

# Mountain Water Company

## CONSUMER CONFIDENCE REPORT

2015/2016 Annual Water Quality Report



In 1996, the Safe Drinking Water Act was amended to require all community water systems to deliver an annual water quality report to their customers.

### This year's report includes:

- Information on your source water,
- Levels of any detected contaminants,
- Compliance with drinking water rules,
- A statement on lead in drinking water,
- And an article relating to our source water assessment.



**We are pleased to report that our drinking water meets or exceeds all Federal and State drinking water requirements.**

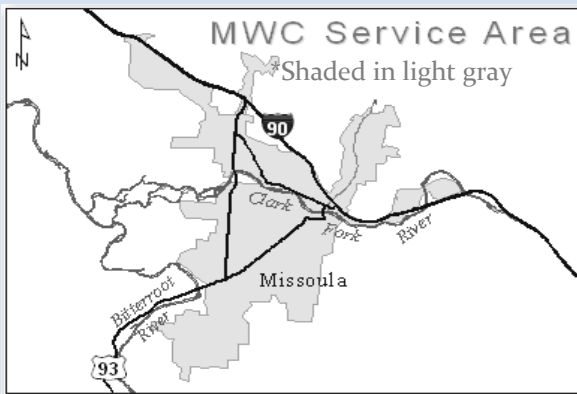
In order to ensure that tap water is safe to drink, the United States Environmental Protection Agency (EPA) and the Montana Department of Environmental Quality (DEQ) prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. The federal Food and Drug Administration and DEQ regulations also establish limits for contaminants in bottled water, which must provide the same protection for public health. 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, that 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, which 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 that are by-products of industrial processes and petroleum production, and can also come from gas stations, urban storm water runoff, and septic systems.
- Radioactive contaminants, that can be naturally occurring or be the result of oil and gas productions and mining activities.

This report describes those contaminants that have been detected in our analysis of nearly 100 contaminants regulated by the EPA and the DEQ.

### Where Does Your Water Come From?



Mountain Water Company serves the greater Missoula area. The Missoula aquifer is currently the only active source of public drinking water for Missoula Valley residents. MWC utilizes 37 active wells to pump water from this aquifer. The only treatment performed by MWC is low-level disinfection with chlorine.

Rattlesnake Creek lies just north of Missoula and, under the guidance of the DEQ, serves as an alternative source available for use in special situations. Rattlesnake Creek is a surface water supply originating in the Rattlesnake Wilderness area and emptying in the Clark Fork River. Strict environmental conditions are maintained in the watershed to preserve the quality of this source.

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PRIMARY STANDARDS — Health Related—	Federal MCL	MCLG	MWC Range including highest	Average for MWC Wells	(b) MWC Date of Last	Potential Sources of Contamination
Arsenic (ppb)	10	0	ND-2	1	2013/2014/2015	Erosion of natural deposits; historical mining and smelting.
Barium (ppm)	2	2	0.17 - 0.57	0.24	2013/2014/2015	Erosion of natural deposits; discharge from metal refineries; discharge from oil drilling wastes.
Fluoride (ppm)	4	4	ND—0.2	0.20	2013/2014/2015	Natural deposit erosion; discharge from fertilizer factories.
Nitrite (ppm)	1	1	ND - 0.01	ND	2013/2014/2015	Erosion of natural deposits; runoff and leaching from fertilizer use; leaching from septic tanks & sewers.
Nitrate (ppm)	10	10	0.18-2.85	0.67	2015	Erosion of natural deposits; runoff and leaching from fertilizer use; leaching from septic tanks & sewers.

RADIONUCLIDES	Federal MCL	MCLG	MWC Range (including highest value)	Average for MWC Wells (a)	(b) MWC Date of Last Measurement	Potential Sources of Contamination
Gross Alpha (pCi/L)	15	0	ND - 5.7	1.79	2002-2014-2015	Erosion of natural deposits.
Radium 226 (pCi/L)	5	0	ND - 0.6	ND	2002-2014-2015	Erosion of natural deposits.
Combined Radium (pCi/L)	5	0	ND - 1.9	ND	2002-2014-2015	Erosion of natural deposits.

LEAD & COPPER RULE MONITORING	Federal Action Level*	# of Samples Taken	Units Of Measure	Range-including highest value	Amount Detected at 90th Percentile*	(b) Date of Last Measurement	Potential Sources of Contamination
Copper	1.3	30	ppm	0.015-1.2	0.35	2013	Internal corrosion of household plumbing system; erosion of natural deposits; leaching from wood preservatives.
Lead	15	30	ppb	ND—5	3	2013	Internal corrosion of household water plumbing system; discharges from industrial manufacturers.

DISTRIBUTION SYSTEM PRIMARY STANDARDS	Federal MCL	MCLG	Range (including highest value)	Average for Wells (a)	(b) Date of Last Measurement	Potential Sources of Contamination
Chlorine Residual (ppm)	MRDL=4.0	MRDLG=4.0	0.2 - 0.82	0.40	2015	Added for disinfection purposes.
Total Coliform Bacteria	5% Positive	0	0-3%	<1%	2015	Naturally present in the environment.
Total Trihalomethanes (TTHM's) (ppb)	80	NS	1.1 - 3.6	2.3	2015	Byproduct of drinking water disinfection.
Haloacetic Acids (HAA-5) (ppb)	60	NS	0.37 - 0.81	0.55	2015	Byproduct of drinking water disinfection.

SECONDARY STANDARDS —Aesthetic, Non-Health Related— CHEMICAL PARAMETERS	Federal MCL	MCLG	Range including highest value)	Average for Wells (a)	(b) Date of Last Measurement	Potential Sources of Contamination
Chloride (ppm)	250	NS	3 - 25	9	2013/2014/2015	Runoff/leaching from natural deposits.
Foaming Agents (MBAS)	0.5	NS	ND - 3	ND	2013/2014/2015	Leaching from natural deposits.
Sulfate (ppm)	250	NS	4 - 24	18	2013/2014/2015	Runoff/leaching from natural deposits, industrial wastes.
Total Dissolved Solids (TDS) (ppm)	500	NS	135 - 290	200	2013/2014/2015	Runoff/leaching from natural deposits.
Zinc (ppm)	5	NS	ND - 0.02	ND	2013/2014/2015	Runoff/leaching from natural deposits, industrial wastes.

PHYSICAL PARAMETERS	Federal MCL	MCLG	Range including highest value)	Average for Wells (a)	(b) Date of Last Measurement	Potential Sources of Contamination
Odor Threshold (units)	3	NS	0—6	0.88	2013/2014/2015	Naturally occurring organic materials.
pH (units)	6.5–8.5	NS	7.3 - 7.9	7.8	2013/2014/2015	Hydrogen ion concentration. Value greater that 7 is basic (non-acidic).
Turbidity/Clarity (NTU)	5.0	NS	ND—0.5	0.17	2013/2014/2015	Soil Runoff.

**ADDITIONAL PARAMETERS —Unregulated—	Federal MCL	MCLG	Units Of Measure	MWC Range (including highest value)	Average for MWC Wells (a)	(b) MWC Date of Last Measurement
Aggressiveness Index (c)	NS	NS	units	11.6 - 12.3	12.0	2013/2014/2015
Alkalinity (as CA CO3)	NS	NS	ppm	120 - 207	154	2013/2014/2015
Calcium	NS	NS	ppm	38 - 61	47	2013/2014/2015
Corrosivity (Langlier Index) (d)	NS	NS	positive/negative	(-0.2) - (+0.5)	+ 0.25	2013/2014/2015
Hardness (Ca CO3)	NS	NS	ppm	129 - 238	170	2013/2014/2015
Hardness	NS	NS	grains	7.5 - 13.9	10	2013/2014/2015
Magnesium	NS	NS	ppm	8 - 23	13	2013/2014/2015
Potassium	NS	NS	ppm	1 - 2	1.96	2013/2014/2015
Sodium	NS	NS	ppm	5 - 21	7.4	2013/2014/2015
Specific Conductance	NS	NS	micromho/cm	260 - 461	353	2013/2014/2015
Total Trihalomethanes (TTHMs)	NS	NS	ppb	ND—1.4	0.58	2013/2014/2015

** UNREGULATED CONTAMINANT MONITORING REGULATION (UCMR3)	Federal MCL	MCLG	MWC Range (including highest value)	Average for MWC Wells (a)	DSMRT Range (including highest value)	DSMRT Average	(b) MWC Date of Last Measurement
Chlorate (ppb)	NS	NS	0 - 153	22	34 - 91	53.6	2013/2014/2015
Chromium (Total) (ppb)	NS	NS	0 - 0.32	ND	0 - 0.32	ND	2013/2014/2015
Chromium (Hexavalent) (ppb)	NS	NS	0.066 - 0.29	0.153	0.104 - 0.35	0.19	2013/2014/2015
Molybdenum (ppb)	NS	NS	0 - 2.2	ND	ND	ND	2013/2014/2015
Strontium (ppb)	NS	NS	65 - 300	142	90 - 205	140	2013/2014/2015
Vanadium (ppb)	NS	NS	0 - 0.99	0.43	0.213 - 1.045	0.503	2013/2014/2015

### Key to Abbreviations and Footnotes

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

**DSMRT** = Distribution system maximum resistance time.

**MCL**= Maximum Contaminant Level is the highest level of a contaminant that is allowed in drinking water. MCL's are set as close to the MCLG's 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. MCLG's allow for a margin of safety.

**MRDL**=Maximum Residual Disinfectant Level is the level of a disinfectant added for water treatment that may not be exceeded at the consumer's tap.

**MRDLG**=Maximum Residual Disinfectant Level Goal is the level of a disinfectant added for water treatment below which there is no known or expected risk to health.

**NA** = Not applicable at this time or not required to analyze for

**ND** = Not Detected

**NS** = No Standard

**NTU** = Nephelometric Turbidity Units, which measure of the suspended material in water.

\*= Action Levels are measured at the 90th percentile sample (third highest reading out of thirty samples for lead & copper)

\*\* = Unregulated contaminant monitoring helps USEPA determine where certain contaminants occur and whether the contaminants need to be regulated.

**pCi/L** = picoCuries per liter

**ppm** = parts per million, or mg/L

**ppb** = parts per billion, or ug/L

**(a)** = The average is weighted according to the individual contribution in pumping by each well to the total(active wells only)

**(b)** = The state allows us to monitor for some contaminants less than once per year because the concentrations of these contaminants in groundwater do not change frequently. Some of our data, though representative, are more than one year old.

**(c)** = An Aggressiveness Index of 11 or greater indicates that the water is not aggressive (non corrosive)

**(d)** = A positive number Langlier index indicates that the water is noncorrosive.

This report is intended to provide information for all water users. If received by an absentee landlord, a business, or a school, please share the information with tenants, employees or students. We will be happy to make additional copies of this report available. Complete records of water quality analyses are open for inspection by the public upon request.



## All Drinking Water May Contain Contaminants

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 water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the EPA's Safe Drinking Water Hotline at (1-800-426-4791).



## Special Notice for Those With Immune System Concerns

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. EPA/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).



## Source Water Delineation & Assessment

As required by the EPA in 2003, a Source Water Delineation and Assessment report was completed for MWC and submitted to the Department of Environmental Quality and the EPA. Last revised in May 2015, we utilize this report as an opportunity to update our Wellhead Protection Program with the latest information and technologies in modeling and mapping with linked databases. This assessment resulted in an updated list of possible contaminant sources to our aquifer, some of those being underground storage tanks, public and private sumps, leaking pipelines, spills along railroad tracks and highways, sewer lift stations and septic systems. This has resulted in a very useful tool for protection of our valuable drinking water supply. This updated report will be available to the public by contacting our office.

## Lead in Drinking Water

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.

Mountain Water Company 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 Safe Drinking Water Hotline at: <http://www.epa.gov/safewater/lead>.

**If you would like a printed copy of this report, contact MWC at the information listed below.**

If you would like more information about water quality, please call:  
Brad Hafar or Ross Miller at  
(406) 721-5570



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