

Bear Creek Landowners Association

2010 Drinking Water

Consumer Confidence Report

For Calendar Year 2009

Re: Public Water System ID # CO0214142 (Bear Creek)
Distributed on or about June 21, 2010

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 |
|------------|---|
| Lower Well | Ground Water Under The Influence Of Surface Water |
| Upper Well | Ground Water |

The Colorado Department of Public Health and Environment has not yet provided us with a Source Water Assessment Report for our water supply. However, representative reports are available for nearby locations, such as Mogote Campground or Conejos Ranch. You can obtain copies by visiting www.cdphe.state.co.us/wq/sw/swaphom.html.

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.

The Conejos River (surface water) may be a potential source of contamination for the lower well, due to its proximity to the river and its shallow depth. But there has been no contamination of our system since the initial construction in 1992.

During times of very high snow melt and runoff, the aquifer below the river (serving our lower well) may be affected, as seen by increased turbidity readings. Even during these times, we have not exceeded State turbidity limits since the installation of our automated sampling equipment in 2006.

Please contact Gene Kaczor at 719-376-5229 or Mike Rand at 214-553-1109 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 (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 (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.
- **Microscopic Particulate Analysis (MPA)** - 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 to determine the existence of surface water influence on a ground water well.

Detected Contaminants

Bear Creek Landowners Association 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, 2009 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 Bear Creek Landowners Association did not detect any contaminants in the last round of monitoring.

| Organics and Inorganics | Collection Date | Highest Value | Range | Unit | MCL | MCLG | Typical Source |
|-------------------------|-----------------|---------------|---------------|------|-----|------|---|
| BARIUM | 11/16/2009 | 0.035 | 0.029 - 0.035 | ppm | 2 | 2 | Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits |
| FLUORIDE | 11/16/2009 | 0.21 | 0.21 | ppm | 4 | 4 | Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories |
| NITRATE | 11/16/2009 | 0.15 | 0.14 - 0.15 | ppm | 10 | 10 | Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits |

| Organics and Inorganics | Collection Date | Highest Value | Range | Unit | MCL | MCLG | Typical Source |
|-------------------------|-----------------|---------------|-------------|------|-----|------|---|
| NITRATE-NITRITE | 11/16/2009 | 0.15 | 0.14 - 0.15 | ppm | 10 | 10 | Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits |

| Disinfection By-Products | Date | Average | Range | Highest RAA | Unit | MCL | MCLG | Typical Source |
|-------------------------------|------|---------|--------------|-------------|------|-----|------|---|
| TOTAL HALOACETIC ACIDS (HAA5) | 2009 | 2.775 | 1.77 - 3.78 | 4 | ppb | 60 | N/A | By-product of drinking water disinfection |
| TTHM | 2009 | 7.04 | 3.73 - 10.35 | 10 | ppb | 80 | N/A | By-product of drinking water chlorination |

| Lead and Copper | Collection Date | 90 TH Percentile | Unit | AL | Typical Source |
|-----------------|-----------------|-----------------------------|------|-----|--|
| COPPER, FREE | 2009 | 1.35 | ppm | 1.3 | Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives |
| LEAD | 2009 | 2.7 | ppb | 15 | Corrosion of household plumbing systems; Erosion of natural deposits |

While the native water from our two wells contains virtually no copper or lead, it is considered “aggressive” and may interact with a home’s copper piping to leach copper into the home’s water supply. Base line data collected in 2006 indicated that this was occurring, and Bear Creek began to treat our water with *SeaQuest* – a tasteless, colorless product that minimizes the impact of “aggressive” water and significantly reduces copper leaching. On-going testing from 2007 - 2009 confirmed that copper levels in some of our “higher risk” residences showed a marked decline over the time period, well below state allowable levels. However, our most recent test in August 2009 shows that copper levels are now at or slightly above the limit. We will now consult with our *Seaquest* vendor and state water quality engineers for technical advice on how to maximize the effectiveness of the system.

Lead in our water has never been an issue.

| Radionuclides | Collection Date | Highest Value | Range | Unit | MCL | MCLG | Typical Source |
|-------------------------------|-----------------|---------------|-----------|-------|-----|------|-----------------------------|
| COMBINED RADIUM (-226 & -228) | 9/14/2006 | 0.8 | 0.1 - 0.8 | pCi/L | 5 | | Erosion of natural deposits |
| GROSS ALPHA, EXCL. RADON & U | 11/9/2006 | 1.6 | 0.2 - 1.6 | pCi/L | 15 | 0 | Erosion of natural deposits |

| Analyte | | Facility Name | | Highest Value | Unit | Monitoring Period | |
|-----------|-----------------|--|-------------|---|------|-------------------|--|
| Turbidity | | Sample Date | Level Found | TT Requirement | | Typical Source | |
| TURBIDITY | Date: | Highest single measurement: 1.83 NTU | | Maximum 5 NTU for any single measurement | | Soil Runoff | |
| | Month: 6 | Lowest monthly percentage of samples meeting TT requirement for our technology: 98% | | In any month, at least 95% of samples must be less than 1 NTU | | | |

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.

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. Your water system 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 |
|---|--------------------|----------------|--------------------------|
| MONITORING, ROUTINE (IESWTR/LT1), MAJOR | Failure to Monitor | TURBIDITY | 02/01/2009 - 02/28/2009 |
| MONITORING, RTN/RPT MAJOR (SWTR-FILTER) | Failure to Monitor | CHLORINE | 08/01/2009 - 08/31/2009 |

Information About the Above Violation(s)

In early 2009, we were cited for not reporting turbidity and chlorine data for 16 days. Rest assured that our automated equipment tested and recorded the daily readings and all were well within State Regulations; unfortunately the downloaded data for submittal to the state was lost due to battery problems with our equipment. While the state was immediately notified, the lack of electronic data resulted in a violation. The problem has since been corrected and the incident has not been repeated.

At no time was the water quality in question and no action is necessary.

Other News

Again this year, we need to thank Gene Kaczor for serving as our full time, state-certified water technician. His constant attention, hard work and system monitoring ensure that we all enjoy a safe, reliable water system that meets or exceeds all state mandates.

The association also owes a huge debt of gratitude to Stock Colt for serving as your Water Resources Officer since the Bear Creek water system was initiated. Stock led us through the maze of state regulations and hardware upgrades required to get our little water system up to state standards as our population neared the state limits. Stock will be transitioning this role to Mike Rand in 2010.
