

ST MARYS GLACIER WSD 2024 Drinking Water Quality Report

Covering Data For Calendar Year 2023

Public Water System ID: CO0110040

Esta es información importante. Si no la pueden leer, necesitan que alguien se la traduzca.

We are pleased to present to you this year's water quality report. Our constant goal is to provide you with a safe and dependable supply of drinking water. Please contact JULIE SORENSEN at 720-287-0605 with any questions or for public participation opportunities that may affect water quality.

General Information

All 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 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 [epa.gov/ground-water-and-drinking-water](https://www.epa.gov/ground-water-and-drinking-water).

Some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised 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 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 at (1-800-426-4791).

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 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 storm water runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.
- **Pesticides and herbicides:** may come from a variety of sources, such as agriculture, urban storm water 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 also may 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. The Food and Drug Administration regulations establish limits for contaminants in bottled water that must provide the same protection for public health.

Lead in Drinking Water

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. We are responsible for providing high quality drinking water and removing lead pipes, but cannot control the variety of materials used in plumbing components in your home. You share the responsibility for protecting yourself and your family from the lead in your home plumbing. You can take responsibility by identifying and removing lead materials within your home plumbing and taking steps to reduce your family's risk. Before drinking tap water, flush your pipes for several minutes by running your tap, taking a shower, doing laundry or a load of dishes. You can also use a filter certified by an American National Standards Institute accredited certifier to reduce lead in drinking water. If you are concerned about lead in your water and wish to have your water tested, contact JULIE SORENSEN at 720-287-0605. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available at epa.gov/safewater/lead.

Source Water Assessment and Protection (SWAP)

The Colorado Department of Public Health and Environment may have 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 wqedcompliance.com/ccr. The report is located under “Guidance: Source Water Assessment Reports”. Search the table using system name or ID, or by contacting JULIE SORENSEN at 720-287-0605. The Source Water Assessment 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. In addition, the source water assessment results provide a starting point for developing a source water protection plan. Potential sources of contamination in our source water area are listed on the next page.

Please contact us to learn more about what you can do to help protect your drinking water sources, any questions about the Drinking Water Quality Report, to learn more about our system, or to attend scheduled public meetings. 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 Sources

| <u>Sources (Water Type - Source Type)</u> | <u>Potential Source(s) of Contamination</u> |
|--|--|
| WELL NO 5 (Groundwater-Well) WELL NO 1 (Groundwater UDI Surface Water-Well) WELL NO 2 (Groundwater UDI Surface Water-Well-Emergency Use) WELL NO 3 (Groundwater UDI Surface Water-Well) | Existing/Abandoned Mine Sites, Low Intensity Residential, Deciduous Forest, Evergreen Forest, Road Miles |

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 (No Abbreviation)** – Failure to meet a Colorado Primary Drinking Water Regulation.
- **Formal Enforcement Action (No Abbreviation)** – 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 (No Abbreviation)** – Single or calculated value used to determine if regulatory contaminant level (e.g. MCL) is met. Examples of calculated values are the 90th 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.
- **Level 1 Assessment** – A study of the water system to identify potential problems and determine (if possible) why total coliform bacteria have been found in our water system.
- **Level 2 Assessment** – A very detailed study of the water system to identify potential problems and determine (if possible) why an E. coli MCL violation has occurred and/or why total coliform bacteria have been found in our water system on multiple occasions.



Detected Contaminants

ST MARYS GLACIER WSD routinely monitors for contaminants in your drinking water according to Federal and State laws. The following table(s) show all detections found in the period of January 1 to December 31, 2023 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. Violations and Formal Enforcement Actions, if any, are reported in the next section of this report.

Note: Only detected contaminants sampled within the last 5 years appear in this report. If no tables appear in this section, then no contaminants were detected in the last round of monitoring.

Disinfectants Sampled in the Distribution System

TT Requirement: At least 95% of samples per period (month or quarter) must be at least 0.2 ppm ***OR***

If sample size is less than 40 no more than 1 sample is below 0.2 ppm

Typical Sources: Water additive used to control microbes

| Disinfectant Name | Time Period | Results | Number of Samples Below Level | Sample Size | TT Violation | MRDL |
|-------------------|----------------|---|-------------------------------|-------------|--------------|---------|
| Chlorine | December, 2023 | <u>Lowest period</u> percentage of samples meeting TT requirement: 100% | 0 | 2 | No | 4.0 ppm |

Lead and Copper Sampled in the Distribution System

| Contaminant Name | Time Period | 90 th Percentile | Sample Size | Unit of Measure | 90 th Percentile AL | Sample Sites Above AL | 90 th Percentile AL Exceedance | Typical Sources |
|------------------|--------------------------|-----------------------------|-------------|-----------------|--------------------------------|-----------------------|---|--|
| Lead | 05/30/2023 to 06/28/2023 | 3 | 15 | ppb | 15 | 0 | No | Corrosion of household plumbing systems; Erosion of natural deposits |
| Copper | 05/30/2023 to 06/28/2023 | 0.3 | 15 | ppm | 1.3 | 0 | No | Corrosion of household plumbing systems; Erosion of natural deposits |
| Lead | 09/01/2023 to 10/05/2023 | 3 | 10 | ppb | 15 | 0 | No | Corrosion of household plumbing systems; Erosion of natural deposits |
| Copper | 09/01/2023 to 10/05/2023 | 0.39 | 10 | ppm | 1.3 | 0 | No | Corrosion of household plumbing systems; Erosion of natural deposits |

| Disinfection Byproducts Sampled in the Distribution System | | | | | | | | | |
|--|------|---------|---------------------|----------------|--------------------|-----|------|---------------|--|
| Name | Year | Average | Range Low – High | Sample Size | Unit of Measure | MCL | MCLG | MCL Violation | Typical Sources |
| Total Haloacetic Acids (HAA5) | 2023 | 1.4 | 1.1 to 1.7 | 2 | ppb | 60 | N/A | No | Byproduct of drinking water disinfection |
| Total Trihalomethanes (TTHM) | 2023 | 2.7 | 2.5 to 2.9 | 2 | ppb | 80 | N/A | No | Byproduct of drinking water disinfection |

| 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: Jun | <u>Highest single</u> measurement: 4.986 NTU | Maximum 5 NTU for any single measurement | No | Soil Runoff |
| Turbidity | Month: Jun | <u>Lowest monthly</u> percentage of samples meeting TT requirement for our technology: 98 % | In any month, at least 95% of samples must be less than 1 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 |
| Gross Alpha | 2023 | 1.27 | 1 to 1.5 | 3 | pCi/L | 15 | 0 | No | Erosion of natural deposits |
| Combined Radium | 2023 | 0.7 | 0.2 to 1.1 | 3 | pCi/L | 5 | 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 |
|------------------|------|---------|------------------|-------------|-----------------|-----|------|---------------|---|
| Barium | 2023 | 0.01 | 0 to 0.02 | 3 | ppm | 2 | 2 | No | Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits |
| Chromium | 2023 | 1.33 | 0 to 2 | 3 | ppb | 100 | 100 | No | Discharge from steel and pulp mills; erosion of natural deposits |
| Nitrate | 2023 | 0.1 | 0 to 0.2 | 5 | ppm | 10 | 10 | No | Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits |

Secondary Contaminants**

**Secondary standards are non-enforceable guidelines for contaminants that may cause cosmetic effects (such as skin, or tooth discoloration) or aesthetic effects (such as taste, odor, or color) in drinking water.

| Contaminant Name | Year | Average | Range Low – High | Sample Size | Unit of Measure | Secondary Standard |
|------------------|------|---------|------------------|-------------|-----------------|--------------------|
| Sodium | 2023 | 11.57 | 9.1 to 16 | 3 | ppm | N/A |



Violations, Significant Deficiencies, and Formal Enforcement Actions

Health-Based Violations

Maximum contaminant level (MCL) violations: Test results for this contaminant show that the level was too high for the time period shown. Please read the information shown below about potential health effects for vulnerable populations. This is likely the same violation that we told you about in a past notice. We are evaluating, or we already completed an evaluation, to find the best way to reduce or remove the contaminant. If the solution will take an extended period of time, we will keep you updated with quarterly notices.

Treatment technique (TT) violations: We failed to complete an action that could affect water quality. Please read the information shown below about potential health effects for vulnerable populations. This is likely the same violation that we told you about in a past notice. We were required to meet a minimum operation/treatment standard, we were required to make upgrades to our system, or we were required to evaluate our system for potential sanitary defects, and we failed to do so in the time period shown below. If the solution will take an extended period of time, we will keep you updated with quarterly notices.

| Name | Description | Time Period | Health Effects | Compliance Value | TT Level or MCL |
|------------------------------|---|-------------------------|---|------------------|-----------------|
| STATE HEALTH DEPT INSPECTION | FAILURE TO CORRECT A SIGNIFICANT DEFICIENCY FOR VIOLATION - D250 | 11/01/2014 - Open | May pose a risk to public health. | N/A | N/A |
| LEAD & COPPER RULE | FAILURE TO INSTALL TREATMENT FOR LEAD AND COPPER | 12/03/2021 - 02/02/2023 | | N/A | N/A |
| FAILURE TO FILTER | FAILURE TO INSTALL FILTRATION FOR SURFACE WATER | 10/02/2019 - 02/02/2023 | | N/A | N/A |
| CHLORINE | FAILURE TO MAINTAIN MINIMUM TREATMENT FOR SURFACE WATER FILTRATION AND DISINFECTION | 02/01/2023 - 02/28/2023 | Disinfectant residual serves as one of the final barriers to protect public health. Lack of an adequate disinfectant residual may increase the likelihood that disease-causing organisms are present. | MG/L | MG/L |

Additional Violation Information

Inadequately treated water may contain disease-causing organisms. These organisms include bacteria, viruses, and parasites, which can cause symptoms such as nausea, cramps, diarrhea, and associated headaches.

Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.

Describe the steps taken to resolve the violation(s), and the anticipated resolution date:

Failure to Correct Significant Deficiency for Violation – D250 - The system had undergone a routine state inspection in September 2017 in which the supplier’s usage data indicated that leakage rates may pose a risk of back-siphonage. Significant repairs and pipeline replacements have been made to improve the unaccounted water production. A Long Range Plan has been approved along with funding for a 20-year pipeline replacement project. This is an ongoing violation and is included in the quarterly distributed public notices.

Failure to Install Treatment for Lead and Copper – Well 1/new Well 3 and Well 5 needed corrosion control treatment installed to aid in the high copper levels. Well 5 had treatment installed in January 2022. Well 1/Well 3 had treatment installed in February 2023. Quarterly public notice was distributed to the community on 05/01/2023.

Failure to Install Filtration for Surface Water – Well 1 and the Well 3 were reclassified as Ground Water Under the Direct Influence of Surface Water in which additional monitoring, treatment and filtration must be installed. All equipment was installed in February 2023 and is now operational. Quarterly public notice was distributed to the community on 05/01/2023.

Failure to Maintain Minimum Treatment for Surface Water Filtration and Disinfection – On February 1, 2023 the data logger lost internet connection for an extended time frame resulting in a value lower than the minimum chlorine residual. Quarterly public notice was distributed to the community on 05/01/2023.

Non-Health-Based Violations

These violations do not usually mean that there was a problem with the water quality. If there had been, we would have notified you immediately. We missed collecting a sample (water quality is unknown), we reported the sample result after the due date, or we did not complete a report/notice by the required date.

| Name | Description | Time Period |
|---------------------|--|-------------------------|
| PUBLIC NOTICE | FAILURE TO NOTIFY THE PUBLIC/CONSUMERS | 04/14/2023 - 05/01/2023 |
| CHLORINE | FAILURE TO MONITOR AND/OR REPORT | 05/01/2023 - 05/31/2023 |
| CHLORINE | FAILURE TO MONITOR AND/OR REPORT | 06/01/2023 - 06/30/2023 |
| CHLORINE /TURBIDITY | FAILURE TO MONITOR AND/OR REPORT | 10/01/2023 - 10/31/2023 |
| CHLORINE /TURBIDITY | FAILURE TO MONITOR AND/OR REPORT | 11/01/2023 - 11/30/2023 |

Additional Violation Information

Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.

Describe the steps taken to resolve the violation(s), and the anticipated resolution date:

Failure to Notify the Public/Consumers – is a result of the Failure to Maintain Minimum Treatment for Surface Water Filtration and Disinfection – The violation from February 1, 2023 was required to notify the public by 04/13/2023; however, the public was not notified until the quarterly public notice that was distributed to the community on 05/01/2023.

Failure to Monitor Chlorine - On May 29-31, 2023 and intermittently during June 20-28, 2023, the system experienced power losses at the water treatment plant causing a lack of data to record leading to unreportable data on monthly operational reports. Public notice was distributed to the community on 08/01/2023.

Failure to Monitor Chlorine/Turbidity – In October 2023 and November 1-2, 2023, see below for public notification.

IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER

St Mary's Glacier WSD

Monitoring Requirements Not Met

Este informe contiene información muy importante sobre su agua potable. Tradúzcalo o hable con alguien que lo entienda bien.

Our water system recently violated a drinking water requirement. Although this situation is not an emergency, as our customers you have a right to know what happened, what you should do, and what we are doing to correct this situation.

We are required to monitor your drinking water for specific contaminants on a regular basis. Results of regular monitoring are an indicator of whether or not our drinking water meets health standards. During the months of October 2023 and November 1-3, 2023 we did not complete all monitoring or testing for Chlorine/Turbidity and therefore cannot be sure of the drinking water quality during that time.

What does this mean? What should I do?

- There is nothing you need to do at this time. If a situation arises where the water is no longer safe to drink, you will be notified within 24 hours.

What is being done?

- October – the facility lost all data for chlorine/turbidity monitoring due to an inoperable computer. Data was not able to be retrieved from the computer, by both the water operator or the data control vendor.
- November – as a continuation from October, the facility lost all data for chlorine/turbidity monitoring from the 1st-3rd.
- Redundancy methods have been set up to prevent this data loss in the future.

This problem was resolved on **November 3, 2023**. For more information, please contact **Gabrielle Begeman, ORC Water Professionals, at 303-548-3320, or 11919 W I-70 Frontage Rd, Ste 116A, Wheat Ridge, CO 80033.**

Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.

This notice is being sent to you by: **St Mary's Glacier WSD - CO0110040**

Date distributed: **Upon distribution of this report**

Significant Deficiencies

A situation, practice, or condition that may potentially result in drinking water quality that poses an unacceptable risk to public health and welfare and/or may potentially introduce contamination into the drinking water.

| Date Identified | Deficiency Description | Deficiency Explanation and Steps Taken or Will Take to Correct | Estimated Completion Date |
|-----------------|---|--|--|
| 6/5/2014 | D250 - HIGH LEAKAGE RATES; System usage data indicates that high leakage rates pose a risk of backsiphonage | District has hired a new engineering firm to progress this project with further development of long-range planning for buried pipe replacement and preventing water leaks. | Long Range Plan for buried water and wastewater pipes replacement project was approved by CDPHE in 2022; however, the District is now considering an evaluation of the timeline. |

Formal Enforcement Actions

| Status Date | Description | Associated Violations |
|-------------|---|--------------------------|
| 1/10/2023 | SFO - State Administrative Order/Compliance Order issued with Penalty. An order issued by the Executive branch of the State government that orders the PWS to come into compliance or to undertake remedial actions. A penalty is assessed. (FRDS-DED 1/93) | LEAD & COPPER RULE, SWTR |

Additional Enforcement Information

Explanation of the enforcement and the steps taken to resolve:

The District has been working diligently to comply with the Administrative Order and has completed the following actions; installation of corrosion control for Lead and Copper at Well 1, Well 3 and Well 5 and the installation of surface water treatment for Well 1 and Well 3. Further monitoring and reporting of corrosion control will be completed in July 2024 to close out this item. It does appear, at this time, corrosion control is working effectively as there were no Copper exceedances at participating sampled households in 2023, see page 4 of this report.