



# GREAT WATER. DRINK IT UP.

2010 Water Quality Report



AURORA WATER



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Quality. Service. Reliability.  
aurorawater.org

At Aurora Water, delivering safe, high-quality water to your home is our top priority. I'm pleased to present our annual Water Quality Report, an EPA-mandated disclosure of our performance.

This is an exciting time for Aurora Water. Our nationally recognized Prairie Waters Project will come online this year – an innovative and environmentally responsible water delivery system that will protect the city against drought and ensure that there is enough water for years to come. It's one of the many things we are doing to maintain the same great service – and water – we have provided for decades.

We're proud that we consistently provide some of the safest, most high-quality water, but don't just take our word for it. In the past year, we have received numerous accolades within our industry. We are recognized nationally because we understand that delivering water requires much more than pipelines and water treatment systems – it requires vision. At Aurora Water, we lead the country with some of our innovative approaches. Whether it's a big project or the work we do every day, we are dedicated to making sure Aurora residents receive the best water possible.

Aurora Water is one of six water utilities in the country to have passed a rigorous evaluation that now ranks it as one of the top producers of high-quality water. The Wemlinger Water

Treatment Plant holds the "Excellence in Water Treatment" status after undergoing three levels of review by the American Water Works Association's Partnership for Safe Drinking Water program. And our Griswold Plant has received the Director's Award four years in a row.

The staff in our award-winning lab ensure that Aurora's water is the best it can be – among them, they have a combined 186 years of water and wastewater analysis experience. Our Planning and Forecasting Group constantly monitors snowpack, reservoir levels and stream flow to protect the city under virtually any circumstance. And our maintenance crews are dedicated to making sure they respond quickly and professionally any time you call.

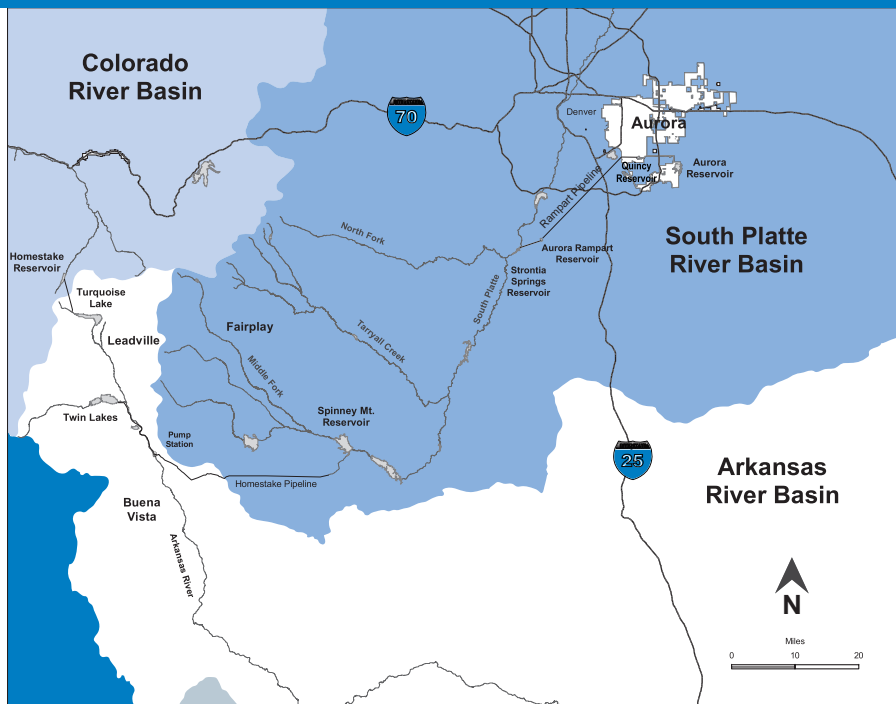
We have great information on our website, aurorawater.org – as well as tips for saving money through conservation and for preventing water pollution. I hope you'll take a minute to check it out.

In the meantime, call us if you have any questions. We're here to help.

Mark Pifer  
Director of Aurora Water



## Where your water comes from



Aurora's water supply comes primarily from snowmelt runoff in three of the seven major river basins: the Colorado, Arkansas and South Platte. Aurora also receives a small percentage of water from aquifers, which are essentially underground rivers. That water is then stored in 12 reservoirs and lakes: Aurora, Homestake, Turquoise, Twin Lakes, Spinney Mountain, Jefferson, Strontia Springs, Rampart, Quincy, Pueblo, Henry and Meredith. Combined, it provides the city with 155,000 acre feet of storage.

Each day, through the combined use of reservoirs, the natural river system, pipes, tunnels and pumps, water is transported from as far as 180 miles away to ensure a reliable water supply for Aurora residents and businesses.

No matter where it originates, Aurora's drinking water is continually purified and tested to ensure it meets strict state and federal guidelines – an effort that provides Aurora Water customers with a consistently high-quality product.

Colorado Source Water Assessment and Protection is a state program designed to provide consumers with information about their drinking water, as well as provide opportunities for public involvement. At this time, Aurora Water's Colorado State Source Water Assessment Report is in the process of being reviewed by CDPHE. When the report is complete, it will be available by calling 303-739-6770 or by visiting [cdphe.state.co.us/wq/sw/swaphom.html](http://cdphe.state.co.us/wq/sw/swaphom.html).

# Table of Detected Contaminants

Microbiological Contaminants	Violation	Units	MCL	MCLG	Level Detected	Range	Sample Date	Typical Source of Contamination
Total Coliform Bacteria	No	%	No more than 5% positives per month	0	Highest monthly percentage: 0.52%	1 positive sample out of 2,268 total samples collected for the year, or 0.04%	January	Naturally present in the environment
Turbidity	Violation	Units	TT Requirement	MCLG	Level Detected	Range	Sample Date	Typical Source of Contamination
Turbidity <sup>1</sup>	No	NTU	Maximum 1 NTU for any single measurement	N/A	Highest turbidity for 2009 was 0.09		5/12/09	Soil runoff, river sediment, provides a medium for microbiological growth
	No	%	In any month, at least 95% of samples must be below 0.3 NTU <sup>2</sup>	N/A	100% of samples were <0.3NTU	NA		
Radionuclides	Violation	Units	MCL	MCLG	Highest Level	Range	Sample Date	Typical Source of Contamination
Combined Uranium	No	ppb	30	0	3	1 - 3	7/8/08	Erosion of natural deposits
Gross Beta particle activity	No	pCi/l	trigger level = 15	0	6	5 - 6	7/8/08	Decay of natural and manmade deposits.
Lead and Copper	Violation	Units	Action Level	MCLG	90th Percentile	Range	Sample Date	Typical Source of Contamination
Copper	No	ppm	1.3	N/A	0.246	0 out of 65 sites sampled exceeded AL	2008	Corrosion of household plumbing systems
Lead	No	ppb	15	N/A	4	0 out of 65 sites sampled exceeded AL	2008	Corrosion of household plumbing systems

The above chart details the contaminants detected in Aurora's drinking water during 2009. All are well below allowed levels. To safeguard your health, Aurora Water tests for approximately 150 other contaminants that were not detected. Tests on Aurora's water are conducted in the Aurora Water Quality Control Laboratory, which is certified by the Colorado Department of Public Health and Environment (CDHPE). Independent laboratories conduct other tests as necessary. Each year, more than 85,000 tests are conducted. Aurora Water also tests for contaminants not yet regulated by the Environmental Protection Agency.

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.

**Running Annual Average (RAA):** An average of monitoring results for the previous 12 calendar months.

**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

EPA's Safe Drinking Water Hotline  
1-800-426-4791

Aurora Water Customer Service  
303-326-8645

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.

City of Aurora • PWSID CO103005 • All data from January 1, 2009, to December 31, 2009, unless otherwise noted.

Aurora Water 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.

## 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. You can find meeting times and agendas at [auroragov.org](http://auroragov.org).

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

이 안내는 매우 중요합니다. 본인을 위해 번역인을 사용하십시오.

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

# Table of Detected Contaminants

Inorganic Materials	Violation	Units	MCL	MCLG	Level Detected	Range	Sample Date	Typical Source of Contamination
Barium	No	ppm	2	2	0.05	0.043 - 0.050	7/8/08	Erosion of natural deposits
Chloramines	No	ppm	MRDL=4	MRDLG=4	2.18	0.07 - 2.18	daily	Water additive used to control microbes
Chlorine dioxide	No	ppb	MRDL=800	MRDL=800	260	0 - 260	daily	Water additive used to control microbes
Chlorite	No	ppm	1.0	0.8	0.56	0.36 - 0.56	daily	By-product of drinking water disinfection
Fluoride	No	ppm	4	4	0.65	0.63 - 0.65	7/8/08	Erosion of natural deposits
Selenium	No	ppb	50	50	1	<1 - 1	7/8/08	Discharge from petroleum and metal refineries; erosion of natural deposits; discharge from mines
Thallium	No	ppb	2	0.5	1	1	7/8/08	Leaching from ore-processing sites; discharge from electronics, glass and drug factories
Organic Disinfection By-Products	Violation	Units	MCL	MCLG	Highest RAA	Range	Sample Date	Typical Source of Contamination
Halocetic Acids	No	ppb	60	N/A	20.4	12.0 - 28.7	monthly	By-product of drinking water disinfection
Trihalomethanes	No	ppb	80	N/A	13.0	6.24 - 19.1	monthly	By-product of drinking water disinfection
Secondary Contaminants/ Other Monitoring	Violation	Units	MCL	SMCL	Highest level detected	Range	Sample Date	Typical Source of Contamination
Chloride	No	ppm	N/A	250	27	18 - 27	monthly	Erosion of natural deposits
Hardness (as CaCO3)	N/A	ppm	N/A	N/A	154	90 - 154	daily	Erosion of natural deposits
Sodium	N/A	ppm	N/A	10000	16	12 - 16	quarterly	Erosion of natural deposits
Solids, Total Dissolved	N/A	ppm	N/A	500	218	179 - 218	monthly	Erosion of natural deposits
Sulfate	N/A	ppm	N/A	250	52	40 - 52	monthly	Erosion of natural deposits

## 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. Aurora Water's monitoring indicates the presence of this organism in its source water, but it has never been detected in our treated water. Current test methods do not enable Aurora Water to determine if these source water organisms are dead or if they are capable of causing disease.

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. Aurora Water tested for Cryptosporidium monthly in 2009 and detected 0.09 organisms per liter in our source water in May.

## 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 State. 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. Aurora Water tested for radon in July 2008 and detected 99 pCi/L in finished water.

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 Environmental Protection Agency 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 (CDC) 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.