Cooke City's Drinking Water Consumer Confidence Report for 2022

Cooke City Water District, PO Box 1833 Livingston, MT 59047

PWSID# = MT0000187

Is my water safe?

We are pleased to present this year's Annual Water Quality Report (Consumer Confidence Report) as required by the Safe Drinking Water Act (SDWA). This report presents a snapshot of last year's water quality. It is designed to provide details about where your water comes from, what it contains, and how it compares to the standards set by the Montana Department of Environment Quality (DEQ) and the United States Environmental Protection Agency (EPA). We are committed to providing you with information because informed customers are our best allies. The data presented in this report represent the sampling year that includes **January 1, 2022**, through **December 31, 2022**, and per Department of Environmental Quality (DEQ) is required to be made available by **June 30 of 2023**.

Where does my water come from?

Water is supplied to the Cooke City Water District by a series of three wells located about 1 mile north and west of town near where Sheep Creek enters the Soda Butte Creek Valley, on a small rise. The wells are located in an area made up of quaternary glacial till and outwash deposits composed of a complex mixture of clay, silt, sand, gravel, and boulders. Wells 1 (GWIC 251912) * and 2 (GWIC 251889) * were completed in a shallow unconfined aquifer within unconsolidated gravels at about 75-95 feet below natural ground surface. Well 3 (GWIC 251907) * was completed approximately 216 feet to the west in an unconfined aquifer slightly deeper at 116 feet in a mixture of fractured limestone, shale, some sandstone and volcanics. Because the aquifers are fairly shallow in unconfined gravels or fractured bedrock they have a high sensitivity to potential sources of contamination located at the land surface. The potential for each aquifer to become contaminated means that our community must be committed to protecting the areas of recharge. We must also insure that the areas directly adjacent to our wells are protected from the development of potential sources of contamination. In general, sources of contamination in the area consists of underground storage tanks, areas of high to moderate wastewater treatment system density (Silver Gate), and mine tailings. However, these contamination sources are not considered a threat to the source water as they are located over a mile away from the well sites and in the case of Silver Gate are located downstream.

Source water assessment and its availability.

If you are interested in learning more about where your water comes from, you can access the DEQ Source Water Delineation and Assessment Report online at https://deq.mt.gov/water/Programs/dw-sourcewater.

*Ground Water Information Center (GWIC), https://mbmggwic.mtech.edu.

Why are there contaminants in my drinking water?

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 dissolves naturally occurring minerals and, in some cases, radioactive materials, and can pick up substances or biological agents 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, can be naturally occurring or result from stormwater 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 agriculture, stormwater runoff, and residential uses.
- Organic chemical contaminants, including synthetic and volatile organic chemicals, 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 activity.

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

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).

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 Safe Drinking Water Hotline (800-426-4791).

Of note for dialysis patients, Cooke City <u>does not</u> use chloramine residuals as a source of chlorine for distribution disinfection.

Lead Updates.

The presence of elevated lead concentrations can cause serious health problems, especially for pregnant women and young children. The primary sources for lead in drinking water are materials and components associated with older service connections and residential plumbing. Cooke City 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 materials, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline or at http://www.epa.gov/safewater/lead.

Lead Service Line Inventory

The revised Lead and Copper Rule requires that all Community Water Systems complete and submit a Lead Service Line (LSL) Inventory by October 16th, 2024. As a result, the Cooke City Water District will be required to conduct an inventory of the service lines connecting water mains with District buildings. The service lines, their associated materials and locations will be entered into an inventory spreadsheet and submitted to the MT Department of Environmental Quality. All water main service connections, including those to abandoned buildings, empty lots, commercial and residential structures and lines for non-potable (fire suppression or other) use must be inventoried.

The District would like Its water customers to know that the inventory is a Federal and State requirement and that any assistance that customers can give the District during this process would be greatly appreciated.

Information regarding the LSL inventory can be found the at the DEQ drinking water website: https://deq.mt.gov/water/Programs/dw.

This document, the Consumer Confidence Report (CCR), will serve as the platform for all Lead-related information and notifications.

Water Quality Data Tables

In order to ensure that tap water is safe to drink, EPA prescribes regulations which limit the number of contaminants in water provided by public water systems. The table below lists all of the drinking water contaminants that we detected during the calendar year of this report. Although many more contaminants were tested, only those substances listed below were found in your water. All sources of drinking water contain some naturally occurring contaminants. At low levels, these substances are generally not harmful in our drinking water. Removing all contaminants would be extremely expensive, and in most cases, would not provide increased protection of public health. A few naturally occurring minerals may actually improve the taste of drinking water and have nutritional value at low levels. Unless otherwise noted, the data presented in this table is from testing done in the calendar year of the report. The EPA or the State requires us to monitor for certain contaminants less than once per year because the concentrations of these contaminants do not vary significantly from year to year, or the system is not considered vulnerable to this type of contamination. As such, some of our data, though representative, may be more than one year old. In this table you will find terms and abbreviations that might not be familiar to you. To help you better understand these terms, we have provided the definitions below the table.

Important Drinking Water Definitions	
Term	**Definition**
ppm	ppm: parts per million, or milligrams per liter (mg/L)
ppb	ppb: parts per billion, or micrograms per liter (µg/L)
NA	NA: not applicable
ND	ND: Not detected
MCLG	MCLG: Maximum Contaminant Level Goal: 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.
MCL	MCL: Maximum Contaminant Level: 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.
TT	TT: Treatment Technique: A required process intended to reduce the level of a contaminant in drinking water.
AL	AL: Action Level: The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.
Variances and Exemptions	Variances and Exemptions: State or EPA permission not to meet an MCL or a treatment technique under certain conditions.
MRDLG	MRDLG: Maximum residual disinfection level goal. 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.
MRDL	MRDL: Maximum residual disinfectant level. 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.
MNR	MNR: Monitored Not Regulated
MPL	MPL: State Assigned Maximum Permissible Level

Water Quality Sampling Results:

Lead and Copper	Sample Date	MCLG	Action Level (AL)	90th Percentile	# of Sites Over AL	Units	Violation	Likely Source of Contamination
Copper	2022	1.3	1.3	0.074	0	ppm	N	Erosion of natural deposits; Leaching from wood preservatives; Corrosion of residential plumbing.
Lead	2022	0	15	6	0	ppb	N	Corrosion of residential plumbing and public distribution lines; Erosion of natural deposits.

Inorganic Contaminents	Sample Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Nitrate (Measured as Nitrogen)	2022	0.25	0.25-0.25	10	10	ppm	N	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
Fluoride	2022	0.1	0.1 - 0.1	4	4.0	ppm	N	Erosion of natural deposits, Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories.

Synthetic organic contaminants including pesticides and herbicides.	Sample Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Di (2-ethylhexyl) phthalate	2022	1	0-3.6	0	6	ppb	N	Discharge from rubber and chemical factories.

Violation Tables:

Violation			
Consumer Confidence Rule			
The Consumer Confidence Rule requires community water systems to prepare and provide to their customers annual consumer confidence reports on the quality of the water delivered by the systems			
Violation Type	**Violation Began**	**Violation End**	**Violation Explanation**
CCR Report	07/01/2022	07/25/2022	The system failed to publish a Consumer Confidence Report (CCR) for 2021 within the required time frame. This violation was returned to compliance on 7/25/22 when the CCR was distributed to consumers and sent to the State of Montana DEQ.

Violation			
1,1,1-Trichloroethane			
Some people who drink water containing 1,1,1-trichloroethane in excess of the MCL over many years could experience problems with their liver, nervous system, or circulatory system.			
Violation Type	**Violation Began**	**Violation End**	**Violation Explanation**
Monitoring Routine Major	01/01/2020	12/31/2022	We failed to test our drinking water for the contaminant during period indicated. Because of this failure, we cannot be sure of the quality of our drinking water during this period. A sample result has not been received by the State of Montana DEQ so the violation is still outstanding.

Violation			
1,1,2-Trichloroethane			
Some people who drink water containing 1,1,2-trichloroethane in excess of the MCL over many years could experience problems with their liver, nervous system, or circulatory system.			
Violation Type	**Violation Began**	**Violation End**	**Violation Explanation**
Monitoring Routine Major	01/01/2020	12/31/2022	We failed to test our drinking water for the contaminant during period indicated. Because of this failure, we cannot be sure of the quality of our drinking water during this period. A sample result has not been received by the State of Montana DEQ so the violation is still outstanding.

Violation			
1,1-Dichloroethylene			
Some people who drink water containing 1,1-dichloroethylene in excess of the MCL over many years could experience problems with their liver.			
Violation Type	**Violation Began**	**Violation End**	**Violation Explanation**
Monitoring Routine Major	01/01/2020	12/31/2022	We failed to test our drinking water for the contaminant during period indicated. Because of this failure, we cannot be sure of the quality of our drinking water during this period. A sample result has not been received by the State of Montana DEQ so the violation is still outstanding.

Violation			
1,2,4-Trichlorobenzene			
Some people who drink water containing 1,2,4-trichlorobenzene well in excess of the MCL over many years could experience changes in their adrenal glands.			
Violation Type	**Violation Began**	**Violation End**	**Violation Explanation**
Monitoring Routine Major	01/01/2020	12/31/2022	We failed to test our drinking water for the contaminant during period indicated. Because of this failure, we cannot be sure of the quality of our drinking water during this period. A sample result has not been received by the State of Montana DEQ so the violation is still outstanding.

Violation			
1,2-Dichloroethane			
Some people who drink water containing 1,2-dichloroethane in excess of the MCL over many years may have an increased risk of getting cancer			
Violation Type	**Violation Began**	**Violation End**	**Violation Explanation**
Monitoring Routine Major	01/01/2020	12/31/2022	We failed to test our drinking water for the contaminant during period indicated. Because of this failure, we cannot be sure of the quality of our drinking water during this period. A sample result has not been received by the State of Montana DEQ so the violation is still outstanding.

Violation			
1,2-Dichloropropane			
Some people who drink water containing 1,2-dichloropropane in excess of the MCL over many years may have an increased risk of getting cancer.			
Violation Type	**Violation Began**	**Violation End**	**Violation Explanation**
Monitoring Routine Major	01/01/2020	12/31/2022	We failed to test our drinking water for the contaminant during period indicated. Because of this failure, we cannot be sure of the quality of our drinking water during this period. A sample result has not been received by the State of Montana DEQ so the violation is still outstanding.

Violation			
Benzene			
Some people who drink water containing benzene in excess of the MCL over many years could experience anemia or a decrease in blood platelets, and may have an increased risk of getting cancer.			
Violation Type	**Violation Began**	**Violation End**	**Violation Explanation**
Monitoring Routine Major	01/01/2020	12/31/2022	We failed to test our drinking water for the contaminant during period indicated. Because of this failure, we cannot be sure of the quality of our drinking water during this period. A sample result has not been received by the State of Montana DEQ so the violation is still outstanding.

Violation			
Carbon Tetrachloride			
Some people who drink water containing carbon tetrachloride in excess of the MCL over many years could experience problems with their liver and may have an increased risk of getting cancer			
Violation Type	**Violation Began**	**Violation End**	**Violation Explanation**
Monitoring Routine Major	01/01/2020	12/31/2022	We failed to test our drinking water for the contaminant during period indicated. Because of this failure, we cannot be sure of the quality of our drinking water during this period. A sample result has not been received by the State of Montana DEQ so the violation is still outstanding.

Violation			
Chlorobenzene			
Some people who drink water containing chlorobenzene in excess of the MCL over many years could experience problems with their liver or kidneys.			
Violation Type	**Violation Began**	**Violation End**	**Violation Explanation**
Monitoring Routine Major	01/01/2020	12/31/2022	We failed to test our drinking water for the contaminant during period indicated. Because of this failure, we cannot be sure of the quality of our drinking water during this period. A sample result has not been received by the State of Montana DEQ so the violation is still outstanding.

Violation			
Dichloromethane			
Some people who drink water containing dichloromethane in excess of the MCL over many years could have liver problems and may have an increased risk of getting cancer.			
Violation Type	**Violation Began**	**Violation End**	**Violation Explanation**
Monitoring Routine Major	01/01/2020	12/31/2022	We failed to test our drinking water for the contaminant during period indicated. Because of this failure, we cannot be sure of the quality of our drinking water during this period. A sample result has not been received by the State of Montana DEQ so the violation is still outstanding.

Violation			
Ethylbenzene			
Some people who drink water containing ethylbenzene well in excess of the MCL over many years could experience problems with their liver or kidneys.			
Violation Type	**Violation Began**	**Violation End**	**Violation Explanation**
Monitoring Routine Major	01/01/2020	12/31/2022	We failed to test our drinking water for the contaminant during period indicated. Because of this failure, we cannot be sure of the quality of our drinking water during this period. A sample result has not been received by the State of Montana DEQ so the violation is still outstanding.

Violation			
Styrene			
Some people who drink water containing styrene well in excess of the MCL over many years could have problems with their liver, kidneys, or circulatory system.			
Violation Type	**Violation Began**	**Violation End**	**Violation Explanation**
Monitoring Routine Major	01/01/2020	12/31/2022	We failed to test our drinking water for the contaminant during period indicated. Because of this failure, we cannot be sure of the quality of our drinking water during this period. A sample result has not been received by the State of Montana DEQ so the violation is still outstanding.

Violation			
Tetrachloroethylene			
Some people who drink water containing tetrachloroethylene in excess of the MCL over many years could have problems with their liver, and may have an increased risk of getting cancer.			
Violation Type	**Violation Began**	**Violation End**	**Violation Explanation**
Monitoring Routine Major	01/01/2020	12/31/2022	We failed to test our drinking water for the contaminant during period indicated. Because of this failure, we cannot be sure of the quality of our drinking water during this period. A sample result has not been received by the State of Montana DEQ so the violation is still outstanding.

Violation			
Toluene			
Some people who drink water containing toluene well in excess of the MCL over many years could have problems with their nervous system, kidneys, or liver.			
Violation Type	**Violation Began**	**Violation End**	**Violation Explanation**
Monitoring Routine Major	01/01/2020	12/31/2022	We failed to test our drinking water for the contaminant during period indicated. Because of this failure, we cannot be sure of the quality of our drinking water during this period. A sample result has not been received by the State of Montana DEQ so the violation is still outstanding.

Violation			
Trichloroethylene			
Some people who drink water containing trichloroethylene in excess of the MCL over many years could experience problems with their liver and may have an increased risk of getting cancer.			
Violation Type	**Violation Began**	**Violation End**	**Violation Explanation**
Monitoring Routine Major	01/01/2020	12/31/2022	We failed to test our drinking water for the contaminant during period indicated. Because of this failure, we cannot be sure of the quality of our drinking water during this period. A sample result has not been received by the State of Montana DEQ so the violation is still outstanding.

Violation			
Vinyl Chloride			
Some people who drink water containing vinyl chloride in excess of the MCL over many years may have an increased risk of getting cancer.			
Violation Type	**Violation Began**	**Violation End**	**Violation Explanation**
Monitoring Routine Major	01/01/2020	12/31/2022	We failed to test our drinking water for the contaminant during period indicated. Because of this failure, we cannot be sure of the quality of our drinking water during this period. A sample result has not been received by the State of Montana DEQ so the violation is still outstanding.

Violation			
Xylenes			
Some people who drink water containing xylenes in excess of the MCL over many years could experience damage to their nervous system.			
Violation Type	**Violation Began**	**Violation End**	**Violation Explanation**
Monitoring Routine Major	01/01/2020	12/31/2022	We failed to test our drinking water for the contaminant during period indicated. Because of this failure, we cannot be sure of the quality of our drinking water during this period. A sample result has not been received by the State of Montana DEQ so the violation is still outstanding.

Violation			
cis-1,2-Dichloroethylene			
Some people who drink water containing cis-1,2-dichloroethylene in excess of the MCL over many years could experience problems with their liver			
Violation Type	**Violation Began**	**Violation End**	**Violation Explanation**
Monitoring Routine Major	01/01/2020	12/31/2022	We failed to test our drinking water for the contaminant during period indicated. Because of this failure, we cannot be sure of the quality of our drinking water during this period. A sample result has not been received by the State of Montana DEQ so the violation is still outstanding.

Violation			
o-Dichlorobenzene			
Some people who drink water containing o-dichlorobenzene well in excess of the MCL over many years could experience problems with their liver, kidneys, or circulatory systems.			
Violation Type	**Violation Began**	**Violation End**	**Violation Explanation**
Monitoring Routine Major	01/01/2020	12/31/2022	We failed to test our drinking water for the contaminant during period indicated. Because of this failure, we cannot be sure of the quality of our drinking water during this period. A sample result has not been received by the State of Montana DEQ so the violation is still outstanding.

Violation			
p-Dichlorobenzene			
Some people who drink water containing p-dichlorobenzene in excess of the MCL over many years could experience anemia, damage to their liver, kidneys, or spleen, or changes in their blood.			
Violation Type	**Violation Began**	**Violation End**	**Violation Explanation**
Monitoring Routine Major	01/01/2020	12/31/2022	We failed to test our drinking water for the contaminant during period indicated. Because of this failure, we cannot be sure of the quality of our drinking water during this period. A sample result has not been received by the State of Montana DEQ so the violation is still outstanding.

Violation			
trans-1,2-Dicholoroethylene			
Some people who drink water containing trans-1,2-dichloroethylene well in excess of the MCL over many years could experience problems with their liver			
Violation Type	**Violation Began**	**Violation End**	**Violation Explanation**
Monitoring Routine Major	01/01/2020	12/31/2022	We failed to test our drinking water for the contaminant during period indicated. Because of this failure, we cannot be sure of the quality of our drinking water during this period. A sample result has not been received by the State of Montana DEQ so the violation is still outstanding.

New Waiver Program Testing Cycle.

The Community of Cooke City is entering into a new nine-year cycle of testing. The program allows our water system to sample once every 9 years for specific regulated contaminants including: barium, cadmium, chromium, mercury, selenium, and fluoride. Past sampling of these contaminants has shown that they are not present in our water supply or occur in such small amounts that they are not considered a health hazard. This waiver is in effect from 2020 through 2028.

How can I get involved?

The public is welcome to attend monthly Water District Board meetings either in-person or virtually, please check with the District President or Secretary for time, location and on-line connection information.

The Cooke City Water District samples for all regulated contaminants as required by the Department of Environmental Quality.

For more information, contact: Cooke City Water Users Association at 406.333.4551.