CITY OF JACKSON MICHIGAN

CITY OF JACKSON-BLACKMAN TOWNSHIP-STATE PRISON OF SOUTHERN MICHIGAN

2020 Annual Water Quality Report

City of Jackson WSSN: 3470
Blackman Township WSSN: 0740
SPSM WSSN: 6370

ABOUT THE 2020 WATER QUALITY REPORT: This report covers the drinking water quality for all City of Jackson customers, including Blackman Township and the State Prison of Southern Michigan for the 2020 calendar year. This information is a snapshot of the quality of the water that we provided to you in 2020. Included are details about where your water comes from, what it contains, and how it compares to United States Environmental Protection Agency (U.S. EPA) and State of Michigan standards.

Your water comes from 16 groundwater wells, each over 400 ft. in depth. The State performed an assessment of our source water to determine the susceptibility or the relative potential of contamination. The susceptibility rating is on a seven-tiered scale from “very-low” to “very-high” based on geologic sensitivity, well construction, water chemistry, and contamination sources. The susceptibility of our source is “moderately high”.

There are no significant sources of contamination in our water supply. We are making efforts to protect our sources by participating in a county-wide Wellhead Protection Program.

If you would like to know more about this Water Quality Report, please contact the City of Jackson Department of Public Works-Water Division at (517) 788-4170 or at www.cityofjackson.org.

CONTAMINANTS AND THEIR PRESENCE IN WATER: 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 water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the U.S. EPA’s Safe Drinking Water Hotline at (800) 426-4791.

VULNERABILITY OF SUB-POPULATIONS: Some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune systems 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. EPA/Center for Disease Control 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.

SOURCES OF DRINKING WATER: The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells.

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Our water comes from 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 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 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 and residential uses.
- Radioactive contaminants, which can be naturally occurring or be the result of oil and gas production and mining activities.
- Organic chemical contaminants, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, and septic systems.

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

WATER QUALITY DATA: The tables on Page 3 list all the drinking water contaminants that we detected during the 2020 calendar year. 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 this table is from testing done January 1 through December 31, 2020. The State allows us to monitor for certain contaminants less than once per year because the concentrations of these contaminants are not expected to vary significantly from year to year. All the data is representative of the water quality, but some are more than one year old. Terms and abbreviations used below:

- Maximum Contaminant Level Goal (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.
- 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 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 contaminants.
- Treatment Technique (TT): A required process intended to reduce the level of a contaminant in drinking water.
- N/A: Not applicable
- ND: Not detectable at testing limit
- ppm: parts per million or milligrams per liter
- ppb: parts per billion or micrograms per liter
- ppt: parts per trillion or nanograms per liter
- pCi/l: picocuries per liter (a measure of radioactivity)
- Action Level (AL): The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.
- Level 1 Assessment: A study of the water supply to identify potential problems and determine (if possible) why total coliform bacteria have been found in our water system.
- Level 2 Assessment: 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 on multiple occasions.

INFORMATION ABOUT 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. The City of Jackson Water Department 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 have a lead service line, it is recommended that you run your water for at least 5 minutes to flush water from both your home plumbing and the lead service line. 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.

Infants and children who drink water containing lead could experience delays in their physical or mental development. Children could show slight deficits in attention span and learning abilities. Adults who drink this water over many years could develop kidney problems or high blood pressure.

Copper is an essential nutrient, but some people who drink water containing copper in excess of the action level over a relatively short amount of time could experience gastrointestinal distress. Some people who drink water containing copper in excess of the action level over many years could suffer liver or kidney damage. People with Wilson's Disease should consult their personal doctor.

Our water supply has 11,339 lead service lines and 513 service lines of unknown material out of a total of 12,042 service lines.

2020 Regulated Detected Contaminants Tables

			City of Jackson		Blackman Twp.		State Prison of Southern Michigan				
Regulated Contaminant	MCL, TT, or MRDL	MCLG or MRDLG	Level Detected	Range	Level detected	Range	Level detected	Range	Year Sampled	Violation Yes/No	Typical Source of Contaminant
Arsenic (ppb)	10	0	ND	N/A	N/A	N/A	N/A	N/A	2020	NO	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes
Barium (ppm)	2	2	.020	N/A	N/A	N/A	N/A	N/A	2020	NO	Discharge of drilling wastes; Discharge of metal refineries; Erosion of natural deposits
Nitrate (ppm)	10	10	ND	N/A	N/A	N/A	N/A	N/A	2020	NO	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
Fluoride (ppm)	4	4	0.67	N/A	N/A	N/A	N/A	N/A	2020	NO	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories
Sodium[1] (ppm)	N/A	N/A	70	N/A	N/A	N/A	N/A	N/A	2020	NO	Erosion of natural deposits
TTHM Total Trihalomethanes (ppb)	80	N/A	43	22-57	48	28-54	42	34-42	2020	NO	Byproduct of drinking water disinfection
HAA5 Haloacetic Acids (ppb)	60	N/A	6	4.0-7.0	8.25	5.0-9.0	7	5-7	2020	NO	Byproduct of drinking water disinfection
Chlorine[2] (ppm)	4	4	1.24	1.02-1.3	1.6	1.4-1.78	1.56	1.45-1.66	2020	NO	Water additive used to control microbes
Alpha emitters (pCi/L)	15	0									Erosion of natural deposits
Combined radium (pCi/L)	5	0	1.8	1.4-1.9	N/A	N/A	N/A	N/A	2014	NO	Erosion of natural deposits
Total Coliform (total number or % of positive samples/month)	TT	N/A	0	N/A	0	N/A	0	N/A	2020	NO	Naturally present in the environment
E. coli in the distribution system (positive samples)	See E. coli note[3]	0	0	N/A	0	N/A	0	N/A	2020	NO	Human and animal fecal waste
Fecal Indicator – E. coli at the source (positive samples)	TT	N/A	0	N/A	0	N/A	0	N/A	2020	NO	Human and animal fecal waste

1. Sodium is not a regulated contaminant. 2. The chlorine "Level Detected" was calculated using a running annual average. 3. *E. coli* MCL violation occurs if: (1) routine and repeat samples are total coliform-positive and either is *E. coli*-positive, or (2) the supply fails to take all required repeat samples following *E. coli*-positive routine sample, or (3) the supply fails to analyze total coliform-positive repeat sample for *E. coli*.

Per- and polyfluoroalkyl substances (PFAS)							
Regulated Contaminant	MCL, TT, or MRDL	MCLG or MRDLG	Level Detected	Range	Year Sampled	Violation Yes/No	Typical Source of Contaminant
Hexafluoropropylene oxide dimer acid (HFPO-DA) (ppt)	370	N/A	ND	-	2020	NO	Discharge and waste from industrial facilities utilizing the Gen X chemical process
Perfluorobutane sulfonic acid (PFBS) (ppt)	420	N/A	ND	-	2020	NO	Discharge and waste from industrial facilities; stain-resistant treatments
Perfluorohexane sulfonic acid (PFHxS) (ppt)	51	N/A	ND	-	2020	NO	Firefighting foam; discharge and waste from industrial facilities
Perfluorohexanoic acid (PFHxA) (ppt)	400,000	N/A	ND	-	2020	NO	Firefighting foam; discharge and waste from industrial facilities
Perfluorononanoic acid (PFNA) (ppt)	6	N/A	ND	-	2020	NO	Discharge and waste from industrial facilities; breakdown of precursor compounds
Perfluorooctane sulfonic acid (PFOS) (ppt)	16	N/A	ND	-	2020	NO	Firefighting foam; discharge from electroplating facilities; discharge and waste from industrial facilities
Perfluorooctanoic acid (PFOA) (ppt)	8	N/A	ND	-	2020	NO	Discharge and waste from industrial facilities; stain-resistant treatments

Inorganic Contaminant Subject to Action Levels (AL)	Action Level	MCLG	Your Water[1]	Range of Results	Year Sampled	Number of Samples Above AL	Typical Source of Contaminant
Lead (ppb)	15	0	8		2020	4/43	Lead service lines, corrosion of household plumbing including fittings and fixtures; Erosion of natural deposits
Copper (ppm)	1.3	1.3	0		2020	0/43	Corrosion of household plumbing systems; Erosion of natural deposits

[1] Ninety (90) percent of the samples collected were at or below the level reported for our water.

2020 Lead and Copper Monitoring				*City of Jackson*			*Blackman Twp.*			*State Prison of Southern Michigan*				
Contaminant	Test Date	Health Goal MCLG	Action Level AL	90th Percentile Value*	Range of results	Number of Samples Over AL	90th Percentile Value*	Range of results	Number of Samples Over AL	90th Percentile Value*	Range of results	Number of Samples Over AL	Violation yes/no	*Major Sources in Drinking Water*
Lead (ppb)	2020	0	15	8	0 ppb-210 ppb	4/43	132	0 ppb-16557 ppb	4/21	3	0 ppb-.024 ppb	1/20	no	Corrosion of household plumbing system; Erosion of natural deposits.
Copper (mg/l)	2020	1.3	1.3	0	0 ppm-1.2 ppm	0/43	1.0	0 ppm-1.5 ppm	1/21	0.1	0 ppm-.12 ppm	0/20	no	Corrosion of household plumbing system; Erosion of natural deposits; Leaching from wood preservatives.

*Ninety (90) percent of the samples collected were at or below the level reported for our water.

IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER

Monitoring Requirements Not Met for Blackman Township

We are required to monitor your drinking water for specific contaminants on a regular basis. Results of regular monitoring are an indicator of whether or not our drinking water meets health standards. During May 1, 2020 to May 31, 2020 we were required to take two samples from designated locations and have them analyzed for trihalomethanes (TTHM) and haloacetic acids (five) (HAA5). We inadvertently missed collecting before May 31, 2020. Therefore, we cannot be sure of the quality of your drinking water during that time.

What should I do? There is nothing you need to do at this time. This is not an emergency. You do not need to boil water or use an alternative source of water at this time. Even though this is not an emergency, as our customers, you have a right to know what happened and what we are doing to correct the situation.

The table below lists the contaminants we did not properly test for, how often we are supposed to sample for these contaminants, how many samples we are supposed to take, how many samples we took, when samples should have been taken, and the dates we will collect follow-up samples.

Contaminant	Required sampling frequency	Number of samples taken	When all samples should have been collected	Date samples will be collected
TTHM	2 samples every 3 months	0	May 1, 2020 – May 31, 2020	August 1, 2020 – August 31, 2020
HAA5	2 samples every 3 months	0	May 1, 2020 – May 31, 2020	August 1, 2020 – August 31, 2020

What happened? What is being done? We collected the samples on May 27, 2020. We did not complete the laboratory paperwork correctly and samples were not tested. We are making every effort to assure this does not happen again. We will be collecting follow-up samples in August 2020.

For more information, please contact Mr. Randy Lybarger, Operator in charge at (517) 768-6104.

Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.

This notice is being sent to you by Blackman Township.

IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER

Reporting Requirements Not Met for the City of Jackson

During recent routine monitoring, our water system tested positive for *E. coli*, indicating the need to look for potential problems in water treatment distribution. When this occurs, we are required to conduct repeat sampling within 24 hours of being notified of the positive result. All repeat samples tested negative for *E. coli*. While the follow up samples were collected on time, we failed to report the *E. coli*-positive result to the Michigan Department of Environment, Great Lakes, and Energy (EGLE) on time. Although this incident was not an emergency, as our customers, you have a right to know what happened and what we did to correct the situation.

What should I do?
You do not need to boil your water or take other corrective actions. However, if you have specific health concerns, consult your doctor. People with severely compromised immune systems, infants, and some elderly may be at increased risk. These people should seek advice about drinking water from their healthcare providers. General guidelines on ways to lessen the risk of infection by microbes are available from the United States Environmental Protection Agency's Safe Drinking Water Hotline at 1-800-426-4791.

What does this mean?
This is not an emergency. If it had been, you would have been notified within 24 hours. Failure to identify and correct the defects has the potential to cause continued distribution system contamination. Inadequately treated or inadequately protected water may contain disease-causing organisms.

E. coli are coliform bacteria whose presence indicates that the water may be contaminated with human or animal wastes. Microbes in these wastes can cause diarrhea, cramps, nausea, headaches, or other symptoms. They may pose a special health risk for infants, young children, some of the elderly, and people with severely compromised immune systems. Whenever we detect coliform bacteria in any sample, we do follow-up testing to see if other bacteria of greater concern are present. We did not find any of these bacteria in our subsequent testing, and further testing shows that this problem has been resolved.

What happened? What was done?
We collected a routine monitoring sample on November 5, 2020. We inadvertently failed to report an *E. coli*-positive routine sample by the required deadline. The follow-up samples, collected on November 6, 2020, were negative for coliform bacteria. We reported the result to EGLE November 9, 2020. We are making every effort to ensure this does not happen again.

For more information, please contact Mr. Randy Lybarger, Operator in charge at (517) 768-6104.

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CITY OF JACKSON MICHIGAN

CITY OF JACKSON
Department of Public Works
161 W. Michigan Ave.
Jackson, MI 49201

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Jackson, MI
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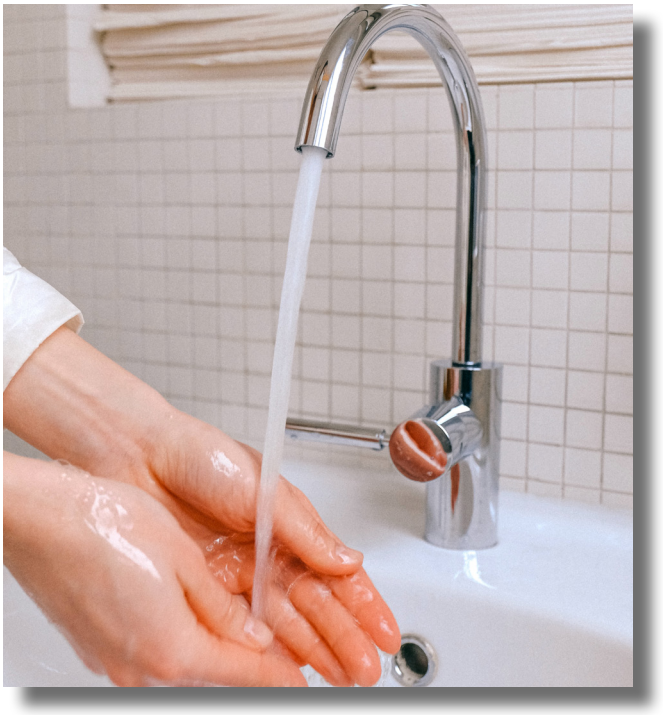
2020 Annual Water Quality Report

www.cityofjackson.org

FOR MORE INFORMATION: We will update this report annually and will keep you informed of any problems that may occur throughout the year as they happen. Copies are available at 161 W. Michigan Ave, Jackson, MI 49201. A digital copy of this report is available on the City's website by visiting www.cityofjackson.org/water.

We invite public participation in decisions that affect drinking water quality. Due to ongoing COVID-19 concerns, City Council meetings are being held virtually until further notice. Residents may participate in meetings by watching live broadcasts on Comcast Cable Channel 21, the City website, and the City Facebook page. Recordings of meetings are available on the City website following meetings.

For more information about your water, or the contents of this report, contact City of Jackson Department of Public Works-Water Division at (517) 788-4170. For more information about safe drinking water, visit the U.S. EPA at http://www.epa.gov/safewater.



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