



2023

# DRINKING WATER QUALITY REPORT



Colorado Springs Utilities<sup>®</sup>

*It's how we're all connected*



## PUBLIC WATER SYSTEM I.D. CO0121150

This required report is prepared in accordance with federal and state regulations of the Safe Drinking Water Act.

Esta información acerca de su agua potable es importante. Si usted no puede leer esto en inglés, por favor pídale a alguien.  
Que le traduzca esta importante información o llame a Cuidado al Cliente al número (719) 668-4800.



**In 2022, we served half a million customers with more than 20 billion gallons of high-quality water.**

**DRINK**

We take pride in providing some of the best drinking water in the nation. The majority of our drinking water comes from high mountain snowmelt which means we are primarily first time users. Hundreds of employees spend many hours protecting our water sources, managing our state-of-the-art water treatment processes, maintaining and operating our facilities and equipment and vigilantly monitoring and testing the water we serve.

To protect the quality of water delivered to your home, we performed more than 90,000 water quality tests to ensure a safe and reliable drinking water supply for Colorado Springs residents.

We're proud to share with you the 2023 Water Quality Report that provides detailed information about your drinking water. If you have any questions about this report or the quality of your water, contact us at (719) 668-4560.



# DRINKING WATER SOURCES

Your water is blended from multiple surface water sources, that include snowmelt from the high Rockies.

## Mountain water sources

With no major water source nearby, much of our raw water collection system originates from more than 100 miles away, near Aspen, Leadville and Breckenridge.

## Almost 75% of our water originates from mountain streams.

Water from these streams is collected and stored in numerous reservoirs along the Continental Divide. Collection systems in these areas consist of the Homestake, Fryingpan-Arkansas, Twin Lakes and Blue River systems.

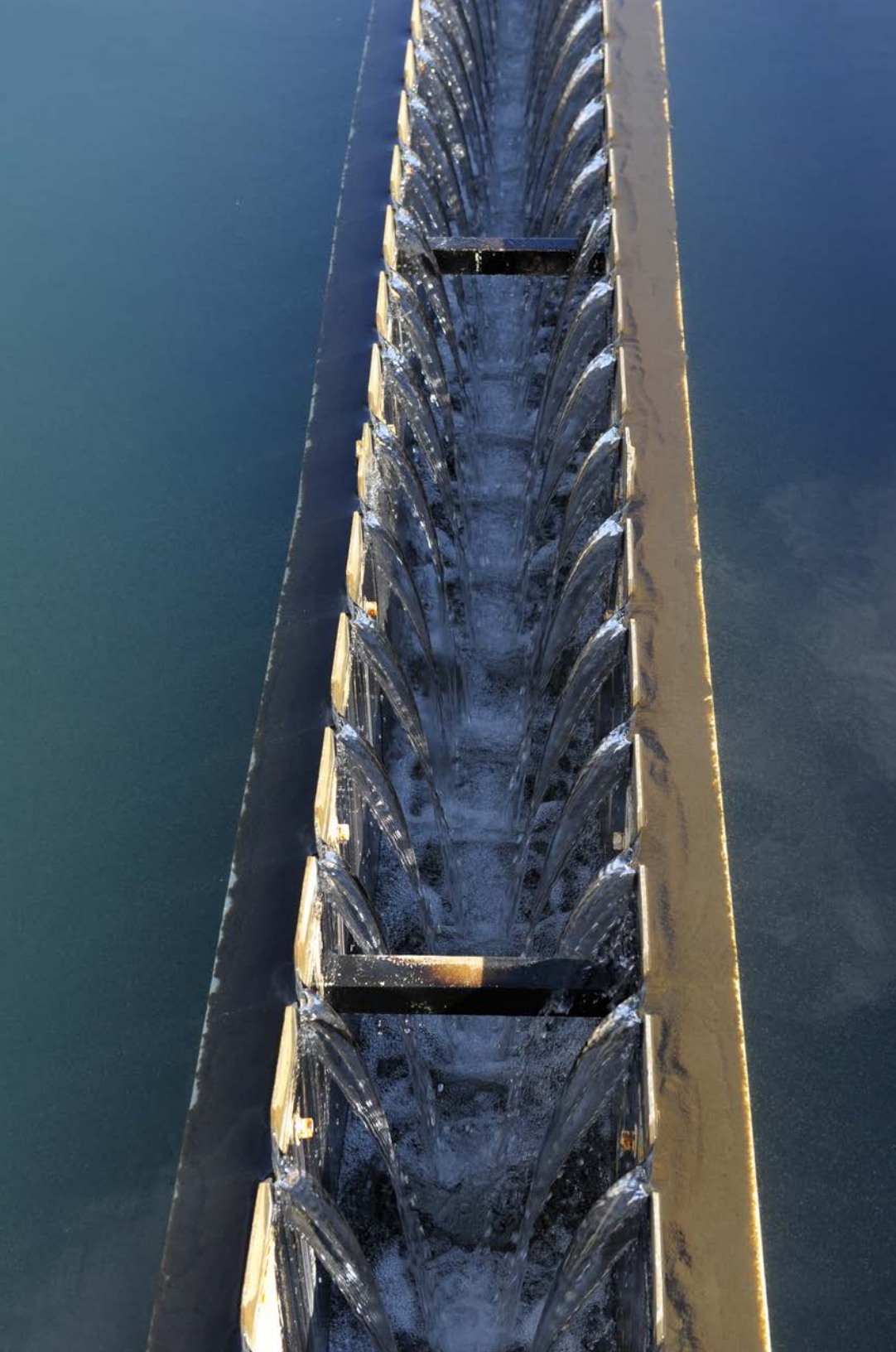


The majority of this raw water is transferred to our city through pipelines that help protect it from contamination such as herbicides, pesticides, heavy metals and other chemicals. After the long journey, water is stored locally in Rampart Reservoir and our North Slope reservoirs.

## Local surface sources

To supplement water received from the mountain sources, we divert water from local surface water collection systems including:

- North and South Slopes of Pikes Peak – Catamount Reservoirs, Crystal Creek Reservoir, South Slope Reservoirs and tributaries
- North and South Cheyenne Creeks
- Fountain Creek
- Monument Creek – Pikeview Reservoir
- Northfield Watershed – Rampart and Northfield Reservoirs
- Pueblo Reservoir



### **Purchased water source**

Fountain Valley Authority or FVA (PWSID#CO0121300) receives water from the Fryingpan-Arkansas Project – a system of pipes and tunnels that collects water in the Hunter-Fryingpan Wilderness Area near Aspen. Water collected from this system is diverted to the Arkansas River, near Buena Vista, and then flows about 150 miles downstream to Pueblo Reservoir. From there, the water travels through a pipeline to a water treatment plant before being delivered to Colorado Springs.

### **Water treatment**

All water sources are treated at one of our six treatment plants prior to entering our drinking water distribution system, an intricate system of tanks, pumps and pipes that ultimately deliver water to your home or business.

# COLORADO SOURCE WATER ASSESSMENT AND PROTECTION

To obtain a copy of the Source Water Assessment Report, call (719) 668-4560 or visit <https://cdphe.colorado.gov/ccr>.



The Source Water Assessment Report provides a screening level evaluation of potential contamination that could occur. It does not mean that contamination has occurred 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 that quality finished water is delivered to your home. In addition, the source water assessment results provide a starting point for developing a source water protection plan.

### **Potential sources of contamination to our source water areas may come from:**

- Environmental Protection Agency (EPA) superfund sites
- 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
- concentrated animal feeding operations
- other facilities
- commercial/industrial transportation
- high-and-low-intensity residential
- urban recreational grasses
- quarries/strip mines/gravel pits
- agricultural land (row crops, small grain, pasture/hay, orchards/vineyards, fallow and other)
- forest
- septic systems
- oil/gas wells
- road miles (runoff from the roads)

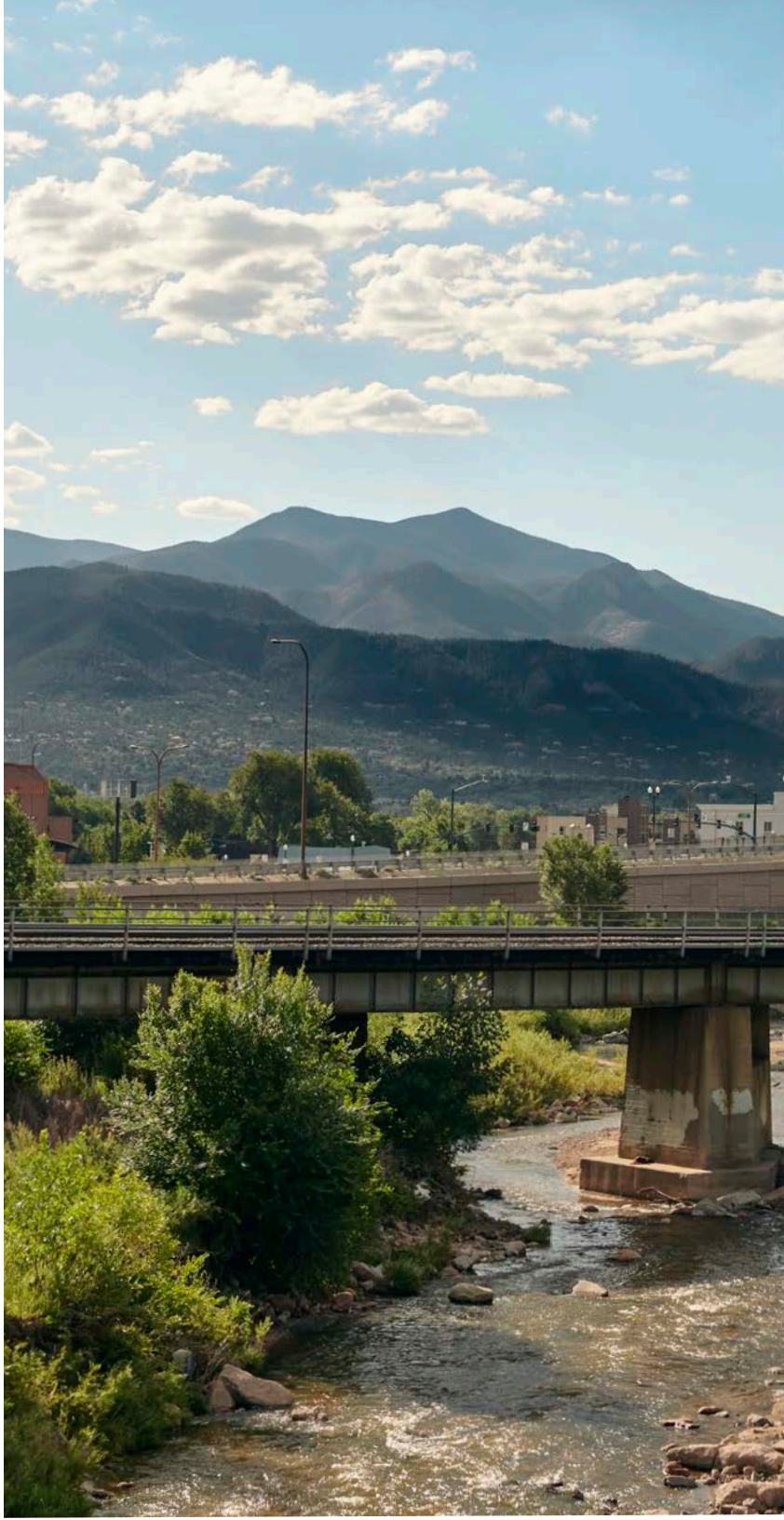






# WATER CONTAMINANTS

The sources of drinking water (both tap and bottled) include rivers, lakes, streams, ponds, reservoirs, springs and wells. As water travels over the surface or through the ground, it dissolves naturally occurring minerals and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activity.



## **Contaminants that may be present in source water include:**

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

In order to ensure that 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.



## Immunocompromised persons advisory

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 the water poses a health risk. For more information about contaminants and potential health effects, call the Environmental Protection Agency (EPA) Safe Drinking Water Hotline or visit <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 health care providers.

EPA and the Center for Disease Control (CDC) guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and microbiological contaminants are available from the **Safe Drinking Water Hotline: 1-800-426-4791**

LEAD, FLUORIDE  
AND PFAS IN  
DRINKING  
WATER



## Lead in drinking water

If present, elevated levels of lead can cause serious health problems (especially for pregnant women and young children). It is possible that lead levels at your home may be higher than other homes in the community as a result of materials used in your home's plumbing. If you are concerned about lead in your water, you may wish to have your water tested. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to two minutes before using water for drinking or cooking. Additional information on lead in drinking water, testing methods and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline (1-800-426-4791) or at <http://www.epa.gov/safewater/lead>.



## Fluoride in drinking water

Fluoride is a compound found naturally in many places, including soil, food, plants, animals and the human body. It is also found naturally at varying levels in all our water sources. We do not add fluoride to your drinking water. Any fluoride in the drinking water comes naturally from our source waters.

## Per- and polyfluoroalkyl substances (PFAS)

PFAS are man-made chemicals present in food packaging, commercial household products, drinking water sources and manufacturing facilities. Currently, PFAS are not regulated under the National Primary Drinking Water Regulations.

However, on June 15, 2022 the EPA issued a health advisory for specific PFAS substances. We tested for 18 PFAS compounds and none of these compounds were detected above the reporting limit of 1.9 parts per trillion at our water treatment facilities in 2022.

For more information about PFAS click <https://www.epa.gov/pfas>.

## Terms, abbreviations & symbols

- **Maximum Contaminant Level (MCL)** – The highest level of a contaminant allowed in drinking water.
- **Treatment Technique (TT)** – A required process intended to reduce the level of a contaminant in drinking water.
- **Health-Based** – A violation of either a MCL or TT.
- **Non-Health-Based** – A violation that is not a MCL or TT.
- **Action Level (AL)** – The concentration of a contaminant which, if exceeded, triggers treatment and other regulatory requirements.
- **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 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 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.
- **Violation (No abbreviation)** – Failure to meet a Colorado Primary Drinking Water Regulation.
- **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.
- **Variance and Exemptions (V/E)** – Department permission not to meet a MCL or treatment technique under certain conditions.
- **Gross Alpha (No abbreviation)** – Gross alpha particle activity compliance value. It includes radium-226, but excludes radon 222, and uranium.
- **Picocuries per liter (pCi/L)** – Measure of the radioactivity in water.
- **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.
- **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).
- **Average (x-bar)** – Typical value.
- **Range (R)** – Lowest value to the highest value.
- **Sample Size (n)** – Number or count of values (i.e. number of water samples collected).
- **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 billion = micrograms 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.
- **Not Applicable (N/A)** – Does not apply or not available.
- **Level 1 Assessment** – 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** – 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.

## Data presented in the water quality report

We routinely monitor for contaminants in your drinking water according to federal and state laws. The tables on the following pages show the combined results of our monitoring for six water treatment plants, including our purchased water from Fountain Valley Authority, for the period of Jan. 1 through Dec. 31, 2022, 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. Only detected contaminants sampled within the last five years appear in this report. If no table appears in this section, then no contaminants were detected in the last round of monitoring.





# DETECTED CONTAMINANT TABLES



## Inorganic Contaminants

Monitored at the treatment plant (entry point to the distribution system)

Contaminant	MCL	MCLG	Units	Range detected	Average detected	MCL violation	Sample dates	Possible source(s) of contamination
Barium	2	2	ppm	0.013 - 0.054	0.03	No	July 2022	Discharge of drilling wastes; discharge from metal refineries, erosion of natural deposits
Chromium	100	100	ppb	0 - 1.50	0.47	No	July 2022	Discharge of steel and pulp mills; erosion of natural deposits
Fluoride	4	4	ppm	0.14 - 1.46	0.50	No	July 2022	Erosion of natural deposits; discharge from fertilizer and aluminum factories
Nitrate (as Nitrogen)	10	10	ppm	0 - 0.4	0.12	No	July 2022	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Selenium	50	50	ppb	0 - 3.50	0.58	No	July 2022	Discharge from petroleum and metal refineries; erosion of natural deposits; discharge from mines
Sodium	n/a	n/a	ppm	7.6 - 22.5	11.7	No	July 2022	Erosion of natural deposits

## Organic Contaminants

Monitored at the treatment plant (entry point to the distribution system)

Contaminant	MCL	MCLG	Units	Range detected	Average detected	MCL violation	Sample dates	Possible source(s) of contamination
Di(2-ethylhexyl) phthalate	50	0	ppb	0 - 1.6	0.2	No	Jan., March, April, July, Oct. 2022	Discharge from rubber and chemical factories
Xylenes	10,000	10,000	ppb	0 - 1.6	0.3	No	Jan., April, July, Oct. 2022	Discharge from petroleum factories, discharge from chemical factories

## Radionuclides

Monitored at the treatment plant (entry point to the distribution system)

Contaminant	MCL	MCLG	Units	Range detected	Average detected	MCL violation	Sample dates	Possible source(s) of contamination
Combined Radium	5	0	pCi/L	0 - 1.9	1.1	No	June 2020	Erosion of natural deposits
Combined Uranium	30	0	ppb	0 - 4.0	0.7	No	June 2020	Erosion of natural deposits
Gross Alpha	15	0	pCi/L	0 - 1.02	0.49	No	June 2020	Erosion of natural deposits

## Turbidity

Continuously monitored at the treatment plant (entry point to the distribution system)

Contaminant	TT requirement	Level detected	TT violation	Sample dates	Possible source(s) of contamination
Turbidity	Maximum 1 NTU for any single measurement	Highest single measurement: 0.33 NTU, May	No	Jan. - Dec. 2022	Soil runoff
Turbidity	In any month, at least 95% of samples must be less than 0.3 NTU	Lowest monthly percentage of samples meeting TT requirement: 100% Dec.	No	Jan. - Dec. 2022	Soil runoff

## Disinfectants

Continuously monitored at the treatment plant (entry point to the distribution system)

Contaminant	MRDL/TT requirement	Units	Level detected	MRDL/TT violation	Sample dates	Possible source(s) of contamination
Chlorine	TT= No more than 4 hours with a sample below 0.2 ppm	ppm	0 samples above or below the level	No	Jan. - Dec. 2022	Water additive used to control microbes

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

Monitored at the treatment plant (entry point to the distribution system)

Contaminant	MCL	MCLG	Units	Range low - high	Average	MCL violation	Sample dates	Possible source(s) of contamination
Total Organic Carbon (TOC)	TT minimum ratio = 1.00	n/a	n/a	1 - 2.06	1.30	No	Monthly - running annual average	Naturally present in the environment

### Disinfection Byproducts

Monitored in the distribution system

Contaminant	MCL	MCLG	Units	Range detected of individual sites	Average detected of individual sites	Highest compliance value	MCL violation	Sample dates	Possible source(s) of contamination
Total Haloacetic Acids (HAA5)	60	n/a	ppb	11.4 - 44.1	27.5	42.3	No	Jan., April, July, Oct. 2022	Byproduct of drinking water disinfection
Total Trihalomethanes (TTHM)	80	n/a	ppb	20.0 - 58.1	36.6	47.0	No	Jan., April, July, Oct. 2022	Byproduct of drinking water disinfection

### Disinfectants in the Distribution System

Contaminant	MRDL/TT	Lowest TT percentage	Number of samples below 0.2	Units	TT violation	Sample dates	Possible source(s) of contamination
Chlorine	TT= At least 95% of samples per month must be at least 0.2 ppm	100% Dec.	0	ppm	No	2022	Drinking water disinfectant used to control microbes

## Copper and Lead

Monitored in the distribution system

Contaminant	AL at the 90th percentile	MCLG	Units	90th percentile	Sample size	Sample sites above AL	AL exceedance	Sample dates	Possible source(s) of contamination
Copper	1.3	1.3	ppm	0.18	73	0	No	June - July 2021	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead	15	0	ppb	6.8	73	2	No	June - July 2021	Corrosion of household plumbing systems; erosion of natural deposits

## Contaminants with Secondary MCL Requirements<sup>1</sup>

Monitored at the treatment plant (entry point to the distribution system)

Contaminant	SMCL	Units	Range detected	Average level detected	Sample dates	Possible source(s) of contamination
Aluminum	0.050 - 0.2	ppm	0.02 - 0.19	0.058	Monthly 2022	Erosion of natural deposits, water treatment chemical
Chloride	250	ppm	1.6 - 23.6	7.6	Quarterly 2022	Erosion of natural deposits
Manganese	0.5	ppm	0.005 - 0.0144	0.0085	Monthly 2022	Erosion of natural deposits
Iron	0.3	ppm	0.01 - 0.06	0.03	Monthly 2022	Erosion of natural deposits, leaching from plumbing materials
Sulfate	250	ppm	14.6 - 109	46.7	Quarterly 2022	Erosion of natural deposits
Zinc	5000	ppb	0 - 2.3	0.4	Annual 2022	Leaching from plumbing materials

<sup>1</sup>Secondary MCL (SMCL) is not enforceable but intended as guidelines. These contaminants in drinking water may affect the aesthetic qualities.

## Unregulated Contaminant Monitoring Regulation (UCMR)

The 1996 amendments to the Safe Drinking Water Act required that EPA establish criteria for a program to monitor unregulated contaminants and to identify no more than 30 unregulated contaminants to be monitored every five years.

Unregulated contaminants are those contaminants that do not have a drinking water standard (maximum contaminate level) established by EPA. The purpose of the UCMR is to assist EPA in determining the occurrence of unregulated contaminants in drinking water and whether future regulation is warranted.

The fourth round of the UCMR required monitoring for 30 contaminants. We were required to monitor for these contaminants starting in January 2018. The results for any contaminants detected are listed below.



For further information on UCMR please visit <http://www.epa.gov/dwucmr/fourth-unregulated-contaminant-monitoring-rule>.

Monitored at the treatment plant (entry point to the distribution system)

<b>Contaminant</b>	<b>Average level detected</b>	<b>Range</b>	<b>Units</b>	<b>Sample dates</b>	<b>Possible source(s) of contamination</b>
<b>Manganese</b>	1.2	0 - 11	ppb	Jan., April, July, Oct. 2018	Naturally occurring element, commercially available in combination with other elements and minerals, a byproduct of zinc ore processing, used in infrared optics, fiber optic and system electronics and solar applications.
<b>1-Butanol</b>	1.07	0 - 13	ppb	Jan., March, April, July, Oct. 2018	Used as a solvent, food additive and in the production of other chemicals
<b>Quinoline</b>	0.001	0 - 0.0318	ppb	Jan., March, April, July, Oct. 2018; Feb., March 2019	Used as a pharmaceutical and flavoring agent, produced as a chemical intermediate, component of coal

Monitored at the treatment plant (entry point to the distribution system)

<b>Contaminant</b>	<b>Average level detected</b>	<b>Range</b>	<b>Units</b>	<b>Sample dates</b>	<b>Possible source(s) of contamination</b>
<b>Haloacetic Acids 5 (HAA5)</b>	33.9	10.2 - 55.0	ppb	Jan., April, July, Oct. 2018	Byproduct of drinking water disinfection
<b>Brominated Haloacetic Acids 6 (HAABr6)</b>	3.18	0.79 - 9.10	ppb	Jan., April, July, Oct. 2018	Byproduct of drinking water disinfection
<b>Haloacetic Acids 9 (HAA9)</b>	36.4	14.5 - 57.0	ppb	Jan., April, July, Oct. 2018	Byproduct of drinking water disinfection



## Customers have a voice

As a community-owned utility, we encourage participation in decisions affecting our drinking water. Visit [csu.org](https://www.csu.org) to learn how you can participate in our monthly Utilities Board meetings.

To request a printed copy of this report or for questions call (719) 668-4560 or visit [csu.org/waterquality](https://www.csu.org/waterquality). Past reports are also available online.



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