

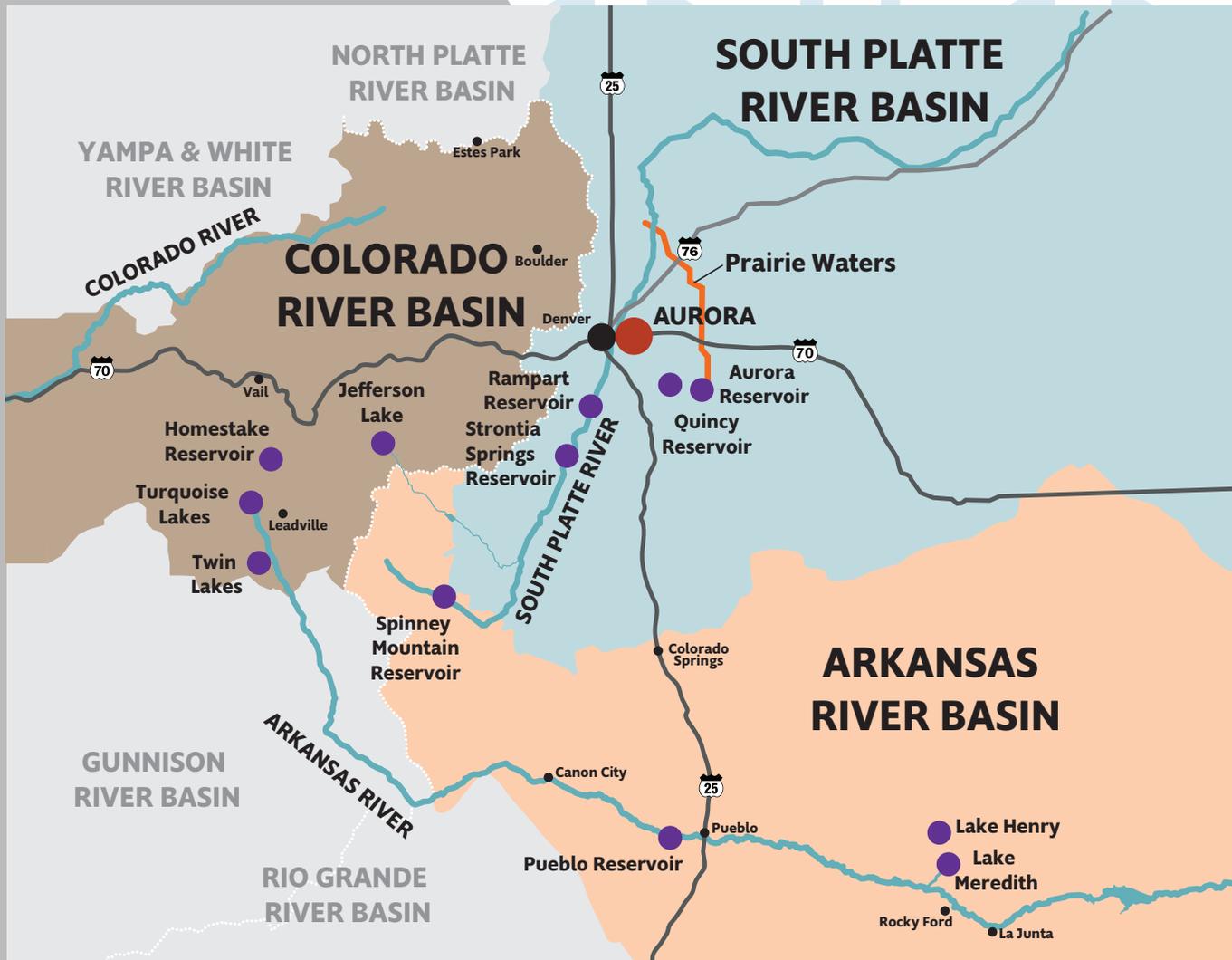


AURORA
WATER

2018

AURORA WATER

CITY OF AURORA COLORADO



In Colorado, we rely heavily on snowmelt for our water supply, but from year to year, it can be difficult to predict how much will be available. That's why we've developed a diverse water portfolio that allows us to access water from a variety of sources, ensuring that we will have adequate supplies to meet demand.

Our water system starts nearly 180 miles away and includes the use of reservoirs, the natural river system, pipes, tunnels and pumps, all of which help us pull the water we own from the Colorado, Arkansas and South Platte river basins. That water is stored in 12 reservoirs and lakes: Aurora, Homestake, Turquoise, Twin Lakes, Spinney Mountain, Jefferson, Strontia Springs, Rampart, Quincy, Pueblo, Henry and Meredith.

**IT'S GREAT WATER.
DRINK IT UP.**

EPA's Safe Drinking
Water Hotline
800.426.4791

City of Aurora
Water Customer Service
303.326.8645

Our 2018 Water Quality Report is an EPA-mandated disclosure of our 2017 performance. If you have any questions or need additional information, visit our website at AuroraWater.org.

TABLE OF DETECTED CONTAMINANTS

Turbidity	Violation	Units	TT Requirement	MCLG	Level Detected	Range	Sample Date	Typical Source of Contamination
Turbidity ¹	No	NTU	Maximum 1 NTU for any single measurement	N/A	Highest turbidity for 2017 0.096	N/A	June 2017	Soil runoff and river sediment
	No	%	In any month, at least 95% of samples must be below 0.3 NTU ²	N/A	100% of samples were <0.3NTU	N/A	N/A	
Inorganic Contaminates	Violation	Units	MCL	MCLG	Average Level Detected	Range	Sample Date	Typical Source of Contamination
Gross Alpha	No	pCi/l	15	0	0.42	0 - 0.9	2017	Decay of natural and man-made deposits
Combined Radium (-226 & -228)	No	pCi/l	5	0	2.42	1.5 - 4	2017	Decay of natural and man-made deposits
Combined Uranium	No	pCi/l	30	0	2.9	1.6 - 5.2	2017	Decay of natural and man-made deposits
Copper and Lead	Violation	Units		MCLG	90th Percentile	Range	Sample Date	Typical Source of Contamination
Copper	No	ppm	1.3	N/A	0.07	0 out of 55 sites sampled exceeded AL	2017	Corrosion of household plumbing systems
Lead	No	ppb	15	N/A	2.3	1 out of 55 sites sampled exceeded AL	2017	Corrosion of household plumbing systems

Inorganic Contaminants	Violation	Units	MCL	MCLG	Average Level Detected	Range	Sample Date	Typical Source of Contamination
Arsenic	No	ppb	10	0	1.4	N/A	2017	Erosion of natural deposits
Barium	No	ppb	2000	2000	30	N/A	2017	Erosion of natural deposits
Chromium	No	ppb	100	100	2.5	N/A	2017	Erosion of natural deposits
Fluoride	No	ppm	4	4	0.97	N/A	2017	Erosion of natural deposits
Nitrate	No	ppm	10	10	0.42	<0.3 - 1.25	2017	Runoff from fertilizer use and erosion of natural deposits
Selenium	No	ppb	50	50	5.8	N/A	2017	Erosion of natural deposits
Disinfection	Violation	Units	MRDL	MRDLG	Average Level Detected	Range	Sample Date	Typical Source of Contamination
Chlorine Residual (Chloramines)	No	ppm	4	4	1.73	0.32 - 2.50	daily	Water additive used to control microbes
Chlorine dioxide	No	ppb	800	800	67.3	0 - 180	daily	Water additive used to control microbes
Disinfection By-Products Precursors	Violation	Units	TT Requirement		Average of Individual Ratio Samples	Range of Individual Ratio Samples	Sample Date	Typical Source of Contamination
Total Organic Carbon	No	ratio	ratio > 1	N/A	2.0	1.02 - 2.98	monthly	Naturally present in the environment
Disinfection By-Products	Violation	Units	MCL	MCLG	Average Level Detected	Range	Sample Date	Typical Source of Contamination
Chlorite	No	ppm	1.0	0.8	0.47	<0.1 - 0.68	daily	By-product of drinking water disinfection
Halocetic Acids	No	ppb	60	N/A	10.3	5.3 - 30.1	quarterly	By-product of drinking water disinfection
Trihalomethanes	No	ppb	80	N/A	21.4	15.0 - 32.8	quarterly	By-product of drinking water disinfection

Beer brewers and fish tank owners often need more information about our water than the EPA requires us to report, so we've included some of it below. Hope it's helpful.

Secondary Contaminants/ Other Unregulated Monitoring	Violation	Units	MCL	SMCL	Average Level Detected	Range	Sample Date	Typical Source of Contamination
Alkalinity (as CaCO3)	N/A	ppm	N/A	N/A	87	44 - 122	daily	Water quality parameter
Calcium	N/A	ppm	N/A	N/A	36	29 - 51	monthly	Erosion of natural deposits
Chloride	N/A	ppm	N/A	250	48	20 - 82	monthly	Erosion of natural deposits
Conductivity	N/A	µmhos/cm	N/A	N/A	454	233 - 669	monthly	Water quality parameter
Hardness (as CaCO3)	N/A	ppm	N/A	N/A	126	70 - 186	daily	Erosion of natural deposits
Hardness-CA (as CaCO3)	N/A	ppm	N/A	N/A	95	49 - 150	weekly	Erosion of natural deposits
pH	N/A	SU	N/A	N/A	8.1	7.3 - 8.3	daily	Water quality parameter
Sodium	N/A	ppm	N/A	10,000	40	20 - 78	yearly	Erosion of natural deposits
Sulfate	N/A	ppm	N/A	250	70	45 - 100	monthly	Erosion of natural deposits

The next time you turn on your faucet and grab an ice cold glass of water, taste it. Really taste it. The water in Aurora is, simply put, some of the best H₂O around, and we have won many awards to prove it. We are the only water provider in the country to have a Phase IV "Excellence in Treatment" designation at three facilities. To receive that, staff had to pass a rigorous evaluation conducted by the Partnership for Safe Water program – an alliance of six drinking water organizations, including the American Water Works Association and United States Environmental Protection Agency. For perspective, only 16 treatment plants to date have successfully completed all four phases of the Partnership for Safe Water program. We didn't pursue it for bragging rights. We did it because delivering high-quality water to your home is our top priority.

Because of the hard working staff at Aurora Water, our utility has also earned a variety of awards for our top-notch treatment practices. Here are just a few:

ORGANIZATION

AWARD

Rocky Mountain Section of the American Water Works Association

2017 Outstanding Water Treatment Plant – Thomas J. Griswold Water Purification Facility

US Water Alliance

2017 US Water Prize – Prairie Waters reuse system

Rocky Mountain Section of the American Water Works Association

2016 Outstanding Water Laboratory Award – Aurora Water Quality Control Laboratory

FAST FACTS – AURORA WATER'S DRINKING WATER TREATMENT FACILITIES



The Thomas J. Griswold and Charles A. Wemlinger Water Purification Facilities use direct filtration processes, which include coagulation, flocculation, filtration and disinfection. Both treatment facilities have the capacity to treat up to 80 million gallons of water per day.

The Peter D. Binney Water Purification Facility has two treatment trains. One train utilizes conventional filtration processes and the other uses advanced treatment processes, which include softening, advanced UV oxidation, filtration, granular activated carbon filtration, and disinfection processes. The facility has the capacity to treat up to 50 million gallons per day.

All data from January 1, 2017 to December 31, 2017, unless otherwise noted.

The chart details the contaminants detected in Aurora's drinking water during 2017. All are well below allowed levels. To safeguard your health, Aurora tests for approximately 150 other contaminants that were not detected. Tests on our water are conducted in our Quality Control Laboratory, which is certified by the Colorado Department of Public Health and Environment (CDPHE). Independent laboratories conduct other tests as necessary. Each year, more than 85,000 tests are conducted. We also test for contaminants not yet regulated by the EPA.

Colorado has a statewide waiver for dioxin monitoring. Aurora has monitoring waivers for cyanide and asbestos. The waivers were granted because the CDPHE determined the Aurora water system is not vulnerable to contamination. The state permits monitoring less than once per year for some contaminants because the concentrations of these contaminants do not vary significantly. Some of the data, though representative, may be more than one year old.

Action Level (AL): The concentration of a contaminant, which, if exceeded, triggers treatment or other requirements that 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 (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 Residual Disinfectant Level Goal (MRDLG): The level of a disinfectant allowed in drinking water, 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.

Secondary Maximum Contaminant Level (SMCL): The concentration of a contaminant that is recommended, but not enforceable, in drinking water due to its effect on taste, color, odor or appearance.

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

Waiver: State permission not to test for a specific contaminant.

N/A: Not applicable

NTU: Nephelometric Turbidity Units (a measure of water clarity)

pCi/l: Picocuries per liter (a measure of radioactivity)

ppm: Parts per million

ppb: Parts per billion

Notes:

1. Turbidity is a measure of the clarity of water and has no health effects. Nevertheless, turbidity may interfere with disinfection and provides a medium for microbial growth.

2. Must be less than 0.3 in 95 percent of monthly samples. The higher the percentage, the better.

Aurora is required to monitor its drinking water for specific contaminants on a regular basis. Results of regular monitoring are an indicator of whether or not our drinking water meets health standards.

Cryptosporidium

Aurora tests regularly for Cryptosporidium, a microbial pathogen found in surface water throughout the United States. Although filtration removes Cryptosporidium, the most commonly used filtration methods cannot guarantee 100 percent removal. Our monitoring indicates the presence of this organism in our source water, but it has never been detected in our treated water. Current test methods do not determine if these source water organisms are dead or if they are capable of causing disease. Aurora Water tested for Cryptosporidium in 2017 and detected less than 0.091 organisms per liter in our source water.

Ingestion of Cryptosporidium may cause cryptosporidiosis, an abdominal infection. Symptoms of infection include nausea, diarrhea and abdominal cramps. Most healthy individuals can overcome the disease within a few weeks. However, immunocompromised people are at greater risk of developing a life-threatening illness. Immunocompromised individuals are encouraged to consult with their doctor about any appropriate precautions they should take to avoid infection. Cryptosporidium must be ingested to cause disease, and may be spread through means other than drinking water.

Lead

Infants and young children are typically more vulnerable to lead in drinking water than the general population. As a result of materials used in your home's plumbing, it is possible that lead levels in your home may be higher than in other homes within your community. 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 on lead in drinking water is available from the Safe Drinking Water Hotline at 1.800.426.4791.

Radon

Radon is a radioactive gas that you cannot see, taste or smell. It is found in the soil throughout the United States. Radon can move up through the ground and into a home through cracks and holes in the foundation. Radon can reach high levels in all types of homes. Radon can also be released from tap water from showering, washing dishes and other household activities. Compared to radon entering the home through the soil, radon entering the home through tap water will be, in most cases, a small source of radon in indoor air.

Radon is a known human carcinogen. Breathing air that contains radon can lead to lung cancer. Drinking water that contains radon may also cause increased risk of stomach cancer. If you are concerned about radon in your home, test the air in your home. Testing is inexpensive and easy. Fix your home if the level in your air is four (4) picocuries per liter of air (pCi/L) or higher. There are simple ways to fix a radon problem that are relatively inexpensive. For additional information, call the state radon program at 303.692.3030 or call the EPA Radon Hotline at 800.SOS.RADON.

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs and wells. As the 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, such as bacteria and viruses, which may come from wastewater treatment plants, septic systems, agricultural livestock operations and wildlife.
- Inorganic contaminants, such as salts and metals, 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 that come from a variety of sources such as agriculture, urban stormwater runoff and residential uses.
- Organic chemical contaminants include 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.
- Radioactive contaminants can be naturally occurring or the result of oil and gas production and mining activities.

In order 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 that must provide the same protection for public health.

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. 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 from infections. These people should seek advice about drinking water from their health care providers. The EPA and the Centers for Disease Control guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants are available from the Safe Drinking Water Hotline at 1.800.426.4791.

GET INVOLVED

We want you to be involved in the decisions that affect you, so we hope you will participate by attending public meetings of the Citizens' Water Advisory Committee, Water Policy Committee and City Council.

Данный отчет содержит важную информацию о вашей питьевой воде. Переведите его или проконсультируйтесь с тем, кто его понимает.

Este informe contiene información muy importante sobre su agua potable. Tradúzcalo o hable con alguien que lo entienda bien.

이 안내는 매우 중요합니다.
본인을 위해 번역인을 사용하십시오.