FREDERICK COUNTY DIVISION OF WATER AND SEWER UTILITIES

# Water Quality Report

*2024 Annual Summary Prepared for Customers of Frederick County Water Systems*

## Contents



I am delighted to present Frederick County's Consumer Confidence Report for 2024. The report should assure you that the drinking water the County provides to your home is of the highest quality and safe for consumption.

Our dedicated team at the Division of Water and Sewer Utilities works tirelessly to ensure that our water meets and exceeds all federal and state standards. This report offers detailed insights into the numerous water quality tests conducted over the past year, reflecting our unwavering commitment to delivering clean, safe, and reliable water to every resident and visitor of Frederick County.

We take pride in supplying safe water and in continually maintaining and improving our water systems. I am grateful for the hard work and dedication of our staff who make this possible.

**Jessica Fitzwater, *County Executive***

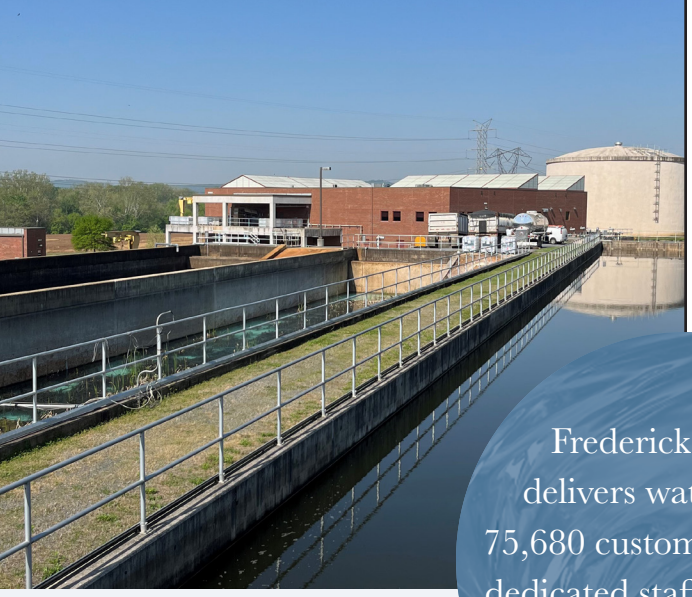
## Sources of Water

Sources of drinking water, both tap and bottled, include rivers, streams, ponds, reservoirs, springs, and wells. As water travels over the land or underground, it can pick up substances or contaminants such as microbes, inorganic and organic chemicals, and radioactive substances. The majority of the County's water system customers receive treated water from surface water supplies, primarily the Potomac River. The remainder of our customers receive treated ground water from deep well sources.

In 2024, Frederick County produced a total of 2.29 billion gallons of water at 10 treatment plants. Most (90%) was produced at the New Design Road Water Treatment Plant which uses the Potomac River as its source of water. The remainder was produced at numerous treatment plants using groundwater sources.

## Source of Water Protection

The Maryland Department of the Environment has completed source-water assessments for each of the County's water supplies. These assessments are used to implement source-water protection plans, which identify and prevent potential sources of contamination from entering your drinking water supply. More information on these assessments can be found on-line at www.frederickcountymd.gov/1284/water-purification-distribution or by contacting our offices at (301) 600-1825.



Frederick County delivers water to over 75,680 customers with our dedicated staff serving you 24 hours a day, seven days a week.

This detailed report contains specific information about your water quality and what the analyses mean. In addition to the test results shown on the enclosed data table, testing has been performed on well over 100 various regulated and unregulated contaminants. These contaminants, which include volatile and synthetic organic chemicals (industrial chemicals and herbicides/pesticides), metals, other inorganic, and radiological compounds are not listed because they were not detected. Specific information on this additional testing may be obtained by contacting the Frederick County Division of Water and Sewer Utilities.

If you have any questions about this report or concerns about your water quality, please contact Joshua Smith, Regulatory Compliance Department Head, at (301) 600-2581, Monday through Friday, between the hours of 7:30 a.m. and 4:30 p.m.

We want our valued customers to be informed about their water utility. Periodically, legislative issues pertaining to your water system may be addressed at regularly scheduled County Council meetings. Meeting schedules with agendas and other pertinent information concerning your water system can be found online at the Frederick County Government website:

**www.frederickcountymd.gov**
**Please e-mail your questions to:**
**wsops@frederickcountymd.gov**

## Testing Requirements

The Frederick County Division of Water and Sewer Utilities and the Maryland Department of the Environment routinely monitor the constituents in your drinking water according to Federal and State laws. This report summarizes the results of our monitoring for the period of January 1, 2024 to December 31, 2024. Some parameters are not monitored each year and will be noted as such in the data table.

## Vulnerable Populations

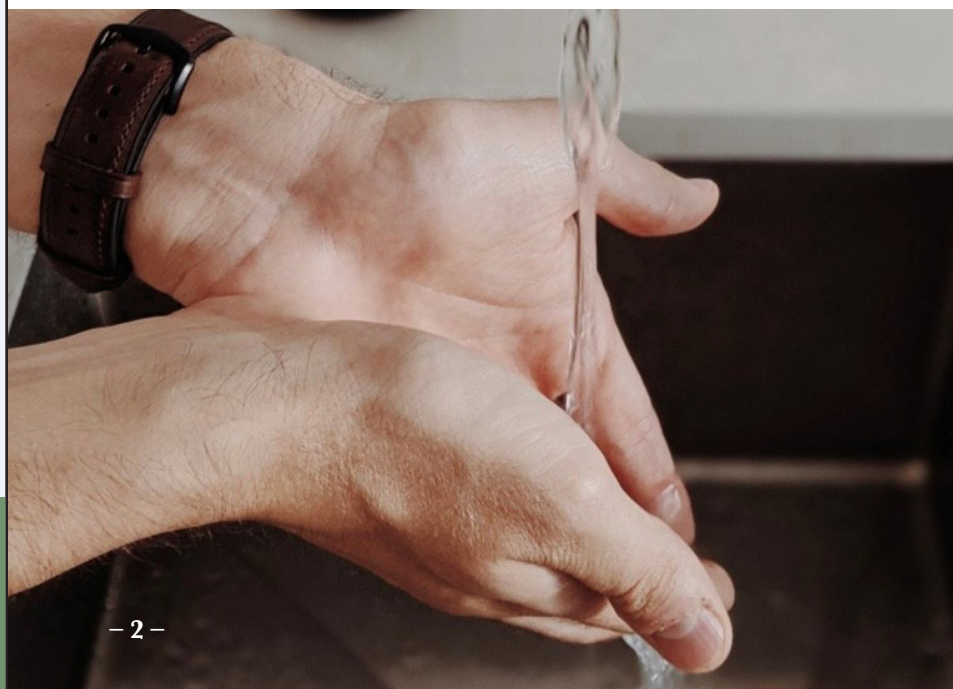
Some people may be more vulnerable to contaminants in drinking water than the general population.

Immuno-compromised persons such as individuals 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 from their health care providers about their drinking water.

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. Call (800) 426-4791.

## Specific Water Quality Data

The data table that accompanies this pamphlet provides specific water quality information regarding your water supply. It also includes other information that is related to the operation of your community's water supply system. The State allows us to monitor for some contaminants less than once per year because the concentrations of these contaminants do not change frequently. Some of our data, though representative, may be more than one year old.



## Customers With Multiple Water Sources

Some of our water system customers receive water from multiple sources of supply. This typically occurs when water systems located next to each other share water between their respective distribution systems. Because the flow and movement of water in the distribution system can be non-uniform, it is difficult to accurately identify the proportion of water that comes from each water system.

If your community is supplied by multiple sources of water, you may find data from more than one water source in this report. Your specific water quality can be a combination of the multiple sources. Regardless of how many sources of water the water system uses, each source met or exceeded the standards set by the EPA.

## Compliance with Safe Drinking Water Act Requirements

Last year, as in years past, your tap water was regularly tested to determine if it met EPA and State drinking water health standards. Frederick County vigilantly safeguards its water supply by monitoring both source water and treated water. All sources of drinking water are subject to potential contamination by substances that are naturally occurring or man-made. These substances can be microbes, inorganic or organic chemicals, or radioactive substances. 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 at (800) 426-4791.

To establish a Maximum Contaminant Level (MCL) for a contaminant, EPA first determines how much of a contaminant may be present with no adverse health effects. This establishes what is called the Maximum Contaminant Level Goal (MCLG), which is a non-enforceable public health goal. The legally enforced MCL may be higher than the MCLG because of analytical limitations measuring small quantities of contaminant, a lack of treatment technologies, or if EPA determines that the cost of treatment outweighs the public health benefit of the lower MCL.

## Terms, Units & Abbreviations

**PPM** - Parts per Million - Analogous to one penny in $10,000.

**PPB** - Parts per Billion - Analogous to one penny in $10,000,000.

**PPT** - Parts per Trillion - Analogous to one penny in $10,000,000,000.

**pCi/L** - Picocuries per Liter - A measure of radiation.

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

**AL** - Action Level - The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

**NTU** - Nephelometric Turbidity Unit - A measure of the clarity of water.

**SDWA** - Safe Drinking Water Act - Federal Law which regulates the water quality for public water supplies.

**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** - 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.

**ND** - Non-Detected - Means not detectable (at lowest level for which contaminant can be measured).

## An Information Statement from the EPA on Lead

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. Frederick County Division of Water and Sewer Utilities (DWSU) is 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 Joshua Smith, Regulatory Compliance Department Head, at 301-600-2581. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available at www.epa.gov/safewater/lead.

## Sources of Lead in Drinking Water

Water is lead-free when it leaves the treatment plant, but lead can be released when the water comes in contact with pipes and plumbing fixtures that contain lead.

**Lead Solder** - This connects the piping. In 1987, lead solder was banned from use in household plumbing. If your home was built prior to 1987, it may contain lead solder.

**Brass Faucets, Valves, or Fittings** - Almost all faucets, valves, and fittings have brass components. Until 2014, brass faucets and fittings sold in the U.S. and labeled as 'lead free' could contain up to 8% lead.

The Frederick County Division of Water and Sewer Utilities strives to provide our customers with a safe, uninterrupted water supply. We hope that all of our customers recognize the need to protect our most precious resource, our community water supply.


## Paperless Billing and Payment Due/Delinquency Reminders

The Frederick County Division of Water and Sewer Utilities (DWSU) offers a more convenient way to receive your quarterly water/sewer bill. We can send your bill directly to your email by visiting www.frederickcountymd.gov/paperless to sign up. We can also add an email address and/or phone number to your account so that you receive "Payment Due/Delinquency" reminders. Simply contact the billing department at (301) 600-2354.

## Payment Options

Please visit www.frederickcountymd.gov/wspaybill for a list of all payment options, including registering for automatic payments from your checking or savings account. You can also register your account to make payments online with a credit/debit card or e-check.

## Service Line Inventory

The Division of Water and Sewer Utilities (DWSU) is required to identify any unknown material type of water service line that is owned by our customers. Through our internal review we were able to identify approximately 85% of our customers water piping materials. If you would like to know the county's status of your water piping material and possibly assist us with the identification, please visit: www.frederickcountymd.gov/serviceline . If after searching your address you learn that your customer portion is "Lead Status Unknown" you could help us with the identification by providing photos of the pipe as it enters your home. Please visit www.frederickcountymd.gov/leadreport to fill out the short submission form and upload your photos. If you would rather have a DWSU employee assist with identifying the pipe material and document with a photo, please contact Joshua Smith at 301-600-2581 or by email at jsmith5@frederickcountymd.gov to schedule a time.

## Fifth Unregulated Contaminated Monitoring Rule (UCMR 5)

Frederick County is participating in the Environmental Protection Agency's (EPA) fifth round of the Unregulated Contaminated Monitoring Rule (UCMR5).

UCMR5 requires quarterly sampling of the finished water tap at the New Design water treatment plant during the 2025 calendar year. These samples will help to improve EPA's understanding of the frequency that 29 per- and poly-fluoroalkyl substances (PFAS) and lithium are found in the nation's drinking water systems, and at what level.

More information on UCMR5 and results of the testing completed at the New Design water treatment plant can be found at www.frederickcountymd.gov/UCMR5. Please contact Joshua Smith at 301-600-2581 or by email at jsmith5@frederickcountymd.gov if you have questions.


## Additional Information & Resources

For more information on your water supply or the information contained in this report you may want to contact the following agencies:

**Frederick County Division of Water and Sewer Utilities**
(301) 600-1825

**Maryland Department of the Environment**
(410) 537-3000

**U. S. Environmental Protection Agency Safe Drinking Water Act Hotline**
(800) 426-4791

**Division of Water and Sewer Utilities Emergency Telephone Numbers**
Monday thru Friday 7:00 AM - 3:30 PM - (301) 600-2187
Weekends, Holidays, and After-Hours - (301) 600-2194

## COPPERFIELD WATER QUALITY INFORMATION 2024 PWSID 0100037

**Your water source came from seven (7) deep wells located in the Copperfield area. These wells withdraw water from the Catoctin Metabasalt Formation. The Maryland Department of the Environment (MDE) completed the Source Water Assessment for the Copperfield community water supply in 2002. Should you care to obtain a copy of this report, the Frederick County Library has a copy, MDE has several, and the Division of Water and Sewer Utilities has placed a copy on the Frederick County website. MDE has determined that the Copperfield water supply is susceptible to some microbiological contaminants. This water supply is not susceptible to inorganic compounds, radiological contaminants, volatile organic compounds, synthetic organic compounds, and surface water microorganisms.**

**REGULATED CONTAMINANTS - Copperfield Water Treatment Plant - Some testing is done every 3 years.**

| Contaminant | Highest Level Allowed (EPA's MCL) | Ideal Goal (EPA's MCLG) | Highest Result | Range of Test Results | Violation | Typical Sources |
|---|---|---|---|---|---|---|
| Barium 2022 | 2 ppm | 2 ppm | 0.091 ppm | | NO | Erosion of natural deposits; Discharge of drilling wastes; Discharge from metal refineries |
| Beta/photon emitters 2021 | 50 pCi/l | 0 pCi/l | 8.9 pCi/L | | NO | Decay of natural and man-made deposits |
| Di (2-ethylhexyl) phthalate 2023 | 6 ppb | 0 ppb | 1.45 ppb | | NO | Discharge from rubber and chemical factories |
| Fluoride 2023 | 4 ppm | 4 ppm | 0.12 ppm | | NO | Erosion of natural deposits; Water additive which promotes strong teeth |
| Combined Radium 226/228 2021 | 5 pCi/l | 0 pCi/l | 0.3 pCi/l | | NO | Certain Minerals are Radioactive and may emit forms of Radiation known as beta Radiation. |
| Nitrate[1] | 10 ppm | 10 ppm | 3.2 pppm | ND - 3.2 ppm | NO | Runoff from fertilizer use; Leaching from septic tanks, sewage; erosion of natural deposits |

1 - The annual average for 2024 was 0.8 ppm based on 12 samples.

**UNREGULATED CONTAMINANTS - Copperfield Water Treatment Plant - Some testing is done every 3 years.**

| Contaminant | Highest Level Allowed (EPA's MCL) | Ideal Goal (EPA's MCLG) | Highest Result | Range of Test Results | Violation | Typical Sources |
|---|---|---|---|---|---|---|
| Iron | N/A | N/A | 0.410 ppm | ND - 0.410 ppm | NO | Erosion of natural deposits |
| Manganese | N/A | N/A | 0.043 ppm | ND - 0.043 ppm | NO | Erosion of natural deposits |
| Sodium 2022 | N/A | N/A | 39.2 ppm | | NO | Erosion of natural deposits |
| Sulfate 2022 | N/A | N/A | 34.9 ppm | | NO | Erosion of natural deposits |
| PFBS | N/A | N/A | 3.4 ppt | ND - 3.4 ppt | NO | See Note Below |
| PFHpA | N/A | N/A | 1.8 ppt | ND - 1.8 ppt | NO | See Note Below |
| PFHxA | N/A | N/A | 3.3 ppt | ND - 3.3 ppt | NO | See Note Below |
| PFOA | N/A | N/A | 2.8 ppt | ND - 2.8 ppt | NO | See Note Below |
| PFOS | N/A | N/A | 2.4 ppt | ND - 2.4 ppt | NO | See Note Below |

PFAS - short for per- and polyfluoroalkyl substances - refers to a large group of more than 4,000 human-made chemicals that have been used since the 1940s in a range of products , including stain- and water- resistant fabrics and carpeting, cleaning products, paints, cookware, food packaging and fire-fighting foams. These uses of PFAS have lead to PFAS entering our environment, where they have been measured by several states in soil, surface water, groundwater and seafood. Some PFAS can last a long time in the environment and in the human body and can accumulate in the food chain.

The Environmental Protection Agency (EPA) announced regulations for 6 PFAS compounds in drinking water in April 2024. The MCLs for PFOA and PFOS are 4.0 parts per trillion (ppt). The MCLs for HFPO-DA (GenX), PFNA and PFHxS are 10 ppt. PFAS mixtures containing at least two or more of PFHxS, PFNA, HFPO-DA, and PFBS us a Hazard Index of 1.0 (unitless) to determine if the combined and co-occurring levels of these PFAS pose a risk and require action. Public water systems have four years (by 2029) to implement solutions that reduce these PFAS if monitoring shows that drinking water levels exceed these MCLs.

The Maryland Department of the Environment (MDE) conducted a PFAS monitoring program for Community Water Systems from 2020 to 2022. The results are available on MDE website:
https://mde.maryland.gov/Public Health/Pages/PFAS-Landing-Pages.aspx

## COPPERFIELD WATER QUALITY INFORMATION 2024 PWSID 0100037

| LEAD AND COPPER - Tested at customer's taps. Testing is done every 3 years and was last completed in 2023. | | | | | | | |
|---|---|---|---|---|---|---|---|
| Contaminant | EPA's Action Level | Ideal Goal (EPA's MCLG) | 90% of Test Levels Were Less Than | # of Tests With Levels Above EPA's Action Level | Range of Test Results | Violation | Typical Sources |
| Lead | 90% of homes less than 15 ppb | 0 ppb | 1 ppb | 0 | 1 ppb | NO | Corrosion of household plumbing |
| Copper | 90% of homes less than 1.3 ppm | 1.3 ppm | 0.301 ppm | 0 | 0.062 - 0.448 ppm | NO | Corrosion of household plumbing |

| REGULATED CONTAMINANTS - Copperfield Distribution System | | | | | | |
|---|---|---|---|---|---|---|
| Contaminant | Highest Level Allowed (EPA's MCL) | Ideal Goal (EPA's MCLG) | Annual Average | Range of Test Results | Violation | Typical Sources |
| Chlorine | 4 ppm | 4 ppm | 1.7 ppm | 0.8 - 2.4 ppm | NO | Water additive used to control microbes |

| DISINFECTION BYPRODUCTS - Copperfield Distribution System | | | | | | |
|---|---|---|---|---|---|---|
| Contaminant | Highest Level Allowed (EPA's MCL) | Ideal Goal (EPA's MCLG) | Highest Result | Range of Test Results | Violation | Typical Sources |
| Total Haloacetic Acids | 60 ppb | N/A | 6.2 ppb | | NO | Byproduct of drinking water chlorination |
| Total Trihalomethanes | 80 ppb | N/A | 12.5 ppb | | NO | Byproduct of drinking water chlorination |

| BACTERIA IN TAP WATER - Copperfield Distribution System. Minimum of 1 sample per month. | | | | | |
|---|---|---|---|---|---|
| Contaminant | Highest Level Allowed (EPA's MCL) | Ideal Goal (EPA's MCLG) | Highest Monthly Number of Samples With Total Coliform Present | Violation | Typical Sources |
| Total Coliform | 0 sample contains Total Coliform | 0 | 0 | NO | Naturally present in the environment |

**How to Read the Water Quality Data Table**
EPA establishes the safe drinking water regulations that limit the amount of contaminants allowed in drinking water. The table shows the concentrations of detected substances in comparison to regulatory limits. Substances not detected are not included in the table.

**Maximum Contaminant Level (MCL):** 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 (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.

**Action Level:** The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a system must follow.

**Units and Abbreviations in the Table:** ppm is parts per million (or 1 gallon in 1 million gallons), ppb is parts per billion (or 1 gallon in 1 billion gallons), ppt is parts per trillion (or 1 gallon in 1 trillion gallons), ND is not detected, N/A is not applicable

**Health Effects:**

**Fluoride is not currently added to your water supply.** Please consult with your dentist regarding this matter. We will provide you with advance notice of the date when fluoridation of your water supply will begin.