 ppm (AL)*	0.012 ppm (90th%)*	1.3 ppm	Corrosion of household plumbing systems; erosion of natural deposits
Chloramines (as Chlorine)	4.0 ppm (MRLD)*	2.8 ppm	4 ppm (MRDLG)*	Water additive to control microbes
Fluoride	4 ppm	1.41 ppm ³	4 ppm	Water additive which promotes strong teeth
Nitrate (as Nitrogen)	10 ppm	0.22 ppm	10 ppm	Runoff from fertilizer use; leachate from septic systems; erosion of natural deposits
Lead	15 ppb (AL)	3.8 ppb (90th %)*	0	Corrosion of household plumbing systems; erosion of natural deposits
Organic Contaminants				
Total Trihalomethanes	80 ppb	47.3 ppb (average) ⁴	0	By-product of drinking water chlorination
Haloacetic Acids	60 ppb	47.5 ppb (average) ⁵	0	By-product of drinking water disinfectant
Total Organic Carbon	TT*	47% removal average ⁶	None	Naturally present in the environment

ADDITIONAL INFORMATION:

- 1 No more than 5 percent of the samples collected in a calendar month may test positive for total coliform bacteria.
- 2 Turbidity levels ranged from 0.09 to 0.27 with an average of 0.15 turbidity units. CBU was always in compliance; therefore the lowest level of compliance on a monthly basis was 100%.
- 3 Fluoride levels ranged from 0.00 to 1.41 with an average of 1.06 ppm.
- 4 Total trihalomethane (TTHM) levels ranged from 24.8 to 81.2 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 an increased risk of developing cancer.
- 5 Haloacetic Acids (HAA5) levels ranged from 18.0 to 71.7 ppb. Some people who drink water containing haloacetic acids in excess of the MCL over many years may have an increased risk of developing cancer.
- 6 Total Organic Carbon (TOC) removal percentages ranged from 30% to 59%. The required minimum removal average is 35%.