



IN5256006
Morocco Water Department
2018 CONSUMER CONFIDENCE REPORT

Is our water safe?

This brochure is a snapshot of the quality of the drinking water that we provided last year. Included as part of this report are details about where the water that you drink comes from, what it contains, and how it compares to Environmental Protection Agency (EPA) and Indiana standards. We are committed to provide you with all the information that you need to know about the quality of the water that you drink.

Do I need to take special precautions?

Some people may be more vulnerable to contaminants in drinking water than the general population. Immune-compromised people, such as people with cancer undergoing chemotherapy, people who have undergone organ transplant, people with HIV/AIDS, or other kind of 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 has set guidelines with appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants which are available from the Safe Drinking Water Hotline at (800) 426-4791.

Where does our water come from?

Our water is groundwater which comes from two wells located outside of Town. We treat the water using iron filtration, zeolite softening and add chlorine for disinfection.

Why are there contaminants in my drinking water?

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of these contaminants does not necessarily indicate that the water poses a health risk or that it is not suitable for drinking. More information about contaminants and their potential health effects can be obtained by calling the EPA's Safe Drinking Water Hotline at (800)426-4791.

The sources of drinking water (both tap water 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, or can pick up substances resulting from the presence of animals or from human activity.

Contaminants that may be present in the raw, untreated water may 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 that result from urban storm water runoff, industrial or domestic wastewater discharges, oil and gas production, and mining or farming operations.
- **Pesticides and Herbicides**, which may come from a variety of sources, such as agriculture, stormwater runoff, and residential uses.
- **Organic Chemical Contaminants**, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production operations, and can also result from gas stations, urban stormwater runoff, and septic systems.
- **Radioactive Contaminants**, which can be naturally-occurring or the result of oil and gas production and mining activities.

In order to ensure that tap water is safe to drink, the EPA prescribes regulations that limit the amount of certain contaminants that may be present in the water provided by public drinking water systems. We are required to treat our water according to EPA's regulations. Moreover, FDA regulations establish limits for contaminants that may be present in bottle water, which must provide the same level of health protection for public health.

Water Quality Data

The table below lists all the contaminants that we detected during the 2018 calendar year. The presence of these contaminants in the water does not necessarily indicate that the water poses a health risk. Unless otherwise indicated, the data presented in this table is from testing done between January and December 31, 2017. The Indiana Department of Environmental Management (IDEM) requires us to monitor for certain contaminants at a frequency less than once per year because the concentration of these contaminants are not expected to vary significantly from one year to another. Some of the data, though representative of the water quality, may however be more than one year old.

Definitions: The following table contains scientific terms and measures, some of which may require explanation:

Action Level Goal (ALG): the level of a contaminant in a drinking water below which there is no known or expected risk to health ALGs allow for a margin of safety.

Action Level: the concentration of a contaminant which, if associated, trigger treatment or other requirements which a water system must follow.

Avg.: regulatory compliance with some MCL's based on running annual average of monthly samples.

Maximum Contaminant Level or 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.

Level 1 Assessment: A Level 1 Assessment is a study of the water system to identify potential problems and determine (if possible) total coliform bacteria have been found in our water system.

Maximum Contaminant Level Goal or MCLG: the level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.

Level 2 Assessment: A level 2 Assessment is a very detailed study of the water system to identify potential problems and determine (if possible), why an E. coli MCL violation has occurred and/or why total coliform bacteria have been found in our water system of multiple occasions.

Minimum Residual Disinfectant Level or MRDL: The highest level of a disinfection allowed in drinking water. There is convincing evidence that neither of a disinfectant is necessary for control of microbial contaminants.

Maximum Residual Disinfectant Level Goal or 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 contaminants.

na: either not available or not applicable.

mrem: millirems per year (a measure of radiation absorbed by the body).

ppb: micrograms per liter *or* parts per billion – or one ounce in 7,350,000 gallons of water.

ppm: milligrams per liter *or* parts per million – or one ounce in 8,350 gallons of water.

Treatment Technique or TT: a required process intended to reduce the level of a contaminant in drinking water.

Section I – Contaminants Detected

Inorganic Contaminants										
Date	Contaminant	MCL	MCLG	Units	Highest Level Detected	Min	Max.	Above AI # Sites	Violates	Likely Sources
2018	Antimony	6	6	mg/l	11.0	0	11.0		No	Discharge from petroleum refineries, fire retardants; ceramics; electronics, solder; test addition.
9/27/18 & 9/28/18	Copper (90 th Percentile)	1.3 (AL)	1.3	mg/l	0.51	0	0	0	No	Erosion of natural deposits; Leaching from wood preservatives; Corrosion of household plumbing systems.
8/28/18	Fluoride	4	4	mg/l	0.11	0.11	0.11		No	Erosion of natural deposits; Water additive for strong teeth; Discharge from fertilizer and aluminum factories.
2018	Lead (90 th Percentile)	15 (AL)	0	ug/l	1.4	0.5	4.1		No	Corrosion of household plumbing system; Erosion of natural deposits.
8/28/18	Barium	2	2	ug/l	0.036	0.036	0.036		No	Discharge of drilling wastes, discharge from metal refineries; erosion of natural deposits.
8/28/18	Nitrate (as nitrogen)	10	10	mg/l	0.056				No	Runoff from fertilizer use, leaching from septic tanks, sewage. Erosion of natural deposits.

Disinfection Byproducts & Precursors										
Date	Contaminant	MCL	MCLG	Units	Highest Level Detected	Min	Max.	Above AI # Repeats	Violates	Likely Sources
2018	Total Haloacetic Acids (HAA5)	60		ug/l	23	2.4	51		No	By-product of drinking water chlorination
2018	Total Trihalomethanes (TTHM)	80		ug/l	73	42	97		No	By-product of drinking water chlorination

Residual Disinfectant										
Date	Contaminant	MCL	MCLG	Units	Result	Min	Max.	Above AI # Repeats	Violates	Likely Sources
2018	Chlorine Residual	4 MRDL	4 MRDLG	mg/l		0.08	1.73		No	Water additive (disinfectant) used to control microbiological organisms

Special Note on Lead: 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. We are responsible for providing high quality drinking water, but we 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.gov/safewater/lead>).

Radioactive Contaminant	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Combined Radium 226/228	2018	0.66	0.66-0.66	0	5	pCi/L	No	Erosion of natural deposits.

Violations Table

Lead and Copper Rule			
Violation Type	Violation Begin	Violation End	Violation Explanation
Lead Consumer Notice (LCR)	01/01/2018	03/02/2018	We failed to provide the results of lead tap water monitoring to the consumers at the location water was tested. These were supposed to be provided no later than 30 days after learning the results. Notifications were delivered to customers but apparently IDEM did not receive the notification for unknown reasons.

Our Watershed Protection Efforts

Our water system is working with the community to increase awareness of better waste disposal practices to further protect the source of our drinking water. We are also working with other agencies and with local watershed groups to educate the community on ways to keep our water safe. A Source Water Assessment (SWA) has been completed for the water system and may be reviewed at the Water Department. We also have an ongoing Wellhead Protection Program to protect our groundwater. Anyone interested in participating in this program should contact the Town Hall.

Public Involvement Opportunities

If you have any questions about the contents of this report, please contact Mr. Aaron Flowers at 219-552-1119. Or you can join us at our Town Council meetings, which are regularly held the first Tuesday of the month in the Town Hall at 7:00 pm. We encourage you to participate and to give us your feedback.

Please Share This Information

Large water volume customers (like apartment complexes, hospitals, schools and/or industries) are encouraged to post extra copies of this report in conspicuous locations or to distribute them to your tenants, residents, patients, students, and/or employees. This "good faith" effort will allow non-billed customers to learn more about the quality of the water that they consume.