



## **Annual Water Quality Report**

WY # 5601198

January 1, 2017 – December 31, 2017

The Shoshone Municipal Water Joint Powers Board d/b/a Shoshone Municipal Pipeline (SMP) is pleased to present this year's Annual Water Quality Report. This report is designed to inform you about the quality of the water and services we deliver to our customers every day. It is our commitment and our goal to provide you with a safe and dependable supply of drinking water. Our continued efforts are focused on optimizing the water treatment process, ensuring quality water, and protecting our water resource. Our water source is surface water from the Buffalo Bill Reservoir.

We are pleased to report that your drinking water meets or is of higher quality than all federal requirements.

If you have any questions about this report or concerning your water quality, please contact Craig Barsness, our Manager, or Dave Egan, our Chief Plant Operator, at the water treatment plant, 307-527-6492. 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 meetings. They are held on the second Monday of each month, at 10:00 a.m., at the water treatment plant located at 50 Agua Via, Cody, Wyoming.

SMP routinely monitors for contaminants in your drinking water according to federal laws. The following table shows the results of our monitoring for the period of January 1, to December 31, 2017. All drinking water, including bottled drinking water, may be reasonably expected to contain at least small amounts of some contaminants. It is important to remember that the presence of the contaminants does not necessarily pose a health risk. More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency's (EPA) Safe Drinking Water Hotline at 1-800-462-4791.

The sources of drinking 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. The water can also pick up substances such as:

- 1) Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural operations, and wildlife.
- 2) Inorganic contaminants, such as salts and metals, which can be naturally occurring or result from urban storm water runoff, industrial or domestic waste water discharges, oil and gas production, mining, or farming.
- 3) Pesticides and herbicides, which may come from agriculture, urban storm water runoff, and residential uses.
- 4) Organic chemical contaminants, which can come from industrial processes, gas stations, urban storm water runoff, and septic systems.
- 5) Radioactive contaminants, which can be naturally occurring or the result of oil and gas production and mining activities.

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 which must provide the same protection for human health.

Some people may be more vulnerable to contaminants in drinking water than the general population. 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 for 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 Water 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. Shoshone Municipal Pipeline 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 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://www.epa.gov/safewater/lead>.

Below, 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-Detect (ND)* - laboratory analysis indicates that the laboratory does not detect the constituent.

*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 ( $\mu\text{g/l}$ )* - one part per billion corresponds to one minute in 2,000 years, or a single penny in \$10,000,000.

*Parts per trillion (ppt) or Nanograms per liter (nanograms/l)* - one part per trillion corresponds to one minute in 2,000,000 years, or a single penny in \$10,000,000,000.

*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.

*Colony-Forming Units (CFU)* – the counting of viable cells, in contrast with microscopic examination which counts all cells, living or dead.

*Million Fibers Per Liter (MFL)* – Million fibers per liter is a measure of the presence of asbestos fibers per liter greater than 10 micrometers in length.

*Millirem (Mrem)* – Measure of radiation absorbed by the body. This dosage is commonly encountered, such as the amount of radiation received from medical x-rays and background sources.

*picoCuries Per Liter (pCi/L)* – picoCuries per Liter is a measurement of radioactivity in drinking water.

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

*Maximum Contaminant Level (MCL)* - (mandatory language) The “Maximum Allowed” (MCL) 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.

*Maximum Contaminant Level Goal (MCLG)* - (mandatory language) The “Goal” (MCLG) 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.

*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 disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

*Surface Water (SW)* – Water on the surface such as rivers, lakes and wetlands.

*Ground Water (GW)* - Water held underground that supplies wells and springs.

*Not Applicable (N/A)* - Not applicable for this category.

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.

<b>PRIMARY STANDARDS</b>				
<b>Parameter</b>	<b>Unit of Measurement</b>	<b>Range of Detection</b>	<b>Level Detected</b>	<b>MCL</b>
<b>Turbidity</b>	NTU	0.02 – 0.05	0.05	No sample >1 95% < 0.3
<b>Microbiological</b>		0	0	0
Total Coliform Bacteria		0	0	No more than 1 positive for systems that collect less than 40 samples per month
E.Coli		0	0	0
<b>Inorganic Chemicals</b>				
Nitrate	ppm	0.10	0.10	10
Sodium (optional)	ppm	24	24	(no MCL)
<b>Disinfection By-Products</b>				
Total Trihalomethanes	ppb	14.0 – 25.0	19.25 (RAA)	80
Total Haloacetic Acids	ppb	9.4 – 24.0	17.1 (RAA)	60
Chlorine Residual	ppm	1.43 – 1.61	1.52 avg.	
<b>Lead / Copper</b>				
Lead *Tested in 2016	ppm		90 <sup>th</sup> percentile was 0.00*. No sites exceeded the action level.	0.015 (AL)
Copper *Tested in 2016	ppm		90 <sup>th</sup> percentile was 0.082*. No sites exceeded the action level.	1.3 (AL)
<b>SECONDARY STANDARDS / UNREGULATED CONTAMINANTS</b>				
pH	pH	7.31 – 8.26	7.96 avg.	
TDS	ppm	82 – 130	102 avg.	
Calcium	ppm	31 – 54	42 avg.	
Hardness	ppm	41 – 68	55 avg.	
Total Alkalinity as CaCO <sub>3</sub>	ppm	35 – 74	53 avg.	
Sulfate	ppm	36	26	
Giardia *	# / 100L	0	0	
Cryptosporidium *	# / 100L	0	0	

\* Giardia and Cryptosporidium tested in 2015