

Roxborough Water and Sanitation District 2011 Drinking Water Consumer Confidence Report for Calendar Year 2010

System Name: Roxborough Water and Sanitation District PWSID CO0118055

Water Quality Data

We routinely monitor for contaminants in your drinking water according to Federal and State laws. 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. Some of our data, though representative, may be more than one year old.

These tables show the results of our monitoring for the period of January 1 to December 31, 2010 unless otherwise noted.

Microbiological Contaminants

Contaminant	MCL	MCLG	Unit	Result	Violation (Yes or No)	Sample Date	Likely Source of Contamination
Total Coliform Bacteria for Systems that collect <40 samples per month	No more than 1 positive monthly sample	0	Absent or Present	3	Yes ¹	8/17/10 & 8/18/10	Naturally present in the environment
Fecal coliform and E. Coli	Fecal coliform or E. Coli positive repeat sample, following a routine total coliform-positive sample.	0	Absent or Present	Absent	No	Monthly	Human and animal fecal waste

Turbidity

TT Requirement	Level Found	Violation (Yes or No)	Sample Date	Likely Source of Contamination
Maximum 1.000 NTU for any single measurement	Highest single measurement: 0.11	No	Date: 6/22/10 9/23/10	Soil Runoff
In any month, at least 95% of samples must be less than 0.3 NTU	Lowest monthly percentage of samples meeting TT standard for our technology: 100%	No	Month: N/A	

Radionuclides

Contaminant	MCL	MCLG	Units	Level Detected & Range	Violation (Yes or No)	Sample Date	Likely Source of Contamination
Beta/Photon emitters ^{3,4}	Trigger level=15	0	pCi/l	<8	No	2/27/01	Decay of natural and man-made deposits
Alpha emitters ³	15	0	pCi/l	<3	No	2/27/01	Erosion of natural deposits
Combined radium ³	5	0	pCi/l	0.3	No	10/6/04	Erosion of natural deposits

Lead and Copper

Contaminant	AL	ALG	Units	90 th Percentile	Number of Sites over AL	Violation (Yes or No)	Sample Date/Year	Likely Source of Contamination
Copper ³	1,300	1,300	ppb	78	0	No	8/7/08	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead ³	15	0	ppb	1.0	0	No	8/7/08	Corrosion of household plumbing systems, erosion of natural deposits

Disinfectants

	MRDL	MRDLG	Units	Level Detected & Range	Violation (Yes or No)	Sample Date/Year	Source
Chlorine	4	4	ppm	0.95/ 0.72-1.24	No	RAA	Water additive used to control microbes

Disinfection Byproducts

Contaminant	MCL	MCLG	Units	Average	Range	Highest RAA	Violation (Yes or No)	Sample Date/Year	Likely Source of Contamination
Haloacetic Acids (HAA5)	60	N/A	ppb	34	11.48 – 37.2	34	No	RAA	By-product of drinking water disinfection
Total Trihalomethanes (TTHM)	80	N/A	ppb	63	15.84 – 87.84	63	No	RAA	By-product of drinking water disinfection

Total Organic Carbon

Contaminant	Compliance Factor (measurements should not be lower than this factor)	Lowest Running Annual Average (compliance factor)	Running Annual Average Range for the Year (compliance factor)	Violation (Yes or No)	Sample Date/Year	Likely Source of Contamination
Total Organic Carbon (TOC)	1.0	1.3	1.3	No	RAA	Naturally present in the environment

Inorganic Contaminants

Contaminant	MCL	MCLG	Units	Level Detected/Range	Violation (Yes or No)	Sample Date	Likely Source of Contamination
Antimony	6	6	ppb	<2	No	2/17/10	Discharge from petroleum refineries; fire retardants; ceramics; electronics; solder
Arsenic	10	0	ppb	<4	No	2/17/10	Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes
Barium	2,000	2,000	ppb	35	No	2/17/10	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Beryllium	4	4	ppb	<1	No	2/17/10	Discharge from metal refineries and coal-burning factories; discharge from electrical, aerospace, and defense industries
Cadmium	5	5	ppb	<0.5	No	2/17/10	Corrosion of galvanized pipes; erosion of natural deposits; discharge from metal refineries; runoff from waste batteries and paints
Chromium	100	100	ppb	<10	No	2/17/10	Discharge from steel and pulp mills; erosion of natural deposits
Fluoride	4,000	4,000	ppb	600	No	2/17/10	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
Mercury (inorganic)	2	2	ppb	<1	No	2/17/10	Erosion of natural deposits; discharge from refineries and factories; runoff from landfills; runoff from cropland
Nickel	100	100	ppb	<10	No	2/17/10	Natural Deposits and Industrial Processes
Nitrate (as Nitrogen)	10,000	10,000	ppb	<150	No	2/17/10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Nitrite (as Nitrogen) ³	1,000	1,000	ppb	<20	No	4/8/09	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Selenium	50	50	ppb	<2	No	2/17/10	Discharge from petroleum and metal refineries; erosion of natural deposits; discharge from mines
Thallium	2	0.5	ppb	<1	No	2/17/10	Leaching from ore-processing sites; discharge from electronics, glass, and drug factories

Secondary Contaminants

Secondary standards are non-enforceable guidelines for contaminants that may cause cosmetic effects or aesthetic effects in drinking water. EPA recommends these standards but does not require water systems to comply.

Contaminant	Secondary Standard	MCLG	Units	Level Detected/Range	Violation (Yes or No)	Sample Date	Likely Source
Sodium	10000	N/A	Mg/L	36.5	N/A	2/17/10	Erosion of Natural Deposits

Footnotes:

¹ This table shows our system had a violation this year. Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other, potentially harmful, bacteria may be present. Coliforms were found in more samples than allowed and this was a warning of a potential problem. The system was flushed and retested in accordance with the Colorado Department of Public Health and Environment requirements. In addition to retesting required by CDPHE, Roxborough Water and Sanitation District tested ten additional samples, to which all sample results were ABSENT.

² Turbidity is a measure of the cloudiness of the water. We monitor turbidity because it is a good indicator of the effectiveness of our filtration system.

³ The state health department allows us to monitor for some contaminants less than once per year because the concentrations of these contaminants do not change frequently. The most recent test data has been reported.

⁴ EPA considers 50 pCi/L to be the level of concern for beta particles.

Roxborough Water and Sanitation District 2011 Drinking Water Consumer Confidence Report for Calendar Year 2010

System Name: Roxborough Water and Sanitation District

PWSID : CO 0118055

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

While we continue to pursue long term solutions to our water issues, supplying a safe and dependable supply of water is our number one goal. That is why we are pleased to present the Annual Water Quality Report to assure you that the District's water has always met, and has indeed exceeded the State's water quality standards.

If you have any questions about this report or concerning your water or wastewater services, please call the District office at 303-979-7286. The District's Board of Directors meetings are held on the third Wednesday of every month at 8:00 am in the District Office located in the fire station at 6222 North Roxborough Park Road. Please feel free to attend these meetings.

Our Water Source

The District leases and receives your water from the City of Aurora. The water is diverted from the South Platte River at Strontia Springs Reservoir and then runs through the City of Aurora's tunnel to the Rampart Reservoir and transmission pipelines to the District's water treatment facility. Once it reaches the treatment facility, we utilize a number of treatment processes including coagulation, flocculation, sedimentation, filtration and disinfection.

The sources of drinking water (both tap water and bottled water) include lakes, rivers, 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, 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 also may come from gas stations, urban stormwater runoff, and septic systems.
- Radioactive Contaminants, that can be naturally occurring or be the result of oil and gas production and mining activities.

Some people may be more vulnerable to contaminants in drinking water than the public in general. 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. Immune-compromised 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 other microbiological contaminants call the EPA Safe Drinking Water Hotline at 1-800-426-4791.

In order to ensure that tap water is safe to drink, Colorado Department of Health and Environment prescribes regulations limiting the amount of certain contaminants in water provided by public water systems. The US Food and Drug Administration (FDA) regulations establish limits for contaminants in bottled water that must provide the same protection for public health.

Roxborough Water & Sanitation District Violations For Reporting Year:

- None

Contaminants that were tested for, but not detected, include:

- Fecal coliforms, E.Coli, Giardia, Cryptosporidium, and all regulated & unregulated volatile & synthetic organic chemicals including pesticides & herbicides.

The state grants waivers for some drinking water contaminants if the contaminants are not found in the public water system's source water. The District has been granted waivers for the following contaminants:

- Dioxin, glyphosate, cyanide, asbestos

Additional Information

Nitrate in drinking water at levels above 10 ppm is a health risk for infants of less than six months of age. High nitrate levels in drinking water can cause blue-baby syndrome. Nitrate levels may rise quickly for short periods of time because of rainfall or agricultural activity. If you are caring for an infant, and detected nitrate levels are above 5 ppm, you should ask advice from your health care provider.

If arsenic is less than 10 ppb, your drinking water meets EPA's standards. EPA's standard balances the current understanding of arsenic's possible health effects against the costs of removing arsenic from drinking water. EPA continues to research the health effects of low levels of arsenic, which is a mineral known to cause cancer in humans at high concentrations and is linked to other health effects such as skin damage and circulatory problems.

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. Roxborough Water and Sanitation District is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. 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. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the EPA Safe Drinking Water Hotline (1-800-426-4791) or at <http://www.epa.gov/safewater/lead>.

Roxborough...A Water Efficient Community

With the natural beauty of the area, we all agree this is a great place to live or work. Indeed the Roxborough area is one of the most majestic communities in Colorado. That is why it is up to all of us who live and work in the community to conserve our limited water resources now and into the years ahead. To do that, we must all take the right steps to discover the beauty of being a water efficient community. Together, "WE" can become one of the Colorado's most Water-Efficient communities!



The Table of Detected Contaminants

The following definitions will help you understand the terms and abbreviations used in this report:

- Action Level (AL) - the concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.
- Gross Alpha, Including RA, Excluding RN & U: This is the gross alpha particle activity compliance value. It includes radium-226, but excludes radon 222 and uranium.
- Maximum Contaminant Level (MCL)- The "Maximum Allowed" is the highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.
- 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 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 Contaminant Level Goal (MCLG) - The "Goal" is 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.
- Microscopic Particulate Analysis (MPA): An analysis of surface water organisms and indicators in water. This analysis can be used to determine performance of a surface water treatment plant or to determine the existence of surface water influence on a ground water well.
- Nephelometric Turbidity Unit (NTU) - nephelometric turbidity unit is a measure of the clarity of water. Turbidity in excess of 5 NTU is just noticeable to the average person.
- Parts per million (ppm) or Milligrams per liter (mg/L) - one part per million corresponds to one minute in two years or a single penny in \$10,000.
- Parts per billion (ppb) or Micrograms per liter (µg/L)- one part per billion corresponds to one minute in 2,000 years, or a single penny in \$10,000,000.
- Parts per trillion (ppt) or Nanograms per liter (nanograms/L) - one part per trillion corresponds to one minute in 2,000,000 years, or a single penny in \$10,000,000,000.
- Parts per quadrillion (ppq) or Picograms per liter (picograms/L) - one part per quadrillion corresponds to one minute in 2,000,000,000 years or one penny in \$10,000,000,000,000.
- Picocuries per liter (pCi/L) - picocuries per liter is a measure of the radioactivity in water.
- Running Annual Average (RAA): An average of monitoring results for the previous 12 calendar months.
- Total Organic Carbon (TOC): a measure of the total amount of carbon in water, present as organic molecules.
- Treatment Technique (TT) - A treatment technique is a required process intended to reduce the level of a contaminant in drinking water.



ROXBOROUGH WATER AND SANITATION DISTRICT

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