

MOUNTAIN WATER AND SANITATION DISTRICT

2017 Drinking Water Quality Report For Calendar Year 2016

Public Water System ID # CO0130100

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

We are pleased to present to you this year's water quality report. Our constant goal is to provide you with a safe and dependable supply of drinking water. Please contact **Launa Rae Warinner** at 303-838-1800 with any questions about the Drinking Water Consumer Confidence Rule (CCR), or for public participation opportunities that may affect the quality of the District's drinking water.

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. 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 <http://water.epa.gov/drink/comtaminants>.

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised 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**, such as viruses and bacteria that may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.
- **Inorganic contaminants**, such as 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** that may come from a variety of sources, such as agriculture, urban storm water runoff, and residential uses.
- **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.
- **Radioactive contaminants**, that can be naturally occurring or be the result of oil and gas production and mining activities.

In order to ensure that tap water is safe to drink, the 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

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 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 <http://www.epa.gov/safewater/lead>.

Source Water Assessment & 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 <http://wqcdcompliance.com/ccr>. The report is located under "Source Water Assessment Reports," and then "Assessment Report by County." Select **Jefferson** County and find **013100; MOUNTAIN WSD** or by contacting **Launa Rae Warinner** at 303-838-1800. 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 that 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 come from forests, roads and septic systems.

Please contact us to learn more about what you can do to help protect your drinking water sources, any questions about the Drinking Water Consumer Confidence 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.

Our Water Sources

| Source | Water Type |
|----------------|--------------|
| WELL SA-1 | Ground Water |
| WELL SA-2 | Ground Water |
| WELL SA-3 | Ground Water |
| WELL 21-A | Ground Water |
| WELL 17-5 | Ground Water |
| WELL KVS | Ground Water |
| WELL TRACT A/B | Ground Water |
| WELL SKV | Ground Water |
| WELL TRACT C | Ground Water |
| WELL 17-1 | Ground Water |
| WELL 121-5 | Ground Water |
| WELL 123-5 | Ground Water |
| WELL 38-1 | Ground Water |
| WELL TRACT A | Ground Water |
| WEL 5-2 | Ground Water |
| WELL 5-1 | Ground Water |
| WELL 26-6 | Ground Water |

Terms and Abbreviations

The following definitions will help you understand the terms and abbreviations used in this report:

- **Parts per million (ppm) or Milligrams per liter (mg/L)** - one part per million corresponds to one minute in two years or a single penny in \$10,000.
- **Parts per billion (ppb) or Micrograms per liter (ug/L)** - one part per billion corresponds to one minute in 2,000 years, or a single penny in \$10,000,000.
- **Parts per trillion (ppt) or Nanograms per liter (nanograms/L)** - one part per trillion corresponds to one minute in 2,000,000 years, or a single penny in \$10,000,000,000.
- **Parts per quadrillion (ppq) or Picograms per liter (picograms/L)** - one part per quadrillion corresponds to one minute in 2,000,000,000 years or one penny in \$10,000,000,000,000.
- **Picocuries per liter (pCi/L)** - picocuries per liter is a measure of the radioactivity in water.
- **Nephelometric Turbidity Unit (NTU)** - nephelometric turbidity unit is a measure of the clarity or cloudiness of

water. Turbidity in excess of 5 NTU is just noticeable to the average person.

- **Action Level (AL)** - the concentration of a contaminant, which, if exceeded, triggers treatment and other regulatory requirements.
- **Treatment Technique (TT)** - A treatment technique is a required process intended to reduce the level of a contaminant in drinking water.
- **Maximum Contaminant Level Goal (MCLG)** - The “Goal” is 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 Contaminant Level (MCL)** - The “Maximum Allowed” is the highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.
- **Maximum Residual Disinfectant Level Goal (MRDLG)** - The level of a drinking water disinfectant, below which there is no known or expected risk to health. MRDLG's do not reflect the benefits of the use of disinfectants to control microbial contaminants.
- **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.
- **Average of Individual Samples (x-bar)** – The typical value. Mathematically it is the sum of values divided by the number of samples
- **Range of Individual Samples (R)** – The lowest value to the highest value.
- **Number of Samples (n)** – The number or count of samples.
- **Violation (No Abbreviation)** - A failure to meet a Colorado Primary Drinking Water Regulation.
- **Formal Enforcement Action (No Abbreviation)** - An escalated action taken by the State (due to the risk to public health, or the number and/or severity of violations) to bring a non-compliant water system back into compliance.
- **Gross Alpha, Including RA, Excluding RN & U** - This is the gross alpha particle activity compliance value. It includes radium-226, but excludes radon 222 and uranium.
- **Variance and Exemption (V/E)** - Department permission not to meet a MCL, or treatment technique under certain conditions.
- **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).
- **Not Applicable (N/A)** - Does not apply or not applicable.

Detected Contaminants

MOUNTAIN WATER AND SANITATION DISTRICT (“MWSD”) 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, 2015 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. The “Range” column in the table(s) below will show a single value for those contaminants that were sampled only once. 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, that means that MWSD did not detect any contaminants 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.

| Contaminant Name | Time Period | Results | Number of Samples Below Level | Sample Size | TT Violation | MRDL |
|------------------|----------------|--|-------------------------------|-------------|--------------|---------|
| Chlorine | December, 2016 | Lowest period percentage of samples meeting TT requirement: 100% | 0 | 1 | No | 4.0 ppm |

Lead and Copper Sampled in the Distribution System

| Contaminant Name | Time Period | 90 th Percentile | Number of Samples | Unit of Measure | Action Level | Sample Sites Above Action Level | AL or TT Violation? | Typical Sources |
|------------------|--------------------------|-----------------------------|-------------------|-----------------|--------------|---------------------------------|---------------------|---|
| COPPER | 07/09/2014 to 07/16/2014 | 0.37 | 10 | ppm | 1.3 | 0 | No | Corrosion of household plumbing systems; Erosion of natural deposits. |
| LEAD | 07/09/2014 to 07/16/2014 | 4 | 10 | ppb | 15 | 0 | No | Corrosion of household plumbing systems; Erosion of natural deposits. |

Disinfection Byproducts Sampled in the Distribution System

| Contaminant Name | Year | Average of Individual Samples | Range of Individual Samples (Lowest - Highest) | Number of Samples | Unit of Measure | MCL | MCLG | MCL Violation? | Typical Sources |
|-------------------------------|------|-------------------------------|--|-------------------|-----------------|-----|------|----------------|--|
| TOTAL HALOACETIC ACIDS (HAA5) | 2016 | 17.4 | 17.4 to 17.4 | 1 | ppb | 60 | N/A | No | By-product of drinking water disinfection. |
| Total Trihalomethanes (TTHM) | 2016 | 9.2 | 9.2 to 9.2 | 1 | ppb | 80 | N/A | No | Byproduct of drinking water disinfection. |

Radionuclides Sampled at the Entry Point to the Distribution System

| Contaminant Name | Year | Average of Individual Samples | Range of Individual Samples (Lowest - Highest) | Number of Samples | Unit of Measure | MCL | MCLG | MCL Violation? | Typical Sources |
|-------------------------------|------|-------------------------------|--|-------------------|-----------------|-----|------|----------------|------------------------------|
| COMBINED RADIUM (-226 & -228) | 2016 | 1.95 | 1 to 3.6 | 5 | pCi/L | 5 | 0 | No | Erosion of natural deposits. |

| | | | | | | | | | |
|------------------------------|------|------|-----------|---|-------|----|---|----|------------------------------|
| COMBINED URANIUM | 2016 | 9.04 | 0 to 21 | 5 | ppb | 30 | 0 | No | Erosion of natural deposits. |
| GROSS ALPHA, EXCL. RADON & U | 2016 | 5.28 | 0 to 13.8 | 5 | pCi/L | 15 | 0 | No | Erosion of natural deposits. |

Inorganic Contaminants Sampled at the Entry Point to the Distribution System

| Contaminant Name | Year | Average of Individual Samples | Range of Individual Samples (Lowest - Highest) | Number of Samples | Unit of Measure | MCL | MCLG | MCL Violation? | Typical Sources |
|------------------|------|-------------------------------|--|-------------------|-----------------|-----|------|----------------|---|
| BARIUM | 2016 | 0.04 | 0.04 to 0.04 | 1 | ppm | 2 | 2 | No | Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits. |
| CHROMIUM | 2016 | 1.0 | 1 to 1 | 1 | ppb | 100 | 100 | No | Discharge from steel and pulp mills; Erosion of natural deposits. |
| FLUORIDE | 2014 | 0.69 | 0.17 to 1.0 | 10 | ppm | 4 | 4 | No | Erosion of natural deposits; Water additive that promotes strong teeth; Discharge from fertilizer and aluminum factories. |
| NITRATE | 2016 | 1.19 | 0 to 2.6 | 9 | ppm | 10 | 10 | No | Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits. |
| SELENIUM | 2016 | 1 | 1 to 1 | 1 | 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 of Individual Samples | Range of Individual Samples (Lowest - Highest) | Number of Samples | Unit of Measure | Secondary Standard |
|------------------|------|-------------------------------|--|-------------------|-----------------|--------------------|
| SODIUM | 2016 | 7.1 | 7.1 to 7.1 | 1 | ppm | N/A |
| | | | | | | |
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| | | | | | | |

Violations, Significant Deficiencies and Formal Enforcement Actions

No Violations, Significant Deficiencies or Formal Enforcement Actions to Report