

# CITY OF CAÑON CITY 2013 Drinking Water Quality Report

## for Calendar Year 2012

**Public Water System ID: CO0122100**

**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 **ROBERT W HARTZMAN** at **719-269-9019** with any questions about the Drinking Consumer Confidence Rule (CCR) or for public participation opportunities that may affect the water quality.

### **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 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/contaminants>.

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:** 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 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

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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 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 <http://wqcdcompliance.com/CCR>. The report is located under "Source Water Assessment Reports", and then "Assessment Report by County". Select **FREMONT County** and find **122100: CITY OF CAÑON CITY** or by contacting **ROBERT W HARTZMAN** at **719-269-9019**. 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 are listed on the next page.

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 Source

<u>Source</u>	<u>Source Type</u>	<u>Water Type</u>	<u>Potential Source(s) of Contamination</u>
ARKANSAS RIVER	INTAKE	SURFACE WATER	EPA Superfund Sites, EPA Abandoned Contaminated Sites, EPA Hazardous Waste Generators, EPA Chemical Inventory/Storage Sites, and EPA Toxic Release Inventory Sites; Permitted Wastewater Discharge Sites; Aboveground, Underground and Leaking Storage Tank Sites; Solid Waste Sites; Existing/Abandoned Mine Sites; and Concentrated Animal Feeding Sites. In addition, several Land Use/Land Cover Types include: Commercial/Industrial Transportation; High & Low Intensity Residential; Urban Recreation Grasses; Quarries/Strip Mines/Gravel Pits; Row Crops; Small Grains; Pasture/Hay; Deciduous Forest; Evergreen Forest; Mixed Forest; Septic Systems; and Road Miles

### Terms and Abbreviations

- **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.
- **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 90<sup>th</sup> 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.
- **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.
- **Parts per quadrillion = Picograms per liter (ppq = pg/L)** – One part per quadrillion corresponds to one minute in 2,000,000,000 years or one penny in \$10,000,000,000,000.
- **Not Applicable (N/A)** – Does not apply or not available.

### Detected Contaminants

The CITY OF CAÑON CITY routinely monitors for contaminants in your drinking water according to Federal and State laws. The following tables show all detections found in the period of **January 1 to December 31, 2012** 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 5 years appear in this report. If no tables appear in this section then no contaminants were detected in the last round of monitoring.

Microorganism Contaminants Sampled in the Distribution System							
Contaminant Name	Time Period	Results	Number of Samples	MCL	MCLG	MCL Violation	Typical Sources
Coliform (TCR)	Jul	2.22 % Positive Samples	45	No more than 5.0% positive samples per period (If sample size is greater than or equal to 40) <b><i>OR</i></b> No more than 1 positive sample per period (If sample size is less than 40)	0	No	Naturally present in the environment

Lead and Copper Sampled in the Distribution System								
Contaminant Name	Time Period	90 <sup>th</sup> Percentile	Number of Samples	Unit of Measure	90 <sup>th</sup> Percentile AL	Sample Sites Above AL	90 <sup>th</sup> Percentile AL Exceedance	Typical Sources
Copper	07/12/2011 to 07/15/2011	0.52	30	ppm	1.3	0	No	Corrosion of household plumbing systems; Erosion of natural deposits
Lead	07/12/2011 to 07/15/2011	4	30	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	Number of Samples	Unit of Measure	MCL	MCLG	Highest Compliance Value	MCL Violation	Typical Sources
Total Haloacetic Acids (HAA5)	2012	25.26	17.9 to 33.4	16	ppb	60	N/A	25.3	No	Byproduct of drinking water disinfection
Total Trihalomethanes (TTHM)	2012	30.46	13.5 to 48.5	16	ppb	80	N/A	30.5	No	Byproduct of drinking water disinfection
Chlorite	2012	0.23	0.02 to 0.48	12	ppb	1.0	.8	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	Number of Samples	Unit of Measure	TT Minimum Ratio	TT Violation	Typical Sources	
Total Organic Carbon Ratio	2012	1.34	1.00 to 1.96	12	Ratio	1.00	No	Naturally present in the environment	

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	Date/Month: Apr	Highest single measurement: 0.1 NTU	Maximum 1 NTU for any single measurement	No	Soil Runoff
Turbidity	Month: 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	Number of Samples	Unit of Measure	MCL	MCLG	MCL Violation	Typical Sources
Gross Alpha	2011	2.3	2.3 to 2.3	1	pCi/L	15	0	No	Erosion of natural deposits
Combined Radium	2011	0.1	0.1 to 0.1	1	pCi/L	5	0	No	Erosion of natural deposits
Combined Uranium	2011	2.1	2.1 to 2.1	1	ppb	30	0	No	Erosion of natural deposits

Inorganic Contaminants Sampled at the Entry Point to the Distribution System									
Contaminant Name	Year	Average	Range Low – High	Number of Samples	Unit of Measure	MCL	MCLG	MCL Violation	Typical Sources
Barium	2011	0.04	0.04 to 0.04	1	ppm	2	2	No	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Cyanide	2011	5	5 to 5	1	ppb	200	200	No	Discharge from steel/metal factories; discharge from plastic and fertilizer factories
Fluoride	2011	1.2	1.2 to 1.2	1	ppm	4	4	No	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
Nitrate	2012	0.08	0.08 to 0.08	1	ppm	10	10	No	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits

Volatile Organic Contaminants Sampled at the Entry Point to the Distribution System									
Contaminant Name	Year	Average	Range Low – High	Number of Samples	Unit of Measure	MCL	MCLG	MCL Violation	Typical Sources
Xylenes	2012	0.5	0.5 to 0.5	1	ppb	10,000	10,000	No	Discharge from petroleum factories; discharge from chemical factories

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

No Violations or Formal Enforcement Actions

### Additional Information

The City of Cañon City is currently partnering in a pilot project with the City of Florence, the Upper Arkansas Area of Council of Governments and the Colorado Rural Water Association to develop a Source Water Protection Plan (SWPP). The purpose of this pilot project is to minimize degradation of source water quality by integrating the SWPP and Non-Point Source planning efforts in the Upper Arkansas River Basin. The goal is to engage local public water providers, interested stakeholders, and local land planning agencies to proactively reduce contamination risks to source waters (all beneficial users' health, safety and water use value). In addition, the pilot project aims to improve water quality, reduce future treatment costs, promote sustainable recreation areas, and preserve and restore wetland and aquatic ecosystems for fish and wildlife and the enjoyment of future generations.

The pilot project includes development of an action plan for prioritizing source water assessment area water quality issues. Issues of concern identified that may have an impact on the source water quality include Transportation and Spills into the Arkansas River and its' tributaries resulting from automobile, truck and train traffic, On Site Wastewater Treatment Systems (septic tanks), Forest Health/Wildfires and Abandon Mines. The benefits of linking watershed planning and source water protection planning efforts include increased efficiency of the planning processes, get synergistic results with limited government funding, and efficient use of stakeholder time. The objective of the pilot project is to develop an Upper Arkansas River SWPP and NPS Program Integration Action Plan, which will be implemented by the local entities through a holistic watershed planning effort.

If you are interested in participating in the pilot project or have any questions, comments or concerns please contact Robert Hartzman at 719-269-9019.