citizens water™

2011 Drinking Water Report

Indianapolis & Morgan Co.

CitizensWater.com

What is a drinking water report and why did I get one?

As a regional water supplier serving multiple counties and nearly 1 million consumers, Citizens Water prides itself in providing safe, reliable water. As required by the U.S. Environmental Protection Agency (EPA), this drinking water report provides information on where water comes from and how it compares to current standards. If, after reading this report, you have any questions or concerns, please contact us at 317-631-1431.

Where does my water come from?

Citizens obtains water for its customers from several sources:

- White River supplies two of the four surface water treatment plants, White River and White River North. Morse Reservoir, near Noblesville, stores water to assure a dependable supply in White River to these plants.
- Fall Creek is another surface water supply. Geist Reservoir stores water to assure an adequate supply in Fall Creek for the Fall Creek treatment plant.
- A number of wells are used intermittently to supplement the supplies to the White River, White River North and Fall Creek plants.
- Citizens also receives some surface water from Eagle Creek Reservoir, which supplies water to the T.W. Moses treatment plant.

- Citizens presently operates five ground water stations that serve smaller portions of its service territory. These are: White River North, Geist Station, Harding Station, South Well Field and Ford Road. These ground water stations treat water pumped from underground water sources called aquifers.

What's in my drinking water before it's treated?

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, reservoirs, and groundwater wells. As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals and can pick up substances resulting from the presence of animals or human activity.

Contaminants that may be present in source water include:

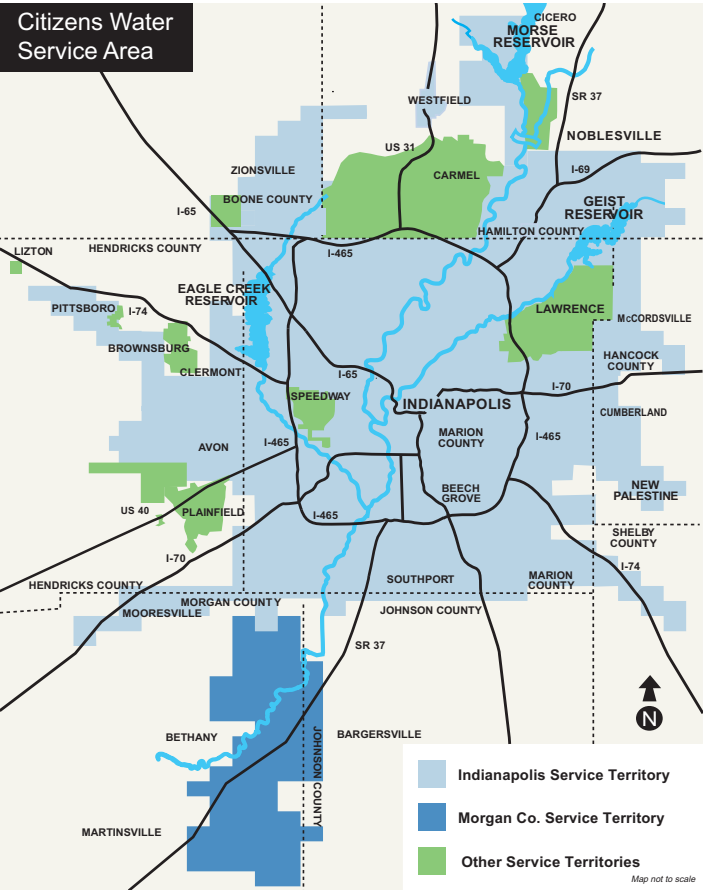
- Microbial contaminants, such as viruses, bacteria, and protozoa, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.
- Inorganic contaminants, such as salts and metals, which can be naturally occurring or result from urban storm water runoff, 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, urban storm water runoff, and residential uses.
- Organic chemical contaminants which are by-products of industrial processes and petroleum production, and can also come from gas stations, urban storm water runoff, and septic systems.
- Radioactive contaminants, which are naturally-occurring and can be the result of oil and gas production and mining activities.

In order to ensure that tap water is safe to drink, the U.S. Environmental Protection Agency (EPA) prescribes regulations which 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 pose a health risk.

How is the water treated?

Ground water treatment plants aerate and filter water to remove dissolved iron and manganese. Surface water treatment plants physically remove solids or other contaminants through coagulation, flocculation, sedimentation and filtration. Chlorine is added to kill any bacteria present and to maintain a level of disinfectant as the water travels through the distribution system. Fluoride is added to help strengthen resistance to cavities in teeth. A small amount of ammonia is used to minimize by-products of the disinfection process and to allow chlorine to persist longer in the distribution system. For a few weeks each year, when the water temperature is cool, no ammonia is added in order to help maintain good water quality in the distribution system. This chlorine residual without ammonia known as "free chlorine" is a more active form of chlorine. The "free chlorine" has a more noticeable bleach or chlorine smell with the same level of chlorine.



What's the difference between surface water and ground water?

Surface water is from rivers, creeks, streams and reservoirs and may have more pollutants and contaminants than ground water. Ground water is from wells drilled deep into the ground. Ground water usually has higher mineral content than surface water.

What's being done to improve water quality?

One of the easiest ways you can protect water quality is to limit the use of lawn fertilizers, and make sure it's phosphorus-free; the excess phosphorus provides nutrients for algae that can harm water quality.

Wellhead Protection - In order to minimize the risk of ground water contamination, Citizens in accordance with the State Wellhead Protection Rule and local ordinances, has implemented a Wellhead Protection Program. The program works with local planning teams and regulators, maps wellhead protection areas, identifies potential sources of ground water contamination, works with businesses to prevent spills and releases of chemicals, and prepares a contingency plan in case of contamination.

Source Water Assessments - An inventory of identified potential sources of contamination upstream of each surface water treatment facility has been conducted by the United States Geological Survey for the Indiana Department of Environmental Management. These assessments are a helpful component in Citizens overall source water protection strategy. For more information, call Citizens at 317-631-1431.

What if I have special health considerations?

Raw water may contain cryptosporidium and other microbial contaminants. Water treatment technologies effectively inactivate the microbial contaminants; however, some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised people, such as people with cancer undergoing chemotherapy, people 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 US EPA Safe Drinking Water Hotline at (800) 426-4791.

2011 Treated Drinking Water Data

The chart below gives you a quick look at some of the substances that the EPA requires the utility to test for. You'll notice that the contaminant is listed to the left, followed by the maximum amount allowed by regulations and then the amount that we found in our water. The tests are done on treated, or "finished", water (excluding the last three listed in this chart). See page 11 for definitions of terms used in this chart.

Substances Detected (units)	MCLG (Goal)	MCL (Limit)	Compliance Achieved?	Average Results (Range Detected)	Possible Source Where did it come from?
Inorganics:					
Antimony (ppb)	6	6	Yes	0.21 (ND - 0.86)	Discharge from petroleum refineries, fire retardants, ceramics, electronics, solder
Barium (ppm)	2	2	Yes	0.094 (0.036 - 0.22)	Industrial discharge & natural deposits
Chromium (ppb)	100	100	Yes	0.69 (ND - 3.0)	Industrial discharge & natural deposits
Fluoride (ppm)	4	4	Yes	0.88 (ND - 1.8)	Natural deposits & treatment additive
Nitrate (ppm)	10	10	Yes	0.96 (ND - 4.7)	Fertilizer, septic tank leachate
Nitrite (ppm)	1	1	Yes	<0.01 (ND - 0.02)	Fertilizer, septic tank leachate
Copper & Lead:	**MCLG**	**AL**			
Copper (ppm)	1.3	1.3	Yes	0.09 (0 of 58 > AL)	Corrosion of customer plumbing
Lead (ppb)	0	15	Yes	10 (3 of 58 > AL)	Corrosion of customer plumbing
Lead note: Infants and young children are typically more vulnerable to lead in drinking water than the general population. It is possible that the lead levels at your home may be higher than other homes in your community as a result of materials used in your home's plumbing. If you are concerned about elevated lead levels in your home's water, you may wish to have your water tested. Also flush your tap water for 30 seconds to two minutes before using tap water. Additional information is available from the US EPA Safe Drinking Water Hotline at 800-426-4791 or www.EPA.gov					
Organic Disinfection By-Products:					
Total Trihalomethanes (ppb)	N/A	80	Yes	46 (5.5 - 97) Flow Weighted Annual Average	By-product of chlorination treatment
Haloacetic acids (ppb)	N/A	60	Yes	42 (ND - 110) Flow Weighted Annual Average	By-product of chlorination treatment
Other Regulated Organics:					
Atrazine (ppb)	3	3	Yes	0.50 (ND - 2.8)	Herbicide runoff
Simazine (ppb)	4	4	Yes	0.10 (ND - 0.85)	Herbicide runoff
cis-1,2-Dichloroethylene (ppb)	70	70	Yes	0.51 (ND - 3.1)	Discharge from industrial sources
Vinyl Chloride (ppb)	0	2	Yes	0.10 (ND - 0.7)	Leaching from PVC piping, discharge from plastics factories
Turbidity:		**TT**			
Turbidity (NTU)	N/A	1 NTU	Yes	0.27 NTU (maximum)	Soil runoff
Turbidity (% below TT)	N/A	95% <0.3 NTU	Yes	100%	Soil runoff

continued on next page >

2011 Treated Drinking Water Data (continued)

Substances Detected (units)	MCLG (Goal)	MCL (Limit)	Compliance Achieved?	Average Results (Range Detected)	Possible Source Where did it come from?
Microorganisms:					
E coli	0	1	Yes	0	Soil, water and fecal waste
Total Coliforms		5.0%	Yes	0.39 % (0 % - 1.5 %)	Naturally present
Cryptosporidium (org/10L)	0	TT	Yes	No Organisms Found	Human and animal fecal waste
Giardia (org/10L)	0	TT	Yes	No Organisms Found	Human and animal fecal waste
Radionuclides:					
Radium (pCi/L)	0	5	Yes	1.18 System Wide Annual Average (sampled in 2010 as required)	Erosion of natural deposits
Disinfectant Residual:	**MRDLG**	**MRDL**			
Chlorine (ppm)	4	4	Yes	1.4 (0.04 - 2.5)	Water additive to control microbes
Other Parameters: *(includes Unregulated Contaminant Monitoring) Unregulated contaminants are those that don't yet have a drinking water standard set by the USEPA. The purpose of monitoring for these contaminants is to help EPA decide, based on data collected, whether the contaminants should have a regulatory standard in the future.*		**SMCL**			
Aluminum (ppm)		0.20	Yes	0.030 (ND - 0.068)	Natural deposits, water treatment additive
Chloride (ppm)		250	Yes	87 (26 - 150)	Natural deposits, water treatment additive
Dicamba (ppb)		N/A	Yes	0.10 (ND - 0.10)	Herbicide runoff
Hardness (ppm)		N/A	Yes	289 (124 - 419)	Erosion of natural deposits; leaching
Iron (ppm)		0.3	Yes	ND (ND - 0.26)	Erosion of natural deposits; leaching
Manganese (ppm)		0.05	Yes	ND (ND - 0.046)	Erosion of natural deposits; leaching
Metolachlor (ppb)		N/A	Yes	0.15 (ND - 0.70)	Herbicide runoff
Nickel (ppb)	100	N/A	Yes	0.43 (ND - 2.6)	Erosion of natural deposits; leaching
pH (Standard Units)		6.5 - 8.5	Yes	7.54 (7.01 - 8.35)	N/A
Sodium (ppm)		N/A	Yes	38 (16 - 130)	Erosion of natural deposits; leaching
Sulfate (ppm)		250	Yes	73 (14 - 200)	Erosion of natural deposits; leaching
Zinc (ppm)		5	Yes	0.0018 (ND - 0.025)	Natural deposits, water treatment additive
Untreated Source Water Data:					
Cryptosporidium (org/10L)			N/A	*0.05 / 0.04 / 0.008 / 0.03	See special health consideration on pg 5
Giardia (org/10L)			N/A	*0.18 / 0.18 / 0 / 0.18	See special health consideration on pg 5
TOC (Untreated Water, ppm)	N/A	N/A	N/A	3.8 (2.0 - 6.6)	Naturally present in the environment

*Untreated source water data (in order) from the following plant intakes: White River / Fall Creek / T.W. Moses / White River North.
Important definitions located on page 11

How hard is my water?

As is common with water in this region, Citizens water is considered hard due to the natural levels of the minerals calcium and magnesium. The water hardness, expressed as calcium carbonate, typically ranges from around 200 to 350 milligrams per liter or parts per million (ppm). This equates to 12 to 20 grains per gallon (the measure often referred to in determining water softener settings). Water hardness can vary depending on the hardness of the source water that is used to supply different treatment plants. More specific information about the water hardness typical at your address can be obtained by calling 317-631-1431.

What is Cryptosporidium?

Cryptosporidium is a microbial contaminant that lives in the intestines of animals and people. When ingested, this microbial contaminant may cause a disease called cryptosporidiosis, which has flu-like symptoms. Although there has been no cryptosporidium found in treated finished drinking water, cryptosporidium is found in source water such as White River, Fall Creek, and Eagle Creek Reservoir.

Citizens utilizes a stringent monitoring program, testing source water and finished drinking water as well as using online monitors that measure the clarity of the water, which helps determine the likeliness of the microbe's presence in the drinking water. In addition, Citizens is enhancing the water treatment process by adding UV disinfection to further improve water quality protection.

What can I do to conserve water?

Consider these hints for water conservation: water your lawn thoroughly only once per week and use a rain sensor on an irrigation system so the system turns off when it's raining. Use a shut-off nozzle on your garden hose and never use water to clean sidewalks and driveways. To conserve year around, regularly check for leaks in toilets and faucets, run dishwashers and washing machines only when they're full, and don't let the water run when brushing your teeth or shaving. Consider buying low-flow plumbing fixtures and high efficiency appliances with the WaterSense and Energy Star labels.

What do all of these terms mean?

- **MCLG (Maximum Contaminant Level Goal)** - The level of a contaminant in drinking water below which there is no known or expected risk to human health. MCLGs allow for a margin of safety.
- **MCL (Maximum Contaminant Level)** - 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.
- **MRDL (Maximum Residual Disinfectant Level)** - The highest level of the disinfectant allowed in drinking water. There is convincing evidence that the addition of disinfectant is necessary for control of microbial contaminants.
- **NTU (Nephelometric Turbidity Units)** - Unit to measure turbidity.
- **SMCL (Secondary Maximum Contaminant Limits)** - Non-mandatory guidelines established by the EPA to assist utilities in managing drinking water for aesthetic considerations, such as taste, odor and color. These contaminants are not considered to present a risk to human health at the SMCL.
- **Turbidity** - The measure of the cloudiness of water. Citizens monitors turbidity as it is a good indicator of the effectiveness of the filtration system.
- **TT (Treatment Technique)** - A required process intended to reduce the level of a contaminant in drinking water.
- **ppm** - Parts per million.
- **ppb** - Parts per billion.
- **pCi/L** - Picocuries per liter, used to measure radioactivity.
- **org/10L** - Organisms per 10 liters.
- **TOC** - Total organic carbon.
- **AL (Action Level)** - The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

Citizens Water

Customer Service & Water Quality Information

Call Center:	(317) 631-1431
Mon - Fri:	7:00 a.m. - 7:00 p.m.
Saturday:	9:00 a.m. - 1:00 p.m.
Website:	CitizensWater.com

To report emergencies or check account balances 24/7, please call the number above.

Corporate Office:
Citizens Energy Group
2020 North Meridian St
Indianapolis, IN 46202

Bill Payment Address:
Citizens Water
P.O. Box 1990
Indianapolis, IN 46206

Citizens Water is an integrated water and wastewater utility established in 2011 through the acquisition of the systems from the City of Indianapolis. Citizens Water provides water service to more than 300,000 households in Marion County and the surrounding counties. Citizens Water also supplies water to area communities with their own water utilities including Speedway, Brownsburg, and Lawrence. Citizens Water provides wastewater services to more than 230,000 households in Marion County. It also has wastewater service agreements with Ben Davis Conservancy District, Boone County Utilities, City of Beach Grove, City of Lawrence, City of Greenwood, Hamilton Southeastern Utilities, Inc., and Tri-County Conservancy District.

Citizens Board of Directors meetings are open to the public. For a list of meeting dates, visit CitizensEnergyGroup.com

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More information about contaminants and potential health effects can be obtained by calling the EPA's Safe Drinking Water Hotline at 800-426-4791, or via the web at www.EPA.gov.