

# Water Quality Report 2017



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**CENTENNIAL**  
WATER AND SANITATION DISTRICT

## SWAP Program

The Source Water and Assessment Program (SWAP) was initiated to protect the quality of groundwater and surface water supplies. The Colorado Department of Public Health and Environment provided Centennial Water with a SWAP report for both our surface and groundwater supply. You may obtain a copy of the report by visiting <http://wqcdcompliance.com/ccr> (click on Source Water Assessment Reports (listed by county)), or by contacting Centennial Water at 303-791-2185, ext. 3523.

Potential sources of contamination in our source water may come from 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, 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).

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 can help 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.

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 [www.centennialwater.org](http://www.centennialwater.org), or contact Centennial Water at 303-791-2185, ext. 3523.

### Centennial Water Customer Quick Facts



28,908  
single  
family  
homes



5,400  
multi-  
family  
units



1,565  
commercial  
customers

## Centennial Water has its eye on the future

The foundation of the community's water supply consists of a mix of surface water and groundwater, commonly referred to as a conjunctive use system. This means water sources include both surface water from the South Platte River and groundwater from deep wells throughout Highlands Ranch.

Over the past 30 years, 90 percent of the water supply has come from renewable surface water. To firm up the surface water system during drier periods, a network of deep groundwater wells makes an important contribution to system reliability. To increase the long-term sustainability of the groundwater supplies, Centennial Water has developed the capability to inject treated surface water back into the groundwater aquifers. The long-term water supply will include both sources.

Centennial Water also works closely with other water districts in the region to bring additional supplies of water to customers and help secure long-term water resources, as shown in the following projects:

**WISE – Water, Infrastructure and Supply Efficiency**  
WISE is a cooperative, regional project bringing together 12 municipal water providers. WISE combines the reuse of available water with underused infrastructure to deliver renewable surface water to the southern suburbs.

### Chatfield Reservoir Reallocation Project

The Chatfield Reservoir Reallocation Project is securing new surface water and storage for our future. The U.S. Army Corps of Engineers determined Chatfield Reservoir can accommodate an additional 20,600 acre feet of water storage for water supply without compromising its flood control function. This additional storage space will be used by Centennial Water and other municipal and agricultural water providers to help meet the diverse needs of the state.

### Highlands Ranch water supply

Conjunctive use system, 10 year average



# 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 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 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 & Sanitation District 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, 2016.

### Are there contaminants in drinking water?

All drinking water, including bottled drinking water, may contain trace amounts of 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.

- 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.

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 District Office Building, 62 Plaza Dr., Highlands Ranch, CO 80129. Please visit [www.centennialwater.org](http://www.centennialwater.org) for a board meeting schedule.

### Centennial Water & Sanitation District Board of Directors

Terri Kershnik, Chair  
Jeff Kappes  
John Kilrow  
Tim Roberts

John Kaufman  
General Manager

### Centennial Water is seeking homeowners to participate in a sampling program required by the Colorado Department of Public Health and Environment

#### What is the program?

In 1991, the EPA established the Lead and Copper Rule which regulates the amount of lead and copper allowed in water. It requires water districts to collect samples from eligible homes to determine the amount of lead and copper levels in our water at the tap.

#### Who can participate?

If you live in a single-family home built between 1983 - 1987, you may have copper pipes with lead solder.

#### To volunteer or for more information

Contact Centennial Water at 303-791-2185, ext. 3523 or [info@highlandsranch.org](mailto:info@highlandsranch.org).



# 2017 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 (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 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 the constituent was not detected above laboratory detection limits.

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

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

**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)**

## 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 [www.epa.gov/safewater/lead](http://www.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, 2016. 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 (2014)	Results at the 90th Percentile	AL	MCLG	Meets EPA Standards	Likely Source
Copper (ppm) (0 of 31 samples exceeded the AL)	0.45	1.3	1.3	Yes	Corrosion of household plumbing systems
Lead (ppb) (0 of 31 samples exceeded the AL)	3.0	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)	0.7-3.4	NA	4 (MRDL)	4 (MRDLG)	Yes	Water additive used to control microbes
Haloacetic Acids (ppb)	5.1-40.1	24.1	60	NA	Yes	Byproduct of drinking water disinfection
Total Trihalomethanes (ppb)	4.6-60.3	45.8	80	NA	Yes	Byproduct of drinking water disinfection

Regulated Radioactive Substances	Range	Highest Level	MCL	MCLG	Meets EPA Standards	Likely Source
Gross Beta (pCi/L) Particle Activity	0.0-2.1	2.1	50	0	Yes	Decay of natural and man-made deposits
Radium (combined 226/228) (pCi/L)	0.2-2.4	2.4	5	0	Yes	Erosion of natural deposits
Combined Uranium (ppb)	1.2-3.2	3.2	30	0	Yes	Erosion of natural deposits
Gross Alpha (pCi/L)	0.5-4.9	4.9	15	0	Yes	Erosion of natural deposits

Regulated Microbiological	Range	Highest Level	MCL	MCLG	Meets EPA Standards	Likely Source
Total Coliform (% positive samples/month)	ND-1.0	1.0	5	0	Yes	Naturally present in the environment

Regulated Turbidity	Sample Date	Level Found	TT Requirement	Likely Source
Turbidity (NTU)	6-17-17	Highest single measurement: 0.09	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

Disinfection Byproducts	Range	Lowest Level	TT Minimum Ratio	Meets TT Requirements?	Likely Source
Total Organic Carbon Ratio	1.06-2.05	1.06	1.0	Yes	Natural organic material that is present in the environment.

Regulated Inorganic Substances	Range	Highest Level	MCL	MCLG	Meets EPA Standards	Likely Source
Barium (ppb)	52-81	81	2,000	2,000	Yes	Erosion of natural deposits
Fluoride (ppm)	0.92-1.07	1.07	4	4	Yes	Erosion of natural deposits
Nitrate (ppm)	0.04-0.09	0.09	10	10	Yes	Erosion of natural deposits
Arsenic (ppb)	ND-2	2	10	0	Yes	Erosion of natural deposits
Chromium (ppb)	1-2	2	100	100	Yes	Erosion of natural deposits
Selenium (ppb)	ND-2	2	50	50	Yes	Erosion of natural deposits

Other Monitoring	Range	Highest Level	MCL	MCLG	Likely Source
Nickel (ppb)	<1.0-1.0	1.0	NA	NA	Naturally present in the environment
Sodium (ppm)	53.1-74.7	74.7	NA	NA	Naturally present in the environment
Total Dissolved Solids (ppm)	292-454	454	500 (SMCL)	NA	Erosion of natural deposits

