

# *Annual Drinking Water Quality Report*

*City of Powell  
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**January 2017 – December 2017**

We're very pleased to provide you with this year's Water Quality Report. We want to keep you informed about the excellent water and services we have delivered to you over the past year. Our goal is and always has been, to provide to you a safe and dependable supply of drinking water. We purchase our water from Shoshone Municipal Pipeline ([www.shoshonemunicipalpipeline.org](http://www.shoshonemunicipalpipeline.org)) which is treated surface water from the Buffalo Bill Reservoir.

I'm pleased to report that our drinking water is safe and meets federal and state requirements.

This report shows our water quality and what it means.

If you have any questions about this report or concerning your water utility, please contact Ty McConnell at 307-754-9803. We want our valued customers to be informed about their water utility. If you want to learn more, please attend any of our regularly scheduled council meetings. They are held on the first and third Mondays at 6:00 p.m. at City Hall.

The City of Powell routinely monitors for contaminants in your drinking water according to Federal and State laws. This table shows the results of our monitoring for the period of January 1<sup>st</sup> to December 31<sup>st</sup>, 2017.

All drinking water, including bottled drinking water, may be reasonably expected to contain at least small amounts of some contaminants. It's important to remember that the presence of these contaminants does not necessarily pose a health risk.

Some of our data in the tables is more than one year old since certain chemical contaminants are monitored less than once a year. Our sampling frequency complies with EPA drinking water regulations.

In order to ensure that tap water is safe to drink, EPA establishes regulations, which limit the amount of certain contaminants in water provided by public water systems. The Food and Drug Administration establishes limits for contaminants in bottled water. More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency's Safe Drinking Water Hotline at 1-800-426-4791.

In this table you will find many terms and abbreviations you might not be familiar with. To help you better understand these terms we've provided the following definitions:

**Non-Detected (ND)** - Laboratory analysis indicates that the contaminant is not present.

**Parts per Million (ppm)** - 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)** - Micrograms per liter. One part per billion corresponds to one minute in 2,000 years, or a single penny in \$10,000,000.

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

**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 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.

**Nephelometric Turbidity Units (NTU)** – Measurement of turbidity in drinking water.

**N/A** – Not Applicable.

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

TEST RESULTS 2017							
Contaminant	Violation Yes/no	Level Detected	Unit of Measurement	Range of Detection	MCLG	MCL	Likely Source of Contamination
<b>Microbiological Contaminants (Primary Standards)</b>							
Total Coliform Bacteria	N	0		0	0	Presence of coliform bacteria in 5% of monthly samples	Naturally present in the environment
Fecal Coliform and <i>E.coli</i>	N	0		0	0	A routine sample and repeat sample are total coliform positive, and one is also fecal coliform or <i>E. coli</i> positive	Human and animal fecal waste
Turbidity	N	0.05	NTU	0.02 - 0.05	N/A	No sample >1 95% <0.3	Soil runoff

<b>Inorganic Contaminants (Primary Standards)</b>							
Lead *	N	0.001	ppm	0.001	0.015 (AL)	90 <sup>th</sup> percentile was 0.001*. No sites exceeded the action level.	Corrosion of household plumbing
*Tested in 2016							
Copper *	N	0.036	ppm	0.036	1.3 (AL)	90 <sup>th</sup> percentile was 0.036*. No sites exceeded the action level.	Corrosion of household plumbing
*Tested in 2016							
Nitrate	N	0.10	ppm	0.10	10	10	Runoff from fertilizer use; erosion of natural deposits.
Sodium	N	24	ppm	24		No MCL	

<b>Disinfection By-Products (Primary Standards)</b>							
	Violation	LVL Detected	Units	Range	MCL		
Total Trihalomethanes (TTHM)	N	13.0 (RAA)	ppb	13.0	80		By-product of drinking water disinfection
Haloacetic Acids (HAA5)	N	12.0 (RAA)	ppb	8.8-12.0	60		By-product of drinking water disinfection
Chlorine	N	1.2	ppm	0.89-1.2	MRDL = 4		Water additive used to control microbes.

### Radionuclides (Primary Standards)

Parameter	Range of Detection	Average Level		Unit of Measurement	MCL	Source of Contamination
Uranium	0.25	0.25		ppb	30	
Gross Alpha	2.0	2.0		pCi/L	15	
Combined Radium	0.10	0.10		pCi/L	5	
*All Radionuclides Tested in 2013						

### Secondary Standards and Unregulated Contaminants

Parameter	Range of Detection	Average Level		Measurement		MCL	
Sulfate	36	36		ppm		Secondary Standard	
PH	7.31-8.26	7.96		pH		6.5-8.5	
Color	0	0		units		15 Color Unit	
Total Dissolved Solids	82-130	102		ppm		500 mg/L	
Calcium	31-54	42		ppm			
Hardness	41-68	55		ppm			
Iron	0	0		ppm			
Total Alkalinity as CaCO <sub>3</sub>	35-74	53		ppm			
Giardia	0	0		#/100L			Tested in 2015
Cryptosporidium	0	0		#/100L			Tested in 2015

**\*Lead/Copper:** The 90<sup>th</sup> percentile for 2016 testing was 0.001 ppm for lead and 0.036 ppm for copper. No sampling sites exceeded the action level for copper. Lead and Copper sampling is done every three years.

As you can see by the table, our system had no violations. We're proud that your drinking water meets or exceeds all Federal and State requirements. We have learned through our monitoring and testing that some constituents have been detected. The EPA has determined that your water IS SAFE at these levels.

Some of our data in the tables is more than one year old since certain chemical contaminants are monitored less than once a year. Our sampling frequency complies with EPA drinking water regulations.

MCL's are set at very stringent levels. To experience the possible health effects described for many regulated contaminants, a person would have to drink 2 liters of water every day at the MCL level for a lifetime to have a one-in-a-million chance of having the described health effect.

In our continuing efforts to maintain a safe and dependable water supply it may be necessary to make improvements in your water system. The costs of these improvements may be reflected in the rate structure. Rate adjustments may be necessary in order to address these improvements.

Thank you for allowing us to continue providing your family with clean, quality water this year. In order to maintain a safe and dependable water supply we sometimes need to make improvements that will benefit all of our customers. These improvements are sometimes reflected as rate structure adjustments. Thank you for understanding.

### **Water Supply:**

The City's water source is the Shoshone Municipal Pipeline Water Treatment Plant located at the base of Cedar Mountain just west of Cody, Wyoming. The Shoshone Water Treatment Plant is a state-of-the-art plant using conventional treatment processes. The Water Treatment Plant gets its water from the Buffalo Bill Reservoir. Water from the North Fork and South Fork River, discharges into the reservoir and travels through the Bureau of Reclamation's Spirit Mountain Energy Dissipation Structure pipe system to the treatment plant. After treatment, the water is delivered to the City of Powell via 26 miles of Shoshone Municipal's Pipeline into the City of Powell Water Plant and Distribution System.

Source Water Assessment information can be obtained by contacting SMP directly @ (307) 527-6492.

### **Required Additional Information:**

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 Environmental Protection Agency's Safe Drinking Water Hotline (800) 426-4791.

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 can dissolve naturally-occurring minerals and, in some cases, radioactive materials, 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, which 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 run-off, industrial or domestic wastewater discharge, 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 use.
- Organic chemical contaminants, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, and septic systems.
- Radioactive contaminants, which can be naturally-occurring or be the result of oil and gas production and mining activities.

In order to ensure that tap water is safe to drink, EPA prescribes regulations which limit the amount of certain contaminants in the water provided by the public water systems. FDA regulations establish limits for contaminants in bottled water which must provide the same protection for human health.

Turbidity has no health effects. However, turbidity can interfere with disinfection and provide a medium for microbial growth. Turbidity may indicate the presence of disease-causing organisms. These organisms include bacteria, viruses, and parasites that can cause symptoms such as nausea, cramps, diarrhea and associated headaches.

#### **Required Information on Health Effects:**

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as person 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/CDC guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the Safe Drinking Water Hotline (800-426-4791).

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. City of Powell is responsible for providing high quality 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 the 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 or at <http://water.epa.gov/drink/info/lead/index.cfm>

Shoshone Municipal Pipeline website, <http://www.shoshonemunicipalpipeline.org/>

City of Powell website, <http://www.cityofpowell.com/>

Please call our office if you have questions: 307.754.9803

We at the City of Powell work around the clock to provide top quality water to every tap. We ask that all our customers help us protect our water sources, which are the heart of our community, our way of life and our children's future.