

# 2014 Drinking Water Quality Report

THIS REQUIRED REPORT IS PREPARED IN ACCORDANCE WITH FEDERAL AND STATE REGULATIONS OF THE SAFE DRINKING WATER ACT.

Esta informacion acerca de su aqua potable es importante. Si usted no puede leer esto en ingles, por favor pidale a alquien. Que le traduzca esta importante informacion o llame a Cuidado al Cliente al numero 719.448.4800



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## A letter from Gary Bostrom

Chief Water Services Officer

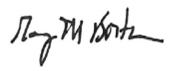


At Colorado Springs Utilities we take our commitment to providing reliable and high quality drinking water seriously. To that end, in 2013 we started, continued or completed multiple water system projects that demonstrate this commitment. These projects include the installation of a new finished water tank in the Broadmoor area, continued construction on the Southern Delivery System project, and the completed renovation of the Mesa Highline finished water reservoir, to name just a few.

We understand it is not enough to just reliably provide drinking water but that our customers also want it to be of high quality. To help assure you that you receive high quality drinking water, we are providing the 2014 Water Quality Report, which is designed

to provide detailed information about your drinking water.

If you have any questions regarding the quality of your water or the information contained in this report, please call us at 719-668-4560





#### Water Sources

Your water is blended from multiple sources, including surface water, ground water and purchased water. Your water source may vary throughout the year.

#### **Mountain Water Sources**

With no major water source nearby, much of Colorado Springs Utilities raw water collection system originates from nearly 200 miles away, near Aspen, Leadville, and Breckenridge. Almost 75 percent of our water originates from mountain streams. Water from these streams is collected and stored in numerous reservoirs along the Continental Divide. Collection systems in this area consist of the Homestake, Fryingpan-Arkansas, Twin Lakes, and Blue River systems.

The majority of this raw water is transferred to our city through pipelines that help protect it from contamination, such as herbicides, pesticides, heavy metals and other chemicals. After the long journey, water is stored locally at Rampart Reservoir and the Catamount reservoirs on Pikes Peak.

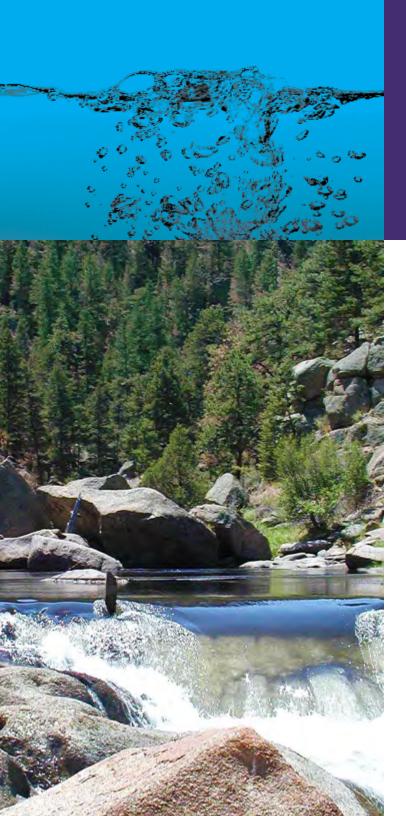
#### **Local Surface Sources**

To supplement the water received from the mountain sources, Colorado Springs Utilities is able to divert water from local surface water collection systems including:

- North and South Slopes of Pikes Peak
- North and South Cheyenne Creeks
- Fountain Creek
- Monument Creek Pikeview Reservoir
- Northfield Watershed

#### **Local Ground Water Sources**

We are also able to pump water from wells drilled into two different aquifers. We have two wells on the Denver aquifer (500-700 feet deep) and two wells on the Arapahoe aquifer (900-1,000 feet deep).



#### Water Sources

#### **Purchased Water Source**

Fountain Valley Authority or FVA (PWSID C00121300) receives water from the Fryingpan-Arkansas Project – a system of pipes and tunnels that collects water in the Hunter- Fryingpan Wilderness Area near Aspen. Waters collected from this system are diverted to the Arkansas River, near Buena Vista, and then flow about 150 miles downstream to Pueblo Reservoir. From there, the water travels through a pipeline to a water treatment plant before being delivered to Colorado Springs.

All water sources are treated at one of our treatment plants (or in the case of FVA water at FVA's treatment plant) prior to entering our drinking water distribution system; an intricate system of tanks, pumps and pipes that ultimately deliver water to your home or business.

For more source water information, visit:



# Colorado Source Water Assessment and Protection

The Colorado Source Water Assessment and Protection (SWAP) program is a preventative approach to protecting public drinking water supplies. The Colorado Department of Public Health & Environment provided us with a Water Assessment Report for our water sources. This report included our surface water sources, our purchased water source (FVA) and our wells on the Widefield aquifer (which have not been in use since Sept. 2004).

Potential sources of contamination to our source water areas may come from:

- EPA Superfund Sites
- FPA Abandoned Contaminated Sites
- EPA Hazardous Waste Generators
- EPA Chemical Inventory/Storage Sites
- EPA Toxic Release Inventory Sites
- Permitted Wastewater Discharge Sites
- Aboveground, Underground and Leaking Storage Tank Sites
- Solid Waste Sites
- Existing/Abandoned Mine Sites
- Concentrated Animal Feeding Operations
- Other Facilities

- Commercial/Industrial Transportation
- High-and-Low-Intensity Residential
- Urban Recreational Grasses
- Quarries/Strip Mines/Gravel Pits
- Agricultural Land (row crops, small grain, pasture/hay, orchards/vineyards, fallow and other)
- Forest
- Septic Systems
- Oil/Gas Wells
- Road Miles

The results of the source water assessment are not a reflection of our treated water quality or the water you receive, but rather a rating of the susceptibility of source water contamination under the guidelines of the Colorado SWAP program.

To find source water assessment information or to download a complete report, visit the Colorado Department of Public Health & Fnyironment website:



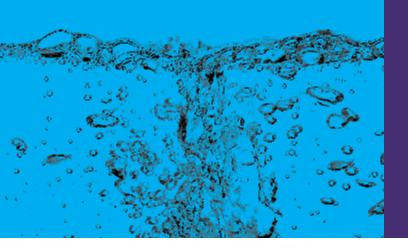
# Drinking Water Contaminants – EPA's Position

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. Source water can also 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, which may come from sewage treatment plants, septic systems, agricultural livestock operation 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 that 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 by-products 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.

To ensure that tap water is safe to drink, the EPA prescribes regulations which 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.



### Immunocompromised Persons Advisory



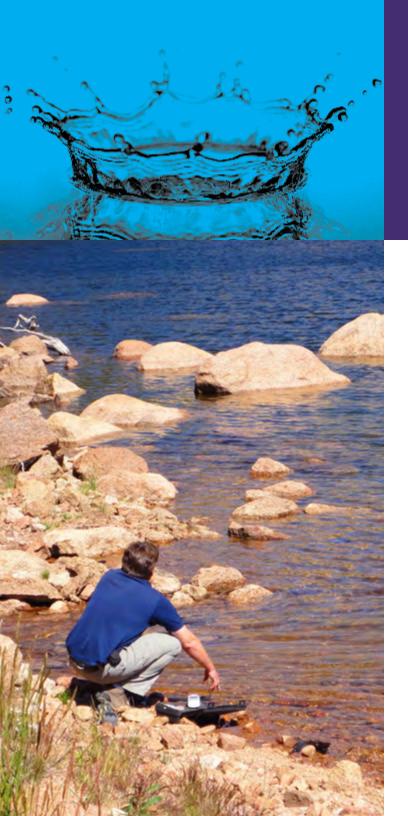
Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk.

However, 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 of infections. These people should seek advice from their health care providers about drinking water.

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 and Prevention 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 or visit:

#### Information About Lead in Drinking Water

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, flush your tap for 30 seconds to 2 minutes before using tap water. You may also wish to have your water tested. Additional information is available from the EPA Safe Drinking Water Hotline at 1-800-426-4791 or visit:



#### Drinking Water Fluoride

Fluoride is a compound found naturally in many places, including soil, food, plants, animals and the human body. It is also found naturally at varying levels in all Colorado Springs' water sources. Colorado Springs Utilities does not add additional fluoride to your drinking water. Any fluoride in the drinking water comes naturally from our source waters. For more fluoride information visit:

#### Microbiological Information

Colorado Springs Utilities performs a Microscopic Particulate Analysis (MPA) at each of its treatment plants that use surface water as a source. The MPA determines particulate removal, expressed as a log reduction, between the source water entering the filters and the treated water exiting the filters. For 2013, the range of log reductions was 1.2-5.4, which can be equivalently expressed as 94.38% - 100.0%.

Cryptosporidium is 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. No cryptosporidia were detected in the treated water distributed from our water treatment plants however our monitoring did indicate the presence of these organisms in our source water. Current test methods do not allow us to determine if the organisms found in the source water 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 the life-threatening illness. We encourage immunocompromised individuals to consult their doctor regarding appropriate precautions to take to avoid infection. Cryptosporidium must be ingested to cause disease, and it may be spread through means other than drinking water.

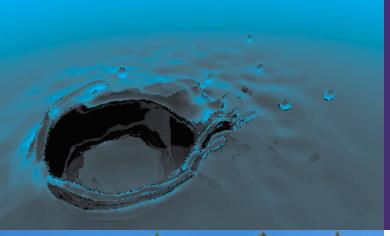


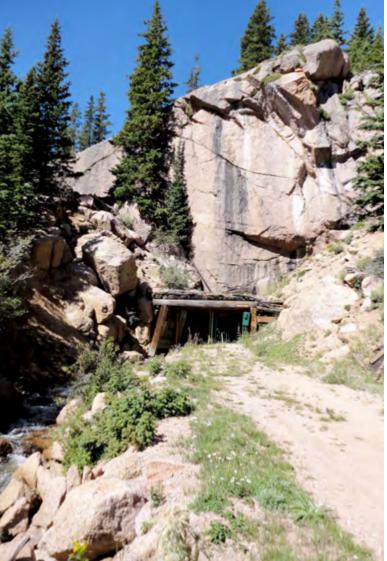
# Sodium Information

Colorado Springs Utilities tests for sodium annually in the treated water as it leaves the treatment plants and has found sodium levels for 2013 to be 8.12-17.0 milligrams per liter (mg/L).

• Monitoring your sodium intake ... a liter is approximately 4 cups.







# Unregulated Contaminant Monitoring Regulation (UCMR)

The 1996 amendments to the Safe Drinking Water Act required that EPA establish criteria for a program to monitor unregulated contaminants and to identify no more than 30 unregulated contaminants to be monitored every five years.

Unregulated contaminants are those contaminants that do not have a drinking water standard (maximum contaminate level) established by EPA. The purpose of the UCMR is to assist EPA in determining the occurrence of unregulated contaminants in drinking water and whether future regulation is warranted.

The third round of the UCMR required monitoring for 28 contaminants. Colorado Springs Utilities was required to monitor for these contaminants for 4 quarters, starting in July 2013. The results for any contaminants detected, to date, are listed below.

Contaminant	Average Level Detected (Range)	Units	Sample Dates	Potential Sources of Contamination
Molybdenum	0.36 (ND - 1.4)	ppb	Jul, Oct 2013 & Jan 2014	Used to make steel alloys, and in high-pressure and high-temperature applications, as pigments and catalysts.
Strontium	79.3 (46 – 110)	ppb	Jul, Oct 2013 & Jan 2014	Used in making ceramics and glass products, pyrotechnics, paint pigments, fluorescent lights, and medicines.
Vanadium	0.02 (ND - 0.31)	ppb	Jul, Oct 2013 & Jan 2014	Used to make metal alloys. Used in making rubber, plastics, ceramics, and other chemicals.
Chlorate	4.8 (ND - 63)	ppb	Jul, Oct 2013 & Jan 2014	Powerful oxidizer once used in pyrotechnics. Can be chemically bound to make metal salts.

For updated results visit:

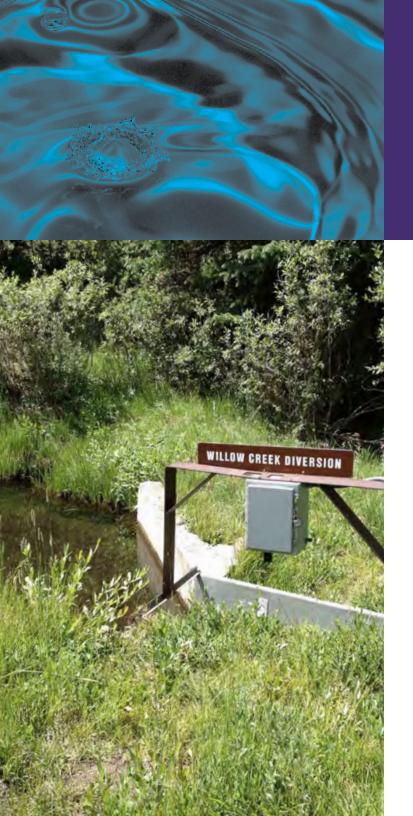


### Terms, Abbreviations & Symbols

Some of the terms, abbreviations and symbols contained in this report are unique to the water industry and might not be familiar to all customers.

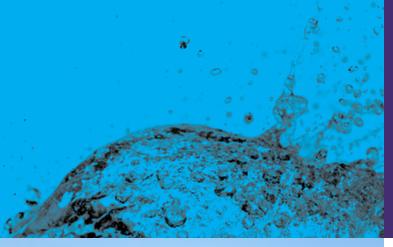
- Action Level (AL): The concentration of a contaminant which, if exceeded, triggers treatment or other requirements a water system must follow.
- Colorado Department of Public Health and Environment (CDPHE): The local agency that has been granted compliance oversight of the rules and regulations under the Safe Drinking Act for the State of Colorado.
- Contaminant: A potentially harmful physical, biological, chemical or radiological substance.
- Environmental Protection Agency (EPA): The federal agency that oversees rulemaking under and compliance with the Safe Drinking Water Act.
- Locational Running Annual Average (LRAA): Based on the monitoring requirements, the average of 12 consecutive monthly analytical results or the average of four consecutive quarter analytical results at a particular monitoring location.
- Maximum Contaminant Level Goal (MCLG): The level of a contaminant in drinking water below which there is no known or expected risk to health. The MCLG allows for a margin of safety.

- Maximum Contaminant Level (MCL): The highest level of a contaminant that is allowed in drinking water. The MCL is set as close to the MCLG 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. The MRDLG does 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.
- N/A: Not applicable.
- Nephlometric Turbidity Unit (NTU): A measure of the clarity of water. Turbidity in excess of 5 NTU is just noticeable to the average person.
- Non-detect (ND): Analytical result is below the reportable level for the analysis.
- Parts per billion (ppb) or micrograms per liter (ug/L): One part per billion corresponds to one minute in 2,000 years or one penny in \$10,000,000.



# Terms, Abbreviations & Symbols

- Parts per million (ppm) or milligrams per liter (mg/L):
  One part per million corresponds to one minute in two years or one penny in \$10,000.
- Picocuries per liter (pCi/L): A measure of radioactivity in water.
- Running Annual Average (RAA): Based on the monitoring requirements, the average of 12 consecutive monthly averages or the average of four consecutive quarter averages.
- Treatment Technique (TT): A treatment technique is a required process intended to reduce the level of a contaminant in drinking water.
- Waiver: A reduction of a monitoring requirement. The monitoring requirement can either be eliminated or the monitoring frequency can be reduced.



# Data Presented in the Water Quality Report



Colorado Springs Utilities is required to monitor for certain contaminants less than once a year because the concentration of the contaminants is not expected to vary significantly from year to year, or the drinking water system is not considered vulnerable to this type of contamination. Some of the data, though representative, may be more than one year old.

We monitor for contaminants at a variety of locations. These locations are determined by the regulations concerning specific contaminants. Why are different locations specified? The different locations address water chemistry considerations, water system quality and integrity considerations, and special circumstances that impact a contaminant's level in drinking water. Colorado Springs Utilities and our purchased water system (FVA) have been issued waivers for asbestos, cyanide, dioxin, glyphosate, nitrite and all unregulated inorganic contaminants. The table on the following pages shows the combined results of our monitoring for six water treatment plants for the period of January 1 through December 31, 2013, unless otherwise noted.



### **Detected Contaminants Tables**

Colorado Springs Utilities (PWSID C00121150)

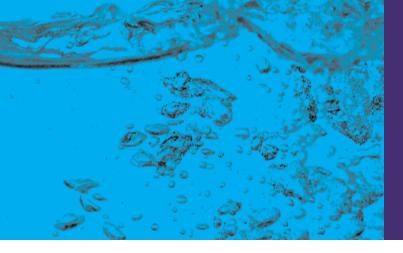
#### Monitored at the Treatment Plant (entry point to the distribution system)

Transorted at the Treatment Flame (chief paint to the distribution system)									
Contaminant	MCL	MCLG	Units	Highest Level Detected (Range)	MCL Violation	Sample Dates	Possible Source(s) of Contamination		
Alpha emitters	15	0	pCi/L	1.2 (ND-1.2)	No	May, Aug, Oct 2010/ Mar 2011	Erosion of natural deposits		
Barium	2	2	ppm	0.0569 (0.0107-0.0569)	No	Aug 2013	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits		
Chromium	100	100	ppb	1.1 (ND-1.1)	No	Aug 2013	Discharge from steel and pulp mills; erosion of natural deposits		
Di(2-ethylhexyl) phthalate <sup>3</sup>	6	0	ppb	0.33 (ND - 1.0)	No	Jun, Aug, Oct 2013	Discharge from rubber and chemical factories		
Fluoride	4	4	ppm	1.36 (0.13-1.36)	No	Aug 2013	Erosion of natural deposits; discharge from fertilizer and aluminum factories		
$Hexachlorocyclopenta diene^{3} \\$	50	50	ppb	0.034 (ND-0.051)	No	Jun, Aug, Oct 2013	Discharge from chemical factories		
Nickel	N/A	N/A	ppb	2.0 (ND-2.0)	N/A	Aug 2013	Erosion of natural deposits; discharge from industries; discharge from refineries and steel mills		
Nitrate (as Nitrogen)	10	10	ppm	0.20 (ND-0.20)	No	Aug 2013	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits		
Radium, Combined 226, 228	5	0	pCi/L	0.4 (0.1-0.4)	No	May, Aug, Oct 2010 / Mar 2011	Erosion of natural deposits		
Selenium	50	50	ppb	3.8 (ND-3.8)	No	Aug 2013	Discharge from petroleum and metal refineries; erosion of natural deposits; discharge from mines		
Total Organic Carbon (TOC) <sup>1</sup>	TT	N/A	N/A	N/A	No	Running Annual Average	Naturally present in the environment		
Turbidity <sup>2</sup>	TT ≤0.3 in 95% of monthly samples	N/A	NTU	Highest turbidity 0.68 (Jan 2013) 99% of samples ≤0.3 (Mar 2013)	No	Jan – Dec 2013	Soil Runoff		
Uranium	30	0	ppb	1.1 (ND-1.1)	No	May, Aug, Oct 2010 / Mar 2011	Erosion of natural deposits		

<sup>&</sup>lt;sup>1</sup> The Disinfectants and Disinfection Byproducts Rule provides several alternative compliance criteria besides the TOC removal ratios. We did not report TOC removal ratios because we demonstrated compliance with alternative criteria. The alternative compliance criteria that we use is 40CFR §141.135(a)(2)(ii); our treated water TOC levels are <2.0ppm calculated quarterly as a running annual average.

<sup>&</sup>lt;sup>2</sup> Turbidity is a measure of the cloudiness of the water and has no known health effects. We monitor turbidity because it is a good indicator of the effectiveness of our filtration system. Compliance with the TT of 95% of samples ≤0.3NTU is calculated using combined filter effluent turbidity results taken 6 times per day at 1:00, 5:00 and 9:00 a.m. and p.m.

<sup>&</sup>lt;sup>3</sup> The reported value is the highest running annual average (RAA) along with the range of individual analytical results.



## Detected Contaminants Tables

Colorado Springs Utilities (PWSID C00121150)

#### **Monitored in the Distribution System**

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Contaminant	MCL	MCLG	Units	Average Level Detected (Range)	Highest LRAA (site)	MCL Violation	Sample Dates	Possible Source(s) of Contamination
Chlorine <sup>1</sup>	MRDL = 4	MRDLG=4	ppm	0.41 (0.04-1.1)	N/A	No	Jan – Dec 2013	Drinking water disinfectant used to control microbes
Haloacetic Acids 5 (HAA5)	60	N/A	ppb	32.2 (13.3-49.7)	46.2 (Wolf Village Dr.)	No	Jan, Apr, Jul, Oct 2013	By-product of drinking water disinfection
Total Trihalomethanes (TTHM)	80	N/A	ppb	44.1 (25.4-76.2)	57.6 (Cedar Heights Dr.)	No	Jan, Apr, Jul, Oct 2013	By-product of drinking water disinfection
Total Coliform	5% of monthly samples are positive	0	Absent/ Present	0.86% (Sep 2013) (0.79-0.88%)	N/A	No	Jan – Dec 2013	Naturally present in the environment

<sup>&</sup>lt;sup>1</sup> Compliance with the MRDL is based on the running annual average.

#### **Monitored at Consumer's Tap**

Contaminant	AL at the 90th Percentile	MCLG	Units	90th Percentile	MCL Violation	Sample Dates	Possible Source(s) of Contamination
Copper <sup>1</sup>	1.3	1.3	ppm	0.199	No		Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead <sup>1</sup>	15	0	ppb	7.2	No		Corrosion of household plumbing systems; erosion of natural deposits

<sup>&</sup>lt;sup>1</sup> No sites exceeded the Action Level, for either Copper or Lead, out of 52 sites sampled.



## Detected Contaminants Tables

Colorado Springs Utilities (PWSID C00121150)

#### Contaminants with Secondary MCL requirements<sup>1</sup>. Monitored at the Treatment Plant (entry point to the distribution system)

Contaminant	SMCL	Units	Average Level Detected (Range)	Sample Dates	Possible Source(s) of Contamination
Aluminum	50-200	ppb	32.5 (ND - 263)	Jan – Dec 2013	Erosion of natural deposits, water treatment chemical
Chloride	250	ppm	6.1 (1.7-23.2)	Jan, Apr, Jul, Oct 2013	Erosion of natural deposits, road de-icing materials
Iron	300	ppb	4.3 (ND-254)	Jan – Dec 2013	Erosion of natural deposits, corrosion of plumbing materials
Manganese	50	ppb	0.64 (ND-19.5)	Jan – Dec 2013	Erosion of natural deposits, discharge of drilling wastes
Sulfate	250	ppm	31.9 (11.2-118)	Jan, Apr, Jul, Oct 2013	Naturally present in the environment
Zinc	5000	ppb	0.8 (ND-2.5)	August 2013	Leaching from plumbing materials

<sup>1</sup> Secondary MCL (SMCL) is not enforceable but intended as guidelines. These contaminants in drinking water may affect the aesthetic qualities.



#### Customers Have a Voice in Decisions

We encourage customer participation in decisions affecting our drinking water.

- Utilities Board our governing body meets the Wednesday between City Council meetings, 1 p.m. at the Plaza of the Rockies, South Tower, 121 S. Tejon St., Fifth floor.
- For more information call 719-668-4800 or visit:

#### General Information

To request a printed copy of this report or for questions call 719-668-4560. For more water quality information or to access past Drinking Water Quality Reports visit: