Highlands Ranch CLEAN & SECURE

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

2009 Water Quality Report

Lori Hoover collects water samples from the S. Platte River for testing.

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If you have questions about this report or your water services, please contact Centennial Water at 303–791–2185, ext. 523. We want you, our valued customer, to be informed about your water utility.

Board meetings are held at the District Office Building, 62 W. Plaza Dr., Highlands Ranch, CO 80129. Please visit www.highlandsranch.org for a board meeting schedule.

CENTENNIAL WATER AND SANITATION DISTRICT

Testing Water to Ensure Safety

Members of Centennial Water's lab staff, like Nick Tino, conduct hundreds of tests to ensure the highest water quality possible.

When you turn on your faucet for a drink of water or to take a shower, you're getting safe, clean water. Centennial Water & Sanitation District's water quality lab staff tests hundreds of samples for impurities to ensure a high level of water quality. Because of their hard work and dedication, having clean water is something Highlands Ranch customers don't have to think about.

Centennial Water's staff of five in the water quality lab is responsible for meeting all environmental sampling, testing and reporting requirements for the Highlands Ranch water supply. They collect samples from more than 200 sample locations, which include: Drinking water, wastewater, water reuse and ground water treatment plants, wells, the water distribution system, the South Platte River, industrial discharges, gas station tank remediation projects, and most recently from dentist offices and photo developing facilities.

More than 400 different tests are conducted on collected water samples. The tests check for the presence of metals, organic chemicals, chlorine, radioactivity, nitrates and bacteria.

Water quality reports are generated for Centennial Water staff who operate the treatment plants, allowing them to control treatment plant processes based on the data. A large number of reports are required by the Environmental Protection Agency (EPA) and the Colorado Department of Public Health and the Environment.

The lab staff has a challenging and demanding job, ensuring water is safe for Highlands Ranch residents and to meet all environmental sampling, testing and reporting requirements for both state and federal regulations.

Colorado Source Water Assessment & Protection (SWAP) Program

The SWAP program was initiated to protect the quality of groundwater and surface water supplies. The Colorado Department of Public Health and Environment (CDPHE) has provided Centennial Water with a SWAP report for both our surface and groundwater supply. You may obtain a copy of the report by visiting www.cdphe.state.co.us/wq/sw/swaphom.html, or by contacting Centennial Water at 303-791-2185, ext. 523.

Potential sources of contamination in our source water may come from both discrete sources (Environmental Protection Agency (EPA) abandoned contaminated sites, EPA hazardous waste generators, EPA chemical inventory/storage sites, solid waste sites, permitted wastewater discharge sites, aboveground, underground and leaking storage tank sites, existing/abandoned mine site, and other facilities) and from dispersed sources (land use/cover: commercial/industrial/transportation, high/low intensity residential, urban recreation grasses, row crops, fallow, pasture/hay, quarries/strip mines/gravel pits, deciduous forest, evergreen forest, mixed forest, and septic systems, and roads).

The SWAP report provides a screening level of potential contamination that **could** occur. It does not mean that 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 from which a source water protection plan may be developed.

Centennial Water maintains a variety of programs and procedures to ensure that Highlands Ranch has a safe and secure water supply. For more information about these programs and procedures, or to learn how to help protect your drinking water sources, please visit www.highlandsranch.org, or contact Centennial Water at 303-791-2185, ext. 523.

2009 Highlands Ranch Water Quality Report

Centennial Water & Sanitation District presents this year's annual drinking water quality report. This report is designed to inform you about the quality of the water we deliver every day. Our constant goal is to provide a safe and dependable supply of drinking water. We want you to understand the efforts we make to protect our water resources. We are committed to ensuring the quality of your water. Last year, as in years past, your tap water met all U.S. Environmental Protection Agency (EPA) and state drinking water health standards. Our surface water source is the South Platte River with diversion points at Englewood's City Ditch, Chatfield Reservoir, Nevada Ditch, and South Platte Alluvial Wells, transported to storage in McLellan Reservoir or the South Platte Reservoir. Our secondary water source is non–tributary wells in the Denver Basin Aquifer.

Is our community's drinking water regularly tested?

Yes. Centennial Water & Sanitation District routinely monitors for constituents in your drinking water according to federal and state laws. The table in this report shows the results of our monitoring for the period of January 1 through December 31, 2008.

Are there contaminants in drinking water?

All drinking water, including bottled drinking water, may be reasonably expected to contain at least small amounts of some contaminants. *It is important to remember the presence of these contaminants does not necessarily pose a health risk.* Immuno–compromised people such as people with cancer undergoing chemotherapy, people who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly individuals, 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 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.

Why does drinking water sometimes contain contaminants?

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.

- ***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,*** which 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 can also come from gas stations, urban stormwater runoff and septic systems.
- ***Radioactive contaminants,*** which can be naturally occurring, or the result of oil and gas production and mining activities.

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

The Water Quality Data Table to the right contains many terms and abbreviations that may be unfamiliar. We've provided the following definitions to help you better understand these terms:

- **Action Level (AL):** The concentration of a contaminant, if exceeded, triggers treatment or other requirements a water system must follow.
- **Maximum Contaminant Level (MCL):** 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 Contaminant Level Goal (MCLG):** 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 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.
- **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.
- **Non–Detects (ND):** Laboratory analysis indicates that the constituent is not present. (< Symbol for less than, the same as ND).
- **Parts per billion (ppb)**
- **Parts per million (ppm)**
- **PicoCuries per Liter (pCi/l):** A measure of radioactivity in water.
- **Treatment Technique (TT):** A required process intended to reduce the level of a contaminant in drinking water.
- **Running Annual Average (RAA):** An average of monitoring results for the previous 12 calendar months.

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Results of Radon Monitoring

Radon is a radioactive gas that can't be seen, tasted or smelled. It is found in soil throughout the United States. Radon can move up through the ground and into a home through cracks and holes in the foundation. Radon can build up to high levels in all types of homes. Radon can also get into indoor air when released from showering, washing dishes, and performing other household activities. Radon is a known human carcinogen. Breathing air containing radon can lead to lung cancer. Drinking water containing radon may also cause increased risk of stomach cancer. If you are concerned about radon in your home, test the air in your home. Testing is inexpensive and easy. Fix your home if the level of radon in your air is four picoCuries per liter of air (pCi/L) or higher. There are simple, affordable ways to fix a radon problem. For additional information, call your state radon program at 303–692–3030, or call the EPA's Radon Hotline at 1-800–SOS–RADON. Radon entering the home through tap water, in most cases, is a small source of radon in indoor air, compared to radon entering the home through the soil.

Results of Lead Monitoring

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 two minutes before using tap water. Additional information is available from the Safe Drinking Water Hotline at 1-800-426-4791.

Centennial Water & Sanitation District's Water Quality Data Table

PWSID # CO 0118015

The table below lists all of the drinking water contaminants detected during the calendar year of this report. The presence of contaminants in water does not necessarily indicate that the water poses a health risk. Unless otherwise noted, the data presented in this table is from testing done from January 1 to December 31, 2008. According to either EPA or state requirements, certain contaminants may be monitored less than once per year because the concentrations of these contaminants do not change frequently. The state has issued waivers for monitoring asbestos, cyanide, dioxin and glyphosate.

Regulated Copper and Lead	Results at the 90th Percentile	AL	MCLG	Meets EPA Standards	Likely Source
Copper (ppm) (0 of 30 samples exceeded the AL)	0.27	1.3	1.3	Yes	Corrosion of household plumbing systems
Lead (ppb) (3 of 30 samples exceeded the AL)	2.7	15	0	Yes	Corrosion of older household plumbing systems

Regulated Disinfectants & Disinfection Byproducts	Range	Average Level	MCL	MCLG	Meets EPA Standards	Likely Source
Chloramines (ppm)	0.6-3.3	2.1 (RAA)	4 (MRDL)	4 (MRDLG)	Yes	Water additive used to control microbes
Haloacetic Acids (ppb)	2.8-18.1 Average = 12.5	15.0 (RAA)	60	NA	Yes	Byproduct of drinking water disinfection
Total Trihalomethanes (ppb)	4.7-44.3 Average = 30.7	40.2 (RAA)	80	NA	Yes	Byproduct of drinking water disinfection

Regulated Radioactive Substances	Highest Range	Level	MCL	MCLG	Meets EPA Standards	Likely Source
Alpha Emitters (pCi/L)	ND-4.8	4.8	15	0	Yes	Erosion of natural deposits
Beta/photon Emitters (pCi/L)	ND-3.7	3.7	Trigger level = 15	0	Yes	Decay of natural and man-made deposits
Uranium (ppb)	ND-3.0	3.0	30	0	Yes	Erosion of natural deposits
Radium (combined 226/228) (pCi/L)	0.8-2.7	2.7	5	0	Yes	Erosion of natural deposits

Regulated Microbiological/ Turbidity	Range	Highest Level	MCL	MCLG	Meets EPA Standards	Likely Source
Total Coliform (% positive samples/month)	ND-1.12	1.12	5	0	Yes	Naturally present in the environment
Turbidity (NTU)	NA	0.15 (On 3-14-08)	<1 (TT)	NA	Yes	Soil runoff
Turbidity (%)*	NA	100	≥95 (TT)	NA	Yes	Soil runoff

*At least 95% of monthly samples must be <0.3 NTU.

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Disinfection Byproducts	Compliance Description	Requirement	Likely Source
Control of Disinfection Byproduct Precursors	We used enhanced treatment to remove the required amount of natural organic material and/or we demonstrated compliance with alternative criteria.	TT	Natural organic material that is present in the environment.

Regulated Inorganic Substances	Range	Highest Level	MCL	MCLG	Meets EPA Standards	Likely Source
Selenium (ppb)	ND-3.3	3.3	50	50	Yes	Erosion of natural deposits, discharge from mines
Barium (ppm)	0.037-0.120	0.120	2	2	Yes	Erosion of natural deposits
Nitrate (ppm as N)	ND-0.16	0.16	10	10	Yes	Erosion of natural deposits, runoff from fertilizer use
Fluoride (ppm)	0.60-1.2	1.2	4	4	Yes	Erosion of natural deposits
Chromium (ppb)	ND-2.8	2.8	100	100	Yes	Erosion of natural deposits

Other Monitoring	Range	Highest Level	MCL	MCLG	Likely Source
Nickel (ppb)	ND-2.9	2.9	NA	NA	Naturally present in the environment
Sodium (ppm)	30-56	56	NA	NA	Naturally present in the environment
Radon (pCi/L)	ND-2270	2270	NA	NA	Naturally present in the environment

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