



BrightonSM

COLORADO

2019 Drinking Water Quality Report
For Calendar Year 2018



Public Water System ID: CO0101025

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

We are pleased to present to you this year's water quality report. Our constant goal is to provide you with a safe and dependable supply of drinking water. Please contact MICHAEL WOODRUFF at 303-655-2241 with any questions or for public participation opportunities that may affect water quality.

Source Water Assessment and Protection (SWAP)

The Colorado Department of Public Health and Environment may have provided us with a Source Water Assessment Report for our water supply. For general information or to obtain a copy of the report please visit www.colorado.gov/cdphe/ccr. The report is located under "Guidance: Source Water Assessment Reports". Search the table using 101025, BRIGHTON CITY OF, or by contacting MICHAEL WOODRUFF at 303-655-2241. The Source Water Assessment Report provides a screening-level evaluation of potential contamination that *could* occur. It *does not* mean that the 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 for developing a source water protection plan. Potential sources of contamination in our source water area are listed on the next page.

Please contact us to learn more about what you can do to help protect your drinking water sources, any questions about the Drinking Water Quality Report, to learn more about our system, or to attend scheduled public meetings. We want you, our valued customers, to be informed about the services we provide and the quality water we deliver to you every day.

Lead in Drinking Water

If present, elevated levels of lead can cause serious health problems (especially for pregnant women and young children). 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 lead in your water, you may wish to have your water tested. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. Additional information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline (1-800-426-4791) or at www.epa.gov/safewater/lead.

Detected Contaminants

BRIGHTON CITY OF routinely monitors for contaminants in your drinking water according to Federal and State laws. The following table(s) show all detections found in the period of January 1 to December 31, 2018 unless otherwise noted. The State of Colorado requires us to monitor for certain contaminants less than once per year because the concentrations of these contaminants are not expected to vary significantly from year to year, or the system is not considered vulnerable to this type of contamination. Therefore, some of our data, though representative, may be more than one year old. Violations and Formal Enforcement Actions, if any, are reported in the next section of this report.

Note: Only detected contaminants sampled within the last 5 years appear in this report. If no tables appear in this section then no contaminants were detected in the last round of monitoring.



General Information About Drinking Water

All drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that the water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency's Safe Drinking Water Hotline (1-800-426-4791) or by visiting www.water.epa.gov/drink/contaminants.

Some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people 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. For more information about contaminants and potential health effects, or to receive a copy of the U.S. Environmental Protection Agency (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).

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. Contaminants that may be present in source water include:

- **Microbial contaminants:** viruses and bacteria that may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.
- **Inorganic contaminants:** salts and metals, which can be naturally-occurring or can result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.
- **Pesticides and herbicides:** may come from a variety of sources, such as agriculture, urban stormwater runoff, and residential uses.
- **Radioactive contaminants:** can be naturally occurring or can be the result of oil and gas production and mining activities.
- **Organic chemical contaminants:** including synthetic and volatile organic chemicals, which are byproducts of industrial processes and petroleum production, and also may come from gas stations, urban stormwater runoff, and septic systems.

In order to ensure that tap water is safe to drink, the Colorado Department of Public Health and Environment prescribes regulations limiting 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 that must provide the same protection for public health.

Our Water Sources

Brighton's drinking water comes from groundwater pumped from alluvial wells in the South Platte River Basin and the Beebe Draw Alluvium just below Barr Lake, with a mix of up to 2.2 million gallons per day of treated water delivered through the City of Thornton. Groundwater is generally very clean and pure, lacking many of the contaminants that can be found in surface water, as soils can act as a natural filter. You can help protect our water supplies by limiting the use of pesticides, fertilizers and outdoor chemicals. **Remember, anything that is poured onto the ground or in the streets has the potential for reaching the alluvium.**

As a consecutive system to Thornton, the sampling results included in this CCR inherently include data from the water purchased from Thornton. To view a copy of the CCR specifically for the City of Thornton, visit: www.cityofthornton.net/government/infrastructure/water

Source	Source Type	Water Type	Potential Source(s) of Contamination
BEEBEE WELL A	Well	Groundwater UDI Surface Water	EPA Hazardous Waste Generators, EPA Chemical Inventory/Storage Sites, EPA Toxic Release Inventory Sites, Aboveground, Underground and Leaking Storage Tank Sites, Existing / Abandoned Mine Sites, Other Facilities, Commercial / Industrial / Transportation, High Intensity Residential, Low Intensity Residential, Urban Recreational Grasses, Row Crops, Fallow, Small Grains, Pasture / Hay, Septic Systems, Oil / Gas Wells, Road Miles
BEEBEE WELL B	Well	Groundwater UDI Surface Water	
BEEBEE WELL C	Well	Groundwater UDI Surface Water	
NO 8 WELL EMERGENCY USE	Well	Groundwater	
PURCHASED WATER FROM THORNTON	Consecutive Connection	Surface Water	
WELL 11	Well	Groundwater	
WELL 12	Well	Groundwater	
WELL 13	Well	Groundwater	
WELL 17	Well	Groundwater	
WELL 18	Well	Groundwater	
WELL 7R	Well	Groundwater	



Lead and Copper Sampled in the Distribution System

Contaminant Name	Time Period	90 th Percentile	Sample Size	Unit of Measure	90 th Percentile AL	Sample Sites Above AL	90 th Percentile AL Exceedance	Typical Sources
Copper	06/08/2018 to 06/27/2018	0.63	34	ppm	1.3	0	No	Corrosion of household plumbing systems; Erosion of natural deposits
Lead	06/08/2018 to 06/27/2018	2.6	34	ppb	15	0	No	Corrosion of household plumbing systems; Erosion of natural deposits

Disinfection Byproducts Sampled in the Distribution System

Name	Year	Average	Range Low – High	Sample Size	Unit of Measure	MCL	MCLG	MCL Violation	Typical Sources
Total Haloacetic Acids (HAA5)	2018	18.35	7.9 to 34.2	16	ppb	60	N/A	No	Byproduct of drinking water disinfection
Total Trihalomethanes (TTHM)	2018	57.23	28.5 to 100.5	16	ppb	80	N/A	No	Byproduct of drinking water disinfection

**Disinfectants Sampled at the Entry Point to the Distribution System
(Chlorine/Chloramine Row is Optional, Chlorine Dioxide Row is Required)**

Disinfectant Name	Year	Number of Samples Above or Below Level	Sample Size	TT/MRDL Requirement	TT/MRDL Violation	Typical Sources
Chlorine/ Chloramine	2018	0	3255	TT = No more than 4 hours with a sample below 0.8 MG/L	No	Water additive used to control microbes

Summary of Turbidity Sampled at the Entry Point to the Distribution System

Contaminant Name	Sample Date	Level Found	TT Requirement	TT Violation	Typical Sources
Turbidity	Month: May	Highest single measurement: 0.277 NTU	Maximum 1 NTU for any single measurement	No	Soil Runoff
Turbidity	Month: Dec.	Lowest monthly percentage of samples meeting TT requirement for our technology: 100%	In any month, at least 95% of samples must be less than 0.3 NTU	No	Soil Runoff

Radionuclides Sampled at the Entry Point to the Distribution System

Contaminant Name	Year	Average	Range Low – High	Sample Size	Unit of Measure	MCL	MCLG	MCL Violation	Typical Sources
Combined Uranium	2016	2.75	2.6 to 2.9	2	ppb	30	0	No	Erosion of natural deposits

Inorganic Contaminants Sampled at the Entry Point to the Distribution System

Contaminant Name	Year	Average	Range Low – High	Sample Size	Unit of Measure	MCL	MCLG	MCL Violation	Typical Sources
Barium	2018	0.03	0.03 to 0.03	2	ppm	2	2	No	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Fluoride	2018	0.59	0.55 to 0.65	7	ppm	4	4	No	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
Nitrate	2018	3.9	3.9 to 3.9	2	ppm	10	10	No	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits



Disinfectants Sampled in the Distribution System

TT Requirement: At least 95% of samples per period (month or quarter) must be at least 0.2 ppm **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, 2018	Lowest period percentage of samples meeting TT requirement: 100%	0	40	No	4.0 ppm

Volatile Organic Contaminants Sampled at the Entry Point to the Distribution System

Contaminant Name	Year	Average	Range Low – High	Sample Size	Unit of Measure	MCL	MCLG	MCL Violation	Typical Sources
Xylenes	2018	1.4	0 to 2.8	2	ppb	10,000	10,000	No	Discharge from petroleum factories; discharge from chemical factories

Secondary Contaminants**

**Secondary standards are non-enforceable guidelines for contaminants that may cause cosmetic effects (such as skin, or tooth discoloration) or aesthetic effects (such as taste, odor, or color) in drinking water.

Contaminant Name	Year	Average	Range Low-High	Sample Size	Unit of Measure	Secondary Standard
Sodium	2018	47.3	46.5 to 48.1	2	ppm	N/A

Unregulated Contaminants***

EPA has implemented the Unregulated Contaminant Monitoring Rule (UCMR) to collect data for contaminants that are suspected to be present in drinking water and do not have health-based standards set under the Safe Drinking Water Act. EPA uses the results of UCMR monitoring to learn about the occurrence of unregulated contaminants in drinking water and to decide whether or not these contaminants will be regulated in the future. We performed monitoring and reported the analytical results of the monitoring to EPA in accordance with its Unregulated Contaminant Monitoring Rule (UCMR). Once EPA reviews the submitted results, the results are made available in the EPA's National Contaminant Occurrence Database (NCOD) (<http://www.epa.gov/dwucmr/national-contaminant-occurrence-database-ncod>) Consumers can review UCMR results by accessing the NCOD. Contaminants that were detected during our UCMR sampling and the corresponding analytical results are provided below.

Contaminant Name	Year	Average	Range: Low – High	Sample Size	Unit of Measure

***More information about the contaminants that were included in UCMR3 monitoring can be found at: <http://www.drinktap.org/water-info/whats-in-my-water/unregulated-contaminant-monitoring-rule.aspx>. Learn more about the EPA UCMR at: <http://www.epa.gov/dwucmr/learn-about-unregulated-contaminant-monitoring-rule> or contact the Safe Drinking Water Hotline at (800) 426-4791 or <http://water.epa.gov/drink/contact.cfm>.

Unregulated contaminants have not been found to be present in City of Brighton drinking water.

Terms and Abbreviations Used in the Preceding Tables

Maximum Contaminant Level (MCL) – The highest level of a contaminant allowed in drinking water.

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

Health-Based – A violation of either a MCL or TT.

Non-Health-Based – A violation that is not an established MCL or TT.

Action Level (AL) – The concentration of a contaminant which, if exceeded, triggers treatment and other regulatory requirements.

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.

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.

Violation (No Abbreviation) – Failure to meet a Colorado Primary Drinking Water Regulation.

Formal Enforcement Action (No Abbreviation) – Escalated action taken by the State (due to the risk to public health, or number or severity of violations) to bring a non-compliant water system back into compliance.

Variance and Exemptions (V/E) – Department permission not to meet a MCL or treatment technique under certain conditions.

Gross Alpha (No Abbreviation) – Gross alpha particle activity compliance value. It includes radium-226, but excludes radon 222, and uranium.

Picocuries per liter (pCi/L) – Measure of the radioactivity in water.

Nephelometric Turbidity Unit (NTU) – Measure of the clarity or cloudiness of water. Turbidity in excess of 5 NTU is just noticeable to the typical person.

Compliance Value (No Abbreviation) – Single or calculated value used to determine if regulatory contaminant level (e.g. MCL) is met. Examples of calculated values are the 90th Percentile, Running Annual Average (RAA) and Locational Running Annual Average (LRAA).

Average (x-bar) – Typical value.

Range (R) – Lowest value to the highest value.

Sample Size (n) – Number or count of values (i.e. number of water samples collected).

Parts per million = Milligrams per liter (ppm = mg/L) – One part per million corresponds to one minute in two years or a single penny in \$10,000.

Parts per billion = Micrograms per liter (ppb = ug/L) – One part per billion corresponds to one minute in 2,000 years, or a single penny in \$10,000,000.

Not Applicable (N/A) – Does not apply or not available.

Level 1 Assessment – A study of the water system to identify potential problems and determine (if possible) why total coliform bacteria have been found in our water system.

Level 2 Assessment – A very detailed study of the water system to identify potential problems and determine (if possible) why an E. coli MCL violation has occurred and/or why total coliform bacteria have been found in our water system on multiple occasions.

SUGGESTED WATERING SCHEDULE BY SPRINKLER TYPE

THESE NUMBERS REPRESENT NUMBER OF MINUTES PER ZONE, PER DAY.

The City of Brighton has created a suggested irrigation schedule for residents to encourage efficient irrigation practices and reduce water waste. This schedule is for the Kentucky bluegrass lawns that we typically see along the Front Range in Colorado. These watering times are based on seasonal averages that promote healthy grass lawns, but can vary based on local weather and site conditions.

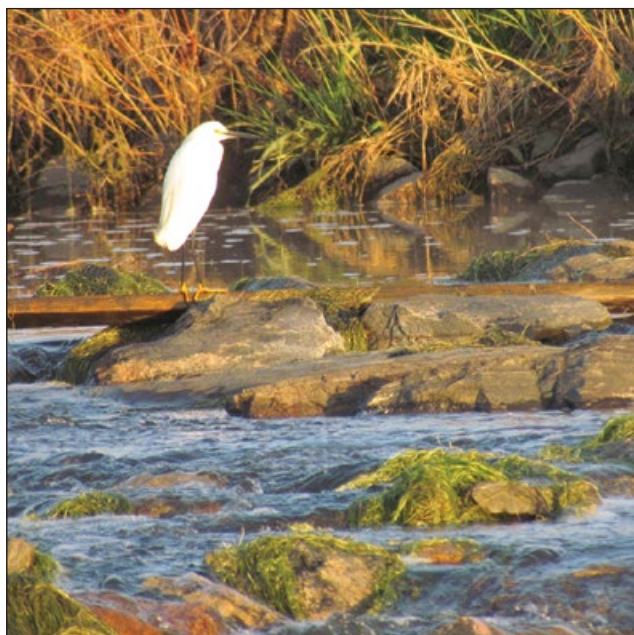
Based on a three day per week irrigation schedule**



	FIXED SPRAY	ROTOR	ROTARY	MANUAL
MAY	13	25	30	19
JUNE	18	35	42	27
JULY	19	37	45	26
AUG.	15	26	35	20
SEPT.	10	24	27	15

** To enhance the efficiency of your irrigation schedule, consider programming your controller to a cycle/soak setting. The cycle/soak method applies water to your landscape in separate short cycles to allow for the water to soak into your soil, preventing run off. For example, a 13-minute zone run could be set to irrigate for 6 minutes, turn off while another zone irrigates, then turn back on to irrigate for another 7 minutes. This method is especially helpful for soils with heavier clay content, like we see frequently in Colorado.

These times are averages, so be sure to adjust your watering times based on rainfall amounts, grass or plant type, sun exposure, and other site characteristics.



Stormwater Program

The primary goal of the City of Brighton's Stormwater Program is to reduce the amount of pollutants entering streams, lakes and rivers. Pollutants, such as fertilizers, pesticides, sediment, trash and spilled chemicals may be transported by runoff water from residential, commercial and industrial areas into the storm sewer system, discharging directly into our local waterways, causing water pollution. Unlike the wastewater in our sewer system, stormwater is not treated before entering our streams, rivers, and lakes. The city's Stormwater Program coordinates the implementation and enforcement of various programs to reduce stormwater runoff pollution, not only to protect the City's natural resources, ensure public safety, and continue improving the quality of life for all Brighton citizens, but also to ensure compliance with State and Federal regulations. For more information, check out the City of Brighton's Stormwater Program website:

www.brightonco.gov/302/Stormwater



WaterSmart transforms utility consumption data into an effective water-use efficiency and customer engagement program.

The City of Brighton is proud to partner with WaterSmart Software to provide customers with an innovative engagement portal and tailored home water reports to learn more about their household water usage and ways to save water and money. This program also improves the city's understanding of water use by our residents.

How it works: Residents and business owners receive six Home Water Reports annually, which present resident-specific water use data, customized water saving recommendations, and events and updates for the city. The Home Water Reports are not a bill, and are based on your water usage from monthly meter readings. This program is intended to be informational, providing water saving suggestions and additional information that can be easily implemented. An online Customer Portal is also available as a resource to Brighton residents to track their usage, offer personalized recommendations for the most effective ways to save water, and provide information about the City's water conservation programming.

Log on to:

www.brightonco.gov/watersmart
Enter your account number and zip code to get your full list of recommended actions, and see:

- Where you're using the most
- Your progress over time
- Efficient products for purchase

E-STATEMENTS

Conveniently receive your water bill and reduce paper waste with E-statements. E-statements will be sent directly to your email inbox, without the hassle of a paper bill. To receive your bill via E-statement, submit your email address to the Utility Billing Division in one of the three following methods:

- Call us at 303-655-2009
- Email us at utilitybilling@brightonco.gov
- Stop by to see us in person at City Hall (500 S. 4th Ave., Brighton)

Once we have your email address, your next bill will be generated as an E-statement.

GREEN PAYMENT

CUSTOMER ASSISTANCE PROGRAM

The City of Brighton has partnered with Almost Home, Inc. on a new **Customer Assistance Program (CAP)**. CAP will provide qualifying residents with help paying their utility bill during hardships.

Utility customers in need of assistance must apply through Almost Home. CAP is only available to Brighton residents and all customers will be asked to show proof of residency and the address associated with their utility bill during the application.

For more information or to see if you qualify for CAP, visit www.brightonco.gov/CAP or call Almost Home at 303-659-6199.

CAP is made possible through generous donations of other neighbors who choose to round up their monthly bill to the nearest dollar. To sign up to help your Brighton neighbors through the Good Neighbor Roundup Program, visit www.brightonco.gov/CAP.



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