

ANNUAL WATER QUALITY REPORT

Reporting Year 2024



Presented By



**JACKSON COUNTY
PUBLIC WATER**
SUPPLY DISTRICT NO. 2

Este informe contiene información muy importante sobre su agua potable. Tradúzcalo o hable con alguien que lo entienda bien.

PWS ID#: MO1024276



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, 2024. Included are details about your sources 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.

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.

The Department of Natural Resources conducted a source water assessment to determine the susceptibility of our water sources to potential contaminants. This process involved the establishment of source water area delineations for each well or surface water intake, and then a contaminant inventory was performed within those delineated areas to assess potential threats to each source. Assessment maps and summary information sheets are available at <https://drinkingwater.missouri.edu/>. The Missouri Source Water Protection and Assessment maps and information sheets provide a foundation upon which a more comprehensive source water protection plan can be developed. If you would like to review the SWAP, please contact our office during regular office hours. You can also contact Independence Water (816-325-7930 / independencemo.gov) and Kansas City Water (816-513-1313 / kcwater.us) for information on their assessments.



Thousands have lived without love, not one without water."

-W.H. Auden

Where Does My Water Come From?

Public Water Supply District #2 customers are fortunate because we enjoy an abundant water supply from two sources. The first is Kansas City Water, which draws surface water from the Missouri River and groundwater from deep wells in the Missouri Aquifer. Our second water source is Independence Water, which draws groundwater from wells located in the Missouri River Alluvial Aquifer. Combined, we provide roughly 400 million gallons of clean drinking water every year.

Think Before You Flush!

Flushing unused or expired medicines can be harmful to your drinking water. Properly disposing of unused or expired medication helps protect you and the environment. Keep medications out of our waterways by disposing responsibly. To find a convenient drop-off location near you, please visit bit.ly/3IeRyXy.

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 can be particularly at risk from infections. These people should seek advice about drinking water from their health-care providers. U.S. Environmental Protection Agency (U.S. 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 (800-426-4791) or epa.gov/safewater.



Community Participation

You are invited to participate in our public meetings and voice your concerns about your drinking water. We meet the second Wednesday of each month at 5:00 p.m. at the Water District office, 6945 Blue Ridge Boulevard, Raytown.



QUESTIONS?

For more information about this report, or for any questions relating to your drinking water, please call Patrick Ertz, District Manager, at (816) 353-5550.

BY THE NUMBERS

 **3.4 BILLION**

The daily volume in gallons of water recycled and reused in the U.S., reducing waste and conserving resources.

 **28%**

The percent reduction in per capita water use in the U.S. since 1980, thanks to efficiency improvements.

 **99.99%**

The percent effectiveness of modern water treatment plants in removing harmful bacteria and viruses from drinking water.

 **1.2 MILLION**

The length in miles of drinking water pipes in the U.S. delivering clean water to millions of homes and businesses daily.

 **1.7 MILLION**

The number of jobs supported by the U.S. water sector.

Substances That Could Be in Water

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 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 occur naturally in the soil or groundwater 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 can also come from gas stations, urban stormwater runoff, and septic systems.

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

To ensure that tap water is safe to drink, U.S. EPA prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. 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 contaminants does not necessarily mean that water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the Safe Drinking Water Hotline (800-426-4791) or visiting epa.gov/safewater.

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. Public Water Supply District #2 is responsible for providing high-quality drinking water and removing lead pipes owned and controlled by the water system, 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. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available at epa.gov/safewater/lead.

To address lead in drinking water, public water systems were required to develop and maintain an inventory of service line materials by October 16, 2024. Developing an inventory and identifying the location of lead service lines (LSL) is the first step for beginning LSL replacement and protecting public health. The lead service inventory may be accessed by contacting us at pwsd2@pwsd2.org. Please contact us if you would like more information about the inventory or any lead sampling that has been done.



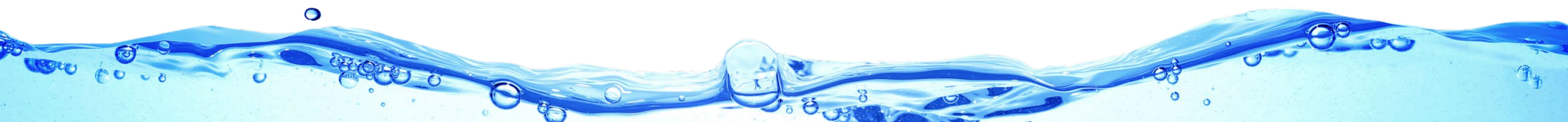
Test Results

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 is 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 U.S. EPA needs to introduce new regulatory standards to improve drinking water quality. Unregulated contaminant monitoring data is 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											
				Independence Water		Kansas City Water		Public Water Supply District #2			
SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	MCL [MRDL]	MCLG [MRDLG]	AMOUNT DETECTED	RANGE LOW-HIGH	AMOUNT DETECTED	RANGE LOW-HIGH	AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
Atrazine (ppb)	2024	3	3	NA	NA	2.67	ND–2.67	NA	NA	No	Runoff from herbicide used on row crops
Barium (ppm)	2024	2	2	0.0438	0.0438–0.0438	NA	NA	NA	NA	No	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
Fluoride (ppm)	2024	4	4	NA	NA	0.746	0.746–0.746	NA	NA	No	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories
Haloacetic Acids [HAAs] (ppb)	2024	60	NA	5	2.75–6.95	15	8.68–20.6	6 ¹	3.43–8.14 ¹	No	By-product of drinking water disinfection
HAA5 [sum of 5 haloacetic acids; sample point DBPDUAL-02] (ppb)	2024	60	NA	NA	NA	NA	NA	5	3.12–6.18	No	By-product of drinking water disinfection
Nitrate (ppm)	2024	10	10	NA	NA	2.59	2.59–2.59	NA	NA	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
Selenium (ppb)	2024	50	50	NA	NA	2.56	2.56–2.56	NA	NA	No	Discharge from petroleum and metal refineries; Erosion of natural deposits; Discharge from mines
TTHMs [total trihalomethanes] (ppb)	2024	80	NA	4	1.09–6.69	10	4.4–13.9	5 ¹	1.54–9.2 ¹	No	By-product of drinking water disinfection
TTHMs [sample point DBPDUAL-02] (ppb)	2024	80	NA	NA	NA	NA	NA	4	1.2–8.64	No	By-product of drinking water disinfection
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)	RANGE LOW-HIGH	SITES ABOVE AL/TOTAL SITES	VIOLATION	TYPICAL SOURCE			
Copper (ppm)	2022	1.3	1.3	ND	ND–0.00527	0/30	No	Corrosion of household plumbing systems; Erosion of natural deposits			
Lead (ppb)	2022	15	0	ND	ND–2.59	0/30	No	Corrosion of household plumbing systems; Erosion of natural deposits			



UNREGULATED SUBSTANCES								
		Independence Water		Kansas City Water		Public Water Supply District #2		
SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	AMOUNT DETECTED	RANGE LOW-HIGH	AMOUNT DETECTED	RANGE LOW-HIGH	AMOUNT DETECTED	RANGE LOW-HIGH	TYPICAL SOURCE
Lithium (ppb)	2024	NA	NA	NA	NA	41.2	33.4–41.2	NA

¹ From sample point DBPDUAL-01.

What's a Cross-Connection?

Cross-connections that contaminate drinking water distribution lines are a major concern. A cross-connection is formed at any point where a drinking water line connects to equipment (boilers), systems containing chemicals (air-conditioning systems, fire sprinkler systems, irrigation systems), or water sources of questionable quality. Cross-connection contamination can occur when the pressure in the equipment or system is greater than the pressure inside the drinking water line (backpressure). Contamination can also occur when the pressure in the drinking water line drops due to fairly routine occurrences (main breaks, heavy water demand), causing contaminants to be sucked out from the equipment and into the drinking water line (backsiphonage).

Outside water taps and garden hoses tend to be the most common sources of cross-connection contamination at home. The garden hose creates a hazard when submerged in a swimming pool or attached to a chemical sprayer for weed killing. Garden hoses that are left lying on the ground may be contaminated by fertilizers, cesspools, or garden chemicals. Improperly installed valves in your toilet could also be a source of cross-connection contamination.

Community water supplies are continuously jeopardized by cross-connections unless appropriate valves, known as backflow prevention devices, are installed and maintained. We have surveyed industrial, commercial, and institutional facilities in the service area to make sure that potential cross-connections are identified and eliminated or protected by a backflow preventer. We also inspect and test backflow preventers to make sure that they provide maximum protection. For more information on backflow prevention, contact the Safe Drinking Water Hotline at (800) 426-4791.



About Our Monitoring Violation

As a result of an administrative oversight in spring 2024, we neglected to submit a report as required by the National Primary Drinking Water Regulations. At no time did this incident pose a threat to public health and safety, nor did it have any impact on the high-quality drinking water provided to our customers. To ensure that all reporting requirements are met in the future, we have implemented a computerized scheduling system that will automatically notify us when reports are due to be submitted.

About Our Resellers Violation

During the 2024 calendar year, Independence PWS, who we purchase water from, had the below noted violation(s) of drinking water regulations, related to their CCR. We are required to report this per EPA regulations.

WATER SYSTEM	TYPE	CATEGORY	ANALYTE	COMPLIANCE PERIOD
INDEPENDENCE PWS	CCR ADEQUACY/AVAILABILITY/CONTENT	RPT	CONSUMER CONFIDENCE RULE	7/1/2024– 9/11/2024

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.

ND (Not detected): Indicates that the substance was not found by laboratory analysis.

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

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

