



CITY OF  
**ASPEN**

**2021**

# DRINKING WATER QUALITY REPORT

PUBLIC WATER SYSTEM ID: PWSID COo149122





We are pleased to present to you this year's water quality report. This report summarizes water quality testing results for the 2021 calendar year. Our constant goal is to provide you with a safe and dependable supply of drinking water.

*Esta es información importante. Si no la pueden leer, necesitan que alguien se la traduzca.*

## LEARN MORE ABOUT ASPEN'S WATER

If you have any questions about this report or for more information about the City of Aspen's Water resources, conservation goals and our Integrated Water Resource Plan, please contact the City's Utility Office at 970-920-5110 or the Colorado Department of Public Health and Environment at 303-692-3500.

The City of Aspen continues to monitor the COVID-19 Pandemic and our Drinking water Treatment standards and methods ensures a complete disinfection process with no threat of our process water becoming a source of the Virus. For more information on the City of Aspen's COVID-19 rules and responses please contact the City's Utilities Office.





# CITY OF ASPEN WATER SOURCES

The City of Aspen is very fortunate to have our source water coming directly from Certified Wilderness Areas within the White River National Forest. They are Castle Creek, Maroon Creek, Thomas Reservoir and Rio Grande Well. Rio Grande Well is designated as an emergency source only. The water you use at your home or business typically come from Castle Creek but may be supplemented periodically from Maroon Creek. Source water protection is an important aspect of maintaining water quality for environment aspects and Drinking water production. The City of Aspen maintains a Source Water Protection Plan (SWAP) and it is available at: [drive.google.com/file/d/oBotmPQ67k3NVNVIMeFRwS2VVaEU/view?resourcekey=O-r6bw-xPpQ7NcAEOhkE9TgQ](https://drive.google.com/file/d/oBotmPQ67k3NVNVIMeFRwS2VVaEU/view?resourcekey=O-r6bw-xPpQ7NcAEOhkE9TgQ)

## ESTIMATED SUSCEPTIBILITY

Moderately High

## POTENTIAL CONTAMINATION SOURCES

EPA Superfund / Abandoned Contaminated sites,  
Past Mining Activity, Aboveground, Underground,  
and leaking storage sites, existing/Septic Systems



## GENERAL INFORMATION ABOUT DRINKING WATER

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 that the water poses a health risk. 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. 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 storm water 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 storm water 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 storm water runoff, and septic systems.

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.





# WATER QUALITY DATA TERMS AND ABBREVIATIONS

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

**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 more than 5 NTU is just noticeable to the typical person.

**Not Established (NE)** - Does not apply or not available.

**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.

**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.

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

**Running Annual Average (RAA)** - An average of Monitoring results for the previous 12 calendar months or previous four quarters Running Annual Average (LRAA).



# DRINKING WATER QUALITY DATA

The City of Aspen routinely monitors for contaminants in your drinking water according to Federal and State laws. The data presented in this report are the result of monitoring for the period of Jan. 1 to Dec.31, 2021 or from the most recent testing done in accordance with regulations. The Colorado Department of Public Health & Environment does not require us to monitor for all contaminants each year because the concentrations of some constituents are not expected to vary significantly from year to year or the City of Aspen's Source water and systems is not considered vulnerable to that type of Contaminant. Therefore, some of our data, though representative, may be more than one year old.

## CONSTITUENTS DETECTED

| Constituent             | Units             | MCL   | MCLG    | Result       | Violation (Yes/No) | Sample Date                           | Typical source of Constituent   |
|-------------------------|-------------------|---|---------|--------------|--------------------|---------------------------------------|---|
| Chlorine                | ppm               | MRDL=4  | MRDLG=4 | 0.75         | No                 | Minimum of 30 samples monthly in 2021 | Water additive used to control microbes; Measurable Residual Disinfectant |
| Fluoride                | ppm               | 4   | 4       | 0.58         | No                 | Daily 2021                            | Erosion of natural deposits; drinking water supplement                    |
| Sodium                  | ppm               | NE  | NE      | 3.64         | No                 | 2020                                  | Erosion of natural deposits   |
| Total Coliform Bacteria | Absent or present | No more than 5% of 30 Minimum samples can be positive | 0       | No positives | No                 | Jan.1 through Dec.31, 2021            | Naturally present in the Environment                                      |

| Constituent | Units | TT Requirement                                 | Result  | Violation (Yes/No) | Sample Date          | Typical source of Constituent                                       |
|-------------|-------|--|---|--------------------|----------------------|---|
| Turbidity   | NTU   | Not to exceed 1 NTU for any single measurement | Highest Single measurement: 0.202 NTU                 | No                 | Continuously 2021    | Soil Runoff/ Snowmelt   |
| Turbidity   | NTU   | 95% of Monthly sample must be ≤ 0.3 NTU        | Lowest Monthly % of samples meeting TT standard: 100% | No                 | Continuously in 2021 | Water additive used to control microbes; residual disinfectant rule |
| Chlorine    | ppm   | 95% of Months samples must be at least 0.2 ppm | Lowest Monthly % of samples meeting TT standard: 100% | No                 | Continuously in 2021 | Water additive used to control microbes; residual disinfectant rule |

| Constituent | Units | AL | 90th Percentile | Number of sites over AL | Violation (yes/No) | Sample Date | Typical source of Constituent                                      |
|-------------|-------|----|-----------------|-------------------------|--------------------|-------------|--|
| Lead        | ppb   | 15 | 0.7             | 0                       | No                 | 2021        | Corrosion of household plumbing system, erosion of natural deposit |

| Constituent            | Units | MCL | MCLG | Average | Range of all samples | Violation* (yes/No) | Sample Date    | Typical source of Constituent            |
|------------------------|-------|-----|------|---------|----------------------|---------------------|----------------|--|
| Haloacetic Acids       | ppb   | 60  | NE   | 10.94   | 4.85 - 23.2          | No                  | Quarterly 2021 | Byproduct of drinking water disinfection |
| Total Trihalo-methanes | ppb   | 80  | NE   | 10.86   | 4.8 - 18.7           | No                  | Quarterly 2021 | Byproduct of drinking water disinfection |

\*Compliance based on LRAA



## DISINFECTION BYPRODUCT PRECURSORS – TOTAL ORGANIC CARBON REMOVAL RATIO

| Water Treatment Plant        | Compliance Factor (minimum RAA)* | RAA  | Violation (yes/No) | Sample Date    | Typical source of Constituent        |
|------------------------------|----------------------------------|------|--------------------|----------------|--------------------------------------|
| Castle Creek Treatment Plant | 1.0                              | 1.03 | No                 | Quarterly 2021 | Naturally present in the Environment |

\*If Minimum ration not met and no violation identified then the system achieved compliance using alternative criteria



## LEAD TESTING INFORMATION

If present, elevated levels of lead can cause serious health problems (especially for pregnant women and young children). Lead in drinking water comes primarily from materials and components associated with Service lines and home plumbing. The City of Aspen provides high-quality drinking water that does not promote any leaching or corrosion leading to higher levels of Lead. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking.

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 [epa.gov/safewater/lead](https://epa.gov/safewater/lead).



## 2021 VIOLATION

Findings from the routine drinking water sanitary survey performed by the Colorado Department of Public Health and Environment on September 8 and 9, 2021 resulted in notification to Aspen Water Department on September 30, 2021, resulted in the below violations.

These violations were not Public Health emergencies and there were no adverse health impacts from any of the violations listed. Utility customers water always remained safe and no alternate water source was required. All of these actions were remedied, and the system was back in compliance in October 2021. The City of Aspen continues to monitor water quality 24 hours a day, seven days a week, to ensure the water is safe to drink.

This notification complies with federal and state laws requiring water systems to notify customers when a drinking water standard is not in compliance.

**Backflow Assembly Testing Compliance Ratio** - The state drinking water program requires that all public drinking water systems test a percentage of the backflow prevention devices annually. For 2020, the passing percentage ratio was 80%. The City of Aspen received a violation because our water system had completed only 72% compliance in testing by the required date; thus, we did not meet the required percentage. The situation was resolved on October 13, 2021, and the City continuously reaches out to homeowners and property managers, and backflow testers to ensure backflow assembly testing is performed and certified, then submitted to the water department.

**Storage Tank Inspection Plan** - An overflow screen on the Thunderbowl Water Storage Tank was damaged when an unidentified source covered it with boulders and rock, resulting in an approximate 4-inch cut in the screen.

Repair was completed September 16, 2021, before the issuance of the official violation notification. The system is now compliant. The storage tank management plan has been updated to ensure that defect repair timelines address the coordination of obtaining necessary materials and equipment.

**Monitoring & Recordkeeping and Data Verification** - The City is required to calibrate their turbidimeters quarterly or more per the manufacturer's recommendation. One of the turbidimeters was missing a calibration for the second quarter. Reminders have been set to ensure compliance going forth.

**Finished Water Storage - Minimum Number of Period Storage Tank Inspections** - At time of inspection the City's periodic tank inspection logbook noticed there were two inspections on the Tiehack storage tank in 2020 that were performed less than 60 days after the first. The City met the criteria of two inspections for the year 2020, but will need to ensure they are not within 60 days of each other going forward.

For further questions contact:

Aspen Water Customer Care  
City of Aspen Utilities Department  
500 Doolittle Drive, Aspen CO 81611  
970-920-5110, [Justin.Forman@aspen.gov](mailto:Justin.Forman@aspen.gov)

*Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in public places or by distributing copies by hand.*





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[ASPEN.GOV](http://ASPEN.GOV)