



# ANNUAL WATER QUALITY REPORT

Reporting Year 2023



*Presented By*  
**Jasper Municipal  
Water**



PWS ID#: 5219009



## Our Commitment

We are pleased to present to you this year's annual water quality report. This report is a snapshot of last year's water quality covering all testing performed between January 1 and December 31, 2023. Included are details about your source of water, what it contains, and how it compares to standards set by regulatory agencies. Our constant goal is to provide you with a safe and dependable supply of drinking water. We want you to understand the efforts we make to continually improve the water treatment process and protect our water resources. We are committed to ensuring the quality of your water and providing you with this information because informed customers are our best allies.

## Community Participation

You are invited to participate in our public forum and voice your concerns about your drinking water. Jasper Municipal Water Utility is managed by the Jasper Utility Service Board, which meets at 7:00 p.m. on the third Monday of each month at City Hall.

## Source Water Assessment

A Source Water Assessment Plan (SWAP) is now available at our office. This plan is an assessment of the delineated area around our listed sources through which contaminants, if present, could migrate and reach our source water. It also includes an inventory of potential sources of contamination within the delineated area and a determination of the water supply's susceptibility to contamination by the identified potential sources.



According to the SWAP, our water system had a susceptibility rating of medium. If you would like to review the SWAP, please feel free to contact our office during regular office hours at (812) 482-5252.

## Important Health Information

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 system disorders, some elderly, and infants may be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. The U.S. Environmental Protection Agency (EPA)/Centers for Disease Control and Prevention (CDC) 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 or [water.epa.gov/drink/hotline](http://water.epa.gov/drink/hotline).



## Lead in Home Plumbing

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 and removing lead pipes, but we cannot control the variety of materials used in plumbing components in your home. You share the responsibility for protecting yourself and your family from the lead in your home plumbing. You can take responsibility by identifying and removing lead materials within your home plumbing and taking steps to reduce your family's risk. Before drinking tap water, flush your pipes for several minutes by running your tap, taking a shower, or doing laundry or a load of dishes. You can also use a filter certified by an American National Standards Institute-accredited certifier to reduce lead in drinking water. If you are concerned about lead in your water and wish to have your water tested, contact Jasper Municipal Water Utility at (812) 482-5252. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available at [epa.gov/safewater/lead](http://epa.gov/safewater/lead).

## Where Does My Water Come From?

In 2023 the sole source of the water treated and distributed by the Jasper Municipal Water Utility was surface water drawn from the Patoka River. The Patoka Reservoir serves as the primary emergency source of water, with the Beaver Creek Reservoir serving as a secondary emergency source. The Beaver Creek Reservoir, a 205-acre, city-owned lake with approximately 905 million gallons of usable storage, is located seven miles east of the city. If water is needed from Beaver Creek Reservoir, it is released into Beaver Creek, which flows into the Patoka River before reaching the city.

## QUESTIONS?

For more information about this report, or for any questions relating to your drinking water, please call Mr. Tim Doersam, Water Department Manager, or Darin Kemp, Water Filtration Foreman, at (812) 482-5252.

## Substances That Could Be in Water

To ensure that tap water is safe to drink, the U.S. EPA prescribes regulations limiting the amount of certain contaminants in water provided by public water systems. U.S. Food and Drug Administration 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 these contaminants does not necessarily indicate that the water poses a health risk.

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, in some cases radioactive material, and substances resulting from the presence of animals or from human activity. Substances 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, or wildlife;

Inorganic Contaminants, such as salts and metals, which can be naturally occurring or may 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, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production and may also come from gas stations, urban stormwater runoff, and septic systems;

Radioactive Contaminants, which can be naturally occurring or may be the result of oil and gas production and mining activities.

For more information about contaminants and potential health effects, call the U.S. EPA's Safe Drinking Water Hotline at (800) 426-4791.

## Water Treatment Process

The treatment process consists of a series of steps. First, raw water is drawn from the Patoka River, and potassium permanganate is added, which allows for oxidation of iron and manganese. The water then goes to a rapid-mixing trough where blended polymer flocculent, hydrated lime (corrosion inhibitor, pH adjustment), fluoride (dental health), and activated carbon (taste and odor control) are added. The addition of these substances causes small particles (called floc) to adhere to one another, making them heavy enough to settle into a basin from which sediment is removed. Chlorine is then added for disinfection. At this point, the water is filtered through layers of fine coal and silicate sand. As smaller suspended particles are removed, turbidity disappears and clear water emerges. As an additional barrier for bacteria and viruses, the filtered water then undergoes an ultraviolet disinfection process before being discharged into a clearwell reservoir.

Chlorine is added again as a precaution against any bacteria that may be present within the distribution system. (We carefully monitor the amount of chlorine, adding the lowest quantity necessary to protect the safety of your water without compromising taste.) Finally, the water is pumped into the distribution system and your home or business.

## What Are PFAS?

Per- and polyfluoroalkyl substances (PFAS) are a group of manufactured chemicals used worldwide since the 1950s to make fluoropolymer coatings and products that resist heat, oil, stains, grease, and water. During production and use, PFAS can migrate into the soil, water, and air. Most PFAS do not break down; they remain in the environment, ultimately finding their way into drinking water. Because of their widespread use and their persistence in the environment, PFAS are found all over the world at low levels. Some PFAS can build up in people and animals with repeated exposure over time.

The most commonly studied PFAS are perfluorooctanoic acid (PFOA) and perfluorooctane sulfonic acid (PFOS). PFOA and PFOS have been phased out of production and use in the United States, but other countries may still manufacture and use them.

Some products that may contain PFAS include:

- Some grease-resistant paper, fast food containers/wrappers, microwave popcorn bags, pizza boxes
- Nonstick cookware
- Stain-resistant coatings used on carpets, upholstery, and other fabrics
- Water-resistant clothing
- Personal care products (shampoo, dental floss) and cosmetics (nail polish, eye makeup)
- Cleaning products
- Paints, varnishes, and sealants

Even though recent efforts to remove PFAS have reduced the likelihood of exposure, some products may still contain them. If you have questions or concerns about products you use in your home, contact the Consumer Product Safety Commission at (800) 638-2772. For a more detailed discussion on PFAS, please visit <http://bit.ly/3Z5AMm8>.

## Test Results

Our water is monitored for many different kinds of substances on a very strict sampling schedule, and the water we deliver must meet specific health standards. Here, we only show those substances that were detected in our water (a complete list of all our analytical results is available upon request). Remember that detecting a substance does not mean the water is unsafe to drink; our goal is to keep all detects below their respective maximum allowed levels.

The state recommends monitoring for certain substances less than once per year because the concentrations of these substances do not change frequently. In these cases, the most recent sample data are included, along with the year in which the sample was taken.

We participated in the fifth stage of the U.S. EPA's Unregulated Contaminant Monitoring Rule (UCMR5) program by performing additional tests on our drinking water. UCMR5 sampling benefits the environment and public health by providing the U.S. EPA with data on the occurrence of contaminants suspected to be in drinking water to determine if it needs to introduce new regulatory standards to improve drinking water quality. Unregulated contaminant monitoring data are available to the public, so please feel free to contact us if you are interested in obtaining that information. If you would like more information on the U.S. EPA's Unregulated Contaminant Monitoring Rule, please call the Safe Drinking Water Hotline at (800) 426-4791.

### REGULATED SUBSTANCES

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	MCL [MRDL]	MCLG [MRDLG]	AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
<b>Alpha Emitters</b> (pCi/L)	2023	5	0	0.31	NA	No	Erosion of natural deposits
<b>Barium</b> (ppm)	2023	2	2	0.028	0.028–0.028	No	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
<b>Beta/Photon Emitters</b> (pCi/L)	2023	50 <sup>1</sup>	0	2.55	NA	No	Decay of natural and human-made deposits
<b>Chlorine</b> (ppm)	2023	[4]	[4]	1	0.3–2.1	No	Water additive used to control microbes
<b>Chromium</b> (ppb)	2023	100	100	0.6	0.6–0.6	No	Discharge from steel and pulp mills; erosion of natural deposits
<b>Combined Radium</b> (pCi/L)	2023	5	0	0.75	NA	No	Erosion of natural deposits
<b>Fluoride</b> (ppm)	2023	4	4	0.6	0.6–0.6	No	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
<b>Haloacetic Acids [HAAs]–Stage 2</b> (ppb)	2023	60	NA	17	6.26–28.7	No	By-product of drinking water disinfection
<b>Nitrate</b> (ppm)	2023	10	10	0.26	0.26–0.26	No	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
<b>Nitrate-Nitrite</b> (ppm)	2023	10	10	1.9	0.29–1.9	No	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
<b>Total Organic Carbon [TOC]</b> (removal ratio)	2023	TT <sup>2</sup>	NA	4.6	0.883–4.6	No	Naturally present in the environment
<b>TTHMs [total trihalomethanes]–Stage 2</b> (ppb)	2023	80	NA	32	3.37–33.7	No	By-product of drinking water disinfection
<b>Turbidity</b> <sup>3</sup> (NTU)	2023	TT	NA	0.3	NA	No	Soil runoff
<b>Turbidity</b> (lowest monthly percent of samples meeting limit)	2023	TT = 95% of samples meet	NA	100	NA	No	Soil runoff

## Definitions

**90th %ile:** The levels reported for lead and copper represent the 90th percentile of the total number of sites tested. The 90th percentile is equal to or greater than 90% of our lead and copper detections.

**AL (Action Level):** The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

**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 health. MCLGs allow for a margin of safety.

**MRDL (Maximum Residual Disinfectant Level):** 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.

**MRDLG (Maximum Residual Disinfectant Level Goal):** 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:** Not applicable.

**NTU (Nephelometric Turbidity Units):** Measurement of the clarity, or turbidity, of water. Turbidity in excess of 5 NTU is just noticeable to the average person.

**pCi/L (picocuries per liter):** A measure of radioactivity.

**ppb (µg/L) (parts per billion):** One part substance per billion parts water (or micrograms per liter).

**ppm (mg/L) (parts per million):** One part substance per million parts water (or milligrams per liter).

**Removal Ratio:** A ratio between the percentage of a substance actually removed to the percentage of the substance required to be removed.

**TT (Treatment Technique):** A required process intended to reduce the level of a contaminant in drinking water.

### Tap water samples were collected for lead and copper analyses from sample sites throughout the community

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	AL	MCLG	AMOUNT DETECTED (90TH %ILE)	SITES ABOVE AL/TOTAL SITES	VIOLATION	TYPICAL SOURCE
Copper (ppm)	2023	1.3	1.3	0.0564	0/30	No	Corrosion of household plumbing systems; erosion of natural deposits
Lead (ppb)	2023	15	0	0.95	1/30	No	Corrosion of household plumbing systems; erosion of natural deposits

### UNREGULATED SUBSTANCES

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	AMOUNT DETECTED	RANGE LOW-HIGH	TYPICAL SOURCE
Nickel (ppm)	2023	0.004	0.004–0.004	Naturally occurring
Perfluorobutanoic Acid [PFBA] (ppb)	2023	0.0052	<0.0050–0.0052	By-product in stain-resistant fabrics, food packaging, and carpets; used for manufacturing film
Sodium (ppm)	2023	8.4	8.4–8.4	Road salt; septic tanks; sewage; natural deposits

<sup>1</sup>The MCL for beta particles is 4 millirems per year. U.S. EPA considers 50 pCi/L to be the level of concern for beta particles.

<sup>2</sup>The value reported under Amount Detected for TOC is the lowest ratio between percentage of TOC actually removed and percentage of TOC required to be removed. A value of greater than 1 indicates that the water system is in compliance with TOC removal requirements. A value of less than 1 indicates a violation of the TOC removal requirements.

<sup>3</sup>Turbidity is a measure of the cloudiness of the water. It is monitored because it is a good indicator of the effectiveness of the filtration system.

## Tip Top Tap

The most common signs that your faucet or sink is affecting the quality of your drinking water are discolored water, sink or faucet stains, a buildup of particles, unusual odors or tastes, and a reduced flow of water. The solutions to these problems may be in your hands.

### Kitchen Sink and Drain

Handwashing, soap scum buildup, and the handling of raw meats and vegetables can contaminate your sink. Clogged drains can lead to unclean sinks and backed-up water in which bacteria (i.e., pink or black slime growth) can grow and contaminate the sink area and faucet, causing a rotten egg odor. Disinfect and clean the sink and drain area regularly and flush with hot water.

### Faucets, Screens, and Aerators

Chemicals and bacteria can splash and accumulate on the faucet screen and aerator, which are located on the tip of faucets and can collect particles like sediment and minerals, resulting in a decreased flow from the faucet. Clean and disinfect the aerators or screens on a regular basis.

Check with your plumber if you find particles in the faucet screen, as they could be pieces of plastic from the hot water heater dip tube. Faucet gaskets can break down and cause black, oily slime. If you find this slime, replace the faucet gasket with a higher-quality product. White scaling or hard deposits on faucets and showerheads may be caused by water with high levels of calcium carbonate. Clean these fixtures with vinegar or use water softeners to reduce the calcium carbonate levels in the hot water system.

### Water Filtration/Treatment Devices

A smell of rotten eggs can be a sign of bacteria on the filters or in the treatment system. The system can also become clogged over time, so regular filter replacement is important. (Remember to replace your refrigerator filter!)

