

## WATER SOURCES

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 by-products 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 the result of oil and gas production and mining activities.

### Typical Mineral Content of Our Water

	Fish Creek Filtration Plant	Yampa Wells
<b>pH</b> Measures water's acidity (a pH of 7.0 is neutral)	7.0 – 7.6	7.2
<b>Hardness</b> Measures the concentration of calcium and magnesium	12 mg/l as CaCO <sub>3</sub>	125 mg/l as CaCO <sub>3</sub>
<b>Alkalinity</b> Refers to its capability to neutralize acids	15 mg/l as CaCO <sub>3</sub>	105 mg/l as CaCO <sub>3</sub>
<b>Calcium</b> Is found in most natural waters and contributes to the hardness properties of water	19.8 mg/l as CaCO <sub>3</sub>	82 mg/l as CaCO <sub>3</sub>
<b>Sodium</b> Salts present in nearly all natural waters	10 mg/l	9.5 mg/l
<b>LEVELS OF HARDNESS:</b>	0-75 mg/l, soft; 76-150 mg/l, moderately hard; 151-300 mg/l, hard	

#### Mount Werner Water

3310 Clear Water Trail • P.O. Box 880339 • Steamboat Springs, CO 80488  
Phone (970) 879-2424 • Fax (970) 879-8169  
www.mwwater.com • info@mwwater.com

# 2009

## Mount Werner Water

### WATER QUALITY REPORT

PWSID #154524

Mount Werner Water is pleased to provide you with our annual Water Quality Report. Unless otherwise noted, this report details data for January 1 through December 31, 2008. Our constant goal is to provide you with a safe and dependable supply of drinking water.

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

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/swaphom.html](http://www.cdphe.state.co.us/wq/sw/swaphom.html) or by contacting: Jeff Peterson at (970) 879-2424.

Potential sources of contamination in our source water area come from: Surface water: existing/abandoned mines, row crops, deciduous, evergreen and mixed forests. Ground water: commercial, industrial, transportation, road miles, high and low intensity residential, urban recreational grasses, row crops, pasture hay, deciduous, evergreen and mixed forests and septic systems.

The 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.



### YOUR DRINKING WATER

Steamboat Springs has two water sources. The main supply is the Fish Creek Filtration Plant, which is a surface water source that draws from Fish Creek. The secondary supply is the Yampa River Well System. This ground water source is Infiltration Gallery C; Infiltration Gallery G; Infiltration Gallery H.

*Esta es informacion importante. Si no la pueden leer, necesitan que alguien la pueda traducir.*

### GIARDIA AND CRYPTOSPORIDIUM

Giardia and Cryptosporidium are protozoan parasites commonly found in surface waters, such as streams, lakes, and reservoirs. If ingested, they can cause diarrhea, cramping, fever, and other gastro-intestinal symptoms. These organisms are typically removed during the water treatment and purification process. Mount Werner Water routinely monitors for Giardia and Cryptosporidium and is pleased to report that they have never been detected in the finished water. Backcountry travelers should be aware that these may be present and should boil or use appropriate filtration cartridges to ensure a safe trip.

### ADDITIONAL HEALTH INFORMATION

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.

Infants and young children are typically more vulnerable to lead in drinking water than the general population. 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 elevated lead levels in your home's water, you may wish to have your water tested and flush your tap for 30 seconds to 2 minutes before using tap water.

Some people who drink water containing dalapon or haloacetic acids in excess of the MCL over many years may have an increased risk of getting cancer.

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.

### QUESTIONS?

If you have any questions about this report or water quality, please contact Jeff Peterson, Superintendent at (970) 879-2424.

## TABLE OF DETECTED CONTAMINANTS

Unless otherwise noted, all data is based upon 2008 analyses.

Contaminant	MCL	MCLG	Units	Highest Value	Range	Violation Yes / No	Sample Date	Likely Source of Contamination	
<b>Organics and Inorganic Contaminants</b>									
Barium	2	2	ppm	.032	.006-.032	No	6/30/08	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits	
Fluoride	4	4	ppm	1	0.9-1	No	7/2/08	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories	
Nitrate	10	10	ppm	.32	.03-.32	No	6/30/08	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits	
Selenium	50	50	ppb	0.2	0.2	No	6/30/08	Discharge from petroleum and metal refineries; Erosion of natural deposits; Discharge from mines	
Thallium, Total	2	0.5	ppb	0.3	0.3	No	6/30/08	Leaching from ore-processing sites; Discharge from electronics, glass and drug factories	
Dalapon	200	200	ppb	2.0	1.3-2.0	Yes	10/6/08	Runoff from herbicide used on rights of way	
<b>Secondary Contaminants/ Other Monitoring</b>									
Sodium			MG/L	11	7.6-11	No	6/30/08	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.	
MPA WTP Raw and Finished			Units	2.9	2.9	No	9/18/08		
Nickel			MG/L	0.02	0.02	No	6/30/08		
<b>Lead and Copper</b>	AL		Unit	90th Percentile				Typical Source	
COPPER, FREE	1.3		ppm	0.166		No	2007	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives	
LEAD	15		ppb	2.3		No	2007	Corrosion of household plumbing systems, erosion of natural deposits	
<b>Disinfection By-Products</b>	MCL	MCLG	Units	Average	Range	Highest RAA	Violation (Yes or No)	Sample Date/Year	Likely Source of Contamination
Total Trihalomethanes [TTHM]	80	N/A	ppb	29.97	19.63-38.34	38	Yes	2008	By-product of drinking water chlorination
Total Haloacetic Acids (HAA5)	60	N/A	ppb	51.8	28-71.7	71	Yes	2008	By-product of drinking water disinfection
<b>Disinfectants By-Products</b>	Year	Compliance Description					Requirement	Typical Sources	
Control of Disinfection by-product precursors	2008	We used enhanced treatment to remove the required amount of natural organic material and/or we demonstrated compliance with alternative criteria					TT	Natural organic material that is present in the environment	
<b>Turbidity</b>	TT Requirement			Level Found		Violation (Yes or No)	Sample Date	Typical Source	
Turbidity	Maximum 1 NTU for any single measurement			Highest single measurement: 0.24		No	Date: 09/19/2008	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: 1		
<b>Violations:</b>									
Type		Category			Analyte		Compliance Period		
1. Failure to have monitoring Plan (LT2)		Failure to Complete Report/Record Keeping			LT2ESWTR		01/01/2008-12/17-2008		
2. Monitoring, source (LT2), Major		Failure to Monitor			CRYPTOSPORIDIUM		04/01/2008-06/30/2008		
3. Monitoring, Routine Major		Failure to Monitor			Dalapon		04/01/2008-06/30/2008		
4. Monitoring, Routine (DBP), Major		Failure to Monitor			TOTAL Trihalomethanes (TTHM)		04/01/2008-06/30/2008		
5. Monitoring, Routine (DBP), Major		Failure to Monitor			Total Haloacetic Acids (Haa5)		04/01/2008-06/30/2008		
6. Monitoring, Routine (DBP), Major		Failure to Monitor			Total Trihalomethanes (TTHM)		10/01/2008-12/31/2008		
7. Monitoring, Routine (DBP), Major		Failure to Monitor			Total Haloacetic Acids (HAA5)		10/01/2008-12/31/2008		

## TERMS and ABBREVIATIONS

- **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 (ug/L)** - one part per billion corresponds to one minute in 2,000 years, or a single penny in \$10,000,000.

- **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.

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

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

- N/A - Not applicable.

- **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.

- **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 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 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.

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

- **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.

### Information About the Above Violation (s)

There are no additional required health effects violation notices.

The following is an explanation of the violation(s) in the above table and the steps we have taken to resolve the violation(s).

1. In 2008 the District was required to start monitoring for LT2ESWTR—this is monitoring the source water for Cryptosporidium and ecoli. We started this as required in April 2008 but did not have the written plan done in time.
2. The Colorado Department of Health lists that we did not sample for Cryptosporidium each month during April, May and June. We did sample each of these months and will correct this data error with them.
- 3, 4 and 5. The District contracts our laboratory analyses with an independent lab. The lab had supplied our sampling containers for these analyses, however the sampling containers became lost in our lab and were not sent in for this period. The District has taken measures to prevent this from happening again.
- 6 and 7. The District contract laboratory did not send our required sampling containers for this period and as a result the analyses were not performed. The District has taken measures to prevent this from happening again.