

2024 Annual Drinking Water Quality Report
Caroline Acres MHP
Public Water System ID: #005-0204

Caroline Acres is pleased to provide this 2024 Water Quality Report, published in 2025, in compliance with the Consumer Confidence Reporting requirement mandated by the Safe Drinking Water Act (SDWA). The purpose of this report for the calendar year 2024 is to provide all system customers with necessary information regarding the quality of their drinking water. Caroline Acres is dedicated to ensuring that 395 residents have continuous access to safe, high-quality drinking water.

Este informe contiene información importante acerca de su agua potable. Haga que alguien lo traduzca para usted, ó hable con alguien que lo entienda. (This report contains important information about your drinking water. Have someone translate it for you, or speak with someone who understands it.)

WATER SYSTEM INFORMATION:

This report confirms that our drinking water meets all applicable federal and state requirements. Our system sources water from three wells: Well 1 (CO700065), Well 2 (CO680041), and Well 3 (CO920135). This report outlines the quality of our finished drinking water and explains what that quality signifies. If you have any questions about this report or your water utility, please contact Caroline Acres, Manager, at 410-482-6627. We encourage our valued customers to stay informed and engaged with their water system. We want our valued customers to stay informed about their water utility. We encourage our customers to stay informed about their water quality. An initial Service Line Inventory was submitted to the Maryland Department of the Environment in 2024. As a result, the Service Line Inventory requirement was fulfilled. The report is available upon request. The source water assessment has been performed by the Maryland Department of the Environment and is accessible on their website at: https://mde.maryland.gov/programs/Water/water_supply/Source_Water_Assessment_Program/Pages/by_county.aspx.

WHERE DOES YOUR WATER COME FROM?

Your tap water is drawn from wells drilled approximately 400 feet deep into the Piney Point aquifer. As a groundwater source, it is naturally filtered through layers of rock and sand. While other systems may use surface water from rivers, lakes, or reservoirs, Caroline Acres relies exclusively on groundwater to ensure that tap water is safe to drink. The EPA prescribes regulations that limit the number of specific contaminants in drinking water provided by public water systems. However, the presence of some pollutants does not necessarily indicate a health risk. For more information about contaminants and potential health effects, please call the Environmental Protection Agency's Safe Drinking Water Hotline at 800-426-4791.

MONITORING YOUR WATER:

We routinely monitor your drinking water for contaminants under federal and state laws. The following tables show the results of our monitoring for the period of **January 1 to December 31, 2024**. The State of Maryland allows for reduced monitoring frequency for specific contaminants that have historically shown low variability in concentration.

DEFINITIONS AND ABBREVIATIONS:

Action Level (AL) - concentration of a contaminant that, if exceeded, triggers treatment or other requirements that a water system must follow.

Disinfectants and Disinfection Byproduct Rules (DDBPs) are compounds that form in water when disinfectants, such as chlorine, react with naturally occurring organic matter and other materials present in the source water. Exposure to high levels of some DBPs over time may pose health risks. Common examples include Trihalomethanes (TTHM) and Haloacetic acids (HAA5).

Entry Point Disinfectant - refers to the level of disinfectant remaining in the water when it enters the distribution system of a water utility. This residual is a measure of the effectiveness of disinfection, ensuring that the water remains safe for consumption. The minimum acceptable level is typically 0.2 mg/L, as defined by regulations like the EPA's Surface Water Treatment Rule (SWTR).

Lead and Copper Rule (LCR) - a federal regulation implemented by the Environmental Protection Agency (EPA) to protect public health by minimizing the levels of lead and copper in drinking water. The LCR outlines how public water systems should manage and address potential lead and copper contamination to ensure the safety of drinking water for residents.

Level 1 Assessment- A Level 1 assessment is 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 Level 2 assessment is 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.

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) – a 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 a disinfectant allowed in drinking water. There is convincing evidence that the addition of a disinfectant is necessary for controlling microbial contaminants.

Microbes (plural for microbe- microorganism) - **microscopic living organisms, such as bacteria, viruses, fungi, and algae**, found in various aquatic environments.

Minimum Residual Disinfectant Level (MinRDL) – the minimum level of residual disinfectant required at the entry point to the distribution system.

Per-Polyfluoralkyl Substances (PFAS) – a group of artificial chemicals used in various products to make them resistant to grease, oil, water, and heat. They are often referred to as "forever chemicals" because they do not break down easily in the environment.

ppb = parts per billion, or micrograms per liter ($\mu\text{g/L}$)

Avg: Average - Regulatory compliance with some MCLs is based on the running annual average of monthly samples.

LRAA: Locational Running Annual Average

Mrem: millirems per year (a measure of radiation absorbed by the body)

ppt: One part per trillion is equivalent to one nanogram (ng/L) per liter. A single drop of food coloring in 18 million gallons of water.

Picocuries per liter (pCi/L): Picocuries per liter is a measure of the radioactivity in water.

na: not applicable.

Nd: not detectable

ppm = parts per million, or milligrams per liter (mg/L)

The Revised Total Coliform Rule (RTCR), adopted by the Maryland Department of the Environment, is the current form of this regulation that public water systems must comply with. The RTCR aims to enhance public health protection by reducing potential pathways for fecal contamination to enter the distribution system.

Total Coliform Rule (TCR)- a regulation for drinking water that ensures the safety of public water systems.

DETECTED CONTAMINATION TABLES:

2024 Chemical Contaminants – Regulated Contaminants (The tables below summarize test results from 2024, including all regulated and monitored contaminants.)

Contaminants	MCL	MCLG	Highest Level Detected	Range of Detections	Units	Sample Date	Violation Y/N	Sources of Contamination
TTHM	80	-	11.5	11.5-11.5	ppb	2023	N	By-product of drinking water chlorination
HAA5	60	-	2.6	2.6-2.6	ppb	2023	N	By-product of drinking water disinfection.
Fluoride	4	4.0	2.6	-	ppm	2024	N	Erosion of natural deposits; water additive.
Chromium	100	-	5.7	2.0-5.7	ppb	2024	N	Discharge from steel and pulp mills.

2024 Lead and Copper

CONTAMINANT	Sample Period	Action Level	MCLG	90 th Percentile Value	Units	# of Sites Above AL of Total Sites	Violation Y/N	Source of Contamination
Copper	6/12/23	1.3	1.3	0.0133	ppm	0/5	N	Corrosion of household plumbing.
Lead-	6/12/23	15	0	0	ppb	0/5	N	Corrosion of household plumbing.

* Copper and Lead have a sampling frequency of every 3 years. The following collection period is from June 1, 2026, to September 30, 2026, and the required samples are 5.

2024 Violation Information:

Violation Name: LSL Inventory – Initial (2E)

Violation Period: 10/17/2024 – 12/6/2024

Violation Type: Initial Lead Service Line Inventory (LCRR)

Regulation: Lead and Copper Rule Revisions (LCRR)

Explanation: Caroline Acres MHP did not submit the required initial inventory of known and unknown lead service lines by the established deadline under the revised Lead and Copper Rule. This information is critical for identifying potential lead exposure risks.

What Happened: The system failed to complete and submit the inventory on time due to administrative oversight.

Resolution: The required LSL inventory was submitted to the Maryland Department of the Environment after the deadline, and the system returned to compliance.

Health Effects Language (if required): This was an administrative violation. There was no direct impact on water quality or public health.

Violation Name: LSL Reporting – Initial (4G)

Violation Period: 10/17/2024 – 12/6/2024

Violation Type: Initial Lead Service Line Reporting (LCRR)

Regulation: Lead and Copper Rule Revisions (LCRR)

Explanation: Caroline Acres MHP failed to provide the required LSL reporting documentation within the deadline mandated by the revised rule.

What Happened: The reporting submission was not completed in time due to internal communication gaps.

Resolution: Reporting documentation was finalized and submitted to the state. The system is now in compliance.

Health Effects Language (if required): This was a reporting violation with no impact on the safety of the water supply.

Violation Name: Follow-Up or Routine Tap M/R (52)

Violation Period: 10/1/2023 – 1/5/2024

Violation Type: Lead & Copper Rule Monitoring Violation

Regulation: Lead and Copper Rule (LCR)

Explanation: The system did not complete the scheduled follow-up tap monitoring required by the LCR.

What Happened: Required lead and copper samples were not collected during the designated time frame.

Resolution: The missing samples were collected during the following period, and the system returned to compliance.

Health Effects Language (if required): There was no immediate health risk associated with this incident. However, prolonged exposure to lead and copper in drinking water can cause serious health problems, especially in vulnerable populations.

Violation Name: Lead Consumer Notice (66)

Violation Period: 1/1/2021 – 11/17/2023

Violation Type: Failure to Provide Consumer Notification

Regulation: Lead and Copper Rule (LCR)

Explanation: The system failed to notify consumers about lead monitoring results within the required timeframe.

What Happened: Although test results were acceptable, the required consumer notice was issued late.

Resolution: The public notice was delivered after the violation was identified. Compliance was restored.

Health Effects Language (if required): Lead, if present in drinking water, can cause serious health problems, especially for pregnant women and young children.

Contaminants that may be present in some water include:

Inorganic contaminants, such as salt and metals, can occur naturally or result from urban stormwater runoff, industrial or domestic wastewater, oil and gas activities, mining, or agricultural practices. **Organic chemicals**, including synthetic and volatile types, originate from various sources, including industrial processes, petroleum production, gas stations, urban runoff, and septic systems. **Radioactive contaminants** can also be naturally occurring or derived from oil and gas production and mining. Pesticides and herbicides originate from agricultural sources, urban runoff, and residential use. **Microbial contaminants**, such as viruses and bacteria, may arise from sewage plants, septic systems, livestock operations, and wildlife.

SPECIAL CONSIDERATION REGARDING CHILDREN, PREGNANT WOMEN, NURSING MOTHERS, AND OTHERS:

Children are more susceptible to drinking water contaminants than adults due to their lower body weight. Therefore, reproductive or developmental effects are prioritized for calculating drinking water standards if they occur at lower levels than other health concerns. If there is insufficient toxicity information for a chemical, such as a lack of data on reproductive or developmental effects, an additional uncertainty factor may be added to the calculation, making the standard stricter to address these uncertainties. For lead and nitrate, health standards focus on effects on infants and children.

ADDITIONAL HEALTH INFORMATION:

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. Harmon Subdivision 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 Caroline Acres at 410-482-6627. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available at <http://www.epa.gov/safewater/lead>.

Cryptosporidium in water refers to the microscopic parasite Cryptosporidium, which can contaminate water sources and cause illness in humans. It is a one-celled parasite that resides in the intestines of both animals and humans. When infected individuals or animals release the parasite in their feces, it can contaminate water supplies, particularly surface water sources like rivers and lakes. **Arsenic** is a naturally occurring element that can contaminate water and is a known carcinogen.

Nitrate levels in drinking water above 10 ppm pose a health risk to infants under six months of age. High nitrate levels in drinking water can cause blue baby syndrome. Nitrate levels may rise rapidly for short periods due to rainfall or agricultural activities. If you are caring for an infant, it is recommended that you consult with your healthcare provider for guidance and support.

WATER INFORMATION SOURCES:

Maryland Department of the Environment Drinking Water: <https://health.maryland.gov/phpa/oeahfp/chs/pages/drinkingwater>

Water Quality Association: <https://wqa.org>

Maryland Clean Water Act: <https://cleanwater.org/states/maryland>

Maryland Department of the Environment (MDE)- Water Supply Program - https://mde.maryland.gov/programs/water/water_supply