

# TOWN OF SILVERTON 2017 Drinking Water Quality Report For Calendar Year 2016

Public Water System ID: CO0156600

The Town of Silverton is pleased to present to you this year's water quality report. Our goal is to provide you a safe and dependable supply of exceptional drinking water!

## General Information

All drinking water may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that the 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 (1-800-426-4791) or by visiting <http://water.epa.gov/drink/contaminants>.

Some people may be more vulnerable to contaminants in drinking water than the general population. Immune-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with immune system disorders, some elderly, and infants can be particularly at risk of infections. These people should seek advice about drinking water from their health care providers. 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 (CDC) guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and microbiological contaminants call the EPA Safe Drinking Water Hotline.

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 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:** viruses and bacteria that may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.
- Inorganic contaminants:** salts and metals, which can be naturally-occurring or result from urban stormwater runoff, industrial or domestic wastewater discharges, mining, or farming.
- Pesticides and herbicides:** come from a variety of sources, such as agriculture, urban stormwater runoff, and residential uses.
- Radioactive contaminants:** can be naturally occurring or be the result of oil and gas production and mining activities.
- Organic chemical contaminants:** including synthetic and volatile organic chemicals, which are byproducts of industrial processes and petroleum production, and may also come from gas stations, urban storm water runoff, and septic systems.

In order to ensure that tap water is safe to drink, the Colorado Department of Public Health and Environment prescribes regulations limiting the amount of certain contaminants in water provided by public water systems.

## Lead in Drinking Water

Elevated levels of lead can cause serious health problems especially for pregnant women and young children. 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 lead in your water, have your water tested. 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. 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>.

## Source Water Assessment and Protection (SWAP)

The Colorado Department of Public Health and Environment has provided us with a Source Water Assessment Report for our water supply. For general information or to obtain a copy of the report please visit <http://wqcdcompliance.com/ccr>. The report is located under "Source Water Assessment Reports", and then "Assessment Report by County". Select **San Juan County** and find **156600; Town of Silverton**. The SWAP Report provides a screening-level evaluation of potential contamination that *could* occur. It *does not* mean that the contamination *has or will* occur. We can use this information to evaluate the need to improve our current water treatment capabilities and prepare for future contamination threats. This can help us ensure that quality finished water is delivered to your homes.

Please contact **John Sites at (970) 946-6839** to learn more about what you can do to help protect your drinking water sources, with questions about the Drinking Water Consumer Confidence Report, or to learn more about Silverton's water system. We want you, our valued customers, to be informed about the services we provide and the quality water we deliver to you every day!

## Our Water Source

<u>Source</u>	<u>Source Type</u>	<u>Water Type</u>	<u>Potential Sources of Contamination</u>
GALVIN CREEK	Intake	Surface Water	Existing/abandoned mines, row crops, pasture/hay, mixed, deciduous, and evergreen forests
BOULDER CREEK BLENDED	Intake	Surface Water	Existing/abandoned mines, row crops, pasture/hay, mixed, deciduous, and evergreen forests
BEAR CREEK BLENDED	Intake	Surface Water	Existing/abandoned mines, row crops, pasture/hay, mixed, deciduous, and evergreen forests

## Terms and Abbreviations

- **Maximum Contaminant Level (MCL)** – The highest level of a contaminant allowed in drinking water.
- **Treatment Technique (TT)** – A required process intended to reduce the level of a contaminant in drinking water.
- **Health-Based** – A violation of either a MCL or TT.
- **Non-Health-Based** – A violation that is not a MCL or TT.
- **Action Level (AL)** – The concentration of a contaminant which, if exceeded, triggers treatment and other regulatory requirements.
- **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.
- **Maximum Contaminant Level Goal (MCLG)** – 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.
- **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.
- **Violation** – Failure to meet a Colorado Primary Drinking Water Regulation.
- **Formal Enforcement Action** – Escalated action taken by the State (due to the risk to public health, or number or severity of violations) to bring a non-compliant water system back into compliance.
- **Variance and Exemptions (V/E)** – Department permission not to meet a MCL or treatment technique under certain conditions.
- **Gross Alpha (No Abbreviation)** – Gross alpha particle activity compliance value. It includes radium-226, but excludes radon 222, and uranium.
- **Picocuries per liter (pCi/L)** – Measure of the radioactivity in water.
- **Nephelometric Turbidity Unit (NTU)** – Measure of the clarity or cloudiness of water. Turbidity in excess of 5 NTU is just noticeable to the typical person.
- **Compliance Value** – Single or calculated value used to determine if regulatory contaminant level (e.g. MCL) is met. Examples of calculated values are the 90<sup>th</sup> Percentile, Running Annual Average (RAA) and Locational Running Annual Average (LRAA).
- **Average (x-bar)** – Typical value.
- **Range (R)** – Lowest value to the highest value.
- **Sample Size (n)** – Number or count of values (i.e. number of water samples collected).
- **Parts per million = Milligrams per liter (ppm = mg/L)** – One part per million corresponds to one minute in two years or a single penny in \$10,000.
- **Parts per billion = Micrograms per liter (ppb = ug/L)** – One part per billion corresponds to one minute in 2,000 years, or a single penny in \$10,000,000.
- **Not Applicable (N/A)** – Does not apply or not available.

## Detected Contaminants

The Town of Silverton routinely monitors for contaminants in your drinking water according to Federal and State laws. The following tables show all detections found in the period of January 1 to December 31, 2016 unless otherwise noted. The State of Colorado requires us to monitor for certain contaminants less than once per year because the concentrations of these contaminants are not expected to vary significantly from year to year, or the system is not considered vulnerable to this type of contamination. Therefore, some of our data, though representative, may be more than one year old.

<b>Disinfectants Sampled in the Distribution System</b>						
<b>TT Requirement:</b> At least 95% of samples per period (month or quarter) must be at least 0.2 ppm <b><i>OR</i></b> If sample size is less than 40 no more than 1 sample is below 0.2 ppm						
<b>Typical Sources:</b> Water additive used to control microbes						
Contaminant Name	Time Period	Results	Number of Samples Below Level	Sample Size	TT Violation	MRDL
Chlorine	Jan-Dec 2016	<u>Lowest period</u> percentage of samples meeting TT requirement: <b>100%</b>	0	1	No	4.0 ppm

<b>Disinfection Byproducts Sampled in the Distribution System</b>										
Name	Year	Average	Range Low – High	Sample Size	Unit of Measure	MCL	MCLG	Highest Compliance Value	MCL Violation	Typical Sources
Total Haloacetic Acids (HAA5)	2016	3.96	3.96	1	ppb	60	N/A		No	Byproduct of drinking water disinfection
Total Trihalomethanes (TTHM)	2016	6.43	6.43	1	ppb	80	N/A		No	Byproduct of drinking water disinfection

<b>Total Organic Carbon (Disinfection Byproducts Precursor) Removal Ratio of Raw and Finished Water</b>								
Contaminant Name	Year	Average	Range Low – High	Sample Size	Unit of Measure	TT Minimum Ratio	TT Violation	Typical Sources
Total Organic Carbon Ratio	2016	1.05	1 to 1.2	4	Ratio	1.00	No	Naturally present in the environment

**Disinfectants Sampled at the Entry Point to the Distribution System**

Contaminant Name	Year	Number of Samples Above or Below Level	Sample Size	TT/MRDL Requirement	TT/MRDL Violation	Typical Sources
Chlorine	2016	0	1095	TT = No more than 4 hours with a sample below 0.2 MG/L	No	Water additive used to control microbes

**Summary of Turbidity Sampled at the Entry Point to the Distribution System**

Contaminant Name	Sample Date	Level Found	TT Requirement	TT Violation	Typical Sources
Turbidity	Date/Month: May 1, 2017	<u>Highest single</u> measurement: 0.32 NTU	Maximum 1.0 NTU for any single measurement	No	Soil Runoff
Turbidity	Month: Jan-Dec	<u>Lowest monthly</u> percentage of samples meeting TT requirement for our technology: <b>100 %</b>	In any month, at least 95% of samples must be less than 0.3 NTU	No	Soil Runoff

**Radionuclides Sampled at the Entry Point to the Distribution System**

Contaminant Name	Year	Average	Range Low – High	Sample Size	Unit of Measure	MCL	MCLG	MCL Violation	Typical Sources
Combined Uranium	2016	1.2	1.2	1	ppb	30	0	No	Erosion of natural deposits

**Inorganic Contaminants Sampled at the Entry Point to the Distribution System**

Contaminant Name	Year	Average	Range Low – High	Sample Size	Unit of Measure	MCL	MCLG	MCL Violation	Typical Sources
Fluoride	2016	0.45	0.45	1	ppm	4	4	No	Erosion of natural deposits, discharge from factories
Nitrate	2016	0.11	0.11	1	ppm	10	10	No	Fertilizer, septic tanks, erosion of natural deposits

**Violations, Significant Deficiencies, Backflow/Cross-Connection, and Formal Enforcement Actions**

There were no Violations or Formal Enforcement Actions to report in 2016, only drinking water of exceptional quality!!