

2020 CONSUMER CONFIDENCE REPORT

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JANUARY 1 – DECEMBER 31, 2020

The South Cheyenne Water and Sewer District (SCWSD) is proud to release the Consumer Confidence Report for annual drinking water quality, for calendar year 2020. This report is designed to provide details about where your water comes from, what it contains, and how it compared to standards set by regulatory agencies.

IS CHEYENNE'S WATER SAFE?

YES! The SCWSD and the Board of Public Utilities (BOPU) is proud to report that Cheyenne's drinking water is safe and meets or exceeds (is better than) federal and local requirements.

NO VIOLATIONS

Water quality sampling contained detects, but no violations. As you can see by the data in our table, our water system had no violations. We're proud that the drinking water provided by SCWSD and the BOPU meets or exceeds (is better than) drinking water standards established by the Environmental Protection Agency (EPA).

We have learned through monitoring and testing, that some constituents have been detected in Cheyenne's water. The EPA has determined that the amount of these constituents in drinking water is safe.

The SCWSD and BOPU Water Treatment Division routinely monitors for potential contaminants in accordance with Federal laws. The tables below show the most recent results of our monitoring (through 12/31/2020), completed in accordance with the US EPA Drinking Water Regulations.

WHERE DOES CHEYENNE'S WATER COME FROM?

Cheyenne's water comes from both surface water and groundwater sources. A Source Water Assessment and Protection report was completed in 2004. To view a copy of this report, call (307) 637-6460.

ABOUT OUR WATER SUPPLY

DOUGLAS CREEK

Surface water is collected from the Douglas Creek Watershed located about 75 miles west of Cheyenne in the Medicine Bow Mountains (also called Snowy Range). Water from Douglas Creek is stored in Rob Roy Reservoir. Two pipelines deliver the water from Rob Roy Reservoir to Granite and Crystal Reservoirs. When Cheyenne collects water from Douglas Creek, a tributary to the North Platte River, the BOPU must replace the water. The BOPU replaces the water with water from another source. The BOPU replaces the water with water from west of the Continental Divide in the Little Snake River Watershed.

The Little Snake River is located in the Sierra Madre Mountains approximately 110 miles west of Cheyenne. A series of collection structures and pipelines collect water from tributaries in the Little Snake River and transport the water under the Continental Divide to Hog Park Reservoir. Water from Hog Park Reservoir can be released into the North Platte River and can be recaptured in Seminoe Reservoir. The BOPU uses water from both Hog Park and Seminoe Reservoirs as trade water. When the BOPU uses water at Rob Roy Reservoir, the BOPU releases the same amount of water from Hog Park Reservoir and Seminoe Reservoir. This way, the BOPU can use the water stored in Rob Roy Reservoir for drinking water in Cheyenne without affecting other users along the North Platte River.

CROW CREEK

Surface water is also collected from the Crow Creek Watershed. Crow Creek is located about 30 miles west of Cheyenne in the Laramie Mountains near the Vedauwoo recreation area. Water from Crow Creek is stored in North Crow Reservoir (North Crow Creek), Granite and Crystal Reservoirs (Middle Crow Creek) and South Crow Diversion Structure (South Crow Creek). Water stored in Crystal Reservoir and South Crow Diversion Structure is delivered to R.L. Sherard Water Treatment Plant by pipelines.

GROUND WATER

Cheyenne owns and operates about 36 wells in four well fields located west and northwest of Cheyenne. The wells pump from the High Plains (Ogallala and White River) Aquifers. Approximately 30 percent of the water used in Cheyenne comes from wells.

LEARN MORE ABOUT CHEYENNE'S WATER BY WATCHING VIDEOS

We encourage all of our customers to learn about Cheyenne's water system and the Safe Drinking Water Act. Help us protect our valuable water sources that protect our health, provide fire protection, provide a natural resource for businesses and provide for our way of life. Our water is vital to our future. Visit the BOPU website at www.cheyennnebopu.org and watch videos for the following information.

- This link www.cheyennnebopu.org/Your-Water/Water-Supply/Source-Water contains a description of where Cheyenne's water comes from including a map of water resources.
- This link www.cheyennnebopu.org/Your-Water/Water-Supply/Reservoir-Levels shows current reservoir storage levels.
- This link www.cheyennnebopu.org/Your-Water/Water-Quality contains information about water quality such as hardness, clarity, fluoride and water quality parameters commonly used by brewers.
- This link www.cheyennnebopu.org/Your-Water/Water-Conservation contains information on how to use water wisely, find and fix leaks and summer watering schedules.

A NOTE FROM THE EPA ABOUT DRINKING WATER SOURCES AND REGULATIONS

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

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. To ensure tap water is safe to drink, the EPA regulates the amount of certain contaminants in water from public water systems. The Food and Drug Administration (FDA) regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

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 runoff, industrial or domestic wastewater discharges, oil and gas production, mining or farming.
- Pesticides and herbicides, which may come from a variety of sources such as agricultural, urban storm water runoff, and residential uses.
- Organic chemical contaminants, including synthetic and volatile organic chemicals which are by-products of industrial process and petroleum production, and can also come from gas stations, urban storm water runoff, and septic systems.
- Radioactive contaminants, which can be naturally-occurring or be the result of oil and gas production and mining activities.

More information about contaminants and potential health effects can be obtained by calling the EPA's Safe Drinking Water Hotline at 1 (800) 426-4791 or by visiting <https://www.epa.gov/sdwa>

DEFINITIONS

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

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 Maximum Contaminant Level Goals as feasible using the best available treatment technology.

MCL values are set at very stringent levels. To understand the possible health effects described for many regulated constituents, a person would have to drink 2 liters of water every day at the MCL for a lifetime to have a one-in-a-million chance of having the described health effect. *(Re-printed with permission from the National Rural Water Association.)*

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

Maximum Residual Disinfectant Level (MRDL) – The highest level of disinfectant allowed in drinking water. The addition of disinfectant is necessary for control of microbial contaminants.

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 MRDLs do not reflect the benefits of the use of disinfectants to control microbial contaminants.

Nephelometric Turbidity Unit (NTU) - Nephelometric Turbidity Unit is a measure of the clarity of water. Turbidity in excess of 5 NTU is just noticeable by the average person.

Parts per billion (ppb) or microgram per Liter (ug/L) - one part per billion corresponds to one minute in 2,000 years, or one penny in \$10,000,000.

Parts per million (ppm) or milligram per Liter (mg/L) - one part per million corresponds to one minute in two years, or one penny in \$10,000.

Picocurie per Liter (pCi/L) - Picocurie per Liter is a measure of radioactivity.

Treatment Technique (TT) - A treatment technique is a required process intended to reduce the level of contaminant in drinking water.

R – Sample was taken at the Round Top Storage Tank.

S – Sample was taken at the Sherard Water Treatment Plant.

SCWSD – Sample was taken within the South Cheyenne Water & Sewer District Boundaries

Table Referencing Contaminant Detects and/or Violations

R = Round Top Storage Tank

S = Sherard Water Treatment Plant

SCWSD = South Cheyenne Water & Sewer District

Violation	MCL	Likely Source of Contamination/ Comments			
MICROBIAL CONTAMINANTS AND TURBIDITY					
CONTAMINANT	VIOLATION YES/NO	LEVEL DETECTED	MCLG	MCL	LIKELY SOURCE OF CONTAMINATION/COMMENTS
Total Coliform Bacteria	No	BOPU Presence/ Absence Testing	0	Presence of coliform in $\geq 5\%$ of monthly samples	Naturally present in the environment. 720 samples were required for Regulatory Compliance. The BOPU collected 881 samples. Of that number no samples tested positive for total coliform.
		SCWSD Presence/Absence Testing	0		120 samples were required for Regulatory Compliance. SCWSD collected 120 samples. Of that number no samples tested positive for total coliform
Turbidity	No	≤ 0.09 NTU 100%	N/A	TT 95% < 0.3	Soil runoff. Maximum allowable filtered water turbidity is 0.3 NTU in 95% of all samples. Turbidity values are recorded every 4 hours from all filters in operation and values reported monthly to the EPA. Turbidity is a measurement of the cloudiness of water caused by suspended particles and is a good indicator of water quality and the effectiveness of filtration and disinfection systems.
Chlorine	No	0.1 to 1.2 ppm	MRDLG 4	MRDL 4	Drinking water disinfectant used to control microbial growth.

The BOPU tested raw (untreated) water for Giardia and Cryptosporidium in 2017 but found less than one per liter of sample.

INORGANIC CONTAMINANTS

CONTAMINANT	VIOLATION YES/NO	LEVEL DETECTED	UNIT	MCLG	MCL	LIKELY SOURCE OF CONTAMINATION/COMMENTS
Arsenic	No	R: ND S: ND	ppb	0	10	Erosion of natural deposits; runoff from orchards; glass and electronics production waste. Arsenic was last detected in 2018 at 1.5 ppb.
Barium	No	R: 0.038 S: 0.023	ppm	2	2	Discharge of drilling wastes; erosion of natural deposits.
Lead	No	BOPU 3.0 90th percentile, based on 30 samples collected (27th highest) In July 2020 SCWSD 4.0 90th percentile, based on 23 samples collected (18th highest) in August 2020	ppb ppb	0 0	AL=15 AL=15	Corrosion of household plumbing systems, erosion of natural deposits. This sample was taken from a private residence.

CONTAMINANT	VIOLATION YES/NO	LEVEL DETECTED	UNIT	MCLG	MCL	LIKELY SOURCE OF CONTAMINATION/COMMENTS
Copper	No	BOPU 0.38 90th percentile, based on 30 samples taken (27th highest value) in July 2020	ppm	1.3	AL=1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives. This sample was taken from a private residence.
		SCWSD 0.42 90th percentile, based on 23 samples taken (18th highest value) in August 2020	ppm	1.3	AL=1.3	
Fluoride	No	R: 0.5 S: 0.5	ppm	4	4	Erosion of natural deposits; water additive that promotes strong teeth; discharge from fertilizer and aluminum factories.
Nitrate (as Nitrogen)	No	R: 0.4 S: 0.2	ppm	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits.
Sulfate	No	R: 21 S: 19	ppm	NONE	250	Used as a coagulation compound in the treatment of drinking water. Water additive – ferric sulfate

Additionally, the Board tested drinking water from Antimony, Beryllium, Cadmium, Chromium, Cyanide, Mercury, Nickel, Nitrite, Selenium and Thallium but found no detects. Asbestos was sampled in 2018 but found no detects.

The BOPU also sampled for and detected Sodium (S: 13 ppm, R: 13 ppm). Sodium comes primarily from water treatment chemicals and erosion of natural deposits.

ORGANIC CONTAMINANTS

CONTAMINANT	VIOLATION YES/NO	LEVEL DETECTED	UNIT	MCLG	MCL	LIKELY SOURCE OF CONTAMINATION/COMMENTS
<p style="text-align: center;">Total Trihalomethanes</p> <p>(Sum of 4 compounds Chloroform, Bromoform, Bromadichloromethane, Dibromochloromethane)</p>	No	R: Min = 27.2 R: Max = 42.7 R: Avg:= 32.7 S: Min = 18.4 S: Max = 67.9 S: Avg = 49.4	ppb	0	80	By-product of drinking water chlorination
<p style="text-align: center;">Haloacetic Acid</p> <p>(Sum of 5 compounds: Monochloroacetic Acid, Dichloroacetic Acid, Trichloroacetic Acid, Monobromoacetic Acid, Dibromoacetic Acid)</p>	No	R: Min = 15.3 R: Max:= 24.0 R: Avg:= 19.1 S: Min = 12.6 S: Max = 28.0 S: Avg = 21.9	ppb	0	60	By-product of drinking water chlorination
<p style="text-align: center;">Total Organic Carbon (TOC)</p>	No	R: N/A S: Raw S: Max Avg.=4.6 Treated Water Avg.=2.2 2.2	ppm	N/A	TT	Natural organic matter present in the environment TOC was measured each month and removal requirements were met. TOC has no health effects. TOC provides a medium for the formation of disinfection byproducts such as trihalomethanes and haloacetic acids

Additionally, the Board tested drinking water for the following organic compounds but found no detects: Alachlor; Atrazine; Benzene; Benzo(a)pyrene (PAHs); Carbofuran; Carbon Tetrachloride; Chlordane; Chlorobenzene; 2,4D; Dalapon; 1,2-Dibromo-3-chloropropane (DBCP); 0-Dichlorobenzene; p-Dichlorobenzene; 1,2-Dichloroethane; 1,1-Dichloroethylene; cis1,2, Dichloroethylene; trans-1,2-Dichloroethylene; Dichloromethane; 1,2-Dichloropropane; Di(2-ethylehexyl) adipate; Di(2-ethylhexyl) phthalate; Dinoseb; Dioxin (2,3,7,8-TCDD); Diquat; Endothall; Endrin; Ethylbenzene; Ethylene Dibromide; Glyphosate; Heptachlor; Heptachlor Epoxide; Hexachlorobenzene; Hexachlorocyclopentadiene; Lindane; Methoxychlor; Oxamyl (Vydate); Polychlorinated Biphenyls (PCBs); Pentachlorophenol; Picloram; Simazine; Styrene; Tetrachloroethylene; Toulene; Toxaphene; 2,4,5-TP (Silvex); 1,2,4- Trichlorobenzene; 1, 1, 1-Trichloroethane; 1,1,2-Trichloroethane; Trichloroethylene; Vinyl Chloride; Xylenes (total).

RADIONUCLIDES

CONTAMINANT	VIOLATION YES/NO	LEVEL DETECTED	UNIT	MCLG	MCL	LIKELY SOURCE OF CONTAMINATION/COMMENTS
Gross Alpha	No	R:10.1±2.4 (2018) S: 4.3±1.9 (2018)	pCi/L	None	15	Erosion of natural deposits.
Radium 226	No	R:0.20±0.12 (2018) S: 0.08±0.10 (2018)	pCi/L	None	15	Erosion of natural deposits.
Radium 228	No	R:0.31±0.54 (2018) S:0.22±0.52 (2018)	pCi/L	None	15	Erosion of natural deposits.
Uranium	No	R: 2.3 S: 2.6	ppb	None	30	Naturally present in the environment

A NOTE ABOUT DRINKING WATER QUALITY AND IMMUNO-COMPROMISED PERSONS

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 systems disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice about drinking water from healthcare providers. EPA/Centers for Disease Control and Prevention guidelines on appropriate means to lessen the risk of infection by cryptosporidium and other microbiological contaminants are available from the Safe Drinking Water Hotline at 1 (800) 426-4791 or at <http://www.epa.gov/safewater> (<http://www.epa.gov/safewater>).

A NOTE ABOUT LEAD

Cheyenne started programs and studies to prevent the leaching of lead and copper from water pipes into our finished drinking water in the early 1990's. Today, the R>L> Sheared Water Treatment plant has the ability to adjust water pH and alkalinity to reduce the corrosiveness of treated drinking water. Partnering with the EPA, the Board regularly monitors the amount of lead coming from faucets in older homes selected because they were constructed when lead was used in plumbing. These tests have shown the level of lead to be substantially below EPA's action level.

Lead in drinking water comes primarily from material and components used with home plumbing. While the BOPU provides high-quality drinking water, it has limited control regarding materials that are used in plumbing components in homes and buildings.

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. If you are concerned, you can minimize the potential of lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your drinking 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 are available from the Safe Drinking Water Hotline at 1 (800) 426-4791 or at <http://www.epa.gov/safewater/lead> (<http://www.epa.gov/safewater/lead>).

HOW IS THE WATER SYSTEM FUNDED

In the SCWSD continuing effort to provide a safe and dependable water supply, it is necessary to make improvements to the SCWSD water system. Water system improvements and maintenance are paid for through Water Rates and System Development fees charged to its users.

OUR GOAL

The SCWSD and BOPU goal is to provide the community of Cheyenne with safe, quality drinking water that meets federal and local requirements at the lowest cost. We encourage all of our water customers to learn about Cheyenne's water system and the Safe Drinking Water Act requirements and to help us protect our valuable water sources, which are the heart of our community, our way of life and vital to our future.

SOUTH CHEYENNE WATER AND SEWER DISTRICT

BOARD OF DIRECTORS AND MANAGEMENT TEAM

Karen K. Hughes - President

James Rish - Vice-President

Robert Sleesman - Director

Kimberly Blew - Director

Vikki Schoeneberg - Director

Dena Hansen - General Manager

Scott Sprakties - Operations Manager

PUBLIC MEETINGS

We want our customers to be informed about their water. If you want to learn more about the SCWSD, please attend any of our regularly scheduled Board Meetings. District Board Meetings are held on the first Tuesday of each month, 5:30 p.m. at the SCWSD Office, 215 East Allison Road.

PROPERTY OWNERS AND MANAGERS

Please share this report with your tenants

Thank You!

QUESTIONS

If you have questions about this report or concerning your water utility please call Dena Hansen, General Manager at 635-5608, or email scwsd215@bresnan.net.