

# M *Castle Pines North* METROPOLITAN DISTRICT



*Providing the people, families, neighborhoods and small businesses of Castle Pines with clean, safe, reliable drinking water, renewable 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 Standard & Poor's AA and Moody's A1 bond ratings.*

## Annual Drinking Water Consumer Confidence Report – June 2015

### Why You Are Receiving This Report

Since 1984, your Castle Pines North Metropolitan District (Metropolitan District) has dedicated itself to providing the people and businesses of our community with clean, safe, reliable, on-demand drinking water service.

The Metropolitan District routinely monitors and tests for over 80 possible contaminants.

Congress originally approved Safe Drinking Water Act (SDWA) legislation in 1974 and subsequently amended the law in 1986 and again in 1996. Congress enacted this legislation to protect the nation's drinking water and its various sources: rivers, lakes, reservoirs, springs, and ground water wells.

The U.S. Environmental Protection Agency (EPA) prescribes strict drinking water contaminant limits with which the Metropolitan District, and all public drinking water service providers, must comply.

The EPA's Public Notification Rule requires public drinking water service providers, including the Metropolitan District, to mail an

annual drinking water "Consumer Confidence Report" to each customer address.

This report summarizes the Metropolitan District's drinking water quality, sources and test results.

The water quality data tables, on pages 2 and 3 of this report, reveal that the Metropolitan District's drinking water contains relatively few contaminants, all of which are well below EPA limits.

### Where Your Water Comes From

For a portion of the year, the Metropolitan District is reliant upon ground water wells located throughout the District. For the



remainder of the year, the Metropolitan District uses renewable surface water rights which are owned by the Metropolitan District via

an agreement with Centennial Water and Sanitation District (Highlands Ranch). For information on Centennial's water quality please refer to [http://centennialwater.org/wp-content/uploads/2015/04/2015-Water-Quality-Report\\_web.pdf](http://centennialwater.org/wp-content/uploads/2015/04/2015-Water-Quality-Report_web.pdf).



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Within the Denver Basin Aquifer System lie four distinct and separate aquifers, ordered below by depth:

- Dawson Aquifer (most shallow)
- Denver Aquifer
- Arapahoe Aquifer (the Metropolitan District's primary water source)
- Laramie-Fox Hills Aquifer (deepest)

The Metropolitan District owns a total of 11 wells, seven of which tap the Arapahoe Aquifer, two of which tap the Denver Aquifer and two of which tap the Dawson Aquifer. Well depths range from 720 to 2,370 feet.

The Metropolitan District developed and maintains these wells to limit/prevent contaminant infiltration from the surface and reserves the right to restrict activities that pose a significant contaminant risk. Potential source water contamination typically comes from, but is not limited to:

- Road runoff
- Residential runoff (fertilizers, oil leaks, etc.)
- Leaking storage tanks
- Chemicals used on urban and recreational grasses
- Leaking septic systems

## Public Water System ID #0118006

Your Metropolitan District routinely monitors for drinking water contaminants. Unless otherwise noted, the tables on pages 2 and 3 of this Report show all drinking water contaminant detections the Metropolitan District found in the period from January 1, 2014 to December 31, 2014.

In some cases, the EPA requires public drinking water service providers to monitor for certain potential contaminants less than once per year. This is because, in some cases, the EPA expects contaminants to vary insignificantly from year to year. In other cases, the EPA may consider the drinking water system largely invulnerable to certain contaminants. As a result, some of data in the adjoining tables may be over one year old.

**Please Note:** Only detected contaminants sampled within the last five years appear in the adjoining tables. If the Metropolitan District detected no levels of some contaminants in the last round of monitoring, those references will not appear in the tables. Metropolitan District monitoring reveals that all detected contaminant levels are below EPA limits.

## Radiological Water Quality Data Table

Test Name	Result	Units	Maximum Contaminant Level	Minimum Detectable Activity
Gross Alpha	< 3	pCi / L	15	3
Gross Beta	5 + / - 4	pCi / L	50	4
Combined Radium	1.3 + / - 0.1	pCi / L	Ra226 + Ra228 < 5	0.2
Uranium	< 0.001	mg / L	0.03	0.001

# Water Quality Data Table

Contaminant (Unit)	Test Date	Level Detected	Maximum Contaminant Level Goal	Maximum Contaminant Level	Violation	Typical Source
<b>Organics and Inorganics<sup>1</sup></b>						
Barium (ppm)	2011	0.084	2	2	No	Erosion of natural deposits; discharge of drilling wastes; discharge of metal refineries
Fluoride (ppm)	2011	0.94	4	4	No	Erosion of natural deposits; discharge of drilling wastes; discharge of metal refineries
Nitrate - measured as Nitrogen (ppm)	2014	less than 0.1	10	10	No	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
<b>Lead and Copper</b>						
Copper (ppm)	2014	0.0595	1.3	1.3	No	Erosion of natural deposits; discharge of drilling wastes; discharge of metal refineries
Lead (ppm)	2014	0.002	0	0.015	No	Erosion of natural deposits; discharge of drilling wastes; discharge of metal refineries
<b>Secondary Contaminants</b>						
Sodium (ppm)	2011	22	N/A	N/A	No	Naturally present in the environment
<b>Radioactive Contaminants</b>						
Alpha mitters pCi/L	2011	3	0	15	No	Erosion of natural deposits
Beta/Photon emitters pCi/L	2011	7	0	50	No	Decay of natural and man-made deposits
<b>Disinfection By-Products</b>						
Total Haloacetic Acids (HAA) (ppb)	2014	<5	N/A	60	No	By-product of drinking water disinfection
Total Trihalomethanes (TTHM) (ppb)	2014	<0.5	N/A	80	No	By-product of drinking water disinfection

**Per Federal and State compliance regulations, the Metropolitan District tested for regulated *volatile organic compounds (VOCs)* and *synthetic organic compounds (SOCs)* in 2011. That testing revealed that regulated VOCs and SOC were within Federal and State regulation levels.**

<sup>1</sup> The amounts of *Antimony, Arsenic, Beryllium, Cadmium, Chromium, Cyanide, Mercury, Nickel, Selenium and Thallium* were well within Federal and State regulation levels.

## **General Health and Drinking Water Information**

Drinking water from your home tap, and even bottled water, may reasonably be expected to contain low amounts of some contaminants. The presence of these low amounts does not necessarily constitute a health risk. Some people may be more or less vulnerable to drinking water contaminants than the general public.

Immune-compromised people such as people with cancer undergoing chemotherapy, people who have had organ transplants, people with HIV-AIDS or other immune system disorders, elderly people and infants may be at particular risk of infection. These people should seek drinking water advice from their respective health care providers.

Infants and young children are usually more vulnerable to lead in drinking water than the general population. Most homes and associated plumbing systems in the Castle Pines community are relatively new and therefore less likely to present a lead contamination threat than those of older communities. Your home's plumbing system materials may account for higher or lower lead contaminant levels in your tap water as compared with the tap water in a neighbor's home and/or other homes in the community.

Flushing taps for 30 seconds to two minutes before using tap water helps reduce lead levels. If you are concerned about the lead contaminant levels in your drinking water, please have your tap water professionally tested.

For detailed information about contaminants and potential health effects and/or to obtain a copy of EPA and U.S. Centers for Disease Control (CDC) guidelines on effective ways to lessen the risk of Cryptosporidium and microbiological contaminant infection, please contact the EPA Safe Drinking Water Hotline, 1-800-426-4791 and/or visit [www.epa.gov/safewater](http://www.epa.gov/safewater).

Contaminants that may be present in untreated water include:

- Microbial contaminants, such as viruses and bacteria that may come from sewage treatment plants, septic systems, agricultural livestock operations and/or wildlife;
- Inorganic contaminants, such as salts and metals, which can occur naturally or result from urban storm water runoff, industrial or domestic wastewater discharges, oil/gas production, farming and/or mining;
- Pesticides and herbicides that may come from a variety of sources, such as agriculture, urban storm water runoff and/or residential uses;
- Organic chemical contaminants, which are usually by-products of industrial processes and petroleum production, and may also come from gas stations, urban storm water runoff and/or septic systems; and
- Radioactive contaminants, which can be naturally occurring or the result of oil/gas production or mining activities.

## **Water Conservation**

Castle Pines North Metropolitan District strongly encourages water conservation to preserve our limited resources. The majority of our groundwater supply is finite and is being depleted rapidly. Currently, irrigation of lawns and gardens is the single greatest demand on our water supply. Reducing reliance on drinking water for irrigation can greatly reduce the burden on our diminishing supplies. For more information on reducing your irrigation water consumption, contact Craig Miller, CPNMD's Parks & Open Space Manager at 303-242-3266.



## Colorado Source Water Assessment and Protection Report

Colorado Department of Public Health and Environment (CDPHE) provides the Metropolitan District with a Source Water Assessment and Protection (SWAP) Report.

This SWAP Report provides a screening-level evaluation of potential contamination threats. The Metropolitan District uses the SWAP Report to help evaluate potential water quality threats, improve water treatment and prepare for future contamination threats. The SWAP Report is a tool we use to continue delivering clean, safe, reliable, on-demand drinking water service to your address.

You may obtain a copy of the SWAP Report by visiting <http://wqcdcompliance.com/ccr> (click on Source Water Assessment Reports (listed by county)).

Please Help Protect  
Drinking Water Quality

### Household Chemical Roundup

Douglas County annually sponsors a Household Chemical Roundup in Castle Rock, Highlands Ranch and Parker. For information on how to participate, please visit: <http://www.tchd.org/householdchemical.htm>.



### Medication Take-Back Project

Please do NOT dump unwanted or unused human or pet medications down the drain or toilet. Instead, please deliver these medications to the secure, light green drop-off box at the Castle Rock King Soopers Pharmacy, 100 Founders Parkway.

## How Is Your Water Treated?



The Metropolitan District currently pumps raw water from its 11 wells to a water treatment plant through a series of raw water mains. The raw water passes through the 5.2 million-gallon / day water treatment plant and is stored in two tanks totaling 3.5 million gallons. The Metropolitan District performs several additional steps at the treatment plant to ensure drinking water quality including:

- Allowing the water to slowly flow into a pretreatment basin where naturally occurring iron and manganese are removed. This slow moving water allows particulates to settle to the basin's bottom.
- Next, water is filtered through layers of silicate sand and fine anthracite to remove remaining impurities.
- As the final step in the treatment process, we add a small amount of chlorine and ammonium sulfate to bring the water quality level up to EPA requirements.
- We closely monitor chlorine levels, adding the lowest quantity possible to avoid compromising water taste.

For a portion of the year, the Metropolitan District relies upon renewable surface water rights that are delivered by the Interconnect Pipeline Project facilities via an agreement with Centennial Water and Sanitation District. For information on Centennial's water quality please refer to [http://centennialwater.org/wp-content/uploads/2015/04/2015-Water-Quality-Report\\_web.pdf](http://centennialwater.org/wp-content/uploads/2015/04/2015-Water-Quality-Report_web.pdf).

## Terms and Abbreviations

**Action Level** – the concentration of a contaminant, which if exceeded, will trigger a treatment and/or other mitigation plan.

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

**Maximum Contaminant Level (MCL)** – the highest level of a contaminant that is allowed in drinking water. MCL's are set as close to the MCLG's as feasible using the best available treatment technology.

**Maximum Contaminant Level Goal (MCLG)** – a drinking water contaminant level, below which there is no known or expected health risk. MCLGs reflect a safety margin.

**N/A** - not applicable

**Non-detects (ND)** – laboratory analysis indicates the contaminants are not present.

**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 a single penny in \$10,000,000.

**Parts per Million (ppm) or Milligrams Per Liter ( $\text{mg/l}$ )** – one part per million compares to one minute in two years or a single penny in \$10,000.

**Picocuries Per Liter ( $\text{pCi/L}$ )** – picocuries per liter is a measure of radioactivity in water.

**Treatment Technique (TT)** – a required process intended to reduce the level of a contaminant in drinking water.

### Contact Information

#### Castle Pines North Metropolitan District

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Castle Pines, CO 80108

[www.cpnmd.org](http://www.cpnmd.org) | 303-688-8550

For **water quality questions**, please contact Cory Williams, Treatment Manager. For **billing inquiries**, please contact Janet Burnham, District Administrator. For District management questions, please contact Jim Nikkel, District Manager.

Your five-member, publicly elected Metropolitan District Board of Directors hosts public meetings on the third Monday of each month at 6:00 p.m. at the Castle Pines North Community Center, 7404 Yorkshire Drive. All customers and residents are invited and welcome to attend all public meetings.