

M *Castle Pines North* METROPOLITAN DISTRICT

Providing the people, families, neighborhoods and small businesses of Castle Pines North with clean, safe, reliable drinking water, wastewater, storm water, parks and open space services in the most fiscally responsible manner, while serving as stewards of the community's water-related assets and AA bond rating.

Annual Water Quality Report

Public Water System ID #0118006

June 2010

The Castle Pines North Metropolitan District (District) is committed to providing our neighborhoods with a safe and reliable supply of high quality water.

Throughout the year the Castle Pines North Metro District conducts numerous sample tests of our water from a variety of locations, including some private homes. This report is designed to provide you with information related to the quality of the water we deliver to homes every day.

OUR WATER SOURCE

The water delivered to Castle Pines North customers is from the Arapahoe, Denver and Lower Dawson aquifers in the Denver Basin. The District has seven Arapahoe wells, two Denver wells and two Lower Dawson wells. The well depths range from 720 to 2,370 feet.

The District develops the wells in a manner which prevents infiltration from the surface and other sources, and restricts any activity that could contaminate our water source. Potential sources of contamination in our source water come from but are not limited to:

- *Above or underground leaking storage tanks.*
- *Residential runoff (fertilizers etc).*
- *Urban/recreational grasses.*
- *Septic systems.*
- *Road runoff drainage.*

QUALITY STANDARDS

The Environmental Protection Agency (EPA) prescribes limits on the amount of certain contaminants in water provided by public water systems. Individual states have additional requirements. Even though we get our water from deep, pure aquifers and none of our water comes from surface run off, Castle Pines North Metropolitan District routinely monitors for contaminants in our drinking water. Our key to quality is from conducting various tests to look for more than 80 possible contaminants. Testing is done using sophisticated equipment and advanced procedures. The results table that follows on page three indicates very few contaminants have been found and all are far below the established limits set by the EPA.

2009 WATER QUALITY DATA

The table below shows the results of our monitoring from January 1 to December 31, 2009, unless otherwise noted (* sample Data Dates 2008). Every regulated contaminant that was detected in the water, even in the minutest traces, is listed.

*Please Note: All detected amounts from monitoring in Castle Pines North Metropolitan District are **BELOW** the levels allowed in drinking water by the EPA.*

Contaminant	Level	MCLG	MCL	Typical Source
Total Haloacetic Acids (HAA) (ppb)	3.4	NA	60	By-product of drinking water disinfection.
Total Trihalomethanes (TTHM) (ppb)	0.5	NA	80	By-product of drinking water disinfection.
Nitrogen, Nitrate	0.1	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits.
Barium (ppm)*	0.13	2	2	Erosion of natural deposits; discharge of drilling wastes; discharge of metal refineries.
Copper (ppm) *	0.13	1.3	AL=1.3	Erosion of natural deposits; discharge of drilling wastes; discharge of metal refineries.
Lead (ppb)	0.002	0	AL=0.015	Erosion of natural deposits; discharge of drilling wastes; discharge of metal refineries.
Alpha emitters pCi/L *	3	0	15	Erosion of natural deposits.
Beta/Photon emitters pCi/L *	7	0	50	Decay of natural and man-made deposits.
Barium (ppm)*	0.13	2	2	Erosion of natural deposits; discharge of drilling wastes; discharge of metal refineries.
Fluoride (ppm)*	0.94	4	4	Erosion of natural deposits; discharge of drilling wastes; discharge of metal refineries.
Sodium (ppm)*	22	NA	NA	Naturally present in the environment.

The amounts of *Antimony, Arsenic, Beryllium, Cadmium, Chromium, Cyanide, Mercury, Selenium, Thallium, Nitrate, Nitrite* and *Nickel* were so small they are effectively not detected.

Regulated organics (VOC's and SOC's) -

No regulated detects in sample.

Unregulated organics (VOC's and SOC's) -

No regulated detects in sample.

Volatile Organic contaminants -

No regulated detects in sample.

The State of Colorado permits monitoring for some contaminants less than once per year because the concentrations of these contaminants do not change frequently. Some of this data, though representative, are more than one year old.

HEALTH AND DRINKING WATER

Some people may be more vulnerable to contaminants in drinking water than the general public. Immune-compromised individuals such as those with cancer undergoing chemotherapy, individuals who have had organ transplants, those 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. 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 at other homes in the community as a result of materials used in your home's plumbing, although most homes in Castle Pines North have been recently constructed and should not have any significant lead source. Flushing taps for 30 seconds to two minutes before using tap water is effective in reducing lead levels.

More information on health and drinking water and EPA/CDC guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and microbiological contaminants are available from the Safe Drinking Water Hotline, 1-800-426-4791, or at www.epa.gov/safewater.

WHAT IS IN OUR WATER?

As water travels over the surface of land or through the ground, it dissolves naturally occurring minerals. Contaminants that may be present in source water before it is treated could include: microbial contaminants, such as viruses and bacteria; inorganic contaminants, such as salts and metals; pesticides and herbicides; organic chemical contaminants, from industrial or petroleum use; and radioactive materials, which are naturally occurring.

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. It is important to remember that the presence of these small amounts does not mean there is a health risk.

GLOSSARY OF TERMS

Action Level - the concentration of a contaminant, which, if exceeded, triggers treatment or other requirements that a water system must follow.

Contaminant - a potentially harmful physical, biological, chemical or radiological substance in water.

Maximum Contaminant Level - the "Maximum Allowed" (MCL) 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 Contaminant Level Goal - "Goal" (MCLG) is the level of a contaminant in drinking water below which there is no known or expected risk of health. MCLGs allow for a margin of safety.

N/A - not applicable

Non-detects (ND) - laboratory analysis indicates the constituents are not present.

Parts per Million (PPM) or Milligrams Per Liter (mg/l) - one part per million is comparable to one drop of water in 55 gallons.

Parts per Billion (PPB) or Micrograms Per Liter (ug/l) - one part per billion is equivalent to one drop of water in 55,000 gallons.

Pico Curies Per Liter (pCi/L) - Pico curies per liter is a measure of the radioactivity in water.

Treatment Technique (TT) - a treatment technique is a required process intended to reduce the level of a contaminant in drinking water.

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CPNMD Water Treatment Plant

HOW OUR WATER IS TREATED

The water is delivered to the water treatment plant from the wells located throughout the District, through a series of raw water mains. It passes through the 5.2 million gallon per day water treatment plant and is stored in two tanks totaling 3.5 million gallons. A variety of steps are performed at the treatment plant to ensure the quality of the water. Water flows into a pretreatment basin where chlorine is added to remove naturally occurring iron and manganese. This is slow moving water and the particulates settle to the bottom of the basin. Next, the water is filtered through layers of silicate sand and fine anthracite to

remove any remaining impurities. As a final treatment process a small amount of chlorine and ammonium sulfate are added to bring the level up to state health requirements. We carefully monitor the amount of chlorine, adding the lowest quantity necessary without compromising the taste of the water.

METRO DISTRICT CONTACT INFORMATION

CPNMD Board of Directors meetings are held on the third Monday of every month at 7:00 p.m. at the Community Center, 7404 Yorkshire Drive, in Castle Pines North.

For water quality questions contact Andrew Romano, Treatment Manager, at 303-688-8550.

For after-hours emergencies please dial 303-688-8550.

For billing inquiries, contact the Castle Pines North Metropolitan District office at 303-688-8550.

Website: www.cpnmd.org
