

# CLIFTON WATER DISTRICT

## Annual Water Quality Report 2010

**W**e are pleased to have the opportunity to share with you this summary of our water quality that was delivered to you in 2010. Our constant goal is to provide you with a safe and dependable supply of drinking water. All water utilities are required by the United States Environmental Protection Agency (USEPA) to publish an annual Water Quality Report. This report describes where your water comes from, what it contains and other information that can be useful to you as our customer.

In addition to the contents of the Water Quality Table, the Clifton Water District tested for over 100 other contaminants that were not detected. The Clifton Water District had an average turbidity of 0.032 NTU for 2010.

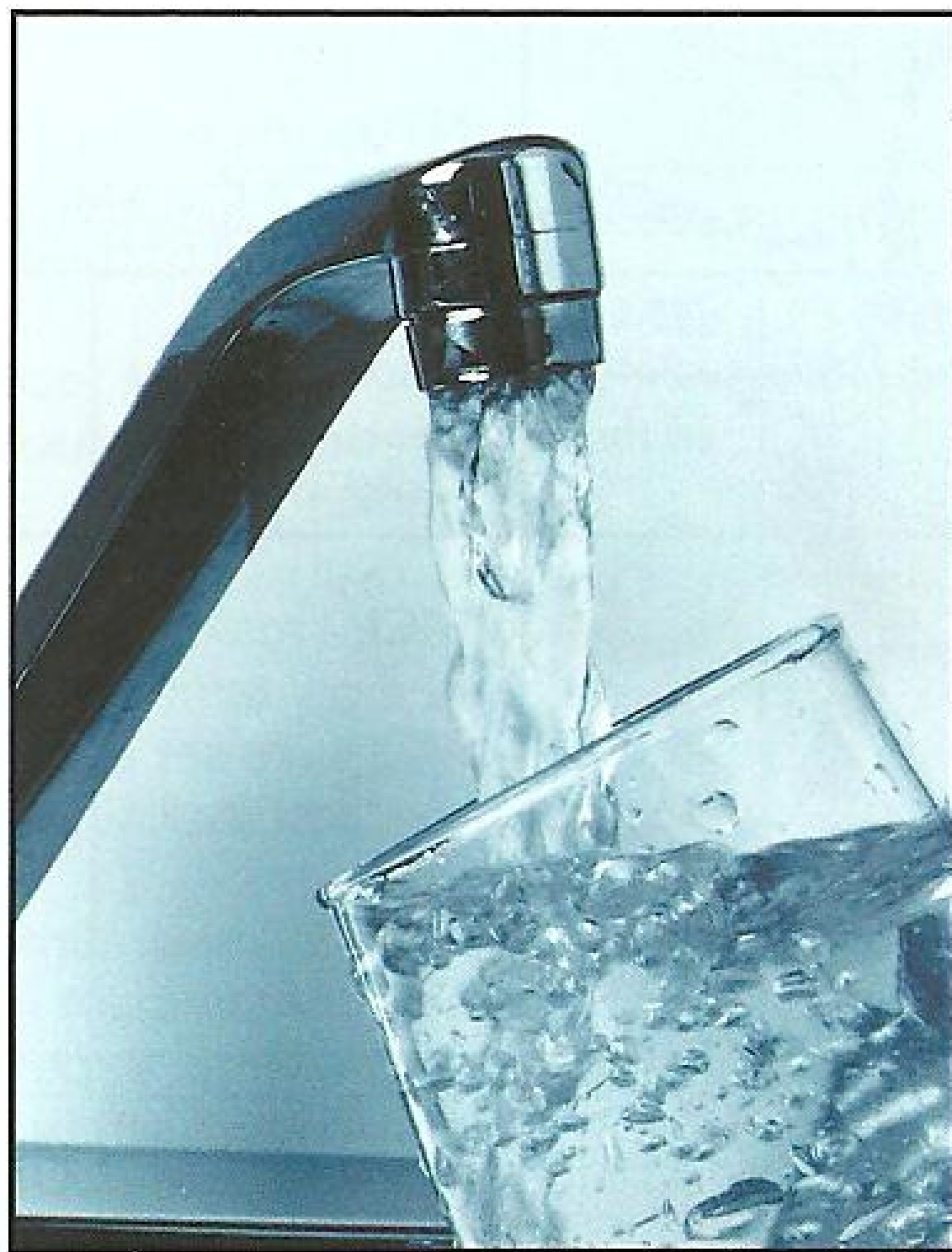
In order to ensure that tap water is safe to drink, the Colorado Department of Public Health and Environment prescribes regulations limiting the amount of certain contaminants in water provided by public water systems. The Food and Drug Administration regulations

establish limits for contaminants in bottled water that must provide the same protections for public health.

The Clifton Water District is dedicated to providing all of our customers with a high quality and safe water supply.

We are proud to be members of the Partnership for Safe Water. Partnership is a voluntary program, which recognizes excellence in water treatment, with water treatment goals that surpass regulatory requirements. Our Charles A. Strain Water Treatment Plant recently received the Directors Award, recognizing

continuous improvement in our water quality. If you have any questions about this report or any other concerns, please feel free to contact Dale Tooker, Clifton Water District Manager, at 434-7328, or our Water Quality Laboratory at 434-7624. You are also invited to visit our website at [www.cliftonwaterdistrict.org](http://www.cliftonwaterdistrict.org). If you would like to attend our board meetings, they are held on the first Thursday, of every month, at 5:00 p.m., at the Water District Office located at 510 34 Rd, Clifton, Colorado.



### **A MESSAGE FOR PEOPLE WITH SEVERELY WEAKENED IMMUNE SYSTEMS**

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, people with severely weakened immune systems have a risk of developing life-threatening illness. We encourage such people to consult their doctors regarding appropriate precautions to avoid infection.

Cryptosporidium must be ingested to cause disease, and it is spread through means other than drinking water. For additional information regarding cryptosporidiosis and how it may impact those with weakened immune systems please contact your health care provider. Cryptosporidium is a protozoan found in surface waters throughout the US.

Although Cryptosporidium can be removed through most commonly used filtration methods, USEPA issued a new rule in January 2005 that required systems with higher Cryptosporidium levels in their source water to provide additional treatment. Clifton Water District monitored for Cryptosporidium in its raw water in 2009, and found low levels of cryptosporidium. Based on the results of our Cryptosporidium monitoring, no additional treatment will be required by the new USEPA regulation.



# Safe Water?

Clifton Water District drinking water meets or exceeds all Environmental Protection Agency and Colorado Department of Health and Environment regulations. However, 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. Immuno-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. 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**

# What are drinking water 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.

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 storm water runoff, industrial or domestic wastewater discharges, oil and gas production, mining or farming.
- Pesticides and herbicides that may come from a variety of sources, such as agriculture, urban storm water 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 storm water runoff, and septic systems.
- Radioactive contaminants, that can be naturally occurring or are the result of oil and gas production and mining activities.
- Metals, 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.

*Clifton Water District is responsible for providing high quality drinking water, but cannot control the variety of materials used in household 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. 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 <http://www.epa.gov/safewater/lead>.*



## Definitions

**mg/L** - milligrams per liter or one part per million corresponds to one minute in two years or a single penny in \$10,000.

**ug/L** - micrograms per liter or one part per billion corresponds to one minute in 2,000 years or one penny in \$10,000,000.

**NTU** - nephelometric turbidity units is a measure of clarity of the water. Turbidity in excess of 5 NTU is just noticeable to the average person.

**TT** - treatment technique is a required process intended to reduce the level of a contaminant in drinking water.

**MCL** - maximum contaminant level 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.

**MCLG** - maximum contaminant level 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.

**MRDLG** - maximum residual disinfectant level goal is 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.

**MRDL** - maximum residual disinfectant level is the highest level of disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

**RAA** - Running Annual Average, an average of monitoring results for the previous 12 calendar months.

**AL** - Action Level, the concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

**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.



Organics and Inorganics	Collection Date	Highest Value	Range	Unit	MCL	MCLG	Typical Source
BARIUM	9/8/10	0.042	0.042	ppm	2	2	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
FLUORIDE	9/22/10	0.088	0.088	ppm	4	4	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories
NITRATE	9/24/10	0.05	0.05	ppm	10	10	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
NITRATE-NITRITE	9/24/10	0.05	0.05	ppm	10	10	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits

Disinfection By-Products	Date	Average	Range	Unit	MCL	MCLG	Typical Source
TOTAL HALOACETIC ACIDS (HAA5)	2010	30.422	7.66 -7.33	pbb	60	N/A	By-product of drinking water disinfection
TTHM	2010	25.968	14.23 - 37.6	PPB	80	N/A	By-product of drinking water chlorination

Turbidity	Sample Date	Level Found	TT Requirement	Typical Source
TURBIDITY	Date: 2010	Highest single measurement:  0.08 NTU	Maximum 1 NTU for any single measurement	Soil Runoff
	Month: Dec. 2010	Lowest monthly percentage of samples meeting TT requirement for our technology:  100%	In any month, at least 95% of samples must be less than .3 NTU	

### Total Organic Carbon (Disinfection By-Products Precursor) Percentage Removal Ratio of Raw & Finished Water

Analyte Name	Year	Average of Individual Ratio Samples	Range of Individual Ratio Samples (Lowest - Highest)	Number of Ratio Samples	Unit of Measure	TT Minimum Ratio	TT Violation?	Typical Sources	Potential Health Effects from Long-Term Exposure Below the TT Level (unless specified as short-term)
CARBON, TOTAL	2010	1.137	1 - 2.366	10	Ratio	Naturally present in the environment.	No	Naturally present in the environment.	Total organic carbon (TOC) has no health effects. However, total organic carbon provides a medium for the formation of disinfection byproducts. These byproducts include trihalomethanes (THMs) and haloacetic acids (HAAs). Drinking water containing these byproducts in excess of the MCL may lead to adverse health effects, liver or kidney problems, or nervous system effects, and may lead to an increased risk of getting cancer.

Lead and Copper	Collection Date	90 <sup>TH</sup> Percentile	Unit	AL	Typical Source
COPPER, FREE	2008 - 2010	0.0937	ppm	1.3	Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives
LEAD	2008 - 2010	1.9	ppb	15	Corrosion of household plumbing systems; Erosion of natural deposits

### Secondary Contaminants\*\*

Analyte Name	Year	Average of Individual Samples	Range of Individual Samples (Lowest - Highest)	Number of Samples	Unit of Measure	Secondary Standard
MPA WTP RAW AND FINISHED	2010	N/A	4.254 -4.254	1	Units	N/A
SODIUM	2010	79.8	79.8 - 79.8	1	ppm	N/A

\*\*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. EPA recommends these standards but does not require water systems to comply.

Category	Analyte	Compliance Period
No Violations Occurred in the Calendar Year of 2010		

## The Water Quality Table and Detected Contaminants

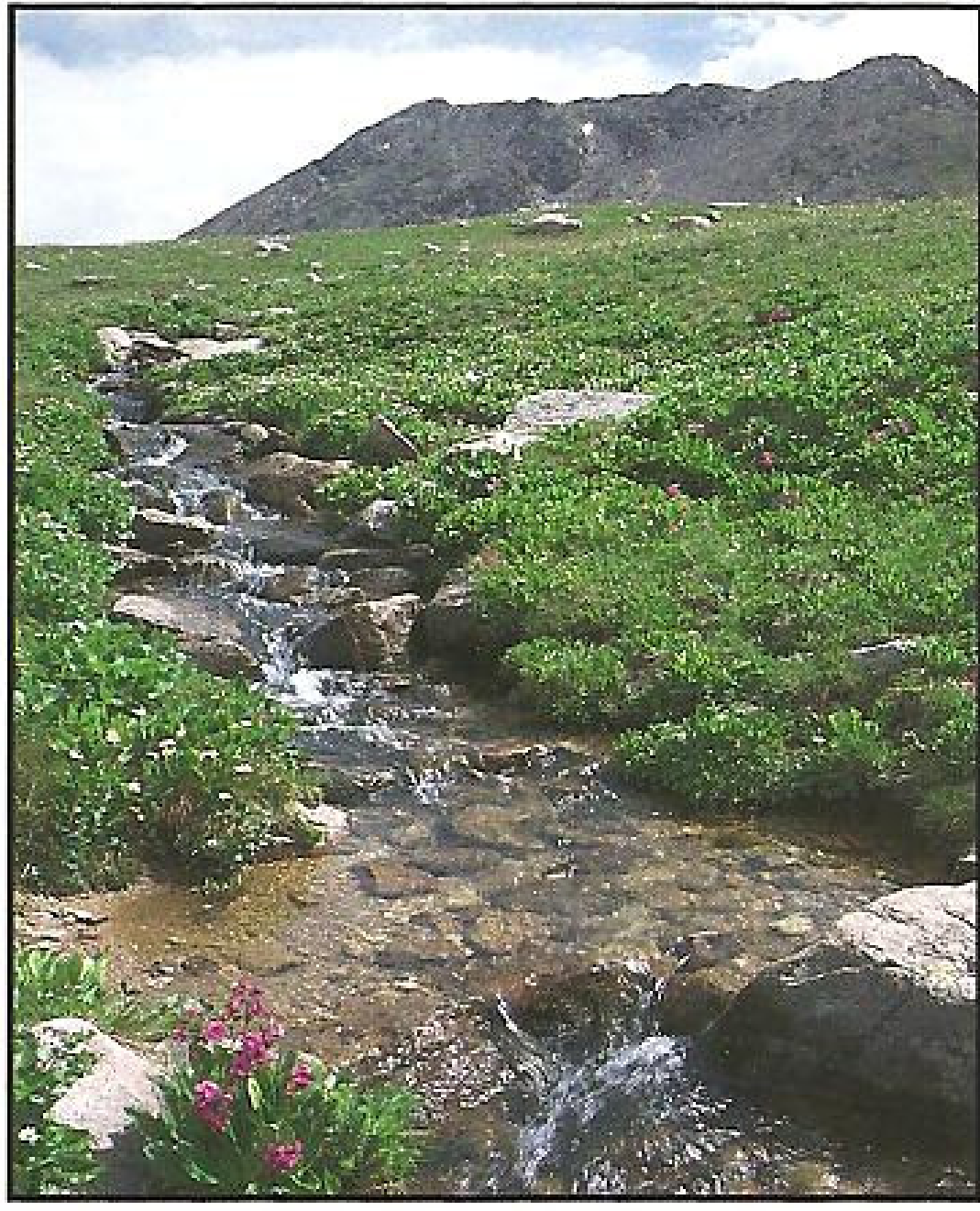
Clifton Water District routinely monitors for contaminants in your drinking water according to Federal and State laws. The above table shows all detections found in the period of January 1 to December 31, 2010 unless otherwise noted. The State of Colorado requires us to monitor for certain contaminants 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. The "Range" column in the table shows a single value for those contaminants that were sampled only once. Regulated contaminants that were not detected do not appear in this report.



## Our Source Water

Clifton Water District is supplied by the Colorado River. The Colorado River is very dependable and has excellent water quality for a surface water supply.

The Colorado River has three main tributaries, the Blue River, The Eagle River, and the Roaring Fork River. The area that comprises the Colorado River Basin also has a number of smaller contributing streams and reservoirs including: Dillon, Lake Granby, Grand Lake, Shadow Mountain, Williams Fork, Willow Creek, Green Mountain, Vega, Wolford Mountain, and Ruedi. Our Clifton Water District Charles A. Strain Water Treatment Plant public water system identification number is CO 0139180. As with any water supply it is required to be treated before it is delivered to you for consumption. This is the responsibility of the Clifton Water District. We continue to use advanced water treatment technology and dedicated employees to ensure that we accomplish this task day-in and day-out.



## Source Water Assessment Report

The Colorado Department of Public Health and Environment has provided us with a Source Water Assessment Report for our water supply. You may obtain a copy of the report by visiting [www.cdphe.state.co.us/wq/sw/swaphome.html](http://www.cdphe.state.co.us/wq/sw/swaphome.html) or by contacting our Water Treatment Plant Supervisor at 970-434-5571 or go to <http://cfpub.epa.gov/safewater/sourcewater/>. Based on this report potential sources of contamination in our source water come from residential areas, recreational grasses, mining activities, agriculture such as grains, pastures, orchards and vineyards, as well as forests, septic systems, oil and gas wells and transportation corridors. Other sources include EPA superfund sites, abandoned and contaminated sites, hazardous waste generators, chemical inventory and storage sites, toxic inventory sites, storage tanks, solid waste sites, and animal feeding operations.

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 home. In addition, the source water assessment results provide a starting point for developing a source water protection plan.

Please contact us to learn more about what you can do to help protect your drinking water sources. We want you, our valued customers, to be informed about the services we provide and the quality water we deliver to you every day.

