

CASTLE PINES NORTH



METROPOLITAN DISTRICT™



Annual Drinking Water Consumer Confidence Report – June 2018

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 the 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 provide 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/2011/12/2018-Water-Quality-Report_web.pdf or the attached report.



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, 2017 to December 31, 2017.

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 |
|--|-----------|----------------|--------------------------------|---------------------------|-----------|---|
| Organics and Inorganics¹ | | | | | | |
| Barium (ppm) | 2017 | 0.092 | 2 | 2 | No | Erosion of natural deposits; discharge of drilling wastes; discharge of metal refineries |
| Fluoride (ppm) | 2017 | 0.77 | 4 | 4 | No | Erosion of natural deposits; discharge of drilling wastes; discharge of metal refineries |
| Nitrate - measured as Nitrogen (ppm) | 2017 | 0.02 | 10 | 10 | No | Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits |
| Lead and Copper | | | | | | |
| Copper (ppm) | 2017 | 0.012 | 1.3 | 1.3 | No | Erosion of natural deposits; discharge of drilling wastes; discharge of metal refineries |
| Lead (ppm) | 2017 | 0.008 | 0 | 0.015 | No | Erosion of natural deposits; discharge of drilling wastes; discharge of metal refineries |
| Secondary Contaminants | | | | | | |
| Sodium (ppm) | 2017 | 22 | N/A | N/A | No | Naturally present in the environment |
| Radioactive Contaminants | | | | | | |
| Alpha emitters 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 |
| Disinfection By-Products | | | | | | |
| Total Haloacetic Acids (HAA) (ppb) | 2017 | <5 | N/A | 60 | No | By-product of drinking water disinfection |
| Total Trihalomethanes (TTHM) (ppb) | 2017 | <0.5 | N/A | 80 | No | By-product of drinking water disinfection |

| Disinfectants Sampled in the Distribution System | | | | | | |
|--|----------------|---|-------------------------------|-------------|--------------|--------|
| TT Requirement: At least 95% of samples per period (month or quarter) must be at least 0.2ppm OR if sample size is less than 40 no more than 1 sample is below 0.2 ppm. Typical Sources: Water additive used to control microbes | | | | | | |
| Disinfectant Name | Time Period | Results | Number of Samples Below Level | Sample Size | TT Violation | MRDL |
| Chlorine | December, 2017 | <u>Lowest period</u> percentage of samples meeting TT requirement: 100% | 0 | 10 | No | 4.0PPM |

Per Federal and State compliance regulations, the Metropolitan District tested for regulated *volatile organic compounds* (VOCs) and *synthetic organic compounds* (SOCs) in 2016. That testing revealed that regulated VOCs and SOCs were within Federal and State regulation levels.

¹ 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.

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

Please Help Protect
Drinking Water Quality

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)).

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/250/Home-Chemical-Waste>



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/2011/12/2018-Water-Quality-Report_web.pdf or the attached report.

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 (mg/l) – one part per million compares to one minute in two years or a single penny in \$10,000.

Picocuries Per Liter (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

7404 Yorkshire Drive
Castle Pines, CO 80108

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.

2018 Water Quality Report



centennialwater.org
303-791-0430
info@centennialwater.org



CENTENNIAL
WATER AND SANITATION DISTRICT

SWAP Program

The Source Water Assessment Program (SWAP) protects the quality of groundwater and surface water supplies. The Colorado Department of Public Health and Environment provides Centennial Water with a SWAP report of its water supply sources. You may obtain a copy of the report by visiting wqcdcompliance.com/ccr (click on Source Water Assessment Reports (listed by county)), or by contacting Centennial Water at 303-791-2185, ext. 3523.

The SWAP report provides a screening level of potential contamination that could occur. It does not mean contamination has or will occur. This information is useful in evaluating the need to improve water treatment capabilities and prepare for future contamination threats. This helps ensure quality finished water is delivered to your home. 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 in our source water may come from discrete sources (abandoned contaminated sites, hazardous

waste generators, chemical inventory/storage sites, solid waste sites, permitted wastewater discharge sites, above ground, underground and leaking storage tank sites, existing/abandoned mine sites, 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).

Centennial Water maintains a variety of programs and procedures to ensure Highlands Ranch has a clean and secure water supply. For more information about these programs and procedures, please visit centennialwater.org, or contact Centennial Water at 303-791-2185, ext. 3523.

Centennial Water Quick Customer Facts



29,017
single
family
homes



6,001
multi-
family
units



1,565
commercial
customers

Safely and securely dispose of medications

Centennial Water encourages its customers to safely dispose of expired, unused and unwanted prescription and over-the-counter drugs, keeping them out of the water supply and out of harm's way for Highlands Ranch residents and the natural environment.

In the past, flushing expired, unwanted medications down the toilet was a preferred method of disposal. This was, and still is not the preferred disposal method. It is never safe to dispose of medications by flushing them down the toilet.

Twice a year, Centennial Water, along with the Highlands Ranch Metro District and Douglas County Sheriff's Office, participates in National Drug Take Back events, providing the public a safe, secure way to dispose of these medications.

Last year in Colorado, 35,300 pounds of medications were collected at 108 sites across the state. According to the Colorado Consortium for Prescription Drug Abuse Prevention, the average American household possesses four pounds of unwanted, unused, expired medications. But it's not just prescription medications. It also includes vitamins, cold medicine, even prescriptions for pets.

Centennial Water encourages you to go through your cabinets and get rid of any medications that you no longer need and safely dispose of them during a National Drug Take Back event. Visit dcsheriff.net to learn more.

If you are unable to attend one of the Drug Take Back events, medications can also be safely disposed at a secure drop box located at the Walgreens pharmacy at 9141 S. Broadway, Highlands Ranch.

National Prescription Drug Take Back

Saturday, April 28

Saturday, October TBD

10 a.m. to 2 p.m.

DCSO Highlands Ranch
Substation

303-791-0430

centennialwater.org



Q&A about the quality of your water

Centennial Water & Sanitation District's goal is to provide a safe and dependable supply of drinking water. We are committed to providing high quality drinking 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 sources are the South Platte River with diversions through the City Ditch, Nevada Ditch, Last Chance Ditch and South Platte Alluvial Wells, transported to storage in McLellan Reservoir or the South Platte Reservoir. Our secondary water source is nontributary wells in Denver Basin aquifers.

Is our community's drinking water regularly tested?

Yes. Centennial Water routinely monitors constituents in drinking water according to federal and state laws. The table in this report shows the monitoring results for the period of Jan. 1 through Dec. 31, 2017.

Are there contaminants in drinking water?

All drinking water, including bottled drinking water, may contain trace contaminants. The presence of 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 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. These contaminants may 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, 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.

Drinking water taste and odor

The major source of drinking water for Highlands Ranch is surface water from the South Platte River. Periodically, Centennial Water may choose to supplement the drinking water supply with groundwater sources (wells).

Why does my water smell musty?

Periodically in the spring or fall, Centennial Water's surface water storage reservoirs experience algae growth that produces non-harmful compounds that can give water a musty, earthy or moldy taste and odor. Water treatment plant operators add activated carbon to reduce the taste and odor in the treated water.

Why does my water taste different?

At times when groundwater sources are used, you may notice a different taste or odor described as chemical tasting or metallic. The groundwater sources contain different levels of minerals. Sometimes when these sources are blended with treated surface water, residents notice a difference in the taste of drinking water.

Is my water safe to drink?

Yes. Highlands Ranch residents can be assured all sources of drinking water, both surface and groundwater, are tested on a regular basis and meet all state and federal drinking water regulations and requirements.

- Radioactive contaminants, which can be naturally occurring, or the result of oil and gas production and mining activities.

To ensure 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 regulations establish limits for contaminants in bottled water, which must provide the same protection for public health.

How can I learn more about Highlands Ranch water?

If you have questions about this report or your water services, please contact Centennial Water's lab at 303-791-2185, ext. 3523. We want you to be informed about your water utility. Attending a board meeting is a great way to learn more about Centennial Water's water supply. Meetings are held at the Hendrick Office Building, 62 Plaza Dr., Highlands Ranch, CO 80129. Please visit centennialwater.org for a board meeting schedule.



2018 Highlands Ranch Water Quality Report

The Water Quality Data Table to the right contains many terms and abbreviations that may be unfamiliar. The following definitions should 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 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 Contaminant Level (MCL): The highest level of a contaminant 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. The 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 visually noticeable to the average person.

Non-detects (ND): Laboratory analysis indicates the constituent was not detected above laboratory detection limits.

Parts per million (ppm): One part per million corresponds to one minute in two years, or a single penny in \$10,000.

Parts per billion (ppb): One part per billion corresponds to one minute in 2,000 years, or a single penny in \$10,000,000.

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 calculated each quarter.

Secondary Maximum Contaminant Level (SMCL): Non-enforceable, recommended limits for substances that affect the taste, odor, color or other aesthetic qualities of drinking water, but do not pose a health risk.

Not Available (NA)

Public Notice - Failure to Monitor and/or Report, Non-Health-Based

In April 2017, Centennial Water failed to collect a monthly sample of its untreated surface water for turbidity, e-coli and cryptosporidium analysis as part of a two-year monthly sampling requirement. In May 2017, Centennial Water collected two samples to make up for the missing April sample and the issue was resolved. There were no known health effects because of the missed sample in April. There was no cryptosporidium detected in any of the water samples collected for this sampling program between October 2015 and September 2017.

Results of Lead Monitoring

Pregnant women and young children are typically more vulnerable to lead in drinking water than the general population. It is possible 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 or online at epa.gov/safewater/lead.

Centennial Water and 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 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, 2017. 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 (2017) | Results at the 90th Percentile | AL | MCLG | Meets EPA Standards | Likely Source |
|---|--------------------------------|-----|------|---------------------|---|
| Copper (ppm) (0 of 31 samples exceeded the AL) | 0.24 | 1.3 | 1.3 | Yes | Corrosion of household plumbing systems |
| Lead (ppb) (0 of 31 samples exceeded the AL) | 2.0 | 15 | 0 | Yes | Corrosion of older household plumbing systems |

| Regulated Disinfectants and Disinfection Byproducts | Range (all data) | Highest Locational RAA Level | MCL (MRDL) | MCLG (MRDLG) | Meets EPA Standards | Likely Source |
|---|------------------|------------------------------|------------|--------------|---------------------|--|
| Chloramines (ppm) | 1.2-2.9 | NA | 4 (MRDL) | 4 (MRDLG) | Yes | Water additive used to control microbes |
| Haloacetic Acids (ppb) | 1.0-19.6 | 14.6 | 60 | NA | Yes | Byproduct of drinking water disinfection |
| Total Trihalomethanes (ppb) | 1.8-55.0 | 32.1 | 80 | NA | Yes | Byproduct of drinking water disinfection |

| Regulated Radioactive Substances | Range | Average Level | MCL | MCLG | Meets EPA Standards | Likely Source |
|---|---------|---------------|-----|------|---------------------|--|
| Gross Beta (pCi/L) Particle Activity | 0.0-4.0 | 1.5 | 50 | 0 | Yes | Decay of natural and man-made deposits |
| Radium (combined 226/228) (pCi/L) | 0.5-1.3 | 0.9 | 5 | 0 | Yes | Erosion of natural deposits |
| Combined Uranium (ppb) | 0.0-1.9 | 1.1 | 30 | 0 | Yes | Erosion of natural deposits |
| Gross Alpha (pCi/L) | 0.6-2.7 | 1.7 | 15 | 0 | Yes | Erosion of natural deposits |

| Regulated Microbiological | Range | Highest Level | MCL | MCLG | Meets EPA Standards | Likely Source |
|--|-------|---------------|-----|------|---------------------|--------------------------------------|
| Total Coliform (% positive samples/month) | 0 | 0 | 5 | 0 | Yes | Naturally present in the environment |

| Disinfection Byproducts | Range | Average Level | TT Minimum Ratio | Meets TT Requirements? | Likely Source |
|----------------------------|-----------|---------------|------------------|------------------------|--|
| Total Organic Carbon Ratio | 1.04-2.63 | 1.71 | 1.0 | Yes | Natural organic material that is present in the environment. |

| Regulated Inorganic Substances | Range | Average Level | MCL | MCLG | Meets EPA Standards | Likely Source |
|--------------------------------|------------|---------------|-------|-------|---------------------|-----------------------------|
| Barium (ppb) | 48-84 | 67 | 2,000 | 2,000 | Yes | Erosion of natural deposits |
| Fluoride (ppm) | 0.86-0.94 | 0.89 | 4 | 4 | Yes | Erosion of natural deposits |
| Nitrate (ppm) | <0.02-0.13 | 0.05 | 10 | 10 | Yes | Erosion of natural deposits |
| Arsenic (ppb) | <1.0-1.0 | <1.0 | 10 | 0 | Yes | Erosion of natural deposits |
| Chromium (ppb) | <1.0-1.0 | <1.0 | 100 | 100 | Yes | Erosion of natural deposits |
| Selenium (ppb) | <1.0-1.0 | <1.0 | 50 | 50 | Yes | Erosion of natural deposits |

| Other Monitoring | Range | Average Level | MCL | MCLG | Likely Source |
|------------------------------|-----------|---------------|------------|------|--------------------------------------|
| Nickel (ppb) | <1.0-3.0 | 1.0 | NA | NA | Naturally present in the environment |
| Sodium (ppm) | 27.0-43.4 | 36 | NA | NA | Naturally present in the environment |
| Total Dissolved Solids (ppm) | 135-284 | 196 | 500 (SMCL) | NA | Erosion of natural deposits |

| *Regulated Turbidity | Sample Date | Level Found | TT Requirement | Likely Source |
|----------------------|---------------|--|--|---------------|
| Turbidity (NTU) | January 2017 | Highest single measurement: 0.12 | Maximum 1 NTU for any single measurement. | Soil runoff |
| Turbidity (%) | Every 4 hours | Lowest monthly percentage of samples less than 0.3 NTU: 100% | In any month, at least 95% of samples must be less than 0.3 NTU. | Soil runoff |

*Centennial Water samples the treated water every four hours for turbidity. In 2017, the highest turbidity reading was 0.12 NTU and 100 percent of all samples taken in 2017 were below the standard of 0.3 NTU.

Board of Directors

Terri Kershnik, *Chair*
 Jeff Kappes
 John Kilrow
 Tim Roberts
 John Kaufman, *General Manager*

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 Highlands Ranch, CO 80129
[facebook.com/CentennialWaterAndSanitationDistrict](https://www.facebook.com/CentennialWaterAndSanitationDistrict)
centennialwater.org • 303-791-0430



If you have questions about this report or your water services, please contact Centennial Water at 303-791-2185, ext. 3523. We want you, our valued customer, to be informed about your water utility.