

A high-speed photograph of water splashing, with a central stream of water falling and creating a large, dynamic splash at the bottom. The water is clear and bright blue, set against a white background. The splash is captured in mid-air, with many individual droplets visible.

ANNUAL WATER QUALITY REPORT

REPORTING YEAR 2023

Presented By
City of Jackson
PWS ID#: OH4000111

Our Mission Continues

We are pleased to present our water quality report covering all testing performed between January 1 and December 31, 2023. Over the years, we have dedicated ourselves to producing drinking water that meets all state and federal standards. We continually strive to adopt new methods for delivering the best-quality drinking water to you. As new challenges to drinking water safety emerge, we remain vigilant in meeting the goals of source water protection, water conservation, and community education while continuing to serve the needs of all our water users. The City of Jackson has prepared the following report to provide information to you, the consumer, on the quality of our drinking water.

Please remember that we are always available should you ever have any questions or concerns about your water.



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. EPA/CDC (Centers for Disease Control and Prevention) 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 <http://water.epa.gov/drink/hotline>.



Where Does My Water Come From?

THE CITY OF JACKSON receives its water from Hammertown lake and utilizes Jisco Lake as a backup water source.

Count on Us

Delivering high-quality drinking water to our customers involves far more than just pushing water through pipes. Water treatment is a complex, time-consuming process. Because tap water is highly regulated by state and federal laws, water treatment plant and system operators must be licensed and are required to commit to long-term, on-the-job training before becoming fully qualified. Our licensed water professionals have a basic understanding of a wide range of subjects, including mathematics, biology, chemistry, and physics. Some of the tasks they complete on a regular basis include:

- Operating and maintaining equipment to purify and clarify water;
- Monitoring and inspecting machinery, meters, gauges, and operating conditions;
- Conducting tests and inspections on water and evaluating the results;
- Maintaining optimal water chemistry;
- Applying data to formulas that determine treatment requirements, flow levels, and concentration levels;
- Documenting and reporting test results and system operations to regulatory agencies; and
- Serving our community through customer support, education, and outreach.

So, the next time you turn on your faucet, think of the skilled professionals who stand behind each drop.

QUESTIONS?

The City of Jackson Water Treatment Plant is lead by Ron Aldrich and is part of the Administration overseen by Mayor Randy Evans. Both Mayor Evans and Mr. Aldrich (740-286-3010) (raldrich@jacksonohio.us) encourage and welcome comments and input in regard to our water system.

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 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 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.

The EPA requires regular sampling to ensure drinking water safety. The City of Jackson conducted sampling for bacteria, inorganics, volatile organics, and residual disinfectants during 2023.

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

Source Water Assessment

A Source Water Assessment has been completed for our system. The purpose of the assessment is to determine the susceptibility of each drinking water source to potential contaminant sources.

The City of Jackson public water system uses surface water drawn from two reservoirs, which are fed by tributaries to Little Salt Creek. For the purposes of source water assessments, in Ohio all surface waters are considered to be susceptible to contamination. By their nature, surface waters are readily accessible and can be contaminated by chemicals and pathogens which may rapidly arrive at the public drinking water intake with little warning or time to prepare. The City of Jackson's drinking water source protection area contains potential contaminant sources such as home sewage disposal system discharges, runoff from residential, agricultural and home sewage disposal system discharges, runoff

from residential, agricultural and urban areas, and oil and gas production.

We remain vigilant in delivering the best-quality drinking water

The City of Jackson's public water system treats the water to meet drinking water quality standards, but no single treatment technique can address all potential contaminants. The potential for water quality impacts can be further decreased by implementing measures to protect the City's two reservoirs. More detailed information is provided in the City of Jackson's Drinking Water Source Assessment report, which can be obtained by calling Ron Aldrich, Operations Manager at (740) 286-3010.

More information about the source water assessment or what consumers can do to help protect the aquifer is available by calling (740) 286-3010 or the Ohio EPA at (740) 385-8501.

The Source Water Assessment was completed in 2003

Public Meetings

Regular meetings of the City of Jackson Council are held on the second and fourth Mondays of each month at which time a public participation session is scheduled and welcomed.





BY THE NUMBERS

Average usage per person per day in the US

82
GALLONS

2.2
MILLION The number of miles of drinking water distribution lines in the U.S.

The amount of money spent annually on maintaining the public water infrastructure in the U.S. (2017)

441
BILLION

310
MILLION The number of Americans who receive water from a public water system.

Percent of the worlds water that is drinkable

3%

145
THOUSAND The number of active public water systems in the U.S.

Number of water and wastewater treatment plant operators in U.S. - estimate as of 2016

120
THOUSAND

93 The number of federally regulated contaminants tested for in drinking water.

Table Talk

Get the most out of the Testing Results data table with this simple suggestion. In less than a minute, you will know all there is to know about your water:

For each substance listed, compare the value in the Amount Detected column against the value in the MCL (or AL, SMCL) column. If the Amount Detected value is smaller, your water meets the health and safety standards set for the substance.

Other Table Information Worth Noting

Verify that there were no violations of the state and/or federal standards in the Violation column. If there was a violation, you will see a detailed description of the event in this report.

If there is an ND or a less-than symbol (<), that means that the substance was not detected (i.e., below the detectable limits of the testing equipment).

The Range column displays the lowest and highest sample readings. If there is an NA showing, that means only a single sample was taken to test for the substance (assuming there is a reported value in the Amount Detected column).

If there is sufficient evidence to indicate from where the substance originates, it will be listed under Typical Source.

Lead in Home Plumbing

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. A list of laboratories certified in the State of Ohio to test for lead may be found at <http://www.epa.ohio.gov/ddagw> or by calling (614) 644-2752. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline at (800) 426-4791 or at www.epa.gov/safewater/lead.



Test Results

Our water is monitored for many different kinds of substances on a very strict sampling schedule. Also, the water we deliver must meet specific health standards. Here, we show only 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. We are pleased to report that your drinking water meets or exceeds all federal and state requirements.

The state recommends monitoring for certain substances less often 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 4th stage of the U.S. EPA's Unregulated Contaminant Monitoring Rule (UCMR4) program by performing additional tests on our drinking water. UCMR4 sampling benefits the environment and public health by providing the EPA with data on the occurrence of contaminants suspected to be in drinking water, in order to determine if the EPA 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.

Note that we have a current, unconditioned license to operate our water system.

REGULATED SUBSTANCES							
SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	MCL [MRDL]	MCLG [MRDLG]	AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
Barium (ppm)	2023	2	2	0.039	NA	No	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
Chlorine (ppm)	2023	[4]	[4]	1.382	1.22 - 1.46	No	Water additive used to control microbes
Fluoride (ppm)	2023	4	4	1.18	1.03 -1.18	No	Erosion of natural deposits; Water additive that promotes strong teeth; Discharge from fertilizer and aluminum factories
Haloacetic Acids (ppb)	2023	60	NA	30.63	20.9 - 37.3	No	By-product of drinking water disinfection
Nitrate (ppm)	2023	10	10	0.13	0.1-0.21	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
TTHMs [Total Trihalomethanes] (ppb)	2023	80	NA	59.70	34.40 - 79.2	No	By-product of drinking water disinfection

Turbidity (NTU) 2023 TT NA 0.08 0.02- 0.08 No Soil Runoff

2022 Corrections

Combined Radium pCi/L 2021 5 NA 2.25 NA No Sources of these exposures to radiation include building materials such as granite, airborne radon, and cosmic radiation from outer space.

2022 Copper was reported as 57.7 and should have been 0.052 ppm

Substance	Year Sampled	AL	MCLG	90% of test levels were less than	Range Low-High	Individual results over AL	Violation	Typical Source
Copper (ppm)	2022	1.3	1.3	0.052	0.00-110	0/20	No	Corrosion of household plumbing systems; Erosion of natural deposits
Lead (ppb)	2022	15	0	< 2.0	<2.0-<2.0	0/20	No	Lead services lines; Corrosion of household plumbing systems including fittings and fixtures; Erosion of natural deposits

During the Lead Monitoring 0 out of 20 samples were found to have lead in excess of the Action level of 15 ppb. Copper Monitoring was 0 out of 20 samples were found to have copper levels above the action level of 1.3 ppm. Repeat samples were less than detectable.

Definitions

90th % tile: 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 that, if exceeded, triggers treatment or other requirements that 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

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

ppb (parts per billion): One part substance per billion parts water (or micrograms per liter).

The "<" symbol - A symbol which means less than. A result of <5 means that the lowest level that could be detected was 5 and the contaminant in that sample was not detected.

ppm (parts per million): One part substance per million parts water (or milligrams per liter).

TT- Treatment Technique A required process intended to reduce the level of a contaminant in drinking water. Nephelometric Turbidity Unit (NTU) - Used to measure the cloudiness in drinking water

IDSE - Initial Distribution System Evaluation

Turbidity is a measure of the cloudiness of water and is an indication of the effectiveness of our filtration system. The turbidity limit set by the EPA is 0.3 NTU in 95% of the daily samples and shall not exceed 5 NTU at any time. As reported above the City's of Jackson's highest recorded turbidity result for 2022 was 0.08 NTU and the lowest monthly percentage of samples meeting the turbidity limits was 100%.

Under the Stage 2 Disinfectants/Disinfection Byproducts Rule (D/DBPR), our public water system was required by USEPA to conduct an evaluation of our distribution system. This is known as an Initial Distribution System Evaluation (IDSE, and is intended to identify locations in our distribution system with elevated disinfection byproduct concentrations. The locations selected for the IDSE may be used for compliance monitoring under Stage 2 DBPR, beginning in 2013. Disinfection byproducts are the result of providing continuous disinfection of your drinking water and form when disinfectants combine with organic matter naturally occurring in the source water. Disinfection byproducts are grouped into two categories, Total Trihalomethanes (TTHM) and Haloacetic Acid (HAA5). USEPA sets standards for controlling the levels of disinfectants and disinfection byproducts in drinking water, including both THMs and HAAs.

The following parameters are required to be tested routinely by EPA Regulation. No detectable amounts were found in the 2021 testing program.

Total Coliform Bacteria, Arsenic, Alachlor, Simazine, Benzene, Carbon Tetrachloride, o-Dichlorobenzene, p-Dichlorobenzene, 1,2-Dichloroethane, 1,1-Dichloroethylene, cis-1,2-Dichloroethylene, trans-1,2-Dichloroethylene, Dichloromethane, 1,2-Dichloropropane, Ethylbenzene, Styrene, Tetrachloroethylene, 1,2,4-Trichlorobenzene, 1,1,1-Trichloroethane, 1,1,2-Trichloroethane, Trichloroethane, 1,1,2-Trichloroethane, Trichloroethylene, Vinyl Chloride, Total Trihalomethanes, Total Organic Carbon, Haloacetic Acids, Xylenes, 2,4-dinitrotoluene, 2,6-dinitrotoluene, DCPA di-acid degradate, EPTC Molinate, Nitrobenzene, Perchlorate, Terbacil, Antimony, Barium, Beryllium, Cadmium, Chromium, Cyanide, Mercury, Nickel, Selenium and Thallium.

Backflow Prevention

What is backflow?

Backflow is a condition in the water system where water, sewage, gases or other fluids flow into the distribution piping from any source other than that of the potable water supply. This can occur in one of two ways: via backpressure or back-siphonage.

What is backpressure?

Backpressure is caused by internal plumbing pressure exceeding the pressure of the potable water supply. This can occur in many ways. One cause is private well that is capable of pumping water at a higher pressure than the city supply. This will most likely occur when a cross-connection is made by a homeowner during times of low pressure in the potable water system, i.e. hydrant flushing, water main breaks, fires, or low pumping cycles, in an attempt to compensate for the lower pressure. Another source of contamination is a pressurized fire suppression system which maintains a pressure zone higher than the city water supply.

What is backsiphonage?

Backsiphonage occurs when there is a negative pressure in the city supply lines or a customer's internal piping. Should a low or negative pressure situation occur in the piping, water will be back siphoned from many sources into the distribution system. Low or negative pressures can be caused by many conditions including water main breaks, hydrant flushing, fires, and high demand. A few examples of sources for backsiphonage are hoses left in puddles or sinks, submerged water supply inlets, older style toilets, aspirators, lawn irrigation systems, and booster pumps.

Who regulates backflow prevention and cross connection control?

Protection for the public water system is accomplished by maintaining a complete and comprehensive Backflow Prevention and Cross Connection Control Program. The program is mandated by the Environmental Protection Agency (EPA) and all licensed public water systems must abide by adopted regulations. Laws defining backflow prevention, regulations, requirements, and penalties were written and adopted in 1972 by the Federal EPA. State regulations are contained in the Ohio Board of Building Standards, the Ohio Department of Health, and the Ohio EPA. Local regulations are contained in the City of Jackson Codified Ordinances. (Ordinance # 11-89 passed on 3-14-1989)

Fortunately, keeping your water safe from these contamination is easy.

Take the following precautions:

Never - Submerge hoses in buckets, pools, tubs, or sinks.

Use Spray attachments without backflow device. Chemicals used on your lawn are toxic and can be fatal if ingested.

Always - Buy and install inexpensive backflow device for threaded faucets, and spigots

Keep the end of water hose clear of any contaminants.

Vacuum breakers for home water hoses may be purchased at most hardware stores.