

Longs Peak Water District 2010 Water Quality Report

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

We are pleased to present to you this year's Annual Water Quality Report. This report is designed to inform you about the quality water and services we deliver to you every day. Our constant goal is to provide you with a safe and dependable supply of drinking water at the lowest possible cost. If you know customers who live in apartments or other living units that are not billed directly for water, please share this report with them.

The majority of the District's raw water is treated and delivered back to the District through transmission lines and master meters by Little Thompson Water District (PWSID CO0135477). The water is treated at the Carter Lake Filter Plant (PWSID CO0135476). The Carter Lake Filter Plant receives water from Carter Lake, a part of Northern Colorado Water Conservancy District's (NCWCD) Colorado Big Thompson Project. The water is collected in Western Slope reservoirs and transported through the Alva B. Adams Tunnel to Mary's Lake, Lake Estes, Pinewood Reservoir, Flatiron Reservoir and finally pumped to Carter Lake. The District has a supplemental source via the Rough and Ready Ditch. This raw water is treated at the Kugel Filter Plant (PWSID CO0107486), located with our offices at 9875 Vermillion Rd. **The Rough and Ready Ditch source was not used in 2010. Both sources are considered surface water.**

Safe drinking water is an essential resource. The Longs Peak Water District and Carter Lake Filter Plants strive to consistently meet or exceed state and federal water quality standards.

The Colorado Department of Public Health and Environment has provided a Source Water Assessment Report for the Carter Lake Filter Plant water supply. The Source Water Assessment Report provides a screening-level evaluation of potential contamination that could occur. It does not mean that contamination has or will occur. Rather, this information is used to evaluate the need to improve water treatment capabilities and to prepare for future contamination threats. This information is used to ensure that quality finished water is delivered to you. In addition, the source water assessment results provide a starting point from which a source water protection plan may be developed. Potential sources of contamination within the source water area include EPA hazardous waste generators, EPA chemical inventory/storage sites, EPA toxic release inventory sites, permitted wastewater discharge sites, aboveground, underground and leaking storage tank sites, solid waste sites, existing/abandoned mine sites and other facilities, commercial/industrial/transportation, low intensity residential, urban recreational grasses, row crops, fallow, small grains, pasture/hay, forests, septic systems, oil/gas wells and road miles. You may obtain a copy of the report by visiting www.cdph.state.co.us/wq/sw/swaphom.html.

The source water from Carter Lake is tested annually for both Cryptosporidium and Giardia. There has never been a positive test for either organism in the source water or treated water during the period of testing. Also in 2000, the source water and treated water were tested for but did not detect methyl tert-butyl ether (MTBE).

If you have any questions about this report or concerning your water utility, please contact **Gary Allen** at **(303)776-3847**. We want our valued customers to be informed about their water utility. Regular board meetings are held the third Thursday of every month at 9:00a.m. at the District office.

Some people may be more vulnerable to contaminants in drinking water than the public in general. All drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some compounds. The presence of these compounds does not necessarily indicate that the water poses a health risk. 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 compounds call the EPA Safe Drinking Water Hotline at 1-800-426-4791.

In order to ensure that tap water is safe to drink, EPA prescribes regulations limiting the amount of certain compounds in water provided by public water systems. The U.S. Food and Drug Administration (FDA) regulations establish limits for compounds in bottled water that must provide the same protection for public health.

The compound table contains many terms and abbreviations that may be unfamiliar. To help you better understand these terms we've provided the following definitions:

- **Action Level (AL):** The concentration of a compound, if exceeded, triggers treatment or other requirements a water system must follow.
- **Maximum Contaminant Level (MCL):** The "maximum allowed" is the highest level of a compound that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.
- **Maximum Contaminant Level Goal (MCLG):** The "goal" is the level of a compound in drinking water, below which there is no known or expected risk to health. MCLGs allow for a margin of safety.
- **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.
- **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.
- **Not Applicable (NA):** Not applicable.
- **Non-Detects (ND) or Below Detection Level (BDL):** Laboratory analysis indicates that the constituent is not present. ("<" Symbol for less than, the same as ND or BDL)
- **Nephelometric Turbidity Unit (NTU):** Nephelometric turbidity unit is a measure of the clarity of water. Turbidity in excess of five NTU is just noticeable to the average person.
- **Parts per billion (ppb) or Micrograms per liter ($\mu\text{g/l}$):** One part per billion corresponds to one minute in 2,000 years, or one penny in \$10,000,000.
- **Parts per million (ppm) or Milligrams per liter (mg/l):** One part per million corresponds to one minute in two years or one penny in \$10,000.
- **Treatment Technique (TT):** A treatment technique is a required process intended to reduce the level of a compound in drinking water.
- **Waiver:** State permission not to test for a specific compound.

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. Compounds that may be present in source water include:

- **Microbial compounds**, such as viruses and bacteria that may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.
- **Inorganic compounds**, 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 compounds**, 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 compounds**, that can be naturally occurring or be the result of oil and gas production and mining activities.

Infants and young children are typically more vulnerable to lead in drinking water than the general population. It is possible that the 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. Flush your tap for 30 seconds to 2 minutes before using tap water. Additional information is available from the EPA Safe Drinking Water Hotline at 1-800-426-4791.

The state 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. Some of our data, though representative, may be more than one year old. This report presents the results of our monitoring for the period January 1 to December 31, 2010 unless otherwise noted.

The Colorado Department of Public Health and Environment (CDPHE) has issued waivers to the Carter Lake Filter Plant for the following compounds: asbestos, cyanide, dioxin, glyphosphate, and nitrite.

Inorganic Compounds that were tested for, but not detected, include antimony, arsenic, beryllium, cadmium chromium, mercury (inorganic), nickel, nitrate/nitrite (as nitrogen), selenium, and thallium. Barium, Fluoride and Sodium were detected and are shown below.

Synthetic Organic Compounds were tested for and **none** of the 43 compounds of concern were detected.

Volatile Organic Compounds were tested for and 56 of the 58 compounds of concern were **not** detected. Bromodichloromethane and Chloroform were detected and are shown below.

Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other, potentially-harmful bacteria may be present. **There were no water quality violations in 2010. The physical water quality in the distribution system was not in danger at any time in 2010.**

| Compounds Regulated at the Carter Lake Treatment Plant | | | | | | | |
|--|----------|------|------|----------------|-------------|-----------|---|
| Compound | MCL | MCLG | Unit | Level Detected | Sample Date | Violation | Likely Source of Compound |
| Barium | 2 | 2 | ppm | 0.014 | 2/1/10 | No | Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits |
| Fluoride | 4 | 4 | ppm | 1.1 | 2/1/10 | No | Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories |
| Turbidity ¹ | TT ≤ 1 | NA | NTU | 0.45 | April 2010 | No | Coagulation pump failure; sample pump flow issue; determined as no violation |
| | TT ≤ 0.3 | NA | NTU | 95% | Continuous | No | |

¹ There are two standards for turbidity. The reported monthly turbidity must be less than or equal to 0.3 NTU at least 95% of the time. Also, turbidity must never be higher than 1.0 NTU at any time. Turbidity readings ranged from 0.03 – 0.98 NTU.

| Compounds Regulated in the Little Thompson District Distribution System | | | | | | | |
|---|--|------|-----------------|--------------------|-------------|-----------|--|
| Compound | MCL | MCLG | Unit | Level Detected | Sample Date | Violation | Likely Source of Compound |
| Total Coliform Bacteria | No more than 5% positive monthly samples | 0 | Absent/ Present | 0 | Monthly | No | Naturally present in the environment |
| Fecal Coliform and E Coli | 1 pos. monthly sample | 0 | Absent/ Present | 0 | Monthly | No | Human and animal fecal waste |
| Copper ² | AL = 1.3 | 1.3 | ppm | 0.30 0.00-0.06 | Sept. 2009 | No | Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives |
| Lead ² | AL = 15 | 0 | ppb | 6.01 0.22-22.65 | Sept. 2009 | No | Corrosion of household plumbing systems; erosion of natural deposits |
| TTHM ³ | 80 | 0 | ppb | 37.9 23.5-54.1 | Quarterly | No | By-product of drinking water chlorination |
| HAA ⁴ | 60 | NA | ppb | 45.8 26.1-69 | Quarterly | No | By-product of drinking water chlorination |

² No single sample for Copper or Lead exceeded the Action Level. Single level detected is 90th percentile; the range is for all samples. The District is required to sample for Copper and Lead every 3 years.

³ TTHM = Total Trihalomethanes. Level detected is annual average; the range is for all samples.

⁴ HAA = Haloacetic Acids. Level detected is annual average; the range is for all samples.

| Unregulated compounds are those for which EPA has not established drinking water standards. The purpose of unregulated compound monitoring is to assist EPA in determining the occurrence of unregulated compounds in drinking water and whether future regulation is warranted. | Unregulated Compounds | | |
|--|-----------------------|---------------------------|---|
| | Compound | Level Detected | Likely Source of Compound |
| | Chloroform | 24.8 ppb | By-product of drinking water chlorination |
| | Bromodichloromethane | 2.1 ppb | By-product of drinking water chlorination |
| | Sodium | 7.7 ppm | Naturally occurring |
| Methyl Tert-Butyl Ether (MTBE) | Not tested | Underground storage tanks | |

Regulated Compounds in the Longs Peak Water District Distribution System

Note: Only detected compounds appear in this report.

| Disinfection By-Products | Date | Average | Range | Unit | MCL | MCLG | Violation | Typical Source |
|-------------------------------|------|---------|------------|------|-----|------|-----------|---|
| TOTAL HALOACETIC ACIDS (HAA5) | 2010 | 44.922 | 41.44-49.3 | ppb | 60 | N/A | NO | By-product of drinking water disinfection |
| TOTAL TRIHALOMETHANES (TTHM) | 2010 | 35.875 | 29.6 - 40 | ppb | 80 | N/A | NO | By-product of drinking water chlorination |

| Lead and Copper | Collection Date | 90 th Percentile | Unit | AL | Violation | Typical Source |
|-----------------|-----------------|-----------------------------|------|-----|-----------|---|
| COPPER | 2008-2010 | 0.056 | ppm | 1.3 | NO | Corrosion of household plumbing systems; Erosion of natural deposits. |
| LEAD | 2008-2010 | 3.4 | ppb | 15 | NO | Corrosion of household plumbing systems; Erosion of natural deposits |

There are no additional required health effects notices.