

What's in our water?

To ensure that tap water is safe to drink, the U.S. Environmental Protection Agency prescribes regulations limiting the amount of certain contaminants in water provided by public water systems. Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of these contaminants does not necessarily indicate that the water poses a health risk.

How is our water purified?

First, untreated water is brought to the Whitlock Treatment Plant via a raw water pipeline from the Pueblo Reservoir. At the treatment plant, chemicals are used to remove objectionable tastes and odors from the raw water. Next, the raw water is disinfected and clarified to remove suspended particles and biological contaminants. Finally, the water is filtered and fluoridated to meet state and federal drinking water standard requirements. The high quality drinking water reaches you through our distribution system.

Special Health Issues

Some people may be more vulnerable to contaminants in drinking water than the general population.

Immunocompromised persons such as those with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants may be particularly at risk from 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 EPA/CDC (Centers for Disease Control) guidelines on appropriate means to lessen the risk of infections by cryptosporidium and microbiological contaminants, call the **EPA Safe Drinking Water Hotline at (800) 426-4791**.

For more information on Pueblo's water quality, log on to www.pueblowater.org and click on "Your Water" or call 719-584-0265.

Get Involved!

You are invited to participate in our public board meetings to learn more about our drinking water and to voice your concerns. The Water Board generally meets at 2:00 p.m. on the third Tuesday of each month at 319 W. Fourth Street, with sessions open to the public. Inquiries about public participation can be made by calling 584-0212.

Board of Water Works of Pueblo, Colorado

2010 Water Quality Report



A report to our customers regarding the quality of water provided by the Board of Water Works of Pueblo, Colorado during 2010.

Este reporte demuestra a nuestros clientes la calidad del agua, que el Board of Water Works of Pueblo, sirvió a su comunidad durante el año 2010. Si tiene alguna pregunta sobre este reporte, llame a 584-0250, durante las horas de trabajo.

319 W. 4th St. - P.O. Box 400
Pueblo, CO 81002 - (719)584-0250
Public Water System ID #CO0151500

Source Water Information

The Pueblo Board of Water Works has two drinking water sources defined as "surface waters".

Water originating as rivers, lakes, streams and reservoirs in the mountains of Colorado is conveyed via the Arkansas River to Pueblo Reservoir. The Pueblo Board of Water Works uses Pueblo Reservoir and the Arkansas River below Pueblo Reservoir as its drinking water sources.

The Source Water Assessment Program

The Colorado Department of Public Health and Environment (CDPHE) has provided us with a **Source Water Assessment Report** for our water supply. You may obtain a copy of the report by visiting www.cdph.state.co.us/wq/sw/swaphom/html, or by contacting Don Colalancia at 719-584-0265.

Customers should know that the Pueblo Board of Water Works diligently monitors the sources of your drinking water starting from the mountainous watershed, down the Arkansas River to Pueblo Reservoir, through the Whitlock Treatment Facility and on to your tap to provide the highest quality of drinking water possible.

Special Information About Lead

The results of lead and copper testing in the data table (see other side of document) were obtained from testing 50 homes in the distribution system at highest risk for lead and copper contamination in the 2008-2010 monitoring period. The next monitoring period will begin in 2011.

Infants and young children are typically more vulnerable to lead in drinking water than the general population. Infants and children who drink water containing lead in excess of the action level could experience delays in their physical or mental development.

Children could show slight deficits in attention span and learning abilities. Adults who drink this water over many years could develop kidney problems or high blood pressure.

It is possible that lead levels at your home may be higher than at 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, you may wish to have your water tested. Flushing your tap for 30 seconds to 2 minutes before using tap water for consumption will decrease the amount of lead if it is present.

Additional information is available from the Safe Drinking Water Hotline (800-426-4791).

Substances sometimes found in drinking water

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 can acquire naturally occurring minerals, and in some cases, radioactive material; and substances resulting from the presence of animals or from human activity.

Substances 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.

Cryptosporidium is a microbial pathogen found in surface water throughout Colorado and the United States. The Pueblo Board of Water Works has monitored for cryptosporidium in raw and finished water for over nine years, and has never detected the organism in our system's finished water. The organism has been detected in the Arkansas River in the past; however, 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 may include nausea, diarrhea, and abdominal cramps. Most healthy individuals can overcome the disease within a few weeks. However, immunocompromised people are at greater risk of developing life-threatening illness. We encourage immunocompromised people to consult their doctors regarding the 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.

Detected Contaminants

The Board of Water Works of Pueblo, Colorado 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, 2010 unless otherwise noted. The State of Colorado requires us to monitor for certain contaminants less than once per year because the concentration of these contaminants is 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. Please note that only **detected** contaminants appear in this report. If no tables appear in this section, then the Board of Water Works of Pueblo, Colorado did not detect any contaminants in the last round of monitoring. Violations or Enforcement Actions, if any, will appear in a separate table following the "definitions" section. **No violations or enforcement actions occurred in 2010.**

Disinfectants	Monitoring Period	TT Requirement	TT Violation	Typical Sources
Chloramine	12/1/2010 to 12/31/2010	For two consecutive months, 95% of samples must be >0.001 ppm	No	Water Additive used to control microbes.

Inorganic Contaminants	Collection Date	Highest Value	Range	Unit	MCL	MCLG	Typical Sources
Barium	12/9/2010	0.054	0.054	ppm	2	2	Natural deposit erosion, metals refinery discharge.
Fluoride	12/9/2010	0.9	0.9	ppm	4	4	Water additive which promotes strong teeth
Nitrate	10/11/2010	0.17	0.17	ppm	10	10	Leaching from septic systems, fertilizer use
Nitrate-Nitrite	10/11/2010	0.17	0.17	ppm	10	10	Leaching from septic systems, fertilizer use
Selenium	12/9/2010	3.5	3.5	ppb	50	50	Natural deposit erosion

Turbidity	Sample Date	Level Found	TT Requirement	Typical Sources
Turbidity	2/4/2010	Highest single measurement = 0.23 NTU	Maximum 1.0 NTU for any single measurement	Soil runoff
	Monthly	Lowest monthly percentage of samples meeting TT standard for our technology = 100%	In any month, at least 95% of samples must be less than 0.30 NTU	

Disinfection By-Products	Date	Average	Range	Highest RAA	Unit	MCL	MCLG	Typical Sources
Total Trihalomethanes (TTHM)	2010	9.79	4.5-16.8	9.8	ppb	80.0	N/A	Chlorination by-product
Haloacetic Acids (HAA)	2010	13.9	7.08-23.2	14	ppb	60.0	N/A	Chlorination by-product

Disinfection By-Product Precursors	Year	Compliance Description	Requirement	Typical Sources
Carbon, Total	2010	We demonstrated compliance with alternative criteria.	TT	Organic material naturally present in the environment

Lead and Copper	Collection Date	90th Percentile	Unit	AL	Typical Sources
Lead	2008-2010	7	ppb	15	Household plumbing system corrosion
Copper, free	2008-2010	0.411	ppm	1.3	Household plumbing system corrosion

Secondary Contaminants	Collection Date	Highest Value	Range	Units	Secondary Standard
Sodium	12/9/2010	17.9	17.9	mg/L	10000
MPA on raw and finished water	6/16/2010	1.5	1.5	Log Removal Ratio	N/A

Listed in the table are regulated and unregulated contaminants detected in Pueblo's drinking water in 2010.

All are below allowed levels.

Not listed are hundreds of other contaminants that were tested for but not detected in 2010.

For a complete list of analyses and test results for Pueblo's drinking water, please visit our web site at www.pueblowater.org

To help you better understand the terms used in the table above, we have provided the following definitions:

AL --- Action Level --The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.

MCL---(Maximum Contaminant Level) -The highest level of a contaminant that is allowed in drinking water. MCL's are set as close to the MCLG'S as feasible using the best available treatment technology.

MCLG---(Maximum Contaminant Level Goal) -The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLG's allow for a margin of safety.

MPA -- (Microscopic Particulate Analysis) - An analysis of surface water organisms and indicators in water that can be used to determine performance of a surface water treatment plant.

MRDL---(Maximum Residual Disinfection Level)- 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.

MRDLG---(Maximum Residual Disinfectant Level Goal)- 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.

N/A---Not applicable

NTU---(Nephelometric Turbidity Unit)--Turbidity is a measure of the cloudiness of water. We monitor it because it is a good indicator of the effectiveness of our plant's filtration system.

ppm-(Parts per Million=Milligrams per Liter)- One part per million corresponds to one minute in two years.

ppb- (Parts per Billion=Micrograms per Liter)- One part per billion corresponds to one minute in 2000 years.

Pci/L---(Picocuries per liter)-A measure of radioactivity.

RAA---(Running Annual Average)- An average of monitoring results for the previous twelve months.

Secondary Contaminants---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
EPA recommends these standards but does not require water systems to comply.

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

Variations or Exemptions-- Permission to not meet an MCL, MRDL, AL or a treatment technique granted by the state or EPA.

Waiver: State permission not to test for a specific contaminant.