

## Customers Have a Voice in Decisions

We encourage customer participation in decisions affecting our drinking water.

- Utilities Board – our governing body – meets the Wednesday between City Council meetings, 1 p.m. at the Plaza of the Rockies South Tower, 121 S. Tejon St., fifth floor. Call 719-448-4800 or visit [www.csu.org](http://www.csu.org) for information.

For more water quality information, questions about this report or to request additional copies for posting in common areas, call 719-668-4560.

### En Español

Esta información acerca de su agua potable es importante. Si usted no puede leer esto en inglés, por favor pídala a alguien que le traduzca esta importante información o llame a Cuidado al Cliente al número 719-448-4800.



Colorado Springs Utilities  
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[www.csu.org](http://www.csu.org)



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# 2009 WATER QUALITY REPORT



PWSID#CO0121150

## Water Sources

Your water is blended from multiple sources, including surface water, ground water, and purchased water. Your water source may vary throughout the year.

With no major water source nearby, much of our raw water collection system originates from nearly 200 miles away, near Aspen, Leadville, and Breckenridge. Almost 75 percent 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 this area 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 to protect it from contamination, such as herbicides, pesticides, heavy metals, and other chemicals. After the long journey, water is stored locally at Rampart Reservoir and the Catamount reservoirs on Pikes Peak before it is treated at one of our water treatment plants and delivered to your home or business.

In addition to our transmountain water supply, we use local water sources.

### Local surface water originates from:

- North and South Slopes of Pikes Peak
- North and South Cheyenne Creeks
- Fountain Creek
- Monument Creek – Pikeview Reservoir
- Northfield Watershed

### Local groundwater sources consist of:

- Four wells (900-1,000 feet deep) pumped from the Arapahoe aquifer
- One well (700 feet deep) pumped from the Denver aquifer
- One well (1,700 feet deep) pumped from the Laramie-Fox Hills aquifer

- Four wells (46-52 feet deep) pumped from the Widefield aquifer.\*

\*The Widefield aquifer has not been in use since Sept. 2004.

Treated surface water is also purchased from the Fountain Valley Authority, or FVA (PWSID#CO0121300). FVA receives water from the Fryingpan-Arkansas Project – a system of pipes and tunnels that collects water in the Hunter-Fryingpan Wilderness Area near Aspen. Waters collected from this system are diverted to the Arkansas River, near Buena Vista, and then flow 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.

For more source water information visit [www.csu.org](http://www.csu.org).

## Colorado Source Water Assessment and Protection (SWAP)

The Colorado Source Water Assessment and Protection (SWAP) program is a preventative approach to protecting public drinking water supplies. The Colorado Department of Public Health & Environment provided us with a Water Assessment Report for our water sources. This report included our surface water sources, our purchased water source (FVA PWSID#CO0121300) and also our wells on the Widefield aquifer (which have not been in use since Sept. 2004).

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

- 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
- Above ground, 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

Colorado Springs Utilities is dedicated to protecting our source waters and ensuring quality finished water is delivered to our customers. The results of the source water assessment are not a reflection of our treated water quality, the water you receive at the tap, but rather a rating of the susceptibility of contamination under the guidelines of the Colorado SWAP program.

For source water assessment information or to download a complete report, visit the Colorado Department of Public Health & Environment website at [www.cdphe.state.co.us/wq/sw/swaphom.html](http://www.cdphe.state.co.us/wq/sw/swaphom.html).

## Possible Water Contaminants

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, 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 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 by-products of industrial processes and petroleum production, and also may come from gas stations, urban stormwater runoff, and septic systems.
- Radioactive contaminants that can be naturally-occurring or be the result of oil and gas production and mining activities.

To ensure that tap water is safe to drink, the EPA prescribes regulations which limit 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.

## Vulnerable Populations Advisory

Some individuals may be more vulnerable to contaminants in drinking water than the public in general. 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. 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 from their health care providers about drinking water.

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, or visit [www.epa.gov/safewater](http://www.epa.gov/safewater).

## Information About Radon

Radon is a radioactive gas that you cannot see, taste or smell. It is found in the soil throughout the United States. Radon can move up through the ground and into a home through cracks and holes in the foundation. Radon can reach high levels in all types of homes. Radon can also be released from tap water from showering, washing dishes and other household activities. Compared to radon entering the home through the soil, radon entering the home through tap water will be, in most cases, a small source of radon in the indoor air.

Radon is a known human carcinogen. Breathing air that contains radon can lead to lung cancer. Drinking water that contains radon may also cause increased risk of stomach cancer. If you are concerned about radon in your home, test the air in your home. Testing is inexpensive and easy. Fix your home if the level of radon in your air is four (4) picocuries per liter of air (pCi/L) or higher. There are simple ways to fix a radon problem that are relatively inexpensive. For additional information, call the state radon program at 303-692-3030, call the

EPA Radon 24 hr. Hotline at 1-800-SOS-RADON, or visit [www.epa.gov/iaq/radon](http://www.epa.gov/iaq/radon).

• *Note: In 2004, the radon level from the Woodmen water treatment plant was 32 pCi/L.*

## Information About Lead

Infants and young children are typically more vulnerable to lead in drinking water than the general population. 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 elevated lead levels in your home's water, flush your tap for 30 seconds to 2 minutes before using tap water. You may also wish to have your water tested. Additional information is available from the Safe Drinking Water Hotline at 1-800-426-4791.

## Cryptosporidium Information

*Cryptosporidium* is a microbial pathogen found in surface water throughout the United States. Although filtration removes *cryptosporidium*, the most commonly used filtration methods cannot guarantee 100 percent removal. Our monitoring indicates the presence of these organisms in our source water. However, no organisms were detected in the treated water distributed from our water treatment plants. Current test methods do not allow us to determine if the organisms are dead or if they are capable of causing disease. Ingestion of *cryptosporidium* may cause *cryptosporidiosis*, an abdominal infection. Symptoms of infection include nausea, diarrhea and abdominal cramps. Most healthy individuals can overcome the disease within a few weeks. However, immuno-compromised people are at greater risk of developing the life-threatening illness. We encourage immuno-compromised individuals to consult their doctor regarding appropriate precautions to take to avoid infection. *Cryptosporidium* must be ingested to cause disease, and it may be spread through means other than drinking water.

## Explanation of the Water Quality Results Table

This table includes both regulated and unregulated substances found in our water supply. It outlines the name of each substance, the highest level allowed by regulation (MCL), the ideal goals (MCLG) for public health, the amount detected and the likely sources of such contamination.

### Notes

- The state requires Springs Utilities to monitor for certain contaminants less than once a year because the concentration of the contaminants are not expected to vary significantly from year to year, or the system is not considered vulnerable to this type of contamination. Some of the data, though representative, may be more than one year old.

- The state has issued Springs Utilities and our purchased water system (FVA) waivers for asbestos, cyanide, dioxin, glyphosate, nitrite and all unregulated inorganic contaminants.

## Definitions

- Action Level (AL):** The concentration of a contaminant, if exceeded, triggers treatment or other requirements a water system must follow.
- 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 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 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.
- N/A:** Not Applicable

- Nephelometric Turbidity Unit (NTU):** Nephelometric turbidity unit is a measure of the clarity of water. Turbidity in excess of five NTU is just noticeable to the average person.
- Non-Detect (ND):** Laboratory analysis indicates that the constituent is not present.
- Parts per billion (ppb):** One part per billion corresponds to one minute in 2,000 years or one penny in \$10,000,000.
- Parts per million (ppm):** One part per million corresponds to one minute in two years or one penny in \$10,000.
- Picocuries per liter (pCi/L):** A measure of radioactivity in water.
- Treatment Technique (TT):** A treatment technique is a required process intended to reduce the level of a contaminant in drinking water.
- Waiver:** State permission not to test for a specific contaminant.

This table shows the combined results of our monitoring for six water treatment plants for the period of January 1 through December 31, 2008, unless otherwise noted.

Contaminant	MCL	MCLG	Units	Level Detected (Range)	Violation Yes or No	Sample Dates	Likely Source of Contamination
<b>Microbiological Contaminants</b>							
Total Coliform Bacteria	5% of monthly samples are positive	0	Absent or Present	1.75% (July 2008)	No	Jan-Dec 2008	Naturally present in the environment
Total Organic Carbon	TT	N/A	N/A	N/A**	No	Running Annual Average	Naturally present in the environment

\*\* The Disinfectants and Disinfection Byproducts Rule provides several alternative compliance criteria besides the TOC removal ratios. We did not report TOC removal ratios because we met an alternative compliance criteria. The alternative compliance criteria that we use is 40CFR §141.135 (a)(2)(ii). Our treated water TOC levels are <2.0 ppm calculated quarterly as a running annual average.

Turbidity	TT = 1 NTU	N/A	NTU	1.00 (June 2008)	No	Jan-Dec 2008	Soil runoff.
Lowest Monthly Percent of readings above the TT limits	TT = 95% of samples <0.3 NTU			99% (June 2008)			

Turbidity is a measure of the cloudiness of the water. We monitor turbidity because it is a good indicator of the effectiveness of our filtration system.

<b>Radionuclides</b>							
Combined Radium	5	0	pCi/L	2.2 (ND-2.2)	No	Jan, Apr, Jul, Oct, 2004 & Feb, May, Aug, Nov 2005	Erosion of natural deposits.
Uranium	30	0	ppb	0.8 (ND-0.8)	No	Feb, May, Aug, Nov 2005	Erosion of natural deposits.

<b>Lead and Copper</b>							
Copper***	AL=1.3	1.3	ppm	0.242	No	Jun-Jul 2006	Corrosion of household plumbing systems; erosion of natural deposits
Lead***	AL=15	0	ppb	7.22	No	Jun-Jul 2006	Corrosion of household plumbing systems; erosion of natural deposits

\*\*\* No sites exceeded the Action Level out of 54 sites sampled for copper; one (1) site out of 54 exceeded for Lead. The reported detected level is the average at the 90<sup>th</sup> percentile. The 90<sup>th</sup> percentile is the 49<sup>th</sup> largest result out of the 54 samples taken.

<b>Inorganic Contaminants</b>							
Barium	2	2	ppm	0.0429 (0.0159-0.0429)	No	Aug 2008	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Fluoride	4	4	ppm	1.39 (0.16-1.39)	No	Aug 2008	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
Nitrate (as Nitrogen)	10	10	ppm	0.18 (ND-0.18)	No	Aug 2008	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits

<b>Unregulated Inorganic Contaminants</b>							
Sodium	N/A	N/A	ppm	46.2 (8.72-46.2)	N/A	Aug 2008	Erosion of natural deposits

<b>Volatile Organic Contaminants</b>							
Chlorine	MRDL =4.0	MRDLG =4.0	ppm	0.44 (ND-1.4)	No	Jan-Dec 2008	Water additive used to control microbes
Haloacetic Acids 5 (HAA5)	60	N/A	ppb	40 (25.6-58.2)	No	Jan, Apr, Jul, Oct 2008	By product of drinking water disinfection
Total Trihalomethanes (TTHM)	80	N/A	ppb	41 (25.5-61.7)	No	Jan, Apr, Jul, Oct 2008	By product of drinking water disinfection

<b>Regulated Organic Contaminants</b>							
Hexachlorocyclopentadiene	50	50	ppb	0.1 (ND-0.1)	No	May, Jul, Oct 2007 & Jan, Apr, Jul 2008	Discharge from chemical factories

<b>Unregulated Organic Contaminants</b>							
Bromodichloromethane	N/A	N/A	ppb	4.7 (0.9-4.7)	N/A	May 2007 & Jul 2008	By product of drinking water disinfection
Bromoform	N/A	N/A	ppb	1.3 (ND-1.3)	N/A	May 2007 & Jul 2008	By product of drinking water disinfection
Chlorodibromomethane	N/A	N/A	ppb	2.7 (ND-2.7)	N/A	May 2007 & Jul 2008	By product of drinking water disinfection
Chloroform	N/A	N/A	ppb	27 (1.4-27)	N/A	May 2007 & Jul 2008	By product of drinking water disinfection

<b>Unregulated Contaminant Monitoring Rule (UCMR2)</b>							
N-Nitrosodimethylamine	N/A	N/A	ppb	0.0035 (0.0021-0.0063)	N/A	Mar, Jun, Sep, Dec 2008	Industry; cosmetics; toiletry products; cleansers; by product of natural chemical reactions

The purpose for UCMR2 is to assist EPA in determining the occurrence of unregulated contaminants in drinking water and whether future regulation is warranted. UCMR2 required monitoring for 25 contaminants; the only contaminant detected in our system is the one listed.

## Additional Information

With the growing interest and concerns associated with Pharmaceuticals, Personal Care Products (PPCPs) and Endocrine Disrupting Compounds (EDCs) in surface waters and drinking water across the nation, Colorado Springs Utilities voluntarily conducted sampling of its drinking water supply and treatment systems. A total of 9 water samples were collected from our primary drinking water treatment plants (McCullough, Mesa and Ute Pass), our purchased water treatment plant (FVA), and from the 33rd Street Pump Station (which brings water from Fountain Creek to the Mesa plant). Samples were taken from the influent water (to represent the raw or source water) as well as from the finished (treated) water.

The samples were analyzed by an independent laboratory for 24 different chemicals. Some examples of the chemicals tested include: acetaminophen (non-prescription pain reliever), Bisphenol A (used in the manufacture of plastic water bottles), caffeine, DEET (insect repellent), and hormones such as progesterone and testosterone.

The laboratory results showed that 13 of the 24 compounds were detected in the parts per trillion (ppt) range. (A ppt is equivalent to 1 second in 32,000 years.) Of these 13, 7 were detected in the treated water. The range of concentrations detected in the influent samples was 1 ppt to 29 ppt; the range detected in the treated water samples was 3.9 ppt to 10 ppt.

### There are a number of important points to keep in mind with this data and with this issue in general:

- There are currently no established MCLs or regulatory requirements to test for these types of compounds.
- The mere presence of these types of compounds in such trace amounts does not indicate a problem and research to date has not linked these concentrations to adverse health effects.
- The list of compounds that were analyzed was by no means comprehensive but intended to be representative; there are thousands of these types of compounds in existence.
- Colorado Springs Utilities currently monitors other organic compounds that have established MCLs. Our drinking water has not exceeded any of these established MCLs.

You can help us control PPCPs and EDCs in water supplies by properly disposing of products containing these compounds. Do not use your drains to throw away medications. The El Paso County Household Chemical Waste Collection Facility will properly dispose of pills and liquids for free. All pill form medication must be removed from their containers and placed together in a clear, sealed plastic bag. Liquids may remain in their original bottles with the labels removed or personal information blacked out. For more information on materials accepted, contact the El Paso County Household Chemical Waste Collection Facility directly at 719-520-7878 or visit [www.elpasoco.com](http://www.elpasoco.com).