



# 2019 Drinking Water Report

Indianapolis, Morgan Co., Westfield & South Madison



[CitizensEnergyGroup.com](http://CitizensEnergyGroup.com)



## What is a drinking water report?

As a regional water supplier serving about 800,000 consumers in multiple counties in Central Indiana, Citizens Energy Group prides itself on providing safe, reliable, and high-quality water. As required by the U.S. Environmental Protection Agency (EPA), this annual drinking water report provides information on where water comes from and how it compares to current public water supply standards. This report contains a summary of water quality data collected over the past calendar year. If after reading this report you have any questions or concerns, please contact us at 317-924-3311.



## Where does my water come from?

Citizens Energy Group obtains water for its customers from several sources:

### Indianapolis & Morgan County

- White River supplies two of the four surface water treatment plants, White River and White River North. Morse Reservoir, near Noblesville, stores water to ensure a dependable supply in the White River to these plants.
- Fall Creek is another surface water supply. Geist Reservoir stores water to ensure an adequate supply in Fall Creek for the Fall Creek and White River treatment plants.
- 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 six groundwater stations that serve smaller portions of its service territory: White River North, Geist Station, Harding Station, South Well Field, Harbour, and Ford Road. These groundwater stations treat water pumped from underground water sources called aquifers.

### Citizens Westfield

Citizens Westfield's drinking water source is groundwater. Citizens Westfield operates three groundwater stations that serve small portions of the service territory: River Road, Cherry Tree, and Greyhound Pass. These groundwater stations treat water pumped from underground water sources called aquifers.

### Citizens South Madison

Citizens South Madison's drinking water source is groundwater. Citizens operates the South Madison groundwater treatment plant near Lapel, IN. Three onsite groundwater wells supply groundwater to this treatment plant.

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

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 the following:

- Microbial contaminants such as viruses, bacteria and protozoa, which may come from wastewater 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 stormwater 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 stormwater runoff, and residential uses.
- Organic chemical contaminants, which are byproducts of industrial processes and petroleum production, and can also come from gas stations, urban stormwater 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, 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 that 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.

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

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





## How is the water treated?

Groundwater 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 byproducts 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 being done to improve water quality?

One of the easiest ways you can protect water quality is to limit the use of lawn fertilizers. When you do use fertilizer, make sure it’s phosphorus-free. Excess phosphorus provides nutrients to algae that can harm water quality.

### Wellhead Protection

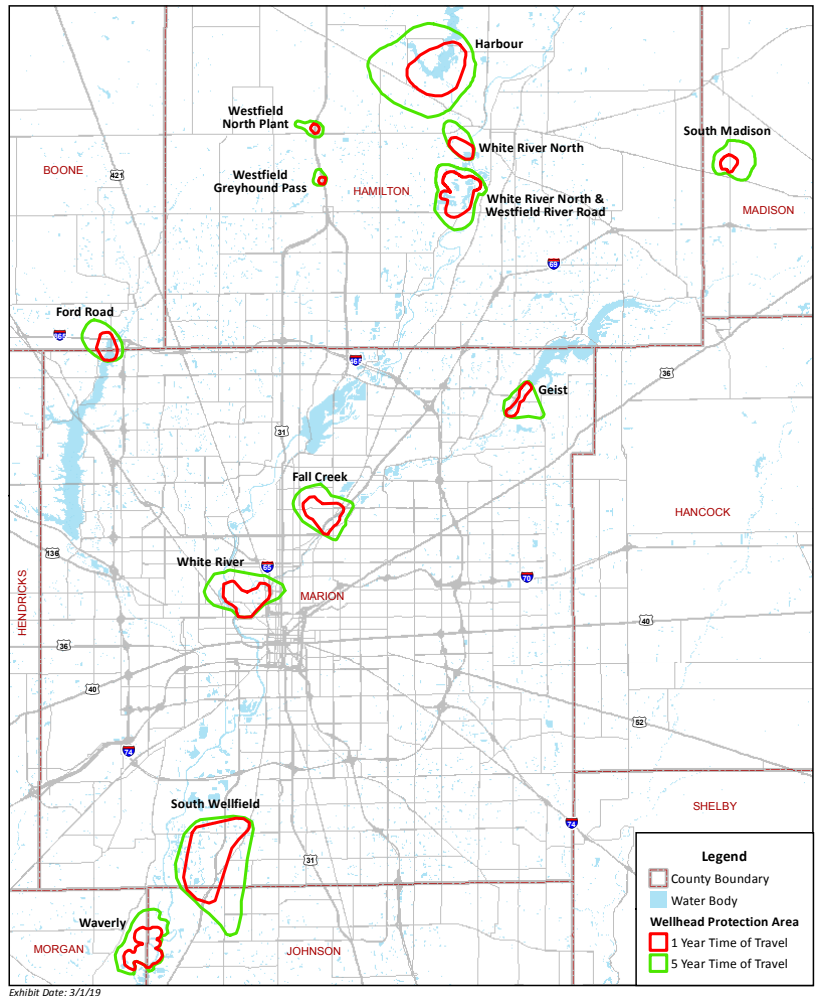
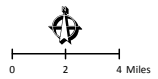
In order to minimize the risk of groundwater contamination, Citizens has implemented a Wellhead Protection Program in accordance with the State Wellhead Protection Rule and local ordinances. The program works with local planning teams and regulators, maps wellhead protection areas, identifies potential sources of groundwater contamination, works with businesses to prevent spills and releases of chemicals, and prepares a contingency plan in case of contamination. For more information on wellhead protection, visit [CitizensEnergyGroup.com](http://CitizensEnergyGroup.com).

### 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 (IDEM). These assessments are a helpful component in Citizens’ overall source water protection strategy.



#### Citizens Energy Group Wellhead Protection Areas



## 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. Immunocompromised individuals, such as people with cancer undergoing chemotherapy, people who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly individuals and infants, can be particularly at risk for infections. These people should seek advice about drinking water from their health care providers. U.S. EPA 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 U.S. EPA Safe Drinking Water Hotline at (800) 426-4791 or [EPA.gov](http://EPA.gov).



## How does Citizens minimize lead in drinking water and how can I avoid it?

Citizens regularly tests drinking water from customer taps for lead and copper and takes steps in its treatment process to ensure corrosive conditions are not created in the distribution system that would contribute to elevated levels of lead and copper. While



rare, elevated lead levels are sometimes found in isolated samples of tap water taken from customer homes that have lead service lines or plumbing. Since each home has different plumbing pipes and materials, test results may differ for each home, but it is important to note that most homes with lead service lines or plumbing do not have elevated levels of lead in the tap water.

Once every three years, drinking water regulations require Citizens to samples tap water from 50 homes in the Indianapolis system and 30 homes in the Westfield system. These samples are taken from homes whose age indicate that they either have lead service lines or have copper pipes with lead solder. To be proactive, Citizens conducts this sampling on an annual basis. Results from these sampling events continue to be below the EPA's action level for lead and copper."

You cannot see, taste or smell lead in drinking water, and boiling water will not remove lead. Although the water quality provided by Citizens' minimizes the risk of lead, you can reduce your household's exposure to lead from service lines in drinking water by following these recommendations:

1. Flush your tap before drinking or cooking with the water if the water in the faucet has gone unused for more than six hours. The longer the water lies dormant in your home's plumbing, the more lead it might contain. Flush your tap with cold water for 30 seconds to two minutes before using. To conserve water, catch the running water and use it to water your plants.
2. Try not to cook with or drink water from the hot water faucet. Hot water has the potential to contain more lead than cold water. When you need hot water, heat cold water on the stove or in the microwave.
3. Remove loose lead solder and debris from plumbing. In homes in which the plumbing was recently replaced, remove the strainers from each faucet and run the water for three to five minutes. When replacing or working on pipes, be sure to use materials that are lead-free. Use of lead-based solders has been illegal since 1986.
4. Check water softener systems. Certain home treatment devices such as water softeners might increase lead levels in your water. Always consult the device manufacturer for information on potential impacts to your drinking water or household plumbing.
5. Homeowners with lead plumbing fixtures should consider using a certified lead filter on faucets used for drinking and cooking.
6. Have an electrician check your wiring. If grounding wires from the electrical system in your home are connected to your plumbing, it can accelerate corrosion. A licensed electrician can determine whether your system is grounded properly. Do not attempt to change the wiring yourself, as improper grounding can cause electrical shock and fire hazards.

Additional information is available at:

[www.CitizensEnergyGroup.com/lead](http://www.CitizensEnergyGroup.com/lead) and from the U.S. EPA Safe Drinking Water Hotline at 800-426-4791 or EPA.gov

## 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 causes flu-like symptoms. Although there has been no cryptosporidium found in treated finished drinking water, cryptosporidium is found in source water such as the 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' surface water treatment process uses ultraviolet disinfection to further improve water quality protection.



## 2019 Treated Drinking Water Data - Indianapolis, Morgan County

The chart below gives you a quick look at some of the substances the EPA requires Citizens to test for. The contaminant is listed to the left, followed by the maximum amount allowed by regulations, then the amount we found in our water. The tests are done on treated or "finished" water (excluding those listed under "Untreated Source Water"). See page 11 for definitions of terms used in this chart.

Contaminant	MCLG (Goal)	MCL (Limit)	Average of All Samples	Maximum of All Samples	2019 System Wide Range	Compliance Achieved	Possible Source
<b>Inorganics:</b>							
Barium (ppm)	2 ppm	2 ppm	0.12 ppm	0.29 ppm	0.043 - 0.29 ppm	YES	Erosion of natural deposits
Chromium (ppb)	100 ppb	100 ppb	BDL	2.6 ppm	ND - 2.6 ppm	YES	Natural deposits
Fluoride (ppm)	4 ppm	4 ppm	0.70 ppm	1.4 ppm	0.16 - 1.4 ppm	YES	Natural deposits & treatment additive
Nitrate (ppm)	10 ppm	10 ppm	0.79 ppm	4.5 ppm	ND - 4.5 ppm	YES	Fertilizer, septic tank leachate
<b>Other Regulated Organics:</b>							
2,4-D (ppb)	70 ppb	70 ppb	0.25 ppb	2.0 ppb	ND - 2.0 ppb	YES	Herbicide runoff
Atrazine (ppb)	3 ppb	3 ppb	0.50 ppb	2.8 ppb	ND - 2.8 ppb	YES	Herbicide runoff
Simazine (ppb)	4 ppb	4 ppb	BDL	0.30 ppb	BDL - 0.30 ppb	YES	Herbicide runoff
<b>Turbidity:</b>		TT					
Turbidity (NTU)	N/A	1 NTU	0.084 NTU	0.30 NTU	0.010 - 0.30 NTU	YES	Soil runoff
Turbidity (% below TT)	N/A	95% <0.3 NTU	N/A	N/A	100%	YES	Soil runoff
<b>Secondary Drinking Water Standards:</b>	<b>MCLG (Goal)</b>	<b>SMCL</b>	<b>* Secondary standards are 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.</b>				
Aluminum (ppb)	N/A	200 ppb	38 ppb	175 ppb	ND - 175 ppb	N/A	Natural deposits; water treatment additive
Chloride (ppm)	N/A	250 ppm	64 ppm	156 ppm	21 - 156 ppm	N/A	Natural deposits; water treatment additive
Hardness (ppm)	N/A	N/A	312 ppm	471 ppm	150 - 471 ppm	N/A	Erosion of natural deposits; leaching
Iron (ppm)	N/A	0.3 ppm	ND	0.061 ppm	ND - 0.061 ppm	N/A	Erosion of natural deposits; leaching
Manganese (ppm)	N/A	0.05 ppm	0.41	0.87	ND - 0.87 ppm	N/A	Erosion of natural deposits; leaching
Metolachlor (ppb)	N/A	N/A	0.11 ppb	0.43 ppb	ND - 0.43 ppb	N/A	Herbicide runoff
Nickel (ppb)	100 ppb	N/A	BDL	2.1 ppb	ND - 2.1 ppb	N/A	Erosion of natural deposits; leaching
pH (Standard Units)	N/A	6.5 - 8.5	7.70	8.23	6.96 - 8.23	N/A	
Sodium (ppm)	N/A	N/A	38 ppm	125 ppm	12 - 125 ppm	N/A	Erosion of natural deposits; leaching
Sulfate (ppm)	N/A	250 ppm	45 ppm	167 ppm	7.9 - 167 ppm	N/A	Erosion of natural deposits; leaching
Zinc (ppb)	N/A	5000 ppb	BDL	5.7 ppb	ND - 5.7 ppb	N/A	Natural deposits
<b>Untreated Source Water:</b>							
Cryptosporidium (org/10L)	N/A	N/A	1.5	32	ND - 32 oocysts / 10L	N/A	
Giardia (org/10L)	N/A	N/A	10.7	196	ND - 196 cysts / 10 L	N/A	
TOC (Untreated Water, ppm)	N/A	N/A	3.8 ppm	6.0 ppm	2.6 - 6.0 ppm	N/A	Naturally present in the environment
<b>Indianapolis</b>							
<b>Disinfectant Residual:</b>	<b>MRDLG</b>	<b>MRDL</b>					



## Indianapolis, Morgan County - continued

Chlorine (as Cl <sub>2</sub> )	4 ppm	4 ppm	1.7 ppm	2.9 ppm	0.020 - 2.9 ppm	YES	Water additive used to control microbes
<b>Copper and Lead (Indianapolis)</b>	<b>MCLG</b>	<b>AL</b>					
Copper (ppm) [2019 Data]	1.3 ppm	1.3 ppm	0.14 ppm	1.1 ppm	0.27 ppm is the 90th Percentile (0 of 55 > AL)	YES	Corrosion of customer plumbing
Lead (ppb) [2019 Data]	0 ppb	15 ppb	2.6 ppb	15 ppb	4.8 ppb is the 90th Percentile (0 of 55 > AL)	YES	Corrosion of customer plumbing
<b>Organic Disinfection By-products (Indianapolis)</b>							
Total Trihalomethanes (TTHMs)	N/A	80 ppb (LRAA)	42 ppb	54 ppb (LRAA)	13 - 70 ppb	YES	By-product of chlorination treatment
Haloacetic acids (HAA5)	N/A	60 ppb (LRAA)	31 ppb	40 ppb (LRAA)	7.0 - 57 ppb	YES	By-product of chlorination treatment
<b>Microorganisms (Indianapolis)</b>							
E coli	0	1	ND	ND	ND	YES	Human and animal fecal waste
Total Coliforms	N/A	5.0%	0.65%	2.0%	0 - 2.0%	YES	Naturally present in the environment
<b>Radionuclides (Indianapolis): [2019 Data]</b>							
Combined Radium (-226 & -228)	0	5 pCi/L	N/A	1.73 pCi/L	0.5 - 1.73 pCi/L	YES	Erosion of natural deposits
Combined Uranium	0	30 ppb	N/A	9.7 ppb	ND - 9.7 ppb	YES	Erosion of natural deposits
Gross Alpha, Excl. Radon & Uranium	0	15 pCi/L	N/A	6.7 pCi/L	-0.28 - 6.7 pCi/L	YES	Erosion of natural deposits
<b>Additional Detected 2019 Monitoring Required by EPA (UCMR 4)</b>			<b>*EPA uses the Unregulated Contaminant Monitoring Rule (UCMR) to collect data for contaminants that are suspected to be present in drinking water and do not have health-based standards set under the Safe Drinking Water Act (SDWA).</b>				
Haloacetic acids (HAA5)	N/A	60 ppb	24 ppb	35 ppb	4.2 - 35 ppb	N/A	By-product of chlorination treatment
Haloacetic acids (HAA6)	N/A	N/A	11.9 ppb	19 ppb	3.8 - 19 ppb	N/A	By-product of chlorination treatment
Haloacetic acids (HAA9)	N/A	N/A	35 ppb	52 ppb	7.4 - 52 ppb	N/A	By-product of chlorination treatment
Manganese (ppm)	N/A	0.05 ppm	0.41 ppb	0.87 ppb	ND - 0.87 ppb	N/A	Erosion of natural deposits; leaching
<b>Morgan County</b>							
<b>Disinfectant Residual:</b>	<b>MRDLG</b>	<b>MRDL</b>					
Chlorine (as Cl <sub>2</sub> )	4 ppm	4 ppm	1.2 ppm	1.8 ppm	0.70 - 1.8 ppm	YES	Water additive used to control microbes.
<b>Copper and Lead (Morgan County)</b>	<b>MCLG</b>	<b>AL</b>					
Copper (ppm) [2018 Data]	1.3 ppm	1.3 ppm	0.070 ppm	0.16 ppm	0.12 ppm is the 90th Percentile (0 of 24 > AL)	YES	Corrosion of customer plumbing
Lead (ppb) [2018 Data]	0 ppb	15 ppb	1.2 ppb	7.7 ppb	3.5 ppb is the 90th Percentile (0 of 24 > AL)	YES	Corrosion of customer plumbing
<b>Organic Disinfection By-products (Morgan County)</b>							
Total Trihalomethanes (TTHMs)	N/A	80 ppb	11 ppb	11.3 ppb	10.9 - 11.3 ppb	YES	By-product of chlorination treatment
Haloacetic acids (HAA5)	N/A	60 ppb	3.2 ppb	3.2 ppb	3.1 - 3.2 ppb	YES	By-product of chlorination treatment





## Indianapolis, Morgan County - continued

Contaminant	MCLG (Goal)	MCL (Limit)	Average of All Samples	Maximum of All Samples	2019 System Wide Range	Compliance Achieved	Possible Source
<b>Microorganisms (Morgan County)</b>							
E coli	0	1	ND	ND	ND	YES	Human and animal fecal waste
Total Coliforms	N/A	5.0%	ND	ND	ND	YES	Naturally present in the environment

\*Note: \*\*The state requires us to monitor for certain contaminants less than once per year because the concentrations of these contaminants do not change frequently. Some of our data, though accurate, is more than one year old. Some contaminants are sampled less frequently than once a year; as a result, not all contaminants were sampled for during the CCR calendar year. If any of these contaminants were detected the last time they were sampled for, they are included in the table along with the date that the detection occurred. Compliance monitoring for lead and copper is required no less frequently than every three years. To be proactive, Citizens conducts lead and copper sampling more frequently than required by rule. Radiochemical contaminant monitoring is conducted every nine years.

Note about Lead in Tap Water: Infants and young children are typically more vulnerable to lead in drinking water than the general population. It is possible that the lead levels in 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 U.S. EPA Safe Drinking Water Hotline at 800-426-4791 or [www.EPA.gov](http://www.EPA.gov)

## 2019 Treated Drinking Water Data - Westfield

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

Contaminant	MCLG (Goal)	MCL (Limit)	Average of All Samples	Maximum of All Samples	2019 System Wide Range	Compliance Achieved	Possible Source
<b>Inorganics:</b>							
Barium (ppm)	2 ppm	2 ppm	0.17 ppm	0.35 ppm	0.063 - 0.35 ppm	YES	Erosion of natural deposits
Fluoride (ppm)	4 ppm	4 ppm	0.59 ppm	0.81 ppm	0.17 - 0.81 ppm	YES	Natural deposits & treatment additive
Nitrate (ppm)	10 ppm	10 ppm	0.043 ppm	0.79 ppm	ND - 0.79 ppm	YES	Fertilizer, septic tank leachate
<b>Copper and Lead:</b>	<b>MCLG</b>	<b>AL</b>					
Copper (ppm) (2018 Data)	1.3 ppm	1.3 ppm	0.17 ppm	0.97 ppm	0.33 ppm is the 90th Percentile (0 of 47 AL)	YES	Corrosion of customer plumbing
Lead (ppb) (2018 Data)	0 ppb	15 ppb	3.9 ppb	122 ppb	4.2 ppb is the 90th Percentile (2 of 47 > AL)	YES	Corrosion of customer plumbing
<b>Disinfectant Residual:</b>	<b>MRDLG</b>	<b>MRDL</b>					
Chlorine (as Cl2)	4 ppm	4 ppm	1.6 ppm	2.8 ppm	0.16 - 2.8 ppm	YES	Water additive used to control microbes
<b>Organic Disinfection By-products</b>							
Total Trihalomethanes (TTHMs)	N/A	80 ppb (LRAA)	13 ppb	18 ppb (LRAA)	4.0 - 28 ppb	YES	By-product of chlorination treatment
Haloacetic acids (HAA5)	N/A	60 ppb (LRAA)	6.0 ppb	10 ppb (LRAA)	ND - 16 ppb	YES	By-product of chlorination treatment
<b>Microorganisms</b>							
E coli	0	1	ND	ND	ND	YES	Human and animal fecal waste
Total Coliforms	N/A	5.0%	N/A	1.7%	0 - 1.7%	YES	Naturally present in the environment
<b>Secondary Drinking Water Standards:</b>	<b>MCLG (Goal)</b>	<b>SMCL</b>	<b>* Secondary standards are 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.</b>				
Chloride (ppm)	N/A	250 ppm	35 ppm	58 ppm	19 - 58 ppm	N/A	Natural deposits; water treatment additive



## Westfield - continued

Contaminant	MCLG (Goal)	MCL (Limit)	Average of All Samples	Maximum of All Samples	2019 System Wide Range	Compliance Achieved	Possible Source
Hardness (ppm)	N/A	N/A	337 ppm	403 ppm	267 - 403 ppm	N/A	Erosion of natural deposits; leaching
Iron (ppm)	N/A	0.3 ppm	0.041 ppm	0.184 ppm	ND - 0.184 ppm	N/A	Erosion of natural deposits; leaching
pH (Standard Units)	N/A	6.5 - 8.5	7.74	7.97	7.08 - 7.97	N/A	
Manganese (ppm)	N/A	0.05 ppm	ND	ND	ND	N/A	Erosion of natural deposits; leaching
Sodium (ppm)	N/A	N/A	24 ppm	37 ppm	15 - 37 ppm	N/A	Erosion of natural deposits; leaching
Sulfate (ppm)	N/A	250 ppm	73 ppm	140 ppm	2.7 - 140 ppm	N/A	Erosion of natural deposits; leaching
Zinc (ppb)	N/A	5000 ppb	2.6 ppb	7.9 ppb	ND - 7.9 ppb	N/A	Natural deposits
<b>Radionuclides (2019 Data)</b>							
Combined Radium (-226 & -228)	0	5 pCi/L	N/A	1.2 pCi/L	0.64 - 1.2 pCi/L	YES	Erosion of natural deposits
Combined Uranium	0	30 ppb	N/A	4.4 ppb	ND - 4.4 ppb	YES	Erosion of natural deposits
Gross Alpha, Excl. Radon & Uranium	0	15 pCi/L	N/A	2.9 pCi/L	0.38 - 2.9 pCi/L	YES	Erosion of natural deposits
<b>Additional Detected 2019 Monitoring Required by EPA (UCMR 4)</b>				*EPA uses the Unregulated Contaminant Monitoring Rule (UCMR) to collect data for contaminants that are suspected to be present in drinking water and do not have health-based standards set under the Safe Drinking Water Act (SDWA).			
Haloacetic acids (HAA5)	N/A	60 ppb	7.2 ppb	23 ppb	1.1 -23 ppb	N/A	By-product of chlorination treatment
Haloacetic acids (HAA6)	N/A	N/A	4.5 ppb	6.7 ppb	2.2 - 6.7 ppb	N/A	By-product of chlorination treatment
Haloacetic acids (HAA9)	N/A	N/A	11 ppb	29 ppb	2.7 - 29 ppb	N/A	By-product of chlorination treatment
Maganese (ppm)	N/A	0.05 ppm	0.002 ppm	0.004 ppm	ND - 0.004 ppm	N/A	Erosion of natural deposits; leaching

\*Note: \*\*The state requires us to monitor for certain contaminants less than once per year because the concentrations of these contaminants do not change frequently. Some of our data, though accurate, is more than one year old. Some contaminants are sampled less frequently than once a year; as a result, not all contaminants were sampled for during the CCR calendar year. If any of these contaminants were detected the last time they were sampled for, they are included in the table along with the date that the detection occurred. Compliance monitoring for lead and copper is required no less frequently than every three years. Compliance monitoring for lead and copper is required no less frequently than every three years. Radiochemical contaminant monitoring is conducted every nine years.

Note about Lead in Tap Water: Infants and young children are typically more vulnerable to lead in drinking water than the general population. It is possible that the lead levels in 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 U.S. EPA Safe Drinking Water Hotline at 800-426-4791 or [www.EPA.gov](http://www.EPA.gov)

## 2019 Treated Drinking Water Data - South Madison

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. See page 11 for definitions of terms used in this chart.

Contaminant	MCLG (Goal)	MCL (Limit)	Average of All Samples	Maximum of All Samples	2019 System Wide Range	Compliance Achieved	Possible Source
<b>Inorganics:</b>							
Barium (ppm)	2 ppm	2 ppm	0.33 ppm	0.33 ppm	ND - 0.33 ppm	YES	Erosion of natural deposits





## South Madison - continued

Fluoride (ppm)	4 ppm	4 ppm	0.62 ppm	0.75 ppm	0.41 - 0.75 ppm	YES	Natural deposits & treatment additive
Nitrate (ppm)	10 ppm	10 ppm	0.52 ppm	0.78 ppm	0.41 - 0.78 ppm	YES	Fertilizer, septic tank leachate
<b>Secondary Drinking Water Standards:</b>	<b>MCLG (Goal)</b>	<b>SMCL</b>	<b>* Secondary standards are 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.</b>				
Chloride (ppm)	N/A	250 ppm	26 ppm	28 ppm	23 - 28 ppm	N/A	Natural deposits; water treatment additive
Hardness (ppm)	N/A	N/A	408 ppm	450 ppm	360 - 450 ppm	N/A	Erosion of natural deposits; leaching
Iron (ppm)	N/A	0.3 ppm	0.032 ppm	0.032 ppm	0.032 ppm (1 sample)	N/A	Erosion of natural deposits; leaching
pH (Standard Units)	N/A	6.5 - 8.5	7.75	7.98	7.27 - 7.98	N/A	
Silver (ppb)	N/A	100 ppb	2.4 ppb	7.0 ppb	ND - 7.0 ppb	N/A	Naturally present in the environment
Sodium (ppm)	N/A	N/A	9.4 ppm	11 ppm	8.2 - 11 ppm	N/A	Erosion of natural deposits; leaching
Sulfate (ppm)	N/A	250 ppm	48 ppm	50 ppm	43 - 50 ppm	N/A	Erosion of natural deposits; leaching
<b>Contaminant</b>	<b>MCLG (Goal)</b>	<b>MCL (Limit)</b>	<b>Average of All Samples</b>	<b>Maximum of All Samples</b>	<b>2019 System Wide Range</b>	<b>Compliance Achieved</b>	<b>Possible Source</b>
<b>Disinfectant Residual:</b>	<b>MRDLG</b>	<b>MRDL</b>					
Chlorine (as Cl <sub>2</sub> )	4 ppm	4 ppm	1.8 ppm	2.2 ppm	1.1- 2.2 ppm	YES	Water additive used to control microbes
<b>Copper and Lead (South Madison)</b>	<b>MCLG</b>	<b>AL</b>					
Copper (ppm) [2018 Data]	1.3 ppm	1.3 ppm	0.27 ppm	1.5 ppm	0.17 ppm is the 90th Percentile (1 of 8 > AL)	YES	Corrosion of customer plumbing
Lead (ppb) [2018 Data]	0 ppb	15 ppb	2.5 ppb	9.7 ppb	8.5 ppb is the 90th Percentile (0 of 8 > AL)	YES	Corrosion of customer plumbing
<b>Organic Disinfection By-products (South Madison)</b>							
Total Trihalomethanes (TTHMs)	N/A	80 ppb	8.5 ppb	9.5 ppb	7.4 - 9.5 ppb	YES	By-product of chlorination treatment
Haloacetic acids (HAA5)	N/A	60 ppb	4.7 ppb	5.0 ppb	4.4 - 5.0 ppb	YES	By-product of chlorination treatment
<b>Microorganisms (South Madison)</b>							
E coli	0	1	ND	ND	ND	YES	Human and animal fecal waste
Total Coliforms	N/A	5.0%	N/A	1 Sample	0 - 1	YES	Naturally present in the environment
<b>Radionuclides (South Madison): [2019 Data]</b>							
Combined Radium (-226 & -228)	0	5 pCi/L	N/A	1.3 pCi/L	1 Sample	YES	Erosion of natural deposits
Combined Uranium	0	30 ppb	N/A	2.2 ug/L	1 Sample	YES	Erosion of natural deposits
Gross Alpha, Excl. Radon & Uranium	0	15 pCi/L	N/A	1.1 pCi/L	1 Sample	YES	Erosion of natural deposits

\*Note: \*\*The state requires us to monitor for certain contaminants less than once per year because the concentrations of these contaminants do not change frequently. Some of our data, though accurate, is more than one year old. Some contaminants are sampled less frequently than once a year; as a result, not all contaminants were sampled for during the CCR calendar year. If any of these contaminants were detected the last time they were sampled for, they are included in the table along with the date that the detection occurred. Compliance monitoring for lead and copper is required no less frequently than every three years. Compliance monitoring for lead and copper is required no less frequently than every three years. Radiochemical contaminant monitoring is conducted every nine years.

Note about Lead in Tap Water: Infants and young children are typically more vulnerable to lead in drinking water than the general population. It is possible that the lead levels in 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 U.S. EPA Safe Drinking Water Hotline at 800-426-4791 or [www.epa.gov](http://www.epa.gov)



## How hard is my water?

As is common with water in this region, Citizens water is considered “hard” due to the naturally occurring 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 typical water hardness at your address can be obtained by calling 317-924-3311.

## What can I do to conserve water?

Consider these hints for water conservation:

- Water your lawn thoroughly only twice per week and use a rain sensor on your irrigation system so it 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-round, regularly check for leaks in toilets and faucets, and run dishwashers and washing machines only when they’re full.
- Don’t let water run while brushing your teeth or shaving.
- Consider buying low-flow plumbing fixtures and high efficiency appliances with WaterSense and Energy Star labels



### Citizens Energy Group Water Service Territories

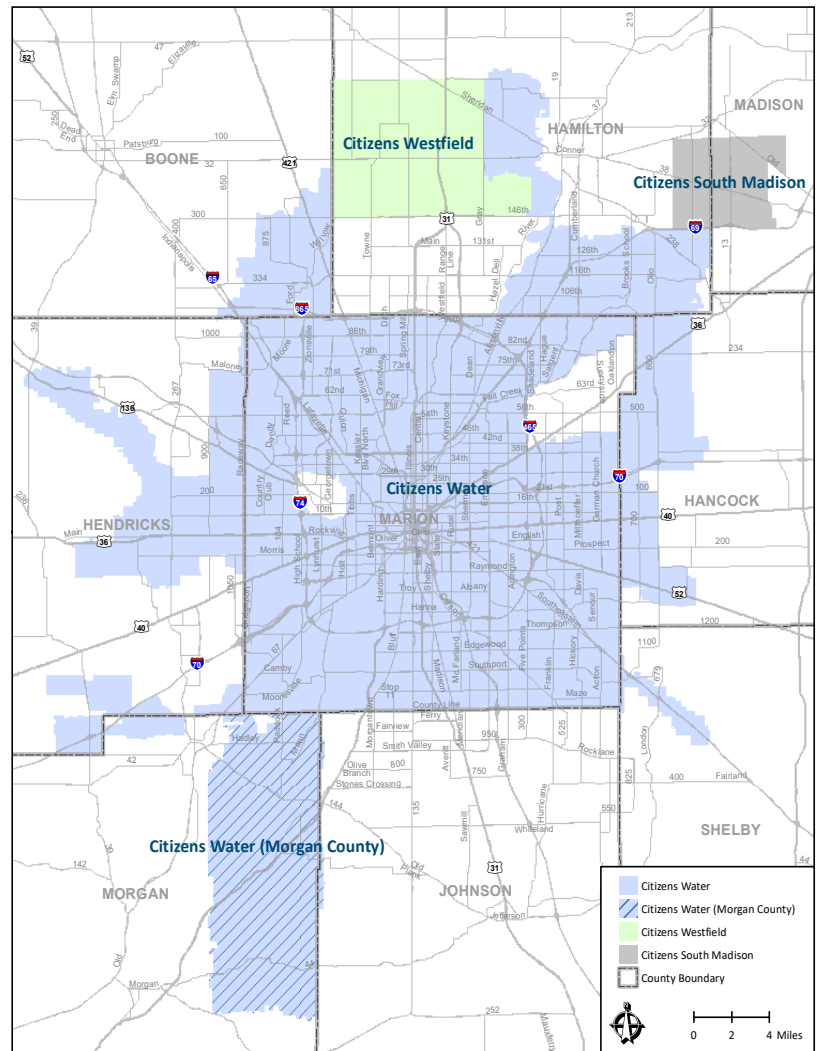


Exhibit Date: 3/13/20

## About Citizens

Citizens Energy Group provides safe and reliable water, wastewater, natural gas and thermal energy services to about 800,000 people and thousands of businesses in Central Indiana. Citizens operates its utilities only for the benefit of customers and the community.

## About Citizens Westfield

Citizens Westfield provides water, wastewater and natural gas utility services to about 40,000 in the growing Hamilton County community.

## About Citizens South Madison

Citizens South Madison provides water service to southwestern Madison County.



## What do all of these terms mean?

- AL (Action Level) - The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow
- BDL - Below Detection Level
- LRAA (Locational Running Annual Average) - the average of sample analytical results for samples taken at a particular monitoring location during the previous four calendar quarters.
- 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.
- 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.
- 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.
- N/A - Not Applicable
- ND - Non-Detect
- NTU (Nephelometric Turbidity Units) - Unit to measure turbidity
- org/10L - Organisms per 10 liters
- ppm - Parts per million
- ppb - Parts per billion
- pCi/L - Picocuries per liter, used to measure radioactivity
- 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.
- TOC - Total organic carbon
- TT (Treatment Technique) - A required process intended to reduce the level of a contaminant in drinking water
- Turbidity - The measure of the cloudiness of water. Citizens monitors turbidity as an indicator of the effectiveness of the filtration system.

## Citizens Energy Group

### Customer Service & Water Quality Information

Call Center: ..... (317) 924-3311

Hours: Mon - Fri: ..... 7:00 a.m. - 7:00 p.m.

Saturday: ..... 9:00 a.m. - 1:00 p.m.

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

Website: ..... CitizensEnergyGroup.com

### Corporate Office:

Citizens Energy Group  
2020 North Meridian St.  
Indianapolis, IN 46202

### Bill Payment Address:

Citizens Energy Group  
PO Box 7056  
Indianapolis, IN 46207-7056

## Water Wizard

The Water Wizard is an online tool designed to assist you in diagnosing some of the most commonly perceived water quality concerns by answering a few basic questions.



[www.CitizensEnergyGroup.com/WaterWizard](http://www.CitizensEnergyGroup.com/WaterWizard)





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](http://www.EPA.gov).

Para español, por favor visite [www.CitizensEnergyGroup.com](http://www.CitizensEnergyGroup.com).