

# PINEBROOK HILLS WD

## 2006 Drinking Water Consumer Confidence Report For Calendar Year 2005

Public Water System ID # CO0107610

***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.

### **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 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.

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(s)**

Source	Water Type
FOUR MILE CREEK	Surface Water
WELL WOOD	Ground Water
WELL NO 12B	Ground Water
WELL NO 6	Ground Water
WELL NO 8	Ground Water
WELL NO 9	Ground Water
WELL NO 10	Ground Water
WELL NO 11	Ground Water

The Colorado Department of Public Health and Environment 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](http://www.cdphe.state.co.us/wq/sw/swaphom.html) or by contacting BOB DE HAAS at 303-443-5394

Potential sources of contamination in our source water area come from:

Individual septic systems & old mining claims that are no longer active

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.

Please contact BOB DE HAAS at 303-443-5394 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.

## Terms and Abbreviations

The following definitions will help you understand the terms and abbreviations used in this report:

- **Parts per million (ppm) or Milligrams per liter (mg/L)** - one part per million corresponds to one minute in two years or a single penny in \$10,000.
- **Parts per billion (ppb) or Micrograms per liter (µg/L)**- one part per billion corresponds to one minute in 2,000 years, or a single penny in \$10,000,000.
- **Parts per trillion (ppt) or Nanograms per liter (nanograms/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 (ppq) or Picograms per liter (picograms/L)** - one part per quadrillion corresponds to one minute in 2,000,000,000 years or one penny in \$10,000,000,000,000.
- **Picocuries per liter (pCi/L)** - picocuries per liter is a measure of the radioactivity in water.
- **Nephelometric Turbidity Unit (NTU)** - nephelometric turbidity unit is a measure of the clarity of water. Turbidity in excess of 5 NTU is just noticeable to the average person.
- **Action Level (AL)** - the concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.
- **Treatment Technique (TT)** - A treatment technique is a required process intended to reduce the level of a contaminant in drinking water.
- **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 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 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.
- **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.
- **Running Annual Average (RAA):** An average of monitoring results for the previous 12 calendar months.
- **Gross Alpha, Including RA, Excluding RN & U:** This is the gross alpha particle activity compliance value. It includes radium-226, but excludes radon 222 and uranium.

## Detected Contaminants

PINEBROOK HILLS WD 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, 2005 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. 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.

**Note: Only detected contaminants appear in this report. If no tables appear in this section, that means that PINEBROOK HILLS WD did not detect any contaminants in the last round of monitoring.**

<b>Organics and Inorganics</b>	<b>Collection Date</b>	<b>Highest Value</b>	<b>Range</b>	<b>Unit</b>	<b>MCL</b>	<b>MCLG</b>	<b>Typical Source</b>
ARSENIC	7/19/2005	1	1	ppb	50	0	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes.
BARIUM	7/19/2005	0.051	0.051	ppm	2	2	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
CHROMIUM	7/19/2005	1	1	ppb	100	100	Discharge from steel and pulp mills; Erosion of natural deposits
FLUORIDE	7/19/2005	0.18	0.18	ppm	4.0	4.0	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories
NITRATE+NITRITE (AS N)	8/29/2001	1.59	1.59	ppm	10	10	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits

Turbidity	Sample Date	Level Found	TT Requirement	Likely Source of Contamination
TURBIDITY	Date: 12-29-2005	0.09 NTU	Maximum 1.0 NTU for any single measurement	Soil Runoff
	Month:  ALL MONTHS	Lowest monthly percentage of samples meeting TT standard for our technology: 100%	In any month, at least 95% of samples must be less than 0.3 NTU	

Disinfection By-Products	Date	Average	Range	Highest RAA	Unit	MCL	MCLG	Typical Source
TOTAL HALOACETIC ACIDS (HAA5)	2005	40.025	14.1 - 65.5	40	ppb	60	N/A	By-product of drinking water disinfection
TOTAL TRIHALOMETHANES (TTHM)	2005	57.7775	34.41 - 79.4	60	ppb	80	N/A	By-product of drinking water chlorination

Lead and Copper	Collection Date	90 <sup>TH</sup> Percentile	Unit	AL	Typical Source
COPPER	2002 - 2004	0.89	ppm	1.3	Corrosion of household plumbing systems; Erosion of natural deposits.
LEAD	2002 - 2004	6	ppb	15	Corrosion of household plumbing systems; Erosion of natural deposits

Radionuclides	Collection Date	Highest Value	Range	Unit	MCL	MCLG	Typical Source
GROSS ALPHA, INCLDNG RA, EXCLDNG RN & U	8/29/2001	3.5	0.58 - 3.5	pCi/L	15	0	Erosion of natural deposits
RADIUM, COMBINED (226, 228)	10/4/2004	0.8	0.1 - 0.8	pCi/L	5	0	Erosion of natural deposits

Secondary Contaminants/ Other Monitoring	Collection Date	Highest Value	Range	Unit	Secondary Standard
NICKEL	7/19/2005	0.001	0.001	MG/L	0.1
SODIUM	7/19/2005	7	7	MG/L	10000

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.

### **Health Information About Water Quality**

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 your water 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.

Some people who drink water containing haloacetic acids in excess of the MCL over many years may have an increased risk of getting cancer.

### **Violations**

Type	Category	Analyte	Compliance Period
No Violations Occurred in the Calendar Year of 2005			

PINEBROOK HILLS WD is required to include an explanation of the violation(s) in the above table and the steps taken to resolve the violation(s) with this report.

### **Health Information About the Above Violation(s)**

There are no additional required health effects violation notices.

## **RESERVOIR UPDATES- AS OF April 28, 2006**

There is approximately another two to three weeks of wrap up work and then the dam will be ready for its final inspection. Shortly after that we should be able to begin filling the dam with runoff that will be captured from Two Mile Creek (that is the creek which runs through the area).

Work on the new filter plant should also begin about this time. The goal and the hope is to have completed the new filter plant and have captured enough Two Mile Creek water to begin producing water by the end of June. After the new plant is brought on line we can then begin to transfer water from Four Mile Creek over to the reservoir.

When will the reservoir be full? It all depends on what the remainder of the year brings for precipitation. It could be full by the end of August – Mid September, or it might not fill this year and we would finish filling it next year.

When will the downstream face be covered with dirt? We should be placing the backfill against the downstream face by late fall, we cannot begin this part of the process until given the O.K.. by the State.

We have moved the webcam so that now you can see into the area behind the dam where the water will be stored. For those of you who had seen it shortly after we had moved it and then saw some trees suddenly disappear from the view that had been in view of the webcam, we just wanted to say we did not cut them down to improve the view but rather because those trees were within the water line of the reservoir and so had to be removed.

Remember you can find a lot of information about the District at our website of [pinebrookwater.com](http://pinebrookwater.com)!