

## *Annual Drinking Water Quality Report*

The water that is delivered to your faucet is provided by:

Town of Byron  
35 South Pryor  
P.O. Box 5  
Byron, Wyoming 82412  
(307)-548-7490  
(307)-548-7458 (fax)

Purchased From

Shoshone Municipal Pipeline  
50 Agua Via  
P.O. Box 488  
Cody, Wyoming 82414  
(307)-527-6492  
(307)-587-3349 (fax)

We're pleased to present to you this year's Annual Water Quality Report. This report is designed to inform you about the quality water and services we deliver to you every day. Our constant goal is to provide you with a safe and dependable supply of drinking water. We want you to understand the efforts we make to continually improve the water treatment process and protect our water resources. We are committed to ensuring the quality of your water. Our water source is Buffalo Bill Reservoir, which includes the drainage's of the North Fork and the South Fork of the Shoshone River, and is surface water. Your water is delivered to the Shoshone Municipal Pipeline Water Treatment Plant from the Bureau of Reclamation's Spirit Mountain Energy Dissipation Structure via 4 miles of Pipe.

The source water is processed through a state-of-the-art plant using conventional treatment processes of coagulation, flocculation, sedimentation, filtration, and disinfection.

The treated water is delivered to the municipalities of Cody, Powell, Byron, Lovell, Deaver, Frannie, and the Northwest Rural Water District (NRWD), through 68 miles of pipe. Shoshone Municipal Pipeline also owns storage facilities in Byron, Deaver and Frannie.

If you have any questions about the water quality please contact Brock Meier at the Town of Byron, (307)548-7490, or at the Byron Town Hall at 35 South Pryor. Contact is also available by mail at P.O. Box 5, Byron, WY 82412, and by E-Mail at

byronwy@tctwest.com. You are also welcome to contact Craig Barsness at Shoshone Municipal Pipeline, (307)-527-6492 or visit them at the Water Treatment Plant at 50 AguA Via in Cody. They can also be reached by mail at P.O. Box 488, Cody Wyoming 82414, and by E-Mail at SMP@wyoming.com. Tours of the Water Treatment Plant can be arranged for groups or organizations. We want our valued customers to be informed about their water utility. If you want to learn more, you are welcome to attend any of the regularly scheduled Byron Town Council meetings, held the second Tuesday of each month at 7:00 p.m. at the Byron Town Hall, or the regularly scheduled Shoshone Municipal Pipeline board meetings, held the second Monday of each month at 10:00 a.m. at the Water Treatment Plant.

The Town of Byron and Shoshone Municipal Pipeline routinely monitor for contaminants in your drinking water according to Federal and State laws. The enclosed 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. 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. More information about contaminants and potential health effects can be obtained by calling EPA's Safe Drinking Water Hotline (800-426-4791).

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. 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 wastewater 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.

*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 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 microbiological contaminants are available from the Safe Drinking Water Hotline (800-426-4791).*

Shoshone Municipal Pipeline constantly monitors the water for various contaminants. No Giardia or Cryptosporidium was found in the Source or Finished Water. *We believe it is important for you to know that cryptosporidium may cause serious illness in 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. These people should seek advice from their health care providers.*

In order to insure 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.

The Town of Byron and Shoshone Municipal Pipeline had no violations. We're proud that your drinking water quality meets or exceeds all Federal and State requirements. We have learned through our monitoring and testing that some contaminants are present. The EPA has determined that your water **IS SAFE** at the levels detected.

Some of our data in the tables are 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 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:

*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* - 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* - 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.

*Maximum Contaminant Level* - The "Maximum Allowed" (MCL) 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* - The "Goal" (MCLG) 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.

*TNR* - Testing Not Required

ND – Not Detected

## TEST RESULTS

### Microbiological Contaminants

Contaminant	Violation Y/ N	Level Detected	Unit Measurement	MCLG	MCL	Likely Source of Contamination: Health Effects Language
1. Total Coliform	N	ND	positive or negative	0	a routine sample that is total coliform positive and all repeat samples are total coliform negative	Naturally present in the environment: Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other, potentially harmful, bacteria may be present.
2. <i>E.coli</i>	N	ND	positive or negative	0	a routine sample and repeat sample that are total coliform positive, and one is also fecal coliform or <i>E. coli</i> positive	Human and animal fecal waste: Fecal coliforms and <i>E. coli</i> are bacteria whose presence indicates that the water may be contaminated with human or animal wastes. Microbes in these wastes can cause short term effects, such as diarrhea, cramps, nausea, headaches, or other symptoms. They may pose a special health risk for infants, young children, and people with severely compromised immune systems.
3 Cryptosporidium	N	0	#/100 L	0	TNR	Sewage contamination, direct human contamination, or by domestic and wild animals.

4. Giardia	N	0	#/100 L	0	TNR	Sewage contamination, direct human contamination, or by domestic and wild animals.
5. Turbidity	N	0.02- 0.05  .05	NTU		>1 95% of samples <0.3 NTU, no sample >.10 NTU	Soil runoff: The highest single turbidity measurement was 0.10 and 100% of the samples were below the turbidity limit. 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.

## Inorganic Contaminants

Contaminant	Violation Y/ N	Level Detected	Unit Measurement	MCLG	MCL	Likely Source of Contamination: Health Effects Language
6. Copper	N	90 <sup>th</sup> percentile was 0.107	ppm		1.3 (AL)	Corrosion of household plumbing systems, erosion of natural deposits, and leaching from wood preservatives: Copper is an essential nutrient, but some people who drink water containing copper in excess of the action level over a relatively short amount of time could experience gastrointestinal distress. Some people who drink water containing copper in excess over many years could suffer liver or kidney damage. People with Wilson's Disease should consult their personal doctor.
7. Chlorine	N	1.16 AVG .97- 1.30	ppm		10mg/l	Chlorine averages from monthly bacteriological testing that is performed

8. Fluoride	N	ND	ppm			Erosion of natural deposits, water additive which promotes strong teeth, and discharge from fertilizer and aluminum factories. Some people who drink water containing fluoride in excess of the MCL over many years could get bone disease, including pain and tenderness of the bones. Fluoride in drinking water at half the MCL or more may cause mottling of children's teeth, usually in children less than nine years old. Mottling also known as dental fluorosis, may include brown staining and or pitting of the teeth, and occurs only in developing teeth before they erupt from the gums.
9. Selenium	N	ND	ppm			Discharge from petroleum and metal refineries; erosion of natural deposits; discharge from mines: Selenium is an essential nutrient. However, some people who drink water containing selenium in excess of the MCL over many years could experience hair or fingernail losses, numbness in fingers or toes, or problems with their circulation.
10. Chromium	N	ND	ppm			Discharge from steel and pulp mills; erosion of natural deposits.
11. Nickel	N	ND	ppm			Automobile emissions.
12. Barium	N	ND	ppm			Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits.
Lead	N	0.003	ppm		0.015 (AL)	90 <sup>th</sup> percentile was.003.



## Organic Contaminants

Contaminant	Violation Y/ N	Level Detected	Unit Measurement	MCLG	MCL	Likely Source of Contamination: Health Effects Language
13. TTHM [Total Trihalometh anes]	N	11 (RAA)	ppb	0	80	By-product of drinking water chlorination: Some people who drink water containing trihalomethanes in excess of the MCL over many years may experience problems with their liver, kidneys, or central nervous systems, and may have an increased risk of getting cancer.
14. Chloroform	N	9.9	ppb			By-product of drinking water chlorination: Chloroform must be reported because monitoring for it is required and it was detected, but it has no MCL, AL, or TT.
15.Dibromoch loromethane	N	ND	ppb			Dibromodichloromethane must be reported because monitoring for it is required and it was detected, but it has no MCL, AL, or TT.
16. Bromodichlor omethane	N	1.1	ppb			By-product of drinking water chlorination: Bromodichloromethane must be reported because monitoring for it is required
Total Haloacetic Acid	N	24	ppb		60	By-products of chlorination. Range of detection is 16.0-24.0
Dichloroacetic Acid	N	6.3	ppb			Range of detection is 7.3-15.0
Trichloroaceti c Acid	N	5.5				Range of detection is 7.1-14.0

## Other Contaminants

Contaminant	Violation Y/ N	Level Detected	Unit Measurement	MCLG	MCL	Likely Source of Contamination: Health Effects Language
17. Sodium	N	24	ppm			Sodium must be reported because monitoring for it is required and it was detected, but it has no MCL, AL, or TT.
18. Sulfate	N	36	ppm			Sulfate must be reported because monitoring for it is required and it was detected, but it has no MCL, AL, or TT.
19. Nitrate / Nitrite	N	0.10	ppm		10	
20. pH	TNR	7.31-8.26	pH			7.85 average detected
21. Color	TNR	0-2	Color Units			0-2 average detected
22. TDS	TNR	82-130	ppm		500	105 average. Total Dissolved Solids.
23. Iron	TNR	0.01-.002	ppm			0.02 was the average detected
24. Calcium	TNR	31-54	ppm			45 Average detected
25. hardness	n	41-68	ppm			58 was the average
26. Uranium	n	0.25	ppb		30	
27. gross alpha	n	2.0	pCi/l		15	
28. combined radium	n	.10	pCi/l		5	

30. Total Alkalinity as CaCO <sub>3</sub>	N	Range of detection  35-74	ppm	MCL		The average detected was 57

#### Lead/Copper:

The 90<sup>th</sup> percentile for the 2013 testing was 0.003 ppm for the lead and 0.107 ppm for the copper. No sampling sites in Byron exceeded the action level for lead or copper.

#### E. Coli in source water:

This year we tested for E. Coli in the source water in accordance with the LT2 (Long Term 2 Enhanced Surface Water Treatment Rule). The annual mean E. Coli concentration for our source water was 3.2 E. Coli/100ml. The trigger level for increased source water monitoring is 10 E. Coli/100ml for lake/reservoir sources. There was no E. Coli found in the treated water.

Some of our data in the tables may be more than one year old since certain chemical contaminants are monitored less than once a year. The information listed above is correct and factual to the best of our knowledge.

Please contact our office if you have questions.

We ask that the landlords that pay the water bill for their rentals make any attempt to let their customers know of this report. Extra copies of this report are available at the Byron Town Hall. A copy of Annual Drinking Water Quality Report is also available at the Byron Post Office and an article in the Lovell Chronicle.

The employees at The Town of Byron, Shoshone Municipal Pipeline work 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.

US Environmental Protection Agency, Region 8

Drinking Water Program (8P-W-DW)

Attn: CCR Rule Manager

1595 Wynkoop St.

Mailcode: 8P-W-DW

Denver, CO 80202-1129