



CITY OF JACKSON-BLACKMAN TOWNSHIP- STATE PRISON OF SOUTHERN MICHIGAN 2021 Annual Water Quality Report

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

ABOUT THE 2021 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 2021 calendar year. This information is a snapshot of the quality of the water that we provided to you in 2021. 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.

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 2021 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, 2021. 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 11,004 lead service lines and 513 service lines of unknown material out of a total of 12,042 service lines.

2021 Regulated Detected Contaminants Tables

					City of Jackson		Blackman Twp		State Prison of Southern Mich			
Contaminant	Test Date	Units	Health Goal MCLG	Allowed Level MCL	Level Detected	Range of Detection	Level Detected	Range of Detection	Level Detected	Range of Detection	Violation yes/no	Major Sources in Drinking Water
Inorganic Chemicals – Annual Monitoring at Plant Finished Water Tap												
Fluoride	8/13/21	ppm	4	4	0.60	N/A	N/A	N/A	N/A	N/A	no	Erosion of natural deposits; Water additive, which promotes strong teeth; Discharge from fertilizer and aluminum factories.
Selenium	8/13/21	ppm	10	10	0.001	N/A	N/A	N/A	N/A	N/A	no	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.
Barium	8/13/21	ppm	2	2	0.020	N/A	N/A	N/A	N/A	N/A	no	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.
cis-1,2-Dichloro ethylene	8/17/21	ppb	70	70	0.0013	0.0011-0.0013	N/A	N/A	N/A	N/A	no	Discharge from industrial chemical factories.
Fluoride	8/13/21	ppm	4	4	0.60	N/A	N/A	N/A	N/A	N/A	no	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
Combined Radium	2018	PCi/L	5	0	1.9	2.1-1.7	N/A	N/A	N/A	N/A	no	Erosion of natural deposits
Chloride	8/12/21	ppm	N/A	N/A	109	N/A	N/A	N/A	N/A	N/A	no	Running/leaching from natural deposits
Sulfate	8/12/21	ppm	N/A	N/A	98	N/A	N/A	N/A	N/A	N/A	no	Running/leaching from natural deposits; industrial wastes
Disinfectant Residuals and Disinfection By-Products – Monitoring in Distribution System												
Total Trihalomethanes (TTHM)	Feb-Dec 2021	ppb	n/a	80	46.4	27.5-58	57.9	35.8-72.1	44.37	3.7-44.37	no	By-product of drinking water chlorination.
Haloacetic Acids (HAA5)	Feb-Dec 2021	ppb	n/a	60	5.75	2.0-7.0	8.0	4.0-11.0	5.75	4.5-575	no	By-product of drinking water disinfection.
Disinfectant (Total Chlorine Residual)	Jan-Dec 2021	ppm	MR DG L 4	MRDL 4	1.23	1.03-1.38	1.53	1.19-1.63	1.55	1.34-1.69	no	Water additive used to control microbes.

Contaminant	MCLG	MCL	Level Detected	Source of Contamination
Sodium (ppm)	n/a	n/a	66	Erosion of natural deposits

2021 Turbidity – monitored every 4 hours at Plant Finished Water Tap			
Highest Single Measurement Cannot exceed 1 NTU	Lowest Monthly % of Samples Meeting Turbidity Limit of 0.3 NTU (minimum 95%)	Violation yes/no	Major Sources in Drinking Water
0.09 NTU	100%	no	Soil Runoff

Turbidity is a measure of the cloudiness of water. We monitor it because it is a good indicator of the effectiveness of our filtration system.

2021 Lead and Copper Monitoring											
			City of Jackson			Blackman Twp			State Prison of South Michigan		
Contaminant	Test Date	Health Goal MCLG	Action Level AL	90 th Percentile Value*	Number of Samples Over AL	90 th Percentile Value*	Number of Samples Over AL	90 th Percentile Value*	Number of Samples Over AL	Violation yes/no	Major Sources in Drinking Water
Lead (ppb)	2021	0	15	1	1/37	0	2/100	2	0/20	no	Corrosion of household plumbing system; Erosion of natural deposits.
Copper (mg/l)	2021	1.3	1.3	0.013	0/37	0.043	0/100	0	0/20	no	Corrosion of household plumbing system; Erosion of natural deposits;.

*The 90th percentile value means 90 percent of the homes tested have lead and copper levels below the given 90th percentile value. If the 90th percentile value is above the AL additional requirements must be met.

IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER

Reporting Requirements Not Met for the City of Jackson

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. We routinely monitor your water for turbidity (cloudiness) at multiple locations in the treatment plant. This tells us whether we are effectively filtering the water supply. On December 13, 2021, January 11, 2022, and January 21, 2022, one of our filters experienced turbidity levels that required reporting specific information, including a filter profile to the Michigan Department of Environment, Great Lakes, and Energy (EGLE). A filter profile is a summary of the turbidity and flow through the filter and is used to identify any trends in filter performance. This information was not reported to EGLE in the required time frame. Although reporting requirements were not met, combined filter turbidity results were in compliance throughout this period.

Turbidity has no health effects. However, turbidity can interfere with disinfection and provide a medium for microbial growth. Turbidity may indicate the presence of disease causing organisms. These organisms include bacteria, viruses, and parasites which can cause symptoms such as nausea, cramps, diarrhea, and associated headaches. These symptoms are not caused only by organisms in drinking water. If you experience any of these symptoms and they persist, you may want to seek medical advice.

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 did to correct the situation.

What happened? What is being done? The required information and filter profile has since been produced and submitted to EGLE, and additional response actions have been implemented at the plant. We are making every effort to ensure this does not happen again.

For more information, please contact the City of Jackson Water Department at 517-788-4170.

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 the City of Jackson.





Photos of the City of Jackson Water Treatment Plant.

2021 Annual Water Quality Report



www.cityofjackson.org

FOR MORE INFORMATION: We will update this report annually and 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. The Jackson City Council generally meets on the second and fourth Tuesday of every month at 6:30 p.m. Residents may watch 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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