

# Town of Nashville Utilities

## 2009 Water Quality Report



Town of Nashville Utilities  
Town Council President, Roger Kelso  
Town Superintendent, Roger Bush

Chief Administrator, Phyllis Carr  
Customer Service: 988-5526  
Billing Office: 988-7064

The Town of Nashville Utilities wants you, our customers, to be informed of the excellent quality of our water. This report is a summary of the quality of water provided to our customers last year. We are happy to report no violations of a contaminant level or of any other water quality standard.

Included in this report are details about where your water comes from, what it contains, and how it compares to standards set by regulatory agencies. The Town of Nashville Utilities is committed to providing you with information about your water supply, because customers who are well informed are our best allies in supporting improvements necessary to maintain the highest drinking water standards. For more information about your water, call our Customer Service at 988-5526 and ask for Roger Bush or Phyllis Carr.

### Water Quality Tables

The presence of these contaminants in the water does not necessarily indicate that the water poses a health risk. Unless otherwise noted, the data presented in these tables is from testing done January 1 to December 31, 2008. The state requires us to monitor for certain contaminants less than once per year because the concentration of these contaminants are not expected to vary significantly from year to year. Some of the data, though representative of the water quality is more than one year old.

### What Is a Part Per Million?

The units of measure for contaminants in the table are primarily milligrams per liter (mg/l). One mg/l is the same as one part per million (ppm). Some comparisons for 1 ppm are one penny in \$10,000 or one inch in almost 16 miles.

### 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.

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. Town of Nashville Utilities is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline or at <http://www.epa.gov/safewater/lead>.

### We Welcome Your Interest

If you are interested in learning more about the water department policy and water quality, contact the office of the Town Administrator at 988-5526. If you would like to attend meetings regarding your water system, the Nashville Town Council meets at 7 pm the third Thursday of each month at 200 Commercial Street, Nashville, Indiana. Town Council Meetings are open to the public.

### Your water source

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs and wells. The sources of the Town of Nashville Utilities drinking water are surface water from Lake Monroe Reservoir supplied by the City of Bloomington and transmitted by East Monroe Water Utility, ground water from wells located two miles south of State Highway 252 on Mahalasville Road supplied by Brown County Water Utility and ground water from wells located at the South Well Field, 3425 W. Southport Rd. supplied by Indianapolis Water Company and transmitted to town by Brown County Water Utility.

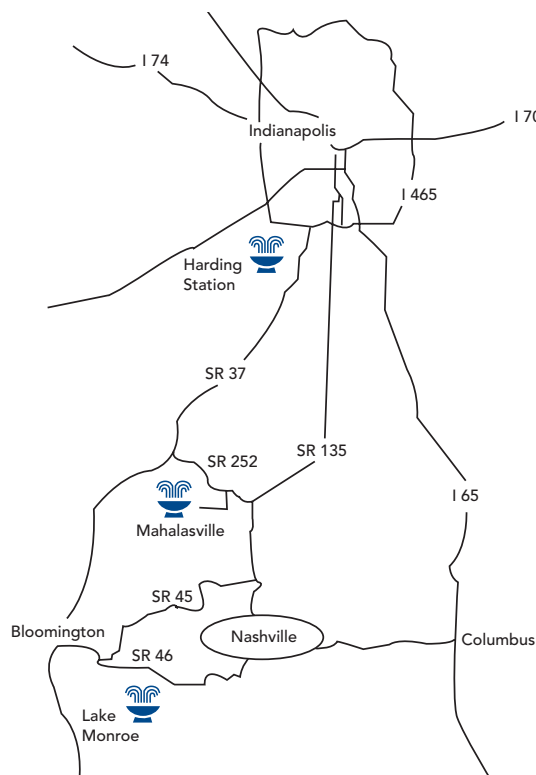
In order to ensure that tap water is safe to drink, EPA prescribes regulations that limit the amount of certain contaminants in water provided by public water systems. Food and Drug Administration (FDA) regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

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

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.



TOWN OF NASHVILLE UTILITIES  
2008 WATER SOURCES



## Brown County Water Utility, Inc. 2008 Treated Drinking Water Quality Data

In 2008 96.8% of Nashville's delivered water came from this source.

Substance	Highest Level Allowed (EPA's MCL*)	Highest Level Detected	Ideal Goals (EPA's MCLG's*)	Source of Contamination
<b>Radioactive Contaminants (2003)</b>				
Gross Alpha	15 pCi/l	avg 3.4 range 2.6 - 4.2		Erosion of Natural Deposits
Gross Beta	50 pCi/l	avg 8.35 range 8.4 - 11.3		Decay of Natural and Man-Made Deposits
Radium-228	5 pCi/l	avg 0.5	0pCi/l	Erosion of Natural Deposits
<b>Inorganic Contaminants (2008)</b>				
Barium	2 ppm	0.197 (0.155 - 0.197)	2 ppm	Erosion of Natural Deposits
Fluoride	4 ppm	0.976 (0.9 - 0.976)	4 ppm	Erosion of Natural Deposits
Sodium	Not Regulated	10.4 (9.57 - 11.2)	N/A	Erosion of Natural Deposits
Nitrate	10 ppm	1 (0 - 1.08)	10 ppm	
<b>Volatile Organic Contaminants (2008)</b>				
Total Trihalomethanes (TTHM)	80 ppb	avg 29 range 17 - 37.8	N/A	By-product of drinking water chlorination
Haloacetic Acids (HAA5)	60 ppb	avg 12 range 1.9 - 15.7	N/A	By-product of drinking water chlorination
<b>Unregulated Contaminants</b>				
Chloroform	Not Regulated	10.9 ppb	Not Regulated	By-product of drinking water chlorination
Bromodichloromethane	Not Regulated	7.14 ppb	Not Regulated	By-product of drinking water chlorination
Chlorobromomethane	Not Regulated	3.54 ppb	Not Regulated	By-product of drinking water chlorination
Hardness	Not Regulated	14 grains	Not Regulated	Erosion of Natural Deposits
<b>Lead and Copper (2008)</b>				
Lead	15 ppb = AL	90th Percentile system wide 4.46 ppb	0	Corrosion of Customer Plumbing
Copper	1.3 ppm = AL	90th Percentile system wide 0.29 ppb	1.3 ppm	Corrosion of Customer Plumbing
<b>Total Coliform (2008)</b>				
Total Coliform	Presence of coliform bacteria in 5% monthly samples	1 sample of 120 samples taken tested positive**	0	Naturally present in the environment

### ADDITIONAL INFORMATION:

<sup>1</sup> Data listed is from 2008 or the most recent testing in accordance with regulations. <sup>2</sup> No samples were above Allowable Limits. Not listed are the over 80 contaminants for which we tested that were not detected. We are proud that your drinking water meets or exceeds all Federal and State requirements. We have learned through our monitoring and testing that some constituents have been detected. The E.P.A. has determined that your water IS SAFE at these levels. \*\*Upon notification of positive total coliform sample the Utility immediately drew repeat samples and submitted them for testing. A public notice of the violation was issued as required pending the outcome of the new samples. The repeat samples came back negative for the presence of coliform bacteria and the customers were notified accordingly. It is likely that the test bottles may have been inadvertently contaminated by touch at the time the sample was drawn or at the lab during analysis. There was no actual threat to the drinking water supply.

### \*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.

**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.

## Jackson County Water Quality Data for 2008 (PSWID5236003)

Constituent	Compliance	Level Detected	Range (Low-High)	MCLG	MCL	Likely Source of Contamination
Sodium (ppm)	Y	91.3	N/A	N/A	N/A	Water treatment for softening
Copper (ppm)	Y	0.085	N/A	1.3	AL=1.3	Corrosion of household plumbing
Lead (ppb)	Y	2.73	N/A	0	AL=1.5	Corrosion of household plumbing
Flouride (ppm)	Y	0.8	0.6 - 1.3	4	4	Natural deposits & treatment additive
Nitrate (ppm)	Y	1.2	N/A	10	10	Fertilizer; septic tank leachate
Mercury (ppb)	Y	0.2	N/A	2	2	Erosion of natural deposits
Cyanide (ppb)	Y	11	N/A	200	200	Discharge from factories
Chlorine (ppm) (Total Chlorine)	Y	Avg=0.5	0.1 - 1.1	MRDLG=4	MRDL=4	Disinfection treatment additive
TTHM (Total Trihalomethanes) (ppb)	Y	16.8	9.3 - 24	0	80	By-product of chlorination treatment
HAA5 (ppb)	Y	3.1	2.0 - 4.7	0	60	By-product of chlorination treatment
Beta/proton emitters (mrem/yr)	Y	1.3	N/A	0	4	Decay of natural and man-made deposits
Uranium (ug/L)	Y	2.0	N/A	0	30	Erosion of natural deposits
Total Coliform	Y	1 positive	N/A	0	1/month	Naturally present in environment

## IW Morgan Water 2008 Treated Drinking Water Quality Data

In addition to producing our own water, Brown County Water Utility, Inc. purchases water from IW Morgan. The following information is provided relative to that supply.

Substances we detected	MCLG (goal)	MCL (limit)	System-wide Results (Range of Levels Detected)	Compliance Achieved	Possible Source
Arsenic (ppb)	5.5 ppb	10 ppb	ND (not detected)	Yes	Natural Deposits
Copper (ppm)	1.3 ppm	1.3 ppm	0.16 ppm (0 of 42 > Action level)	Yes	Corrosion of Customer Plumbing
Nitrate (ppm)	10 ppm	10 ppm	1.7 (ND to 4.2)	Yes	Fertilizer, septic tank leachate
Barium (ppm)	2 ppm	2 ppm	0.12 (ND to 0.46)	Yes	Natural Deposits
Ecoli	0	0	0 confirmed present	Yes	Human and animal fecal waste
Chlorine (ppm) (Total chlorine includes free chlorine and chloramine)	N/A	4 ppm	0.87 (0.11 to 1.30)	Yes	Disinfection & Treatment additive
Fluoride (ppm)	2 ppm	2 ppm	0.86 (0.50 to 2.0)	Yes	Natural Deposits & Treatment additive
HAA5 (ppb)	0 ppb	60 ppb	1.3 - 2.6 ppb	Yes	By-product of Chlorination treatment
TTHM (ppb)	0 ppb	80 ppb	8.5 - 18 ppb	Yes	By-product of Chlorination treatment
Lead (ppb)	0 ppb	15 ppb	3 ppb (1 of 42 > Actual Level)	Yes	Corrosion of Customer Plumbing
Total Coliform	0	1	0	Yes	Naturally Present in Environment
Sulfate (ppm)	N/A	N/A	64 (17 - 160 ppm)	Yes	N/A
Sodium (ppm)	N/A	N/A	35 (11 to 124 ppm)	Yes	Erosion of natural deposits, leaching

KEY: ND - Not detected N/A-Not applicable

## City of Bloomington Utilities

In 2008 3.2% of Nashville's delivered water came from this source.

Substance	Highest Level Allowed (EPA's MCL*)	Highest Level Detected	Ideal Goals (EPA's MCLG's*)	Source of Contamination
<b>Microbiological Contaminants</b>				
Total Coliform Bacteria	5% <sup>1</sup>	1.3%	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* <sup>2</sup>	None	Soil runoff
Cryptosporidium	TT*	0.1 oocysts*	0	Natural lake bacteria, wildlife, septic systems
<b>Inorganic Contaminants</b>				
Barium	2 ppm*	0.014 ppm	2 ppm	Erosion of natural deposits
Copper	1.3 ppb (action level)*	0.012 ppb (90th Percentile)*	1.3 ppm	Corrosion of household plumbing systems; erosion of natural deposits
Chloramines (as Chlorine)	4.0 ppm (MRDL)*	2.8 ppm	4 ppm (MRDLG)*	Water additive to control microbes
Fluoride	4 ppm	1.41 ppm <sup>3</sup>	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 (action level)	3.8 ppm (90th Percentile)*	0	Corrosion of household plumbing systems; erosion of natural deposits
<b>Organic Contaminants</b>				
Total Trihalomethanes (TTHM)	80 ppb	47.3 ppb (average) <sup>4</sup>	0	By-product of drinking water chlorination
Haloacetic Acids (HAA5)	60 ppm	47.5 ppb (average) <sup>5</sup>	0	By-product of drinking water chlorination
Total Organic Carbon (TOC)	TT*	47% removal average <sup>6</sup>	None	Naturally present in the environment

**LISTED TO THE LEFT:** 13 contaminants detected in Bloomington's drinking water during 2008. All are within allowable levels.

Not listed are over 75 primary contaminants for which we tested that were not detected.

### ADDITIONAL INFORMATION:

<sup>1</sup> No more than 5% of the samples collected in a calendar month may test positive for total coliform bacteria.

<sup>2</sup> 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%.

<sup>3</sup> Fluoride levels ranged from 0.00 to 1.41 with an average of 1.06 ppm.

<sup>4</sup> 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 increased risk of developing cancer.

<sup>5</sup> 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.

<sup>6</sup> Total Organic Carbon (TOC) removal percentages ranged from 30% to 59%. The required minimum removal average is 35%.

## Nashville Municipal Utilities

Substance	Highest Level Allowed (EPA's MCL*)	Highest Level Detected	Ideal Goals (EPA's MCLG's*)	Source of Contamination
<b>Microbiological Contaminants</b>				
Total Coliform	1	0	0	Naturally present in the environment
<b>Inorganic Contaminants</b>				
Copper (2008)	1.3 ppm	0.669 ppm	1.3 ppm	Corrosion of household plumbing systems
Lead (2008)	0.015 ppm	0.0125 ppm	0.015 ppm	Corrosion of household plumbing systems