

Centennial Water and Sanitation District

# 20 Water Quality 24 REPORT



**CENTENNIAL**  
WATER AND SANITATION DISTRICT

Serving the communities of Highlands Ranch and Solstice.

## Table of Contents

Centennial Water and Sanitation District...4

Terms and Abbreviations...6

East Cherry Creek Valley ...10

Denver Water ...14

City of Aurora...23



# What is this report?

The Environmental Protection Agency (EPA) requires public water supplies that serve the same people year-round (community water systems) to provide consumer confidence reports to their customers. These reports are also known as annual water quality reports. This report summarizes information regarding water sources used, any detected contaminants, compliance and education.

Centennial Water & Sanitation District is committed to providing a reliable and secure supply of high-quality drinking water. Last year, as in years past, your tap water met all U.S. Environmental Protection Agency (EPA) and state drinking water health standards. Please contact Nick Marusin at 303-791-2185 with any questions or for public participation opportunities that may affect water quality. Please see the water quality data from our wholesale system(s) (included in this report) for additional information about your drinking water. A portion of Centennial Water's surface water supply is through purchases from other water providers, therefore their water quality reports are contained within this report.

## Water Sources

### Surface water

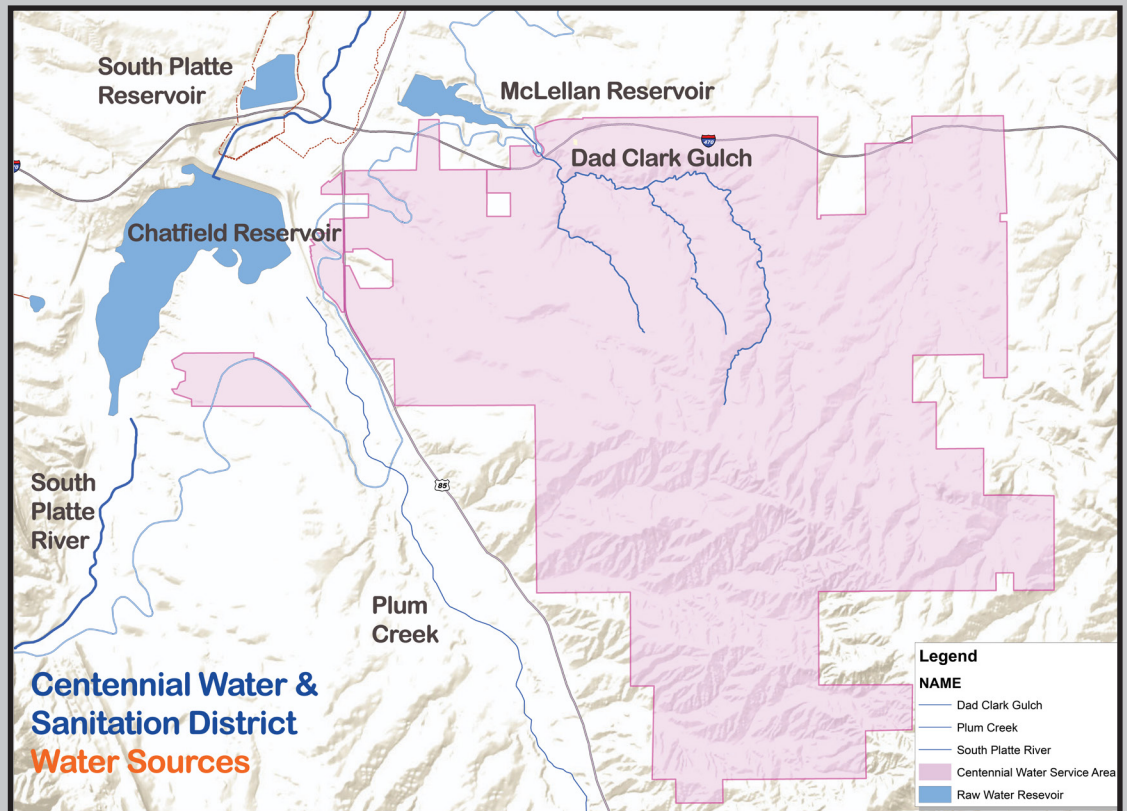
- Plum Creek
- Dad Clark Gulch
- South Platte River

### Raw water storage reservoirs

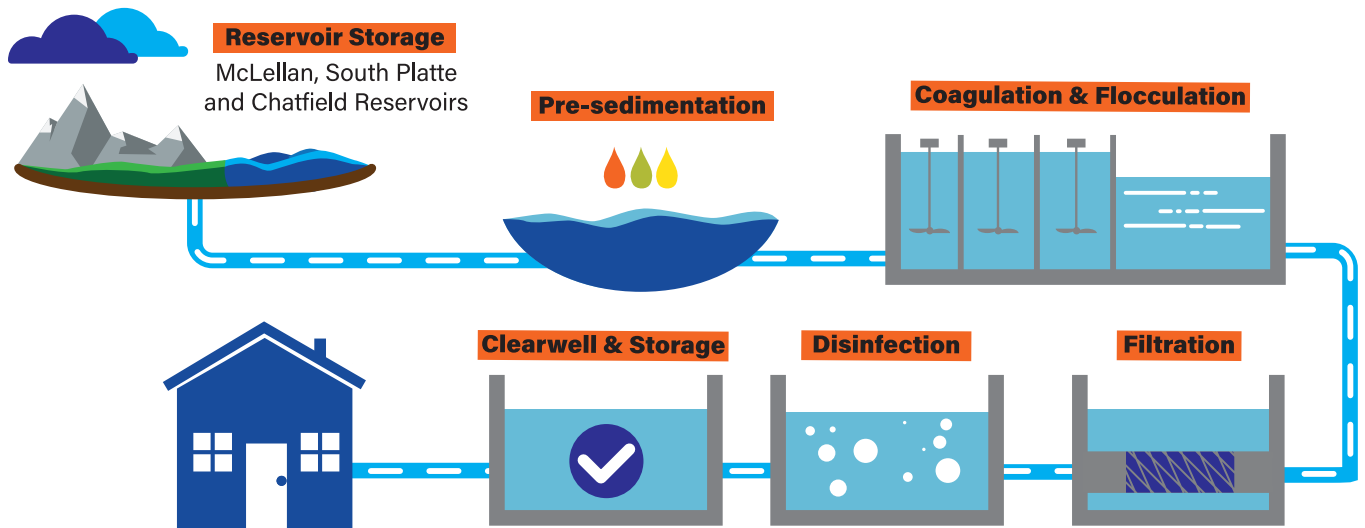
- South Platte Reservoir
- McLellan Reservoir
- Chatfield Reservoir

### Groundwater wells

- Denver Basin aquifers
  - Denver
  - Arapahoe
  - Laramie - Fox Hills
- South Platte River alluvium
- Englewood City Ditch
- Purchased WISE Water



# Water treatment process



- 1. Reservoir storage:** Centennial Water stores untreated water at three surface water reservoirs: McLellan, South Platte and Chatfield Reservoir.
- 2. Pre-sedimentation:** Water first arrives at the Joseph B. Blake Water Treatment Plant at the forebay. This is where large suspended particles, like sand, silt and clay settle to the bottom of the basin before the water is introduced to the main treatment plant processes.
- 3. Coagulation and flocculation:** The addition of compounds promote the clumping of fine solids so they can be more easily removed. Think of a snowball that grows larger and larger as more snow is added to it. The large snowball then makes it easy to remove fine solids from the water.
- 4. Filtration:** Water is filtered through layers of media that remove dissolved particles. As water travels through the filter, particles are stopped and clean water is the result.
- 5. Disinfection:** The last step is to add chemical disinfectants to kill any remaining bacteria, viruses or microbes.
- 6. Clearwell and storage:** Once water has traveled through the treatment process, it is ready for storage and eventually distribution to customers.

## General Information

All 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 the 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 (1-800-426-4791) or by visiting [epa.gov/ground-water-and-drinking-water](https://www.epa.gov/ground-water-and-drinking-water).

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 of infections. These people should seek advice about drinking water from their healthcare providers. For more information about contaminants and potential health effects, or to receive a copy of the U.S. Environmental Protection Agency (EPA) and the U.S. Centers for Disease Control (CDC) guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and microbiological contaminants, call the EPA Safe Drinking Water Hotline at (1-800-426-4791).

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:** viruses and bacteria that may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.
- **Inorganic contaminants:** 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:** may come from a variety of sources, such as agriculture, urban stormwater runoff, and residential uses.
- **Radioactive contaminants:** 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 byproducts of industrial processes and petroleum production, and also may come from gas stations, urban stormwater runoff and septic systems.

In order to ensure tap water is safe to drink, the Colorado Department of Public Health and Environment prescribes regulations limiting the amount of certain contaminants in water provided by public water systems. The Food and Drug Administration regulations establish limits for contaminants in bottled water that must provide the same protection for public health.

## Lead in Drinking Water

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 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, 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 Nick Marusin at 303-791-2185. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available at [epa.gov/safewater/lead](https://www.epa.gov/safewater/lead).

### Source Water Assessment and Protection (SWAP)

The Colorado Department of Public Health and Environment has provided us with a Source Water Assessment Report for our water supply. For general information or to obtain a copy of the report please visit [wqcd.compliance.com/ccr](http://wqcd.compliance.com/ccr). The report is located under "Guidance: Source Water Assessment Reports." Search the table using 118015, CENTENNIAL WSD, or by contacting Nick Marusin at 303-791-2185. The Source Water Assessment Report provides a screening-level evaluation of potential contamination that could occur. It does not mean the contamination has or will occur. We can use this information to evaluate the need to improve our current water treatment capabilities and prepare for future contamination threats. This can help us ensure quality finished water is delivered to your homes. In addition, the source water assessment results provide a starting point for developing a source water protection plan. Potential sources of contamination in our source water area are listed below.

Please contact us to learn more about what you can do to help protect your drinking water sources, any questions about the Drinking Water Quality Report, to learn more about our system, or to attend scheduled public meetings. We want you, our valued customers, to be informed about the services we provide and the quality water we deliver to you every day.

### Potential Source(s) of Contamination

EPA Abandoned Contaminated Sites, EPA Hazardous Waste Generators, EPA Chemical Inventory/Storage Sites, Permitted Wastewater Discharge Sites, Aboveground, Underground and Leaking Storage Tank Sites, Solid Waste Sites, Existing/Abandoned Mine Sites, Other Facilities, Commercial/Industrial/Transportation, High Intensity Residential, Low Intensity Residential, Row Crops, Fallow, Pasture / Hay, Evergreen Forest, Septic Systems, Road Miles

### Sources (water type - source type)

PURCHASED FROM CO0116001 (Surface Water-Consecutive Connection)	WELL SP-10 (Groundwater UDI Surface Water-Well)	WELL D5 (Groundwater-Well)
WELL D9 (Groundwater-Well)	WELL SP-11 (Groundwater UDI Surface Water-Well)	WELL D11 (Groundwater-Well)
WELL TD4 (Groundwater-Well)	WELL SP-12 (Groundwater UDI Surface Water-Well)	WELL D13 (Groundwater-Well)
WELL TD5 (Groundwater-Well)	SOUTH PLATTE RESERVOIR (Surface Water-Reservoir)	WELL D15 (Groundwater-Well)
WELL TD6 (Groundwater-Well)	ENGLEWOOD CITY DITCH (Surface Water-Intake)	WELL D19 (Groundwater-Well)
WELL TD12 (Groundwater-Well)	PURCHASED WATER WISE CO0103843 (Surface Water-Consecutive Connection)	WELL A9R (Groundwater-Well)
WELL A6R (Groundwater-Well)	WELL D10A (Groundwater-Well)	WELL A10R (Groundwater-Well)
WELL A12R (Groundwater-Well)	MCLELLAN RESERVOIR (Surface Water-Intake)	WELL A13R (Groundwater-Well)
WELL D1 (Groundwater-Well)	WELL LFH4R (Groundwater-Well)	WELL D14 (Groundwater-Well)
WELL D12R (Groundwater-Well)	WELL D7 (Groundwater-Well)	WELL D16 (Groundwater-Well)
WELL LFH2 (Groundwater-Well)	WELL A5R (Groundwater-Well)	WELL D17 (Groundwater-Well)
WELL LFH7 (Groundwater-Well)	WELL A7R (Groundwater-Well)	WELL D18 (Groundwater-Well)
WELL LFH8R (Groundwater-Well)	WELL A11R (Groundwater-Well)	WELL D20 (Groundwater-Well)
WELL LFH9 (Groundwater-Well)	PA-7S REDRILL (Groundwater-Well)	WELL TD7 (Groundwater-Well)
WELL LFH10R (Groundwater-Well)	WELL A8 (Groundwater-Well)	WELL TD8 (Groundwater-Well)
WELL LFH11 (Groundwater-Well)		WELL TD9 (Groundwater-Well)
WELL LFH13 (Groundwater-Well)		WELL A1 (Groundwater-Well)
WELL LFH14R (Groundwater-Well)		WELL TD10 (Groundwater-Well)
WELL LFH15 (Groundwater-Well)		WELL LFH3 (Groundwater-Well)
WELL SP-9 (Groundwater UDI Surface Water-Well)		WELL A2 (Groundwater-Well)
		WELL A3 (Groundwater-Well)
		WELL A4 (Groundwater-Well)

## Terms and Abbreviations

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

**Average (x-bar):** Typical value.

**BRL:** Below reporting limit.

**Compliance Value (No Abbreviation):** Single or calculated value used to determine if regulatory contaminant level (e.g. MCL) is met. Examples of calculated values are the 90th percentile, running annual average (RAA) and locational running annual average (LRAA).

**Formal Enforcement Action (no abbreviation):** Escalated action taken by the State (due to the risk to public health, or number or severity of violations) to bring a non-compliant water system back into compliance.

**Gross Alpha (No Abbreviation):** Gross alpha particle activity compliance value. It includes radium-226, but excludes radon 222 and uranium.

**Health-Based:** A violation of either a MCL or TT.

**Level 1 Assessment:** A study of the water system 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.

**Maximum Contaminant Level (MCL):** The highest level of a contaminant allowed in drinking water.

**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 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.

**Nephelometric Turbidity Unit (NTU):** Measure of the clarity or cloudiness of water. Turbidity in excess of 5 NTU is just noticeable to the typical person.

**Non-Health-Based:** A violation that is not a MCL or TT.

**Not Applicable (N/A):** Does not apply or not available.

**Parts per billion = Microorgams per liter (ppb = ug/L):** One part per billion corresponds to one minute in 2,000 years, or a single penny in \$10,000,000.

**Parts per million = Milligrams per liter (ppm = mg/L):** One part per million corresponds to one minute in two years, or a single penny in \$10,000.

**Parts per trillion = Nanograms per liter (ppt = ng/L) -** One part per trillion corresponds to one minute in 2,000,000 years, or a single penny in \$10,000,000,000.

**PFAS -** Per- and Polyfluoroalkyl substances.

**Picocuries per liter (pCi/L):** Measure of radioactivity in water.

**Range (R):** Lowest value to the highest value.

**Sample Size (n):** Number or count of values (i.e. number of water samples collected).

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

**Variance and Exemptions (V/E):** Department permission not to meet a MCL or treatment technique under certain conditions.

**Violation (No Abbreviation):** Failure to meet a Colorado Primary Drinking Water Regulation.



### Detected Contaminants

Centennial Water routinely monitors for contaminants in your drinking water according to Federal and State laws. The following table(s) show all detections found in the period of January 1 to December 31, 2023 unless otherwise noted. The State of Colorado requires 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, or the system is not considered vulnerable to this type of contamination. Therefore, some of our data, though representative, may be more than one year old. Violations and Formal Enforcement Actions, if any, are reported in the next section of this report. **Note:** Only detected contaminants sampled within the last five years appear in this report. If no tables appear in this section then no contaminants were detected in the last round of monitoring.

Disinfectants Sampled in the Distribution System						
TT Requirement: At least 95% of samples per period (month or quarter) must be at least 0.2 ppm OR If sample size is less than 40 no more than 1 sample is below 0.2 ppm Typical Sources: Water additive used to control microbes						
Disinfectant Name	Time Period	Results	Number of Samples Below Level	Sample Size	TT Violation	MRDL
Chloramine	December 2023	Lowest period percentage of samples meeting TT requirement: 100%	0	106	No	4.0 ppm

Lead and Copper Sampled in the Distribution System								
Contaminant Name	Time Period	90th Percentile	Sample Size	Unit of Measure	90th Percentile AL	Sample Sites Above AL	90th Percentile AL Exceedance	Typical Sources
Copper	7/11/2023 to 12/12/2023	0.3	101	ppm	1.3	0	No	Corrosion of household plumbing systems; Erosion of natural deposits
Lead	1/17/2023 to 6/14/2023	2	101	ppb	15	0	No	Corrosion of household plumbing systems; Erosion of natural deposits
Copper	1/17/2023 to 6/14/2023	0.4	101	ppm	1.3	0	No	Corrosion of household plumbing systems; Erosion of natural deposits
Lead	7/11/2023 to 12/12/2023	2	101	ppb	15	0	No	Corrosion of household plumbing systems; Erosion of natural deposits

Disinfection Byproducts Sampled in the Distribution System									
Name	Year	Average	Range Low-High	Sample Size	Unit of Measure	MCL	MCLG	MCL Violation	Typical Sources
Total Haloacetic Acids (HAA5)	2023	8.27	0 to 24	32	ppb	60	N/A	No	Byproduct of drinking water disinfection
Total Trihalomethanes (TTHM)	2023	26.21	3.4 to 57.9	32	ppb	80	N/A	No	Byproduct of drinking water disinfection

Total Organic Carbon (Disinfection Byproducts Precursor) Removal Ratio of Raw and Finished Water								
Contaminant Name	Year	Average	Range Low-High	Sample Size	Unit of Measure	TT Minimum Ratio	TT Violation	Typical Sources
Total Organic Carbon Ratio	2023	1.77	1.34 to 2.04	9	Ratio	1.00	No	Naturally present in the environment

\*If minimum ratio not met and no violation identified then the system achieved compliance using alternative criteria.

## Summary of Turbidity Sampled at the Entry Point to the Distribution System

Contaminant Name	Sample Date	Level Found	TT Requirement	TT Violation	Typical Sources
Turbidity	March	Highest single measurement: 0.18 NTU	Maximum 1 NTU for any single measurement	No	Soil runoff
Turbidity	Dec.	Lowest monthly percentage of samples meeting TT requirement for our technology: 100%	In any month, at least 95% of samples must be less than 0.3 NTU	No	Soil runoff

## Radionuclides Sampled at the Entry Point to the Distribution System

Contaminant Name	Year	Average	Range Low-High	Sample Size	Unit of Measure	MCL	MCLG	MCL Violation	Typical Sources
Gross Alpha	2023	3.63	1.8 to 5.1	3	pCi/L	15	0	No	Erosion of natural deposits
Combined Radium	2023	1.2	0.6 to 1.7	3	pCi/L	5	0	No	Erosion of natural deposits
Combined Uranium	2023	2.39	0 to 6.12	3	ppb	30	0	No	Erosion of natural deposits
Gross Beta Particle Activity	2023	5.6	4.0 to 7.6	3	pCi/L*	50	0	No	Decay of natural and man-made deposits

\*The MCL for Gross Beta Particle Activity is 4 mrem/year. Since there is no simple conversion between mrem/year and pCi/L EPA considers 50 pCi/L to be the level of concern for Gross Beta Particle Activity.

## Inorganic Contaminants Sampled at the Entry Point to the Distribution System

Contaminant Name	Year	Average	Range Low-High	Sample Size	Unit of Measure	MCL	MCLG	MCL Violation	Typical Sources
Arsenic	2023	1.3	1 to 1.7	3	ppb	10	0	No	Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes
Barium	2023	0.07	0.06 to 0.08	3	ppm	2	2	No	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Chromium	2023	0.67	0 to 2	3	ppb	100	100	No	Discharge from steel and pulp mills; erosion of natural deposits
Fluoride	2023	0.94	0.72 to 1.1	3	ppm	4	4	No	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
Nitrate	2023	0.15	0 to 0.33	3	ppm	10	10	No	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Selenium	2023	4.33	0.8 to 11	3	ppb	50	50	No	Discharge from petroleum and metal refineries; erosion of natural deposits; discharge from mines



**Secondary Contaminants\*\***

\*\*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.

Contaminant Name	Year	Average	Range Low-High	Sample Size	Unit of Measure	Secondary Standard
Sodium	2023	83.87	66.4 to 109.8	3	ppm	N/A
Total Dissolved Solids	2023	341	114 to 716	102	ppm	500

**Unregulated Contaminants**

This table is reporting 2023 data. In 2023, PFAS was unregulated.

Contaminant Name	Year	Average	Range Low-High	Sample Size	Unit of Measure	EPA Proposed MCL
PFOA	2023	4.09	2.7 to 5.21	4	ppt	4
PFOS	2023	3.02	1.7 to 3.95	4	ppt	4
PFHXS	2023	1.72	BRL to 1.95	4	ppt	Hazard Index*
PFNA	2023	BRL	BRL	4	ppt	Hazard Index*
PFBS	2023	4.64	3.3 to 6.34	4	ppt	Hazard Index*
HFPO-DA (GenX)	2023	BRL	BRL	4	ppt	Hazard Index*

\*Hazard Index = ( [HFPO-DA] [10 ppt] ) + ( [PFBS] [2000 ppt] ) + ( [PFNA] [10 ppt] ) + ( [PFHxS] [9.0 ppt] )

**PFAS Information**

On April 10, 2024, the EPA finalized a National Primary Drinking Water Regulation establishing maximum contaminant levels (MCLs) for six PFAS in drinking water. PFOA, PFOS, PFHxS, PFNA, and HFPO-DA as contaminants with individual MCLs, and PFAS mixtures containing at least two or more of PFHxS, PFNA, HFPO-DA, and PFBS using a Hazard Index MCL to account for the combined and co-occurring levels of these PFAS in drinking water.

The final rule requires public water systems to monitor for PFAS and gives them until 2027 to complete initial monitoring. Public water systems have until 2029 to implement solutions to reduce PFAS levels to be in compliance with the new MCLs.

Centennial Water staff collected non-compliance samples in 2023 for EPA method 537.1. The results for the six proposed regulated compounds are included in the above table. Centennial Water staff has taken steps to ensure the maximum possible amount of PFAS compounds are removed using our existing water treatment process.

**Violations, Significant Deficiencies and Formal Enforcement Actions**

No Violations or Formal Enforcement Actions

We are pleased to present to you this year's water quality report for East Cherry Creek Valley WSD (ECCV). Our constant goal is to provide you with a safe and dependable supply of drinking water. Please contact Sara Brewer at 303-693-3800 with any questions or for public participation opportunities that may affect water quality in the ECCV service area. Please see the water quality data from the wholesale system(s) (either attached or included in this report) for additional information about your drinking water.

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### Sources (water type - source type)

WPA 6R WELL (Groundwater-Well)	E7A WELL (Groundwater-Well)	A18 WELL (Groundwater-Well)
P2 WELL (Groundwater-Well)	P8 WELL (Groundwater-Well)	SA7 WELL (Groundwater-Well)
P3 WELL (Groundwater-Well)	P11 WELL (Groundwater-Well)	DA13 WELL (Groundwater-Well)
P4 WELL (Groundwater-Well)	P12 WELL (Groundwater-Well)	L6 WELL (Groundwater-Well)
P5 WELL (Groundwater-Well)	WFH4 WELL (Groundwater-Well)	L7 WELL (Groundwater-Well)
P15 WELL (Groundwater-Well)	WA5R WELL (Groundwater-Well)	L8 WELL (Groundwater-Well)
P18 WELL (Groundwater-Well)	WA1A WELL (Groundwater-Well)	L10 WELL (Groundwater-Well)
SA1R (Groundwater-Well)	WA1B WELL (Groundwater-Well)	L13 WELL (Groundwater-Well)
A4R (Groundwater-Well)	P13 WELL (Groundwater-Well)	L18 WELL (Groundwater-Well)
WPA8R (Groundwater-Well)	PURCHASED FROM AURORA 3 ZONE 1 (Surface Water-Consecutive Connection)	SL6 WELL (Groundwater-Well)
A10 WELL (Groundwater-Well)	PURCHASED FROM AURORA 5 ZONE 2 (Surface Water-Consecutive Connection)	SL7 WELL (Groundwater-Well)
L9 WELL (Groundwater-Well)	PURCHASED FROM DENVER NORTH (Surface Water-Consecutive Connection)	SA4 WELL (Groundwater-Well)
A13 WELL (Groundwater-Well)	PURCHASED FROM DENVER WEST (Surface Water-Consecutive Connection)	A1 WELL (Groundwater-Well)
L12 WELL (Groundwater-Well)	PURCHASED FROM AURORA 2 ZONE 1 (Surface Water-Consecutive Connection)	L4 WELL (Groundwater-Well)
A16 WELL (Groundwater-Well)	PURCHASED FROM AURORA 4 ZONE 2 (Surface Water-Consecutive Connection)	SA2 WELL (Groundwater-Well)
L15 WELL (Groundwater-Well)	WPA 1R WELL (Groundwater-Well)	SL2 WELL (Groundwater-Well)
SA1 WELL (Groundwater-Well)	PURCHASED FROM AURORA 1 ZONE 2 (Surface Water-Consecutive Connection)	SA3 WELL (Groundwater-Well)
SL1 WELL (Groundwater-Well)	WPA3 WELL (Groundwater-Well)	SL3 WELL (Groundwater-Well)
SA10 WELL (Groundwater-Well)	DA12 WELL (Groundwater-Well)	A2R WELL (Groundwater-Well)
SL10 WELL (Groundwater-Well)	A7R WELL (Groundwater-Well)	L11 WELL (Groundwater-Well)
DA5 WELL (Groundwater-Well)	A8 WELL (Groundwater-Well)	SA5 WELL (Groundwater-Well)
SAU9 WELL (Groundwater-Well)	A11 WELL (Groundwater-Well)	SL5 WELL (Groundwater-Well)
SAL9 WELL (Groundwater-Well)	A12 WELL (Groundwater-Well)	SA8 WELL (Groundwater-Well)
SL9 WELL (Groundwater-Well)	A14 WELL (Groundwater-Well)	SL8 WELL (Groundwater-Well)
SSA5 WELL (Groundwater-Well)	A15 WELL (Groundwater-Well)	A9 WELL (Groundwater-Well)
SSL5 WELL (Groundwater-Well)	A17 WELL (Groundwater-Well)	A19 WELL (Groundwater-Well)
SSA6 WELL (Groundwater-Well)		A3 WELL (Groundwater-Well)
WA4 WELL (Groundwater-Well)		L19 WELL (Groundwater-Well)
WA5A WELL (Groundwater-Well)		A5R WELL (Groundwater-Well)
WA6A WELL (Groundwater-Well)		A6 WELL (Groundwater-Well)
WFH3 WELL (Groundwater-Well)		PURCHASED FROM WISE CO0103843 (Surface Water-Consecutive Connection)
WCA1R WELL (Groundwater-Well)		
P6 WELL (Groundwater-Well)		

### Potential Source(s) of Contamination:

EPA Hazardous Waste Generators, EPA Chemical Inventory/Storage Sites, Aboveground, Underground and Leaking Storage Tank Sites, Other Facilities, Commercial/Industrial/Transportation, High Intensity Residential, Low Intensity Residential, Urban Recreational Grasses, Fallow, Small Grains, Pasture / Hay, Evergreen Forest, Septic Systems, Road Miles

### Detected Contaminants

EAST CHERRY CREEK VALLEY WSD routinely monitors for contaminants in your drinking water according to Federal and State laws. The following table(s) show all detections found in the period of January 1 to December 31, 2023 unless otherwise noted. The State of Colorado requires 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, or the system is not considered vulnerable to this type of contamination. Therefore, some of our data, though representative, may be more than one year old. Violations and Formal Enforcement Actions, if any, are reported in the next section of this report. **Note:** Only detected contaminants sampled within the last five years appear in this report. If no tables appear in this section then no contaminants were detected in the last round of monitoring.

#### Disinfectants Sampled in the Distribution System

TT Requirement: At least 95% of samples per period (month or quarter) must be at least 0.2 ppm OR

If sample size is less than 40 no more than 1 sample is below 0.2 ppm

Typical Sources: Water additive used to control microbes

Disinfectant Name	Time Period	Results	Number of Samples Below Level	Sample Size	TT Violation	MRDL
Chlorine	December 2023	Lowest period percentage of samples meeting TT requirement: 100%	0	77	No	4.0 ppm

#### Lead and Copper Sampled in the Distribution System

Contaminant Name	Time Period	90th Percentile	Sample Size	Unit of Measure	90th Percentile AL	Sample Sites Above AL	90th Percentile AL Exceedance	Typical Sources
Copper	1/12/2023 to 4/19/2023	0.09	60	ppm	1.3	0	No	Corrosion of household plumbing systems; Erosion of natural deposits
Lead	7/10/2023 to 10/18/2023	1	60	ppb	15	1	No	Corrosion of household plumbing systems; Erosion of natural deposits
Copper	7/10/2023 to 10/18/2023	0.07	60	ppm	1.3	0	No	Corrosion of household plumbing systems; Erosion of natural deposits
Lead	1/12/2023 to 4/19/2023	3	60	ppb	15	1	No	Corrosion of household plumbing systems; Erosion of natural deposits

#### Disinfection Byproducts Sampled in the Distribution System

Name	Year	Average	Range Low-High	Sample Size	Unit of Measure	MCL	MCLG	MCL Violation	Typical Sources
Total Haloacetic Acids (HAA5)	2023	5.79	0 to 12.6	32	ppb	60	N/A	No	Byproduct of drinking water disinfection
Total Trihalomethanes (TTHM)	2023	15.95	0 to 32.8	32	ppb	80	N/A	No	Byproduct of drinking water disinfection

#### Radionuclides Sampled at the Entry Point to the Distribution System

Contaminant Name	Year	Average	Range Low-High	Sample Size	Unit of Measure	MCL	MCLG	MCL Violation	Typical Sources
Gross Alpha	2023	3.4	3.4 to 3.4	1	pCi/L	15	0	No	Erosion of natural deposits
Combined Radium	2023	1.85	1.7 to 2	2	pCi/L	5	0	No	Erosion of natural deposits



**Inorganic Contaminants Sampled at the Entry Point to the Distribution System**

Contaminant Name	Year	Average	Range Low-High	Sample Size	Unit of Measure	MCL	MCLG	MCL Violation	Typical Sources
Arsenic	2023	0.09	0 to 1	11	ppb	10	0	No	Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes
Barium	2023	0.09	0.04 to 0.16	11	ppm	2	2	No	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Chromium	2023	0.91	0 to 2	11	ppb	100	100	No	Discharge from steel and pulp mills; erosion of natural deposits
Fluoride	2023	1.07	0.7 to 1.29	11	ppm	4	4	No	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
Nitrate	2023	0.18	0 to 1	11	ppm	10	10	No	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Selenium	2023	1.64	0 to 8	11	ppb	50	50	No	Discharge from petroleum and metal refineries; erosion of natural deposits; discharge from mines

**Iron and Manganese**

Contaminant Name	Year	Average	Secondary MCL
Iron	2023	0.0064 mg/L	0.3 mg/L
Manganese	2023	0.144 mg/L	0.05 mg/L

**Secondary Contaminants\*\***

\*\*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.

Contaminant Name	Year	Average	Range Low-High	Sample Size	Unit of Measure	Secondary Standard
Sodium	2023	55.45	35.7 to 101.2	11	ppm	N/A

**Unregulated Contaminants\*\*\***

EPA has implemented the Unregulated Contaminant Monitoring Rule (UCMR) to collect data for contaminants that are suspected to be present in drinking water and do not have health-based standards set under the Safe Drinking Water Act. EPA uses the results of UCMR monitoring to learn about the occurrence of unregulated contaminants in drinking water and to decide whether or not these contaminants will be regulated in the future. We performed monitoring and reported the analytical results of the monitoring to EPA in accordance with its Unregulated Contaminant Monitoring Rule (UCMR). Once EPA reviews the submitted results, the results are made available in the EPA's National Contaminant Occurrence Database (NCOD) ([epa.gov/dwucmr/national-contaminant-occurrence-database-ncod](http://epa.gov/dwucmr/national-contaminant-occurrence-database-ncod)) Consumers can review UCMR results by accessing the NCOD. Contaminants that were detected during our UCMR sampling and the corresponding analytical results are provided below.

Contaminant Name	Year	Average	Range Low-High	Sample Size	Unit of Measure
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\*\*\*More information about the contaminants that included in UCMR were monitoring can be found at: [drinktap.org/Water-Info/Whats-in-My-Water/Unregulated-Contaminant-Monitoring-Rule-UCMR](http://drinktap.org/Water-Info/Whats-in-My-Water/Unregulated-Contaminant-Monitoring-Rule-UCMR). Learn more about the EPA UCMR at: [epa.gov/dwucmr/learn-about-unregulated-contaminant-monitoring-rule](http://epa.gov/dwucmr/learn-about-unregulated-contaminant-monitoring-rule) or contact the Safe Drinking Water Hotline at (800) 426-4791 or [epa.gov/ground-water-and-drinking-water](http://epa.gov/ground-water-and-drinking-water).

**Violations, Significant Deficiencies and Formal Enforcement Actions**

No Violations or Formal Enforcement Actions

We are pleased to present to you this year's water quality report for the Denver Water service area. Our constant goal is to provide you with a safe and dependable supply of drinking water. Please contact Nicole Poncelet-Johnson at 303-628-5977; 303-628-6039 with any questions or for public participation opportunities that may affect Denver Water's water quality. Please see the water quality data from wholesale system(s) (either attached or included in this report) for additional information about your drinking water.

### General Information

All 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 the 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 (1-800-426-4791) or by visiting [epa.gov/ground-water-and-drinking-water](https://www.epa.gov/ground-water-and-drinking-water).

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 of infections. These people should seek advice about drinking water from their healthcare providers. For more information about contaminants and potential health effects, or to receive a copy of the U.S. Environmental Protection Agency (EPA) and the U.S. Centers for Disease Control (CDC) guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and microbiological contaminants, call the EPA Safe Drinking Water Hotline at (1-800-426-4791).

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:** viruses and bacteria that may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.
- **Inorganic contaminants:** 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:** may come from a variety of sources, such as agriculture, urban stormwater runoff, and residential uses.
- **Radioactive contaminants:** 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 byproducts of industrial processes and petroleum production, and also may come from gas stations, urban stormwater runoff and septic systems.

In order to ensure tap water is safe to drink, the Colorado Department of Public Health and Environment prescribes regulations limiting the amount of certain contaminants in water provided by public water systems. The Food and Drug Administration regulations establish limits for contaminants in bottled water that must provide the same protection for public health.

### Lead in Drinking Water

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 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, 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 Nicole Poncelet-Johnson at 303-628-597. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available at [epa.gov/safewater/lead](https://www.epa.gov/safewater/lead).

## Source Water Assessment and Protection (SWAP)

The Colorado Department of Public Health and Environment may have provided us with a Source Water Assessment Report for the Denver Water water supply. For general information or to obtain a copy of the report please visit [wqcdcompliance.com/ccr](http://wqcdcompliance.com/ccr). The report is located under “Guidance: Source Water Assessment Reports.” Search the table using 116001, DENVER WATER BOARD, or by contacting Nicole Poncelet-Johnson at 303-628-5977; 303-628-6039. The Source Water Assessment Report provides a screening-level evaluation of potential contamination that could occur. It does not mean that the contamination has or will occur. We can use this information to evaluate the need to improve our current water treatment capabilities and prepare for future contamination threats. This can help us ensure quality finished water is delivered to your homes. In addition, the source water assessment results provide a starting point for developing a source water protection plan. Potential sources of contamination in our source water area are listed to the right.

Please contact us to learn more about what you can do to help protect your drinking water sources, any questions about the Drinking Water Quality Report, to learn more about our system, or to attend scheduled public meetings. We want you, our valued customers, to be informed about the services we provide and the quality water we deliver to you every day.

### Sources (Water Type - Source Type)

MARSTON FOREBAY (Surface Water-Intake)

STRONTIA SPRINGS RES INTAKE (Surface Water-Intake)

RALSTON RESERVOIR INTAKE (Surface Water-Intake)

S PLATTE DIVERSION CONDUIT 20 (Surface Water-Intake)

### Potential Source(s) of Contamination:

EPA Abandoned Contaminated Sites, EPA Hazardous Waste Generators, EPA Chemical Inventory/Storage Sites, EPA Toxic Release Inventory Sites, Permitted Wastewater Discharge Sites, Aboveground, Underground and Leaking Storage Tank Sites, Solid Waste Sites, Existing/Abandoned Mine Sites, Other Facilities, Commercial/Industrial/Transportation, High Intensity Residential, Low Intensity Residential, Urban Recreational Grasses, Quarries / Strip Mines / Gravel Pits, Row Crops, Fallow, Pasture / Hay, Deciduous Forest, Evergreen Forest, Mixed Forest, Septic

## Significant Deficiencies

Public water suppliers are required to notify customers of unresolved deficiencies in design, operation, maintenance or administration, or a failure or malfunction in a system component, including sources, treatment, storage or distribution system that have the potential to cause risks to the reliable delivery of safe drinking water.

### What happened?

During a state inspection in September 2022, inspectors found deficiencies related to cross-connection and storage conditions. Denver Water is working diligently with the state health department to make necessary repairs. There is no evidence the water you drink was affected by these deficiencies.

1. Cross-connection: Denver Water is working with the state health department to install more cross-

connection devices at Foothills Treatment Plant. Denver Water plans to complete installation by May 2025.

2. Storage conditions: State inspectors found the hatches on the 56th Avenue Tank were installed incorrectly. Denver Water is repairing the hatches according to the corrective action plan; repairs will be completed by December 2024.

### How did this impact drinking water quality?

There is no evidence the water you drink was affected by these deficiencies.

### What has been done to correct this situation?

In all instances, Denver Water worked with the state health department to develop a corrective action plan and make necessary repairs.

## Detected Contaminants

DENVER WATER BOARD routinely monitors for contaminants in your drinking water according to Federal and State laws. The following table(s) show all detections found in the period of January 1 to December 31, 2023 unless otherwise noted. The State of Colorado requires 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, or the system is not considered vulnerable to this type of contamination. Therefore, some of our data, though representative, may be more than one year old. Violations and Formal Enforcement Actions, if any, are reported in the next section of this report. **Note:** Only detected contaminants sampled within the last five years appear in this report. If no tables appear in this section then no contaminants were detected in the last round of monitoring.

**Regulated Water Contaminants: What we test for**

Data collected throughout 2023.

Denver Water monitors for the list of regulated parameters below in our treated drinking water. Sample points include entry points to the distribution system from the three treatment plants: Foothills, Marston and Moffat, and sites throughout Denver Water’s distribution system.

Inorganic Chemicals		Volatile Organic Chemicals		
Antimony	Thalium	Benzene	1,2-Dichloropropane	Trichloroethylene
Arsenic	Sodium	Carbon Tetrachloride	Ethylbenzene	Xylenes (total)
Barium	Total Chlorine	1,2-Dichloroethane	Monochlorobenzene	Vinyl Chloride
Beryllium	Fluoride	o-Dichlorobenzene	Styrene	
Cadmium	Nitrate	p-Dichlorobenzene	Tetrachloroethylene	
Chromium	Nitrite	1,1-Dichloroethylene	Toluene	
Mercury	Lead	cis-1,2-Dichloroethylene	1,2,4-Trichlorobenzene	
Nikel	Copper	trans-1,2-Dichloroethylene	11,1-Trichloroethane	
Selenium		Dichloromethane	1,1,2-Trichloroethane	

Synthetic Organic Chemicals	
1,2-Dibromo-3-chloropropane	Endothall
2,4,5-TP	Endrin
2,4-D	Ethylene dibromide
Aldicarb	Heptachlor
Aldicarb sulfone	Heptachlor Epoxide
Aldicarb sulfoxide	Hexachlorobenzene
Atrazine	Hexachlorocyclopentadiene
Benzo(a)pyrene	Lasso (Alachlor)
BHC-Gamma	Methoxychlor
Carbofuran	Oxamyl
Chlordane	Pentachlorophenol
Dalapon	Picloram
Di(2-ethylhexyl) adipate	Polychlorinated Biphenys
Di(2-ethylhexyl) phthalate	Simazine
Dinoseb	Toxaphene
Diquat	

Disinfection Byproducts	
Haloacetic Acids (HAA5) are regulated as the sum of the 5 contaminants listed below:	Total Trihalomethanes (TTHM) are regulated as the sum of the 4 contaminants listed below:
Dibromoacetic Acid	Chloroform
Dichloroacetic Acid	Bromodichloromethane
Monobromoacetic Acid	Dibromochloromethane
Monochloroacetic Acid	Bromoform
Trichloroacetic Acid	
Radiological Contaminants	
Gross Alpha Emitters excluding Uranium	
Combined Radium	
Uranium	
Microbiological Contaminants	
Total Coliform	
E.coli	
Other Regulated Contaminants	
Total Organic Carbon	
Turbidity	

Lead and Copper Sampled in the Distribution System								
Contaminant Name	Period	90th Percentile	Sample Size	Unit of Measure	90th Percentile Action Level	Sample Sites Above Action Limit	Standard Met	Typical Sources
Copper	1/1/2023-6/30/2023	50	113	ppb	1,300	0	yes	Corrosion of household plumbing; erosion of natural deposits.
Lead	1/1/2023-6/30/2023	3.5	370	ppb	15	3	yes	Corrosion of household plumbing; erosion of natural deposits.
Copper	7/1/2023-12/31/2023	60	343	ppb	1,300	0	yes	Corrosion of household plumbing; erosion of natural deposits.
Lead	7/1/2023-12/31/2023	3.9	438	ppb	15	7	yes	Corrosion of household plumbing; erosion of natural deposits.



**Inorganic Contaminants Detected at the Entry Point to the Distribution System - Foothills**

Chemical Parameters	Year	Sampling Frequency	Average	Range	Unit of Measure	MCL	MCLG	Standard Met	Typical Sources
Barium	2023	Quarterly	39.4	36-42.5	ppb	2,000	2,000	yes	Erosion of natural deposits, discharge of drilling wastes.
Fluoride	2023	Monthly	618	540-740	ppb	4,000 (2,000 is SMCL)*	4,000	yes	Erosion of natural deposits, water additive that promotes strong teeth, discharge from fertilizer and aluminum factories.
Nitrate as N	2023	Monthly	91	BRL-170	ppb	10,000	10,000	yes	Runoff from fertilizer use, leaching from septic tanks and sewage, erosion of natural deposits
Nickel	2023	Quarterly	0.94	BRL-1.5	ppb	NA	NA	yes	Discharge from industrial uses such as transportation, chemical industry, electrical equipment and construction.
Sodium	2023	Quarterly	24,000	21,500-27,000	ppb	NA	NA	yes	Naturally occurring.

\*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.

**Summary of Turbidity Sampled at the Entry Point to the Distribution System - Foothills**

Chemical Parameters	Year	Sampling Frequency	Level Found	Unit of Measure	Treatment Technique Requirement	Standard Met	Typical Sources
Turbidity	2023	Daily	Highest single measurement: 0.148 NTU (November)	NTU	Maximum 1 NTU for any one single measurement	yes	Soil runoff
Turbidity	2023	Daily	Lowest monthly percentage of samples meeting TT requirement for our technology: 100%	NTU	In any month, at least 95% of samples must be less than 0.3 NTU	yes	Soil runoff

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 that can cause symptoms such as nausea, cramps, diarrhea, and associated headaches.

**Total Organic Carbon (Disinfection Byproducts Precursor) Removal Ratio of Raw and Finished Water - Foothills**

Chemical Parameters	Year	Frequency	Treatment Technique Requirement	Standard Met	Typical Sources
Total Organic Carbon Ratio	2023	Once per month	Denver Water uses enhanced treatment to remove the required amount of natural organic material and/or demonstrates compliance with alternative criteria.	yes	Natural organic matter present in the environment.

Total organic carbon (TOC) has no health effects. However, total organic carbon provides a medium for the formation of disinfection byproducts including trihalomethanes (THMs) and haloacetic acids (HAA5s). Drinking water containing these byproducts in excess of the MCL may lead to adverse health effects, liver or kidney problems, or nervous system effects, and may lead to an increased risk of getting cancer.

**Radiologicals Detected at the Entry Point to the Distribution System - Foothills**

Chemical Parameters	Year	Sampling Frequency	Average	Range	Unit of Measure	MCL	MCLG	Standard Met	Typical Sources
Combined Radium (Ra-226 and Ra-228)	2021	6-9 years	0.75	BRL-1.5	pCi/L	5	0	yes	Erosion of natural deposits, mine drainage, industrial or manufacturing discharges.
Gross Alpha (excluding Uranium)	2023	6-9 years	3.4	1.1-5.6	pCi/L	15	0	yes	Erosion of natural deposits, mine drainage, industrial or manufacturing discharges
Uranium	2023	Quarterly	0.2	BRL-05	ppb	30	0	yes	Erosion of natural deposits, mine drainage.

**Inorganic Contaminants Detected at the Entry Point to the Distribution System - Marston**

Chemical Parameters	Year	Sampling Frequency	Average	Range	Unit of Measure	MCL	MCLG	Standard Met	Typical Sources
Barium	2023	Quarterly	41.3	38.5-47.4	ppb	2,000	2,000	yes	Erosion of natural deposits, discharge of drilling wastes
Fluoride	2023	Monthly	584	480-680	ppb	4,000 (2,000 is SMCL)*	4,000	yes	Erosion of natural deposits, water additive that promotes strong teeth, discharge from fertilizer and aluminum factories
Nitrate as N	2023	Monthly	45	BRL-190	ppb	10,000	10,000	yes	Runoff from fertilizer use, leaching from septic tanks and sewage, erosion of natural deposits
Nickel	2023	Quarterly	0.17	BRL-1.0	ppb	NA	NA	yes	Discharge from industrial uses such as transportation, chemical industry, electrical equipment and construction
Sodium	2023	Quarterly	22,633	21,400-24,100	ppb	NA	NA	yes	Naturally occurring

\*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.

**Summary of Turbidity Sampled at the Entry Point to the Distribution System - Marston**

Chemical Parameters	Year	Sampling Frequency	Level Found	Unit of Measure	Treatment Technique Requirement	Standard Met	Typical Sources
Turbidity	2023	Daily	Highest single measurement: 0.090 NTU (June)	NTU	Maximum 1 NTU for any one single measurement	yes	Soil runoff
Turbidity	2023	Daily	Lowest monthly percentage of samples meeting TT requirement for our technology: 100%	NTU	In any month, at least 95% of samples must be less than 0.3 NTU	yes	Soil runoff

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 that can cause symptoms such as nausea, cramps, diarrhea, and associated headaches.

**Total Organic Carbon (Disinfection Byproducts Precursor) Removal Ratio of Raw and Finished Water - Marston**

Chemical Parameters	Year	Frequency	Treatment Technique Requirement	Standard Met	Typical Sources
Total Organic Carbon Ratio	2023	Once per month	Denver Water uses enhanced treatment to remove the required amount of natural organic material and/or demonstrates compliance with alternative criteria.	yes	Natural organic matter present in the environment

Total organic carbon (TOC) has no health effects. However, total organic carbon provides a medium for the formation of disinfection byproducts including trihalomethanes (THMs) and haloacetic acids (HAA5s). Drinking water containing these byproducts in excess of the MCL may lead to adverse health effects, liver or kidney problems, or nervous system effects, and may lead to an increased risk of getting cancer.

**Radiologicals Detected at the Entry Point to the Distribution System - Marston**

Chemical Parameters	Year	Sampling Frequency	Average	Range	Unit of Measure	MCL	MCLG	Standard Met	Typical Sources
Combined Radium (Ra-226 and Ra-228)	2021	6-9 years	0.95	BRL-1.9	pCi/L	5	0	yes	Erosion of natural deposits, mine drainage, industrial or manufacturing discharges
Gross Alpha (excluding Uranium)	2023	6-9 years	0.8	0.5-1.1	pCi/L	15	0	yes	Erosion of natural deposits, mine drainage, industrial or manufacturing discharges
Uranium	2023	Quarterly	0.5	BRL-0.8	ppb	30	0	yes	Erosion of natural deposits, mine drainage

**Inorganic Contaminants Detected at the Entry Point to the Distribution System - Moffat**

Chemical Parameters	Year	Sampling Frequency	Average	Range	Unit of Measure	MCL	MCLG	Standard Met	Typical Sources
Barium	2023	Quarterly	20.6	19.3-22.4	ppb	2,000	2,000	yes	Erosion of natural deposits, discharge of drilling wastes
Fluoride	2023	Monthly	598	260-710	ppb	4,000 (2,000 is SMCL)*	4,000	yes	Erosion of natural deposits, water additive that promotes strong teeth, discharge from fertilizer and aluminum factories
Nitrate as N	2023	Monthly	38	BRL-130	ppb	10,000	10,000	yes	Runoff from fertilizer use, leaching from septic tanks and sewage, erosion of natural deposits
Sodium	2023	Quarterly	11,317	9,800-13,500	ppb	NA	NA	yes	Naturally occurring

\*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.

**Summary of Turbidity Sampled at the Entry Point to the Distribution System - Moffat**

Chemical Parameters	Year	Sampling Frequency	Level Found	Unit of Measure	Treatment Technique Requirement	Standard Met	Typical Sources
Turbidity	2023	Daily	Highest single measurement: 0.203 NTU (July)	NTU	Maximum 1 NTU for any one single measurement	yes	Soil runoff
Turbidity	2023	Daily	Lowest monthly percentage of samples meeting TT requirement for our technology: 100%	NTU	In any month, at least 95% of samples must be less than 0.3 NTU	yes	Soil runoff

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 that can cause symptoms such as nausea, cramps, diarrhea, and associated headaches.

**Total Organic Carbon (Disinfection Byproducts Precursor) Removal Ratio of Raw and Finished Water - Moffat**

Chemical Parameters	Year	Frequency	Treatment Technique Requirement	Standard Met	Typical Sources
Total Organic Carbon Ratio	2023	Once per month	Denver Water uses enhanced treatment to remove the required amount of natural organic material and/or demonstrates compliance with alternative criteria.	yes	Natural organic matter present in the environment

Total organic carbon (TOC) has no health effects. However, total organic carbon provides a medium for the formation of disinfection byproducts including trihalomethanes (THMs) and haloacetic acids (HAA5s). Drinking water containing these byproducts in excess of the MCL may lead to adverse health effects, liver or kidney problems, or nervous system effects, and may lead to an increased risk of getting cancer.

**Radiologicals Detected at the Entry Point to the Distribution System - Moffat**

Chemical Parameters	Year	Sampling Frequency	Average	Range	Unit of Measure	MCL	MCLG	Standard Met	Typical Sources
Combined Radium (Ra-226 and Ra-228)	2021	6-9 years	1.1	BRL-2.1	pCi/L	5	0	yes	Erosion of natural deposits, mine drainage, industrial or manufacturing discharges
Gross Alpha (excluding Uranium)	2023	6-9 years	3	1.1-4.8	pCi/L	15	0	yes	Erosion of natural deposits, mine drainage, industrial or manufacturing discharges
Uranium	2023	Quarterly	BRL	BRL	ppb	30	0	yes	Erosion of natural deposits, mine drainage

The following data tables provide regulated contaminants in Denver Water's distribution system.

**Microbial Contaminants Regulated in the Distribution System**

Name	Year	Sampling Frequency	MCL	MCLG	Unit of Measure	Highest Monthly Percentage	Number of Positives	Standard Met	Typical Sources
Total Coliform (T. coli)	2023	Daily	No more than 5% positive per month	0	Present/Absent	0.51% (present T. coli), Aug 2023	2 out of 4,534 total samples (0.04%); 0 E.coli positive samples	Yes	Naturally present in the environment

**Disinfectants Sampled in the Distribution System\***

Name	Year	Results	Number of Samples Below Level	Frequency	MRDL	Standard Met	Typical Sources
Disinfectant as Total C12	2023	Lowest period percentage of samples above 0.2 ppm: 100%	0	Daily	4.0 PPM	yes	Drinking water disinfectant used to control microbial growth

\*Treatment technique requirement: at least 95% of samples per period (month or quarter) must be at least 0.2 ppm.

**Disinfectant Byproducts Sampled in the Distribution System**

Name	Year	Sampling Frequency	Highest Locational RAA	Range	Unit of Measure	MCL	MCLG	Standard Met	Typical Sources
Total Trihalomethanes (TTHM)	2023	Quarterly	38.5	23.9-73.5	ppb	80	n/a	yes	Byproduct of drinking water disinfection
Haloacetic Acids (HAA5s)	2023	Quarterly	21.9	14.3-40.5	ppb	60	n/a	yes	Byproduct of drinking water disinfection

The data tables below provide information on unregulated parameters that were detected in the Denver Water distribution system.

**Water Quality Parameters with Secondary Maximum Contaminant Levels Sampled in the Distribution System**

Name	Year	Sampling Frequency	Average	Range	Unit of Measure	MCL	SMCL*	Standard Met	Typical Sources
Aluminum	2023	Quarterly	32.8	15-126	ppb	n/a	50-200	yes	Erosion of natural deposits
Chloride	2023	Quarterly	20,450	5,000-28,800	ppb	n/a	250,000	yes	Naturally occurring; road salt
Copper	2023	Quarterly	3.2	BRL-18.9	ppb	n/a	1,000	yes	Corrosion of household plumbing; erosion of natural deposits
Iron	2023	Quarterly	3	BRL-300	ppb	n/a	300	yes	Naturally occurring
Manganese	2023	Quarterly	4	BRL-18.4	ppb	n/a	50	yes	Naturally occurring
Sulfate	2023	Quarterly	58,800	19,000-94,000	ppb	n/a	250,000	yes	Naturally occurring
Zinc	2023	Quarterly	4.3	BRL-17	ppb	n/a	5,000	yes	Naturally occurring

\*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.

**Additional Water Quality Parameters Sampled in the Distribution System**

Name	Year	Sampling Frequency	Average	Range	Unit of Measure	Typical Sources
Alkalinity	2023	Monthly	59,900	43,000-80,000	ppb	Erosion of natural deposits
Total Hardness	2023	Quarterly	91,800	50,000-110,000	ppb	Erosion of natural deposits
Conductivity	2023	Quarterly	306	150-440	us/cm	Naturally occurring
Potassium	2023	Quarterly	2,100	810-2,700	ppb	Erosion of natural deposits
Calcium	2023	Quarterly	27,100	15,900-31,600	ppb	Erosion of natural deposits
Magnesium	2023	Quarterly	6,900	2,320-10,100	ppb	Erosion of natural deposits
Boron	2023	Quarterly	15.2	BRL-30.6	ppb	Erosion of natural deposits

These parameters do not have an EPA MCL or SMCL, but can be helpful in understanding the buffering capacity and mineral content of the water. Some applications of these parameters include understanding scale build-up on water fixtures, caring for a home aquarium or brewing beer.



Since 1996, the Environmental Protection Agency, through its Unregulated Contaminant Monitoring Rule, every five years requires water utilities across the country to test for a list of substances that are suspected of being in drinking water but are not currently regulated under the Safe Drinking Water Act. Utilities report their test results to the EPA, which uses the information to learn more about the presence of these substances and decide whether they should be regulated in the future to protect public health.

Denver Water's 2023 test results were reported to the EPA as required. The data tables below include substances that were detected during Denver Water's tests and the levels at which they were found. The American Water Works Association has more information about the rule and the process on its website: [drinktapp.org/Water-Info/Whats-in-My-Water/Unregulated-Contaminant-Monitoring-Rule-UCMR](http://drinktapp.org/Water-Info/Whats-in-My-Water/Unregulated-Contaminant-Monitoring-Rule-UCMR). Information about the rule also can be found on the EPA's website at [www.epa.gov/dwucmr/learn-about-unregulated-contaminant-monitoring-rule](http://www.epa.gov/dwucmr/learn-about-unregulated-contaminant-monitoring-rule) or you can contact the Safe Drinking Water Hotline at 800-426-4791 or [water.epa.gov/drink/contact.cfm](http://water.epa.gov/drink/contact.cfm).

UCMR5: PFAS Contaminants Sampled at Entry Point to the Distribution System - All Treatment Plants					
Chemical Parameters	Year	Average	Range	Unit of Measure	Minimum Reporting Level
11-chloroicosafuoro-3-oxaundecane-1-sulfonic acid (11CI-PF3OUdS)	2023	BRL	BRL	ppb	0.005
1H, 1H, 2H, 2H-perfluorohexane sulfonic acid (4:2FTS)	2023	BRL	BRL	ppb	0.003
1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2FTS)	2023	BRL	BRL	ppb	0.005
1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)	2023	BRL	BRL	ppb	0.005
9-chlorohexadecalfluoro-3-oxanonane-1-sulfonic acid (9CI-PF3ONS)	2023	BRL	BRL	ppb	0.002
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	2023	BRL	BRL	ppb	0.003
Hexafluoropropylene oxide dimer acid (HFPO DA)	2023	BRL	BRL	ppb	0.005
Nonafuoro-3,6-dioxaheptanoic acid (NFDHA)	2023	BRL	BRL	ppb	0.02
Perfluorobutanoic acid (PFBA)	2023	BRL	BRL	ppb	0.005
Perfluorobutanesulfonic acid (PFBS)	2023	BRL	BRL	ppb	0.003
Perfluorodecanoic acid (PFDA)	2023	BRL	BRL	ppb	0.003
Perfluorododecanoic acid (PFDoA)	2023	BRL	BRL	ppb	0.003
Perfluoro (2-ethoxyethane)sulfonic acid (PFEEESA)	2023	BRL	BRL	ppb	0.003
Perfluoroheptanesulfonic acid (PFHpS)	2023	BRL	BRL	ppb	0.003
Perfluoroheptanoic acid (PFHpA)	2023	BRL	BRL	ppb	0.003
Perfluorohexanoic acid (PFHxA)	2023	BRL	BRL	ppb	0.003
Perfluorohexanesulfonic acid (PFHxS)	2023	BRL	BRL	ppb	0.003
Perfluoro-4-methoxybutanoic acid (PFMBA)	2023	BRL	BRL	ppb	0.003
Perfluoro-3-methoxypropanoic acid (PFMPA)	2023	BRL	BRL	ppb	0.004
Perfluorononanoic Acid (PFNA)	2023	BRL	BRL	ppb	0.004
Perfluorooctanoic acid (PFOA)	2023	BRL	BRL	ppb	0.004
Perfluorooctanesulfonic acid (PFOS)	2023	BRL	BRL	ppb	0.004
Perfluoropentanoic acid (PFPeA)	2023	BRL	BRL	ppb	0.003
Perfluoropentanesulfonic acid (PFPeS)	2023	BRL	BRL	ppb	0.004
Perfluoroundecanoic acid (PFUnA)	2023	BRL	BRL	ppb	0.002
N-ethyl perfluorooctanesulfonamidoacetic acid (NEFOSAA)	2023	BRL	BRL	ppb	0.005
N-methyl perfluorooctanesulfoamidoacetic acid (NMeFOSAA)	2023	BRL	BRL	ppb	0.006
Perfluorotetradecanoic acid (PFTA)	2023	BRL	BRL	ppb	0.008
Perfluorotridecanoic acid (PFTrDA)	2023	BRL	BRL	ppb	0.007

Water at all three treatment plant entry points (Foothills, Marston and Moffat) tested below the minimum reporting levels for per- and polyfluoroalkyl substances (PFAS).

UCMR5 Lithium Contaminant Samples at Entry Point to the Distribution System						
Chemical Parameters	Plant	Year	Average	Range	Unit of measure	Minimum Reporting Level
Lithium	Foothills	2023	5.3	BRL-10.8	ppb	9
Lithium	Marston	2023	9.23	9-9.4	ppb	9
Lithium	Moffat	2023	BRL	BRL	ppb	9







We are pleased to present to you this year's water quality report for the City of Aurora service area. Our constant goal is to provide you with a safe and dependable supply of drinking water. Please contact Ortilano Bobby Oligo at 303-739-6740 with any questions or for public participation opportunities that may affect the City of Aurora's water quality. Please see the water quality data from wholesale system(s) (either attached or included in this report) for additional information about your drinking water.

## General Information

All 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 the 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 (1-800-426-4791) or by visiting [epa.gov/ground-water-and-drinking-water](https://www.epa.gov/ground-water-and-drinking-water).

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 of infections. These people should seek advice about drinking water from their healthcare providers. For more information about contaminants and potential health effects, or to receive a copy of the U.S. Environmental Protection Agency (EPA) and the U.S. Centers for Disease Control (CDC) guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and microbiological contaminants, call the EPA Safe Drinking Water Hotline at (1-800-426-4791).

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:** viruses and bacteria that may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.
- **Inorganic contaminants:** 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:** may come from a variety of sources, such as agriculture, urban stormwater runoff, and residential uses.
- **Radioactive contaminants:** 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 byproducts of industrial processes and petroleum production, and also may come from gas stations, urban stormwater runoff and septic systems.

In order to ensure tap water is safe to drink, the Colorado Department of Public Health and Environment prescribes regulations limiting the amount of certain contaminants in water provided by public water systems. The Food and Drug Administration regulations establish limits for contaminants in bottled water that must provide the same protection for public health.

## Lead in Drinking Water

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 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, 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 Ortilano Bobby Oligo at 303-739-6740. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available at [epa.gov/safewater/lead](https://www.epa.gov/safewater/lead).

## Source Water Assessment and Protection (SWAP)

The Colorado Department of Public Health and Environment may have provided us with a Source Water Assessment Report for the ECCV water supply. For general information or to obtain a copy of the report please visit [wqcdcompliance.com/ccr](http://wqcdcompliance.com/ccr). The report is located under “Guidance: Source Water Assessment Reports.” Search the table using 103005, AURORA CITY OF, or by contacting Ortilano Bobby Oligo at 303-739-6740. The Source Water Assessment Report provides a screening-level evaluation of potential contamination that could occur. It does not mean that the contamination has or will occur. We can use this information to evaluate the need to improve our current water treatment capabilities and prepare for future contamination threats. This can help us ensure quality finished water is delivered to your homes. In addition, the source water assessment results provide a starting point for developing a source water protection plan. Potential sources of contamination in our source water area are listed below.

Please contact us to learn more about what you can do to help protect your drinking water sources, any questions about the Drinking Water Quality Report, to learn more about our system, or to attend scheduled public meetings. We want you, our valued customers, to be informed about the services we provide and the quality water we deliver to you every day.

### Sources (water type - source type)

NC VW10A (Groundwater UDI Surface Water-Well)	CC SA6R (Groundwater UDI Surface Water-Well)
NC VW10 (Groundwater UDI Surface Water-Well)	LFH1 (Groundwater-Well)
NC VW11 (Groundwater UDI Surface Water-Well)	NC VW 19A (Groundwater UDI Surface Water-Well)
NC VW12 (Groundwater UDI Surface Water-Well)	NC VW 10B (Groundwater UDI Surface Water-Well)
NC VW13 (Groundwater UDI Surface Water-Well)	NC VW 11A (Groundwater UDI Surface Water-Well)
NC VW14 (Groundwater UDI Surface Water-Well)	NC VW 28 (Groundwater UDI Surface Water-Well)
NC VW15 (Groundwater UDI Surface Water-Well)	NC VW 29 (Groundwater UDI Surface Water-Well)
NC VW 16 (Groundwater UDI Surface Water-Well)	NC VW 30 (Groundwater UDI Surface Water-Well)
NC VW18 (Groundwater UDI Surface Water-Well)	NC VW 31 (Groundwater UDI Surface Water-Well)
NC VW19 (Groundwater UDI Surface Water-Well)	NC VW 32 (Groundwater UDI Surface Water-Well)
NC VW20 (Groundwater UDI Surface Water-Well)	NC VW 27 (Groundwater UDI Surface Water-Well)
NC VW21 (Groundwater UDI Surface Water-Well)	NC VW 12A (Groundwater UDI Surface Water-Well)
NC VW22 (Groundwater UDI Surface Water-Well)	CC 3R (Groundwater UDI Surface Water-Well)
NC VW23 (Groundwater UDI Surface Water-Well)	NC VW 18A (Groundwater UDI Surface Water-Well)
NC VW24 (Groundwater UDI Surface Water-Well)	RAMPART SOUTH PLATTE RESERVIOR (Surface Water-Intake)
NC VW25 (Groundwater UDI Surface Water-Well)	QUINCY RESERVIOR (Surface Water-Intake)
NC VW 26 (Groundwater UDI Surface Water-Well)	AURORA RESERVIOR (Surface Water-Intake)
CC 1R (Groundwater UDI Surface Water-Well)	DA1 WELL (Groundwater-Well)
CC 2R (Groundwater UDI Surface Water-Well)	DA2 WELL (Groundwater-Well)
CC 4R (Groundwater UDI Surface Water-Well)	DA3 WELL (Groundwater-Well)
CC 5R (Groundwater UDI Surface Water-Well)	NC VW 16A (Groundwater UDI Surface Water-Well)

### Potential Source(s) of Contamination:

EPA Abandoned Contaminated Sites, EPA Hazardous Waste Generators, EPA Chemical Inventory/Storage Sites, EPA Toxic Release Inventory Sites, Permitted Wastewater Discharge Sites, Aboveground, Underground and Leaking Storage Tank Sites, Solid Waste Sites, Existing/Abandoned Mine Sites, Other Facilities, Commercial/Industrial/Transportation, High Intensity Residential, Low Intensity Residential, Urban Recreational Grasses, Quarries / Strip Mines / Gravel Pits, Row Crops, Fallow, Small Grains, Pasture / Hay, Deciduous Forest, Evergreen Forest, Mixed Forest, Septic Systems, Oil / Gas Wells, Road Miles

### Detected Contaminants

AURORA CITY OF routinely monitors for contaminants in your drinking water according to Federal and State laws. The following table(s) show all detections found in the period of January 1 to December 31, 2023 unless otherwise noted. The State of Colorado requires 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, or the system is not considered vulnerable to this type of contamination. Therefore, some of our data, though representative, may be more than one year old. Violations and Formal Enforcement Actions, if any, are reported in the next section of this report. **Note:** Only detected contaminants sampled within the last five years appear in this report. If no tables appear in this section, then no contaminants were detected in the last round of monitoring.

**Disinfectants Sampled in the Distribution System**

TT Requirement: At least 95% of samples per period (month or quarter) must be at least 0.2 ppm OR  
 If sample size is less than 40 no more than 1 sample is below 0.2 ppm  
 Typical Sources: Water additive used to control microbes

Disinfectant Name	Sample Date	Units	TT Requirement	Average Level Detected	Range	TT Violation	MRDL	Typical Sources
Chlorine Residual (Chloramines)	Daily	ppm	Atleast 95% of samples per month must be atleast 0.2 ppm	1.71 - 100% of samples were >0.2 ppm	0.44 to 2.20	No	4	Water additive to control microbes
Chlorine Dioxide	Daily	ppb	n/a	34	0 to 200	No	800	Water additive to control microbes

**Lead and Copper Sampled in the Distribution System**

Contaminant Name	Time Period	90th Percentile	Sample Size	Unit of Measure	90th Percentile AL	Sample Sites Above AL	90th Percentile AL Exceedance	Typical Sources
Copper	June through Sept. 2021	0.06	217	ppm	1.3	0	No	Corrosion of household plumbing systems
Lead	June through Sept. 2021	1.3	217	ppb	15	0	No	Corrosion of household plumbing systems

**Disinfection Byproducts Sampled in the Distribution System**

Name	Sample Date	Average	Range Low-High	Unit of Measure	MCL	MCLG	MCL Violation	Typical Sources
Haloacetic Acids	Quarterly	17.43	3.95 to 65.1	ppb	60	N/A	No	Byproduct of drinking water disinfection
Trihalomethanes (TTHM)	Quarterly	25.22	16.1 to 58.4	ppb	80	N/A	No	Byproduct of drinking water disinfection
Chlorite	Quarterly	0.47	0.15 to 0.62	ppm	1.0	0.8	No	Byproduct of drinking water disinfection

**Total Organic Carbon (Disinfection Byproducts Precursor) Removal Ratio of Raw and Finished Water**

Contaminant Name	Year	Average	Range Low-High	Sample Date	Unit of Measure	TT Minimum Ratio	TT Violation	Typical Sources
Total Organic Carbon	2023	2.31	1.33 to 5.36	Monthly	Ratio	1.00	No	Naturally present in the environment

\*If minimum ratio not met and no violation identified then the system achieved compliance using alternative criteria.

**Summary of Turbidity Sampled at the Entry Point to the Distribution System**

Contaminant Name	Sample Date	Level Found	TT Requirement	TT Violation	Typical Sources
Turbidity	May	Highest single measurement: 0.078 NTU	Maximum 1 NTU for any single measurement	No	Soil Runoff
Turbidity		100% of samples were less than 0.3 NTU	In any month, at least 95% of samples must be less than 0.3 NTU	No	Soil Runoff



**Radionuclides Sampled at the Entry Point to the Distribution System**

Contaminant Name	Year	Average	Range Low-High	Sample Size	Unit of Measure	MCL	MCLG	MCL Violation	Typical Sources
Combined Radium (-226 & -228)	2022	0.19	0.19 to 0.19	1	pCi/L	5	0	No	Decay of natural and man-made deposits

**Inorganic Contaminants Sampled at the Entry Point to the Distribution System**

Contaminant Name	Year	Average	Range Low-High	Unit of Measure	MCL	MCLG	MCL Violation	Typical Sources
Arsenic	2023	0.11	<0.5 to 0.63	ppb	10	0	No	Erosion of natural deposits
Barium	2023	37.9	30.8 to 47.3	ppb	2000	2000	No	Erosion of natural deposits
Fluoride	2023	0.72	0.60 to 0.91	ppm	4	4	No	Erosion of natural deposits
Nitrate	2023	0.34	<0.3 to 1.4	ppm	10	10	No	Runoff from fertilizer use and erosion of natural deposits
Selenium	2023	0.56	<0.5 to 1.35	ppb	50	50	No	Erosion of natural deposits

**Unregulated Contaminants\*\*\***

EPA has implemented the Unregulated Contaminant Monitoring Rule (UCMR) to collect data for contaminants that are suspected to be present in drinking water and do not have health-based standards set under the Safe Drinking Water Act. EPA uses the results of UCMR monitoring to learn about the occurrence of unregulated contaminants in drinking water and to decide whether or not these contaminants will be regulated in the future. We performed monitoring and reported the analytical results of the monitoring to EPA in accordance with its Unregulated Contaminant Monitoring Rule (UCMR). Once EPA reviews the submitted results, the results are made available in the EPA's National Contaminant Occurrence Database (NCOD) ([epa.gov/dwucmr/national-contaminant-occurrence-database-ncod](http://epa.gov/dwucmr/national-contaminant-occurrence-database-ncod)) Consumers can review UCMR results by accessing the NCOD. Contaminants that were detected during our UCMR sampling and the corresponding analytical results are provided below.

\*\*\*More information about the contaminants that included in UCMR were monitoring can be found at: [drinktapp.org/Water-Info/Whats-in-My-Water/Unregulated-Contaminant-Monitoring-Rule-UCMR](http://drinktapp.org/Water-Info/Whats-in-My-Water/Unregulated-Contaminant-Monitoring-Rule-UCMR). Learn more about the EPA UCMR at: [epa.gov/dwucmr/learn-about-unregulated-contaminant-monitoring-rule](http://epa.gov/dwucmr/learn-about-unregulated-contaminant-monitoring-rule) or contact the Safe Drinking Water Hotline at (800) 426-4791 or [epa.gov/ground-water-and-drinking-water](http://epa.gov/ground-water-and-drinking-water).

Contaminant Name	Units	Average Level Detected	Range Low-High	Sample Date	Typical Source of Contamination
Perfluorobutanoic Acid (PFBA)	ppt	0.78	<4.5 to 7.8	2023	PFAS are a group of synthetic chemicals used in a wide range of consumer products and industrial applications including: non-stick cookware, water-repellent clothing, stain-resistant fabrics and carpets, cosmetics, firefighting foams, electroplating, and products that resist grease, water, and oil. PFAS are found in the blood of people and animals and in water, air, fish and soil at locations across the United States and the world.
Perfluorobutanesulfonic Acid (PFBS)	ppt	0.33	<2.7 to 3.3	2023	
Perfluorohexanoic Acid (PFHxA)	ppt	0.56	<2.7 to 5.6	2023	
Perfluoropentanoic Acid (PFPeA)	ppt	0.72	<2.7 to 7.2	2023	
Lithium	ppb	7.8	<9 to 21.4	2023	Naturally occurring metal that may concentrate in brine waters; lithium salts are used as pharmaceuticals, used in electrochemical cells, batteries, and in organic syntheses

**Secondary Contaminants\*\***

\*\*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.

Contaminant Name	Units	SMCL	Average Level Detected	Range	Sample Date	Typical Source of Contamination
Alkalinity (as CaCO3)	ppm	n/a	73.9	49.6 to 120	Daily	Water quality parameter
Aluminum	ppb	50 to 200 mg/L	46.6	2.84 to 79.4	Quarterly	Erosion of natural deposits and treatment chemicals
Calcium	ppm	n/a	35.8	18.6 to 57.8	Weekly	Erosion of natural deposits
Chloride	ppm	250	50	24 to 98	Monthly	Erosion of natural deposits
Conductivity	umhos/cm	n/a	509	233 to 787	Weekly	Water quality parameter
Total Dissolved Solids (TDS)	ppm	500	215	124 to 392	Monthly	Water quality parameter
Hardness (as CaCO3)	ppm	n/a	115	68 to 150	Daily	Erosion of natural deposits
Hardness-CA (as CaCO3)	ppm	n/a	89.4	46.4 to 145	Weekly	Erosion of natural deposits
Iron	ppb	300	<10	<10	Quarterly	Erosion of natural deposits
Manganese	ppb	50	1.03	0.534 to 2.09	Quarterly	Erosion of natural deposits
pH	SU	6.5 to 8.5	8.1	7.9 to 8.3	Daily	Water quality parameter
Sodium	ppm	10,000	40.6	17.8 to 86.1	Yearly	Erosion of natural deposits
Sulfate	ppm	250	69	36 to 109	Monthly	Erosion of natural deposits
Zinc	ppb	5000	1.97	<0.5 to 6.57	Quarterly	Erosion of natural deposits

**Violations, Significant Deficiencies and Formal Enforcement Actions**

No Violations or Formal Enforcement Actions



**CENTENNIAL**  
WATER AND SANITATION DISTRICT

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