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. U.S. Food & Drug Administration regulations establish limits for contaminants in bottled water, which must provide the same protection for public health. 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?

Water is purified using several treatment processes. First, untreated water is brought to the Whitlock Treatment Plant via a raw water pipeline from the Pueblo Reservoir. At the treatment plant chemical processes 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**.

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 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.

www.pueblowater.org

Board of Water Works of Pueblo, Colorado

2008 Water Quality Report

Board of Water Works of Pueblo, Colorado

A report to our customers regarding the quality of water provided by the Board of Water Works of Pueblo, Colorado during 2008.

Este reporte demuestra a nuestros clientes la calidad del agua, que el Board of Water Works of Pueblo, sirvío a su comunidad durante el año 2008. Si tiene alguna pregunta sobre éste 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 the Pueblo reservoir. The Pueblo Board of Water Works uses the Pueblo reservoir and the Arkansas River below the 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.cdphe.state.co.us/wq/sw/swaphom/html, or by contacting Don Colalancia at 719-584-0265.

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 drinking water is delivered to your homes. In addition, the source water assessment results provide a starting point for developing a source water protection plan.

The assessment takes into account the size of the watershed and the possible points of contamination of the water by "discrete" entities in the watershed (such as chemical storage sites, abandoned or existing mining operations, hazardous waste generators, permitted wastewater discharge sites) and "dispersed" entities (such as runoff from pasture lands, residential areas or forested land).

The assessment also indicates that the physical characteristics of the watershed itself and the location of source waters in the watershed provide a great deal of buffering capacity (mitigating a possible contamination event) and contribute to a "moderately low" vulnerability rating for possible contamination.

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

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 WaterWorks of Pueblo, CO 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, 2008 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 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, if any, are reported in the next section of this report. Please note that only detected contaminants appear in this report. If no tables appear in this section, that means that The Board of Water Works of Pueblo, CO did not detect any contaminants in the last round of monitoring.

Microbiological	Result	MCL*	MCLG*	Possible Sources of Contamination
Total Coliform	In the month of April 0.70% of samples returned as positive.	No more than 5% positive monthly samples.	0	Naturally present in the environment

Inorganic Contaminants	Collection Date	Highest Value	Range	Unit	MCL	MCLG	Possible Sources of Contamination
Arsenic	3/31/2008	0.7	0.7	ppb	10	0	Natural deposit erosion
Barium	3/31/2008	0.055	0.055	ppm	2	2	Natural deposit erosion
Chromium	3/31/2008	1	1	ppb	100	100	Natural deposit erosion
Fluoride	3/31/2008	0.931	0.931	ppm	4	4	Water additive which promotes strong teeth
Nitrate	5/21/2008	0.338	0.338	ppm	10	10	Leaching from septic systems, fertilzer use
Selenium	3/31/2008	5	5	ppb	50	50	Natural deposit erosion

Turbidity	Sample Date	Level Found	TT Requirement*	Possible Sources of Contamination
Turbidity	3/13/2008	Highest single measurement = 0.12 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	Possible Sources of Contamination
Total Trihalomethanes (TTHM)	2008	11.73	4.88---21.98	20	ppb	80.0	N/A*	Chlorination by-product
Haloacetic Acids (HAA)	2008	19.9	13.19---26	26	ppb	60.0	N/A	Chlorination by-product

Disinfection By-Products	Year	Compliance Description	Requirement	Possible Sources of Contamination
Control of Disinfection By-Product Precursors	2008	We demonstrateed compliance with alternative criteria.	TT	Organic material naturally present in the environment

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

Radionuclides	Collection Date	Highest Value	Range	Unit	MCL	MCLG	Possible Sources of Contamination
Combined Radium*	11/30/2004	0.6	0.1---0.6	pCi/L*	5	0	Natural deposit erosion

Secondary Contaminants*	Collection Date	Highest Value	Range	Units	Secondary Standard
MPA WTP (Raw and Finished)	12/17/2008	1.8	1.8	Units	N/A
Nickel	3/31/2008	0.003	0.003	mg/L	N/A
Sodium	3/31/2008	21.3	21.3	mg/L	10000

Listed in the table are regulated and unregulated contaminants detected in Pueblo's drinking water in 2008.
All are below allowed levels.

Not listed are hundreds of other contaminants that were tested for but not detected in 2008.
For a complete list of analyses and test results for Pueblo's drinking water, please visit our web site at www.pueblowater.org

***The data table contains many terms and abbreviations that may be unfamiliar.**
To help you better understand these terms 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.
Combined Radium--Measurement of the level of radium 226 and 228.
Gross Alpha--- The gross alpha particle activity compliance value. It includes radium-226 but excludes radon 222 and uranium.
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.
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.
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.
Variances 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.

**Special Information About Lead

These results were obtained from testing 50 homes in the distribution system at highest risk for lead and copper contamination in the 2008-2010 monitoring period. If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. The Pueblo Board of Water Works is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. 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. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline or at http://www.epa.gov/safewater/lead.

Violations

Type	Category	Analyte	Compliance Period
Year of 2008	N/A	N/A	N/A