

2024 Water Quality Report

Committed to quality

Access to safe, reliable water is our top priority.

City of Columbia Utilities prides itself on maintaining a safe, reliable and efficient water system. Customers have benefited from Columbia's clean, reliable drinking water for more than 100 years.

City of Columbia Utilities monitors and evaluates the quality of the water more frequently and more thoroughly than is required by law.

The Water Utility tests samples from more than 40 locations — including from the groundwater wells, during the treatment process and throughout the distribution system.

The Environmental Protection Agency (EPA) and the Missouri Department of Natural Resources (MDNR) require public water supply systems to report to customers on the quality of the water Utilities provides.

The City is proud to report that the water we supply to our customers meets all water quality standards set by the EPA and MDNR.

The EPA sets legal limits on more than 90 contaminants in drinking water. The legal limit for a contaminant reflects the level that protects human health and that water systems can achieve using the best available technology.

This report lists only those substances found in measurable quantities in Columbia's drinking water. EPA rules also set water-testing schedules and methods that water systems must follow.

City of Columbia Utilities reports any events that might compromise the water quality to MDNR.

A complete list of water quality testing results and reportable events with the water system is available at CoMo.gov.

In accordance with the EPA's Lead and Copper Rule revisions, City of Columbia Utilities developed a comprehensive inventory of drinking water service lines in the City.

The Water Utility used a combination of historical records, physical inspections and customer surveys to identify the location of water service lines requiring replacement.

During field investigation work, the Water Utility has not found any active water service lines made from lead in the City's water distribution system.

City of Columbia Utilities also continues to make voter-approved upgrades that will restore the capacity of the McBaine Water Treatment Plant. This project will restore the plant's capacity to treat 32 million gallons of water per day and includes rehabilitation and replacement projects that will enhance the performance of this critical facility.

Safe water supply is critical to protecting public health.

That is why City of Columbia Utilities remains committed to supplying its citizens and customers with the highest quality water and service possible.

Columbia's thorough water treatment process ensures safe water for CoMo residents.

The City of Columbia's water system treats and transports water to more than 51,000 customers — a population of more than 126,000 people — residing and working in our more than 89 square mile service area. The City of Columbia promises to continue providing our customers with safe, reliable and affordable water service long into the future.

1 Collect Raw Water

Water from the McBaine Alluvial Aquifer & Well Field is collected & pumped to the treatment plant.

2 Aerate

Aeration removes gases & oxidizes iron. This reduces the amount of lime needed during the softening process.

3 Soften

Lime softening improves both taste & color while removing hard minerals.

4 Filter

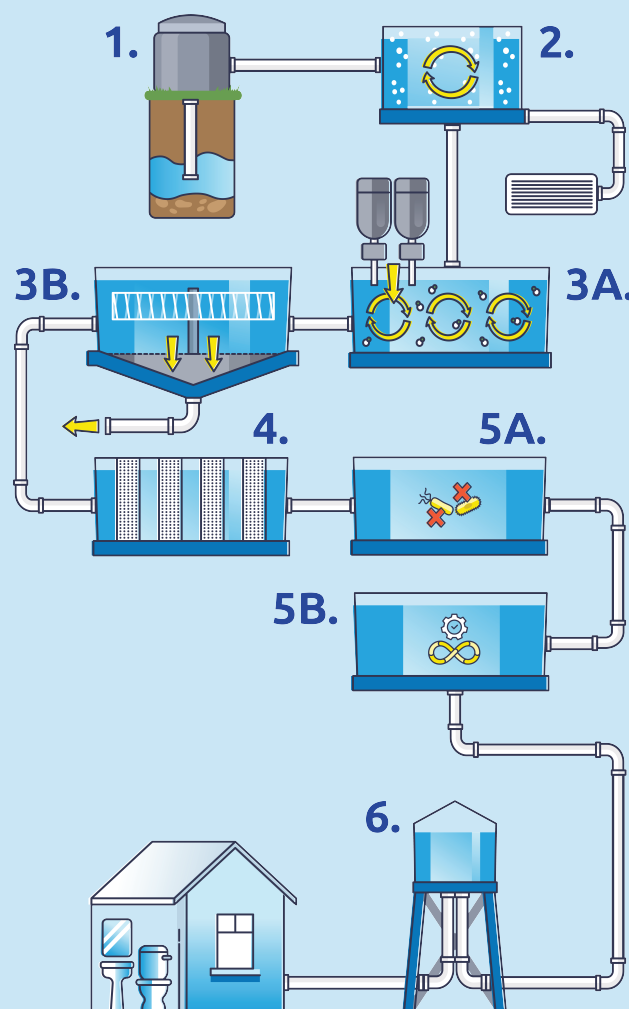
Water is sent through filters to remove any remaining solids.

5 Disinfect

Disinfection happens when chlorine gas, a small amount of ammonium sulfate, & fluoride are added to the water. This is what makes our water safe to consume. At this stage, lots of testing & monitoring occurs.

6 Ready for Distribution!

Clean water can now make its way to you! After completing all steps, water is stored in pump station reservoirs before being pumped to water towers & ultimately our community!



For more information, visit CoMo.gov/utilities/water or call **573.874.CITY (2489)**.

CITY OF COLUMBIA UTILITIES

Public Water System ID Number: MO3010181

2024 Annual Water Quality Report

(Consumer Confidence Report)

This report is intended to provide you with important information about your drinking water and the efforts made to provide safe drinking water.

Attention!

Este informe contiene información muy importante. Tradúscalo o pregúntele a alguien que lo entienda bien.
[Translated: This report contains very important information. Translate or ask someone who understands this very well.]

What is the source of my water?

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and groundwater 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.

Our water comes from the following source(s):

Source Name	Type
WELL # 1, 2, 3, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, & 18	Ground Water
ASH ST NEAR W ASHP PUMP STATION - ABANDON	Ground Water
CRUMP WELL	Ground Water
WELL # 8 FAIRVIEW CHURCH WELL	Ground Water
OLD WELL # 10 ROUTE TT KATY TRAIL WL	Ground Water
ALLUVIAL WELL #4	Ground Water
EL RAY HEIGHTS	Ground Water
BOONE CO # 1 BROWN SCHOOL RD - OTHER	Ground Water

Source Water Assessment

The Department of Natural Resources conducted a source water assessment to determine the susceptibility of our water source 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 on the internet 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.

Why are there contaminants in my 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 Environmental Protection Agency's Safe Drinking Water Hotline (800-426-4791).

Contaminants that may be present in source water include:

- A. **Microbial contaminants**, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.
- B. **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.
- C. **Pesticides and herbicides**, which may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses.
- D. **Organic chemical contaminants**, including synthetic and volatile organic chemicals, which are byproducts of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, and septic systems.
- E. **Radioactive contaminants**, which can be naturally-occurring or be the result of oil and gas production and mining activities.

In order to ensure that tap water is safe to drink, the Department of Natural Resources prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. Department of Health regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

Is our water system meeting other rules that govern our operations? The Missouri Department of Natural Resources regulates our water system and requires us to test our water on a regular basis to ensure its safety. Our system has been assigned the identification number MO3010181 for the purposes of tracking our test results. Last year, we tested for a variety of contaminants. The detectable results of these tests are on the following pages of this report. Any violations of state requirements or standards will be further

explained later in this report.

How might I become actively involved? If you would like to observe the decision-making process that affect drinking water quality or if you have any further questions about your drinking water report, please call us at **573-874-6242** to inquire about scheduled meetings or contact persons.

Do I need to take any special precautions? 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. EPA/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).

Terms and Abbreviations

Population: 126254. This is the equivalent residential population served including non-bill paying customers.

90th percentile: For Lead and Copper testing. 10% of test results are above this level and 90% are below this level.

AL: Action Level, or the concentration of a contaminant which, when exceeded, triggers treatment or other requirements which a water system must follow.

HAAS: Haloacetic Acids (mono-, di- and tri-chloroacetic acid, and mono- and di-bromoacetic acid) as a group.

LRAA: Locational Running Annual Average, or the locational average of sample analytical results for samples taken during the previous four calendar quarters.

MCLG: Maximum Contaminant Level Goal, or 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.

MCL: Maximum Contaminant Level, or 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.

n/a: not applicable.

nd: not detectable at testing limits.

NTU: Nephelometric Turbidity Unit, used to measure cloudiness in drinking water.

ppb: parts per billion or micrograms per liter.

ppm: parts per million or milligrams per liter.

RAA: Running Annual Average, or the average of sample analytical results for samples taken during the previous four calendar quarters.

Range of Results: Shows the lowest and highest levels found during a testing period, if only one sample was taken, then this number equals the Highest Test Result or Highest Value.

SMCL: Secondary Maximum Contaminant Level, or the secondary standards that are non-enforceable guidelines for contaminants and may cause cosmetic effects (such as skin or tooth discoloration) or aesthetic effects (such as taste, odor or color) in drinking water. EPA recommends these standards but does not require water systems to comply.

TT: Treatment Technique, or a required process intended to reduce the level of a contaminant in drinking water. **TTHM:** Total Trihalomethanes (chloroform, bromodichloromethane, dibromochloromethane, and bromoform) as a group.

CITY OF COLUMBIA UTILITIES
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(Consumer Confidence Report)

Contaminants Report

CITY OF COLUMBIA UTILITIES will provide a printed hard copy of the CCR upon request. To request a copy of this report to be mailed, please call us at **573-874-6242**. The CCR can also be found on the internet at www.dnr.mo.gov/ccr/MO3010181_.pdf.

The state has reduced monitoring requirements for certain contaminants to less often than once per year because the concentrations of these contaminants are not expected to vary significantly from year to year. Records with a sample year more than one year old are still considered representative. No data older than 5 years need be included. If more than one sample is collected during the monitoring period, the Range of Sampled Results will show the lowest and highest tested results. The Highest Test Result, Highest LRAA, or Highest Value must be below the maximum contaminant level (MCL) or the contaminant has exceeded the level of health based standards and a violation is issued to the water system.

Regulated Contaminants

Regulated Contaminants	Collection Date	Highest Test Result	Range of Sampled Result(s) (low – high)	Unit	MCL	MCLG	Typical Source
BARIUM	1/17/2024	0.138	0.138	ppm	2	2	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
FLUORIDE	1/17/2024	0.7	0.7	ppm	4	4	Natural deposits; Water additive which promotes strong teeth

Disinfection Byproducts	Sample Point	Monitoring Period	Highest LRAA	Range of Sampled Result(s) (low – high)	Unit	MCL	MCLG	Typical Source
TOTAL HALOACETIC ACIDS (HAA5)	DBPDUAL-01	2024	12	8.85 - 16.3	ppb	60	0	Byproduct of drinking water disinfection
TOTAL HALOACETIC ACIDS (HAA5)	DBPDUAL-02	2024	12	9.12 - 15	ppb	60	0	Byproduct of drinking water disinfection
TOTAL HALOACETIC ACIDS (HAA5)	DBPDUAL-03	2024	12	8.54 - 13.6	ppb	60	0	Byproduct of drinking water disinfection
TOTAL HALOACETIC ACIDS (HAA5)	DBPDUAL-04	2024	11	7.73 - 12.7	ppb	60	0	Byproduct of drinking water disinfection
TOTAL HALOACETIC ACIDS (HAA5)	DBPDUAL-05	2024	11	8.42 - 12.8	ppb	60	0	Byproduct of drinking water disinfection
TOTAL HALOACETIC ACIDS (HAA5)	DBPDUAL-06	2024	11	7.68 - 13.6	ppb	60	0	Byproduct of drinking water disinfection
TTHM	DBPDUAL-01	2024	39	32.6 - 44.1	ppb	80	0	Byproduct of drinking water disinfection
TTHM	DBPDUAL-02	2024	40	36.2 - 42.4	ppb	80	0	Byproduct of drinking water disinfection
TTHM	DBPDUAL-03	2024	42	35.5 - 48.7	ppb	80	0	Byproduct of drinking water disinfection
TTHM	DBPDUAL-04	2024	40	33.7 - 46.1	ppb	80	0	Byproduct of drinking water disinfection
TTHM	DBPDUAL-05	2024	43	36.4 - 49.2	ppb	80	0	Byproduct of drinking water disinfection
TTHM	DBPDUAL-06	2024	41	33.7 - 44.7	ppb	80	0	Byproduct of drinking water disinfection

Lead and Copper	Date	90th Percentile: 90% of your water utility levels were less than	Range of Sampled Results (low – high)	Unit	AL	Sites Over AL	Typical Source
COPPER, FREE	2023	0.13	0.00457 - 0.272	ppm	1.3	0	Corrosion of household plumbing systems
LEAD	2023	3.25	0 - 6.66	ppb	15	0	Corrosion of household plumbing systems; Erosion of Natural Deposits

Unregulated Contaminant Monitoring Rule (UCMR)	Collection Date of HV	Highest Value (HV)	Range of Sampled Result(s)	Unit
LITHIUM, TOTAL	11/12/2024	21.4	17.8 - 21.4	UG/L

Violations and Health Effects Information

During the 2024 calendar year, we had the below noted violation(s) of drinking water regulations.

Compliance Period	Analyte	Type
No Violations Occurred in the Calendar Year of 2024		

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Special Lead and Copper Notice:

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. CITY OF COLUMBIA UTILITIES is responsible for providing high quality drinking water and removing water system owned and controlled lead pipes, but 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 in the portion of the service line you own, 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, 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 <http://www.epa.gov/safewater/lead>.

All contaminant sample results from past and present compliance monitoring are available online at the Missouri DNR Drinking Water Watch website at www.dnr.mo.gov/DWW/. To see the Lead and Copper results, enter your water system's name in the box titled Water System Name, then select Find Water Systems at the bottom of the page. On the next screen, click on the [Water System Number](#). At the top of the next page, under the Help column, click on Other Chemical Results by Analyte. Scroll down to Lead and click the blue Analyte Code (1030). A Sample Collection Date range may need to be entered. The Lead and Copper locations will be displayed under the heading Sample Comments. Scroll to find your location and click on the Sample No. for results. If you assisted the water system in taking a Lead and Copper sample but cannot find your location on the list, please contact CITY OF COLUMBIA UTILITIES for your results.

A service line inventory was required to be prepared and can be requested from CITY OF COLUMBIA UTILITIES or can be accessed online at:

<https://storymaps.arcgis.com/stories/d6134fec95c2413faab553fd8196784c>

Optional Monitoring (not required by EPA)

Optional Contaminants

Monitoring is not required for optional contaminants.

Secondary Contaminants	Collection Date	Your Water System Highest Sampled Result	Range of Sampled Result(s) (low - high)	Unit	SMCL
ALKALINITY, CaCO3 STABILITY	1/17/2024	137	137	MG/L	
BROMIDE	1/8/2020	0.0688	0.0688	MG/L	0.05
CALCIUM	1/17/2024	40.6	40.6	MG/L	
CHLORIDE	1/17/2024	31.5	31.5	MG/L	250
HARDNESS, CARBONATE	1/17/2024	187	187	MG/L	
IRON	1/17/2024	0.172	0.172	MG/L	0.3
LITHIUM, TOTAL	11/12/2024	21.4	17.8 - 21.4	UG/L	
MAGNESIUM	1/17/2024	20.7	20.7	MG/L	
MANGANESE	1/17/2024	0.00842	0.00842	MG/L	0.05
NICKEL	1/17/2024	0.00165	0.00165	MG/L	0.1
PH	1/17/2024	8.22	8.22	PH	8.5
POTASSIUM	1/17/2024	4.41	4.41	MG/L	
SODIUM	1/17/2024	35.2	35.2	MG/L	
SULFATE	1/17/2024	96.5	96.5	MG/L	250
TDS	1/17/2024	329	329	MG/L	500
ZINC	1/17/2024	0.00181	0.00181	MG/L	5

Secondary standards are non-enforceable guidelines for contaminants that may cause cosmetic effects (such as skin or tooth discoloration) or aesthetic effects (such as taste, odor or color) in drinking water. EPA recommends these standards but does not require water systems to comply.