

2010 Annual Water Quality Report

For Calendar Year 2009

This water quality report applies to the water provided by
DENVER SE SUBURBAN WSD, PINERY
PWSID CO0118025



We are pleased to submit to you this year's Annual Water Quality Report. The United States Environmental Protection Agency (EPA) requires community water systems to prepare and provide to their customers, an Annual Consumer Confidence Report on the quality of the water delivered by their system. Our constant goal is to provide you with a safe and dependable supply of 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. 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 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 byproducts 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.

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.

Our Water Source

The District relies on water from two sources; seven alluvial wells along Cherry Creek and eleven wells drilled in the deeper Denver Basin Aquifers. These wells feed a system of pump stations that pump the water to underground storage reservoirs serving homes, parks, schools and other users within the Pinery Water and Wastewater District. In 2009, we delivered 801 million gallons of water.

We test the water each year to make sure your tap water meets all EPA and State drinking water health standards. The District safeguards its water supplies and we are proud to report that our system has not violated a maximum contaminant level or any other water quality standard.

Source Water Assessment Report and Ground Water Protection Plan

The Colorado Department of Public Health and Environment provided us with a Source Water Assessment Report for our water supply. You can obtain a copy of the report by visiting www.cdphe.state.co.us/wq/sw/swaphom.html or by contacting Paul Makowski at 303-841-2797 ext.202.

Potential sources of contamination in our source water area come from, but are not limited to: leaking storage tanks, septic systems, commercial and urban transportation, runoff/leaching of fertilizer used on crops and community lawns and erosion of natural deposits. The Source Water Assessment Report provides a screening-level evaluation of the potential contamination that **could** occur. It does not mean that the contaminant **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. Our District is concerned about protecting our water source and has developed a Ground Water Protection Plan to help identify potential contaminants and hazards within our ground water protection area. We routinely monitor the water for potential contaminants and enforce the rules and regulations of the Ground Water Protection Plan to ensure that quality finished water is delivered to your home.

Help Us-----Help You

We encourage public interest and participation in our community's decisions affecting drinking water. The staff of the Pinery Water & Wastewater District is available to answer questions concerning our water system. Once every month the Board meets to discuss the business of the District and the public is welcome. Board meetings are held at our District office at 6:00 p.m. on the second Wednesday of each month.

Water Quality Data Tables

The tables below list all of the drinking water contaminants that were detected. Unless otherwise noted, the data presented in these tables are from testing done between January 1, 2009 and December 31, 2009. The State permits us to monitor for certain contaminants less than once per year because the concentrations of these contaminants do not change frequently. All other contaminants that we tested for were un-measurable with current laboratory equipment, so they are not included in this report. The presence of contaminants in the water does not necessarily indicate that the water poses a health risk.

Regulated at the Customer's Tap

Contaminant	Action Level	MCLG	90 th Percentile Value	Units	No. Samples Exceeding Action Level	Sample Date	Violation	Typical Source of Contaminant
Lead	15	0	2.0	ppb	0 of 20	2008 - 2010	No	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Copper	1.3	0	1.1	ppm	0 of 20	2008 - 2010	No	

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, you may wish to have it tested and flush your tap for 30 seconds to 2 minutes before using tap water. Additional information is available from the Safe Drinking Water Hotline (800)426-4791. Lead is not found in the source water and copper levels at the source are extremely low. Once water enters the business or home plumbing systems, copper and lead levels may increase. We are required by state and federal regulations to test a representative number of "high risk" homes for lead and copper. The regulations require that 90 percent of samples taken at the tap in 20 homes must be below the Action Level of 15 parts per billion for lead and 1.3 parts per million for copper.

Regulated in the Distribution System

Contaminant	MCL	MCLG	Average	Units	Range of Detections	Highest RAA	Sample Date	Violation	Typical Source of Contaminant
Organic Disinfection By-Products (TTHM's) Total Trihalomethanes	80	0	25.745	ppb	9.97 – 41.78	42	2009	No	By-product of drinking water chlorination
Haloacetic acids (HAA ₅)	60	0	10.0516	ppb	3.56 – 16.82	17	2009	No	By-product of drinking water disinfection

Regulated at System Entry Points

Contaminant	MCL	MCLG	Highest Value	Units	Range	Sample Date	Violation	Typical Source of Contaminant
Barium	2	2	0.14	ppm	0.0098 – 0.14	7/20/2009	No	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes
Chromium	100	100	4.4	ppb	2.9 – 4.4	9/9/2009	No	Erosion of natural deposits; Discharge of drilling wastes; discharge from metal refineries
Ethylbenzene	700	700	0.53	ppb	0.53	9/16/2009	No	Discharge from petroleum refineries
Fluoride	4	4	1.8	ppm	0.54 – 1.8	7/20/2009	No	Erosion of natural deposits; Discharge from fertilizer and aluminum factories
Nitrate (as N)	10	10	2.7	ppm	0.016 – 2.7	2/12/2009	No	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Nitrate - Nitrite	10	10	0.078	ppm	0.078	9/16/2009	No	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Toluene	1	1	0.00701	ppb	0.00701	9/16/2009	No	Discharge from petroleum refineries
Xylenes, Total	10	10	0.00603	ppm	0.00603	9/16/2009	No	Discharge from petroleum refineries Discharge from chemical factories
Radionuclides								
Combined Radium (-226 & -228)	5		3.9	pCi/L	3.3 – 3.9	4/22/2009	No	Erosion of natural deposits
Combined Uranium	30	0	22	ppb	0.8 – 22	4/22/2009	No	Erosion of natural deposits
Gross Alpha, Excl. Radon & Uranium	15	0	15	pCi/L	1.9 – 15	2/12/2009	No	Erosion of natural deposits

Secondary Contaminants & Other Monitoring

Contaminant	SMCL	Highest Value	Units	Range	Sample Date	
MPA Raw Water Only		10	units	0 - 10	5/13/2009	Monitor Only
TDS	500	436	ppm	150 – 436	2/12/2009	Monitor Only

Waivers

The Colorado Department of Public Health and Environment has issued the District waivers for Cyanide, Nitrite, Glyphosate, Dioxin & Asbestos.

Failed to Monitor Violation

The District was required to sample for inorganic contaminants during the second and third quarter of the year at one of our wells. Water samples collected on June 10, 2009 were not tested for inorganic contaminants due to an error at the District's contracted laboratory. Water samples collected during the third quarter showed all inorganic contaminants were below the Maximum Contaminant Level (MCL). Because inorganic contaminants are not expected to change, we feel the public health was not at risk during the second quarter of the year. All District wells have been tested for inorganic contaminants in the past and have never exceeded the MCL. Only when people drink water in excess of the MCL for inorganic contaminants over many years can there be a potential for negative health effects. The District is currently in compliance with the Colorado Department of Public Health and Environment.

Glossary of Terms and Measurements

Terms:

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

Below Detectable Limit (BDL): Indicates the compound was analyzed for, but was below the lab method detection limit.

Contaminant: A potentially harmful physical, biological, chemical or radiological substance in water.

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

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

Secondary Maximum Contaminant Level (SMCL): 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. EPA recommends these standards but does not require water systems to comply.

Maximum Residual Disinfectant Level Goal (MRDLG): The level of a drinking water disinfectant, below which there is no known or expected risk to health.

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.

Microscopic Particle Analysis (MPA Raw Water Only) An analysis of surface water organisms and indicators in water. This analysis can be used to determine performance of a surface water treatment plant or in our case to determine the existence of surface water influence on a ground water well.

Not Available (na): Standards for these contaminants do not exist.

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

Variations and Exemptions: State or EPA permission not to meet an MCL or treatment technique under certain conditions.

Units of Measurement:

Parts Per Million (ppm): Equivalent to milligrams per liter (mg/l). One ppm is comparable to one-drop of water in 55 gallons.

Parts Per Billion (ppb): Equivalent to micrograms per liter ($\mu\text{g/l}$). One ppb is equivalent to one drop of water in 55,000 gallons.

PicoCuries Per Liter (pCi/L): A measure of radioactivity.

Pinery Water & Wastewater District
P.O. Box 1660
Parker, CO 80134

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If you have any questions or comments please contact us at:

Mailing Address – P.O. Box 1660, Parker, CO 80134

Water Quality Questions? Call Paul Makowski @ 303-841-2797 ext. 202 or PaulM@Pinerywater.com

Billing Information? Call Patty Britton @ 303-841-2797 ext. 0

Esta informacion es importante. Si no la pueden leer, necesitan que alguien se la pueda traducir.